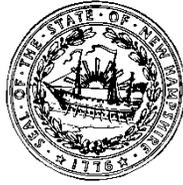Frank Edelblut

Commissioner of Education

Tel. 603-271-3144

STATE OF NEW HAMPSHIRE

DEPARTMENT OF EDUCATION

101 Pleasant Street

Concord, N.H. 03301-3860

FAX 603-271-1953

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APPLICATION FOR THE NEW AUTHORITIES UNDER THE INNOVATIVE ASSESSMENT DEMONSTRATION AUTHORITY:

PART 1

PRELIMINARY DOCUMENTS

Application for Federal Assistance

Legal Name of Applicant: *New Hampshire Department of Education*	Applicant's Mailing Address: *New Hampshire Department of Education* *1101 Pleasant Street* *Concord, N.H. 03301-3860*
Employer Identification Number: *02-6000618*	Organizational DUNS: *80-859-0277*
Lead Agency: *New Hampshire Department of Education* Contact Name: *Julie Couch* *(Single point of contact for communication)*	Lead Agency Contact Phone: *603-271-0058* Lead Agency Contact Email Address: *Julie.Couch@doe.nh.gov*

Required Applicant Signatures *(Must include signatures from an authorized representative of each Participating State Agency. Insert additional signature blocks as needed below.)*

To the best of my knowledge and belief, all of the information and data in this application are true and correct.

I further certify that I have read the application, am fully committed to it, and will support its implementation:

Lead Agency Authorized Representative (Printed Name): *Frank Edelblut*	Agency Name: *New Hampshire Department of Education*
Signature of Lead Agency Authorized Representative:	Date: *April 2, 2018*

As applicable:

Participating State Agency Authorized Representative (Printed Name): *N/A*	Agency Name: *N/A*
Signature of Participating State Agency Authorized Representative: *N/A*	Date: *N/A*

Assurances

This form assures that the lead SEA and each SEA applying as a consortium will:

(1) Continue use of the statewide academic assessments in reading/language arts, mathematics, and science required under 34 CFR 200.2(a)(1) and section 1111(b)(2) of the Act--

> (i) In all non-participating schools; and

> (ii) In all participating schools for which such assessments will be used in addition to innovative assessments for accountability purposes under section 1111(c) of the Act consistent with paragraph (b)(1)(ii) of this section or for evaluation purposes consistent with 34 CFR 200.106(e) during the demonstration authority period;

(2) Ensure that all students and each subgroup of students described in section 1111(c)(2) of the Act in participating schools are held to the same challenging State academic standards under section 1111(b)(1) of the Act as all other students, except that students with the most significant cognitive disabilities may be assessed with alternate assessments aligned with alternate academic achievement standards consistent with 34 CFR 200.6 and section 1111(b)(1)(E) and (b)(2)(D) of the Act, and receive the instructional support needed to meet such standards;

(3) Report the following annually to the Secretary, at such time and in such manner as the Secretary may reasonably require:

> (i) An update on implementation of the innovative assessment demonstration authority, including--

> (A) The SEA's progress against its timeline under 34 CFR 200.106(c) and any outcomes or results from its evaluation and continuous improvement process under 34 CFR 200.106(e); and

> (B) If the innovative assessment system is not yet implemented statewide consistent with 34 CFR 200.104(a)(2), a description of the SEA's progress in scaling up the system to additional LEAs or schools consistent with its strategies under 34 CFR 200.106(a)(3)(i), including updated assurances from participating LEAs consistent with paragraph (e)(2) of this section.

> (ii) The performance of students in participating schools at the State, LEA, and school level, for all students and disaggregated for each subgroup of students described in section 1111(c)(2) of the Act, on the innovative assessment, including academic achievement and participation data required to be reported consistent with section 1111(h) of the Act, except that such data may not reveal any personally identifiable information.

> (iii) If the innovative assessment system is not yet implemented statewide, school demographic information, including enrollment and student achievement information, for the subgroups of students described in section 1111(c)(2) of the Act, among participating

schools and LEAs and for any schools or LEAs that will participate for the first time in the following year, and a description of how the participation of any additional schools or LEAs in that year contributed to progress toward achieving high-quality and consistent implementation across demographically diverse LEAs in the State consistent with the SEA's benchmarks described in 34 CFR 200.106(a)(3)(iii).

(iv) Feedback from teachers, principals and other school leaders, and other stakeholders consulted under paragraph (a)(2) of this section, including parents and students, from participating schools and LEAs about their satisfaction with the innovative assessment system;

(4) Ensure that each participating LEA informs parents of all students in participating schools about the innovative assessment, including the grades and subjects in which the innovative assessment will be administered, and, consistent with section 1112(e)(2)(B) of the Act, at the beginning of each school year during which an innovative assessment will be implemented. Such information must be--

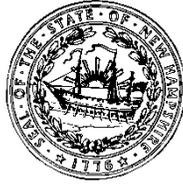(i) In an understandable and uniform format;

(ii) To the extent practicable, written in a language that parents can understand or, if it is not practicable to provide written translations to a parent with limited English proficiency, be orally translated for such parent; and

(iii) Upon request by a parent who is an individual with a disability as defined by the Americans with Disabilities Act, provided in an alternative format accessible to that parent; and

(5) Coordinate with and provide information to, as applicable, the Institute of Education Sciences for purposes of the progress report described in section 1204(c) of the Act and ongoing dissemination of information under section 1204(m) of the Act.

Lead Agency Authorized Representative (Printed Name):	
Frank Edelblut, Commissioner of Education	
Signature:	Date:
	April 2, 2018

Frank Edelblut

Commissioner of Education

Tel. 603-271-3144

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APPLICATION FOR THE NEW AUTHORITIES UNDER THE INNOVATIVE ASSESSMENT DEMONSTRATION AUTHORITY:

PART 2

PROJECT ABSTRACT

New Hampshire was awarded permission from the U.S. Department of Education in March 2015 to pilot an assessment and accountability system designed to support deeper learning for students and powerful organization change for schools and districts. New Hampshire's Performance Assessment of Competency Education (PACE) is grounded in a competency-based educational approach designed to ensure that all students have meaningful opportunities to achieve critical knowledge and skills. **PACE is a learning system** designed to structure learning and assessment opportunities that allow students to gain and demonstrate their knowledge and skills at a depth of understanding that will transfer beyond K-12 education to success in careers and college. As a coherent system, PACE is designed to foster positive organizational learning and change by supporting the internally-driven motivation of educators instead of the all-too-common top-down accountability approaches where districts are simply expected to comply with assessment and accountability systems defined at the state and federal level.

The primary objective of the PACE innovative assessment and accountability system is to improve student outcomes by transforming instruction and assessment in classrooms across the state. The New Hampshire Department of Education (NH DOE) has based its Innovative Assessment Demonstration Authority (IADA) application on the demonstrated success of the PACE initiative. The application describes the following key components that NH DOE believes will help us achieve better results for all students:

- ✓ Explicit involvement of local educational leaders in designing and implementing the assessment system;
- ✓ Intense and reciprocal support on behalf of the NH DOE for local districts involved in this initiative that will include technical, policy, and practical guidance;
- ✓ Using competency-based education approaches to instruction, learning, and assessment as a purposeful approach for ensuring that all students, from the most advanced to the

NH PACE Section 1204 Application: Part 2 ED Abstract

most challenged, move on only when they have mastered critical knowledge and skills; and

✓ Use of instructionally-relevant, high-quality performance-based assessments, alongside periodic administration of the New Hampshire Student Assessment System (NH SAS) and SAT assessments of state standards in math and English language arts (ELA), for the purpose of tracking and reporting the progress of students, schools, districts, and educators.

The IADA sets a high standard of quality for any state proposing an innovative system of assessment. The following table provides four of the most central requirements to the application and New Hampshire's responses.

Requirement	New Hampshire Response
Assessment Quality	The NH DOE has been employing a multi-pronged approach for ensuring the technical quality of the PACE assessments, including closely monitoring accuracy and consistency in scoring of student work. These approaches have been reviewed and approved by the PACE Technical Advisory Committee and the U.S. Department of Education for the past three years.
Comparability	PACE has been designed to be comparable with the statewide assessment and annual evaluations of comparability are consistently strong. The NH DOE and its technical advisors have received considerable national recognition for the ways in which they have monitored and evaluated comparability among PACE districts and between PACE and non-PACE districts.
Scale Statewide	In our Live Free or Die State, the NH DOE has tremendous respect for local control. That said, NH DOE plans to offer multiple entry points into PACE ranging from high-quality professional learning opportunities for all New Hampshire educators to full implementation of the PACE performance assessment system with the eventual goal of having all schools providing personalized and deeper learning opportunities for all NH students.
Demographic Diversity & Similarity	This guardrail ensures that the innovative assessment system is not earmarked for certain types of districts to the exclusion of others. The current PACE districts are already highly representative of New Hampshire as a whole and therefore will continue to be so as PACE reaches additional schools and districts.[1]

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[1] Please see Part 3 of this application (section entitled, "Description of and Commitment from Initial Set of LEAs/schools") for the number of participants to be served and number and location of proposed sites.

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APPLICATION FOR THE NEW AUTHORITIES UNDER THE INNOVATIVE
ASSESSMENT DEMONSTRATION AUTHORITY:

PART 3
PROJECT NARRATIVE ATTACHMENT

March 29, 2018

Table of Contents

INTRODUCTION

NEW HAMPSHIRE'S VISION FOR SUPPORT AND ACCOUNTABILITY

New Hampshire (NH) is committed to raising the bar for all students by defining college and career readiness as the knowledge, skills, and work-study practices needed for post-secondary success. This includes not only high levels of academic proficiency, but also deeper skills, such as critical thinking, problem-solving, persistence, communication, and collaboration. NH's educational leaders recognize that the level of improvement required cannot occur with the same type of externally-oriented accountability model that has been employed for most of the 21st century. In fact, top-down accountability approaches are likely impediments to education innovation and helping students grow academically.

As part of this shift in orientation, NH supports a personalized and competency-based approach to instruction, learning, and assessment. NH understands competency-based learning, or personalized learning, defined as: "… a structure that creates flexibility, allows students to progress as they demonstrate mastery of academic content, regardless of time, place or pace of learning."[1] This approach supports high levels and multiple means of student engagement in learning with the goal of significant improvements in college and career readiness.

The vision for the full model of NH State accountability rests on the idea of creating a complete and transparent system of internal control borrowing both from Deming-like orientations familiar to the business world, but also coherent with Richard Elmore's concept of reciprocal accountability, which has been at the core of NH's approach to educational reform for several years:

> *For every increment of performance I demand from you, I have an equal responsibility to provide you with the capacity to meet that expectation. Likewise, for every investment you make in my skill and knowledge, I have a reciprocal responsibility to demonstrate some new increment in performance* (Elmore, 2002, p.5)[2].

To operationalize a truly reciprocal accountability system, the expectations and responsibilities of all stakeholders in the public education system must be identified and addressed. Every stakeholder holding expectations of the education system is likewise responsible for its own contribution to the system.

The set of indicators that comprise the full State accountability system represents the expectations and responsibilities of each stakeholder group. The public reporting of the full set of indicators creates a system of internal control whereby the system can self-correct in response to student outcomes, environmental changes, and variations in system inputs.

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[1] https://www.ed.gov/oii-news/competency-based-learning-or-personalized-learning.
[2] Elmore, R. (2002). *Bridging the gap between standards and achievement: The imperative for professional development in education.* Washington, DC: Albert Shanker Institute.

Figure 1. *Stakeholders in Public Education*

This reciprocal approach plays out along each of the lines of influence shown above in Figure 1. For example, parents expect that the school will help maximize their child's achievement and growth in the various content areas, as well as engaging their child in a love of learning. However, schools cannot do this alone. Parents must be expected to reciprocate by interacting with, and playing an active and substantive role in supporting the school and their child. At the most basic level, these expectations are manifested by ensuring that children—to the extent possible—arrive at school as active and engaged learners. It also means that schools seek out opportunity to give parents (and other caregivers) voice in substantive decisions affecting their child's education. This type of engagement goes beyond typical activities and should include research-based practices for facilitating relationship building with parents to support student outcomes. Schools will be encouraged and supported to engage all parents by implementing a multi-tiered approach. This will ensure that all parents are supported to engage with the school to the fullest extent possible.

On the more macro level, district leaders and school board members expect to see well-functioning schools characterized as safe and nurturing places for students to learn with all staff members committed to maximizing each student's learning and growth. Therefore, these district leaders must be expected to provide the school with an adequate budget that is directed toward

maximizing student learning and growth. Evidence of such reciprocation would include such things as the percentage of the operating budget directly allocated toward student and teacher learning—including the amount of high-quality professional development provided, and the degree to which the board and superintendent follow key principles and best practices of district governance (e.g., high levels of transparency).

Lastly, schools and districts rely on the State and Federal government as important partners in providing resources and support to students. In turn, these government agencies can expect that the funds are managed and distributed appropriately to maximize impact on student learning. This robust system is based on the premise that expectations for and realization of great educational outcomes for our students is a responsibility shared among many stakeholders.

The New Hampshire Department of Education (NH DOE) intends to advance this vision through the design and implementation of an innovative assessment system. NH DOE is pleased to submit the application that follows for the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. This application represents the continuation of over four years of intense work to design and implement New Hampshire's Performance Assessment of Competency Education (PACE) pilot program. Originally implemented under a waiver from Secretary of Education Duncan under the No Child Left Behind Act (NCLB) during the 2014-2015 school year and continued under subsequent waivers from the testing provisions of the Every Student Succeeds Act (ESSA), PACE is an operational system rather than simply a hopeful design. To that end, the NH DOE will be presenting a comprehensive set of empirical results and analyses throughout this application documenting the early successes of PACE. We are confident that the proposal described in this application satisfies all of the application requirements and selection criteria.

CONSULTATION

The NH DOE has consulted with a variety of experts and affected stakeholders in the state in the development of the PACE innovative assessment and accountability system and in the development of this application.

Technical and Professional Learning Experts

The National Center for the Improvement of Educational Assessment
The National Center for the Improvement of Educational Assessment (Center for Assessment), a NH-based national non-profit consulting firm, has been the lead technical and policy partner since the inception of PACE. The Center for Assessment has been responsible for ensuring the quality and rigor of PACE common performance assessments and designing methods for evaluating the comparability of student results across districts. The Center for Assessment has also produced the PACE technical documentation each year since 2015, along with other aspects of the annual report, to the U.S. Department of Education (USED). The Center for Assessment will continue to play this critical role under the Innovative Assessment Demonstration Authority (IADA). For more information about the Center for Assessment's expertise with innovative and performance-based assessments see here.

New Hampshire Learning Initiative

The New Hampshire Learning Initiative (NHLI) has been an invaluable training and funding partner to PACE since 2015. In addition to helping raise external funds to support PACE, NHLI professionals have coordinated the task development work for PACE and provided critical leadership of the content experts, the teachers who lead the task development process.

Demonstrated Success

Demonstrated Success has been an important operational partner to PACE since 2015. Demonstrated Success works with the Center for Assessment to support PACE schools and districts to prepare and upload the required data into the Learning Management System where all of the PACE data are submitted. Demonstrated Success extracts data used to run the technical analyses, as well as implements the supplied randomization and anonymization of data for use in cross-district calibration and standard setting activities. Demonstrated Success also works with the NH DOE to apply the cut scores and business rules provided by the Center for Assessment for all PACE students in order to produce annual determinations of student proficiency and LEA report cards.

Affected Stakeholders

Like other reform initiatives in New Hampshire, PACE has been developed following Elmore's framework of reciprocal accountability. This means that the original and continuing NH PACE design has been based on a collaborative partnership among school districts and the NH DOE. In this partnership, both school districts and the NH DOE have expectations and responsibilities regarding the ultimate success of our participating students. These expectations and responsibilities cascade throughout school districts and the NH DOE, bringing important constituent groups into the process. This plays out by having participating school districts and their key constituents involved in all project design decisions from the inception of this work. We briefly highlight below the involvement and participation of these important stakeholders named in the application.

i. *Students and parents, including parents of children described in paragraph (a)(2)(i) of this section*: Using the reciprocal accountability framework described above, school district leaders engage with and solicit feedback from the various constituencies represented in their school district including parents and guardians of students with disabilities and English learners (EL). The NH DOE and PACE leadership support the district leaders with materials and ideas for how best to engage with parents of special education and EL students. National advocacy organizations such as the National Council for Learning Disabilities have also been interested and involved with PACE to ensure all students are being served within the new instructional and assessment model.

ii. *Teachers, principals, and other school leaders*: Educators and school leaders are actively involved in all PACE decisions. PACE involves several decision-making bodies, but the main group involves the leadership of all districts that meet together monthly to review and approve plans for PACE and help chart the direction forward. Each district also has a cadre of teacher-leaders to ensure that information and decisions about PACE are communicated

to the teacher level and that the interests and needs of the participating teachers are communicated to the district-state leadership team. Teachers are the heart of the PACE task development work and they work at two levels of the system. First, a core group of approximately sixty "content lead" teachers across the three content areas and grade spans help lead the task development work for PACE. In addition to leading the task development work, these content leads receive specialized training in performance assessment development and scoring from experts at the Center for Assessment as well as facilitation training from NH DOE staff members and NHLI training partners. These content leads then work with almost 400 teachers responsible for task development using support from the Center for Assessment, NH DOE, and NHLI. This deep involvement with almost 500 teachers from all PACE districts ensures that the needs of teachers and school leaders are not just addressed, but are highly valued.

School principals are also actively involved in the PACE initiative by working closely with their teachers on performance task administration and data collection. Principals are also involved with district leaders in key decisions about the implementation of PACE at the school building level. Finally, the NH DOE and its partners have supported school and district leaders during the last three summers with a leadership strand as part of the PACE Summer Institute. This leadership strand has addressed such topics as "becoming an assessment leader" and "leading a competency-based education initiative" along with many other critical leadership issues.

iii. *Those representing the interests of children with disabilities, English learners, and other subgroups of students described in section 1111(c)(2) of the Act*: The NH DOE and PACE leadership team support district leaders with materials and ideas for how best to engage with parents of special education and EL students. National advocacy organizations such as the National Council for Learning Disabilities have also been interested and involved with PACE to ensure all students are being served within the new instructional and assessment model. Special education and EL teachers have been full participants in the development of the PACE innovative system and the PACE common performance assessments since the beginning of PACE. The NH DOE special education and EL directors, as well as special education and EL teachers from participating school districts helped write the PACE accommodations manual (see Appendix A) and they continue to play an active role in performance task development. New Hampshire educators, including special education and EL teachers, have additionally participated in professional learning communities to be up-to-date on best and innovative practices for ensuring equity while moving to a competency-based learning model.

iv. *Local educational agencies (LEAs)*: As noted in (ii) above, all PACE decisions are made by leaders of LEAs and the NH DOE in a reciprocal and shared manner. This approach is described in great detail in Marion and Leather (2015)[3].

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[3] Marion, S., & Leather, P. (2015). Assessment and accountability to support meaningful learning. *Education Policy Analysis Archives*, *23*(9). Retrieved from http://dx.doi.org/10.14507/epaa.v23.1984.

v. *Representatives of Indian tribes located in the State*: Native American's represent less than 0.3% of New Hampshire's population[4] and, as such, do not have specific tribal organizations that consult on education issues.

vi. *Civil rights organizations*: Governor Chris Sununu established the Governor's Advisory Council on Diversity and Inclusion, and the formation of a new Civil Rights Unit at the New Hampshire Department of Justice. New Hampshire NAACP State Coordinator Rogers Johnson was appointed as the first chair of the Council and NH Commissioner of Education, Frank Edelblut, is a charter member of the Council. Commissioner Edelblut has discussed the PACE initiative with Council members and will present the draft application at the next meeting of the Council to solicit feedback from Council members.

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[4] https://www.census.gov/quickfacts/NH

INNOVATIVE ASSESSMENT SYSTEM

New Hampshire's PACE is an innovative assessment and accountability system. The innovative system was designed to support deeper learning for students and powerful organization change for schools and districts[5]. PACE is grounded in a competency-based educational approach designed to ensure that students have meaningful opportunities to achieve critical knowledge and skills. PACE was implemented with a subset of schools and districts in the State as a proof of concept pilot under waivers from the USED during the last four school years (2014-15, 2015-16, 2016-17, and 2017-18).

The PACE assessment system includes a combination of locally- developed and administered performance tasks and common tasks that are shared among all participating schools.

Local performance tasks are tied to grade and course competencies determined by local school districts that are aligned with the State's challenging academic content standards. Performance assessments are used both to inform teachers and students of how the learning activities are working and what might need to be adjusted (formative) along with serving to help document what students have actually learned (summative).

Common performance assessments are employed in each grade and subject (a total of 15 grade/subject combinations) where the state academic assessment is not administered. The PACE Common Performance Task is administered by all participating districts. The common tasks are developed collaboratively among the participating districts and are used to both evaluate student attainment and to ensure calibration of student performance by teachers within and across districts. Common performance tasks are also developed for a variety of high school courses to support deeper learning coherently through high school. The difference between these high school tasks and the ones administered in other grades is that the high school tasks are not part of the school accountability system.

In addition to local and common performance tasks, student academic attainment is also calibrated in participating PACE districts using the statewide academic assessment (NH SAS). The NH SAS is administered in grade 3 (English language arts), 4 (math), grade 5 (science), grade 8 ELA and math, and high school science. The SAT is administered to all grade 11 students in ELA and math.

Table 1 illustrates the grade and subject combinations where the innovative assessment system and the statewide academic assessments will be implemented in the PACE system. Annual determinations of student proficiency described in section 1111(b)(2)(B) of ESEA in PACE schools and districts are based on local assessment data (including common and local performance-based assessments) alongside teacher judgment surveys using PACE Achievement Level Descriptors, except in those grades and subject areas where the state achievement test is administered.

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[5]See Marion & Leather (2015).

Grade	ELA	Math	Science
3	Statewide assessment system (NH SAS)	Performance assessment system	Local Performance Assessments
4	Performance assessment system	Statewide assessment system (NH SAS)	Local Performance Assessments
5	Performance assessment system	Performance assessment system	Statewide assessment system (NH SAS)[6]
6	Performance assessment system	Performance assessment system	Local Performance Assessments
7	Performance assessment system	Performance assessment system	Local Performance Assessments
8	Statewide assessment system (NH SAS)	Statewide assessment system (NH SAS)	Performance assessment system
High School	Statewide assessment system (SAT) & Course-specific common performance assessments	Statewide assessment system (SAT) & Course-specific common performance assessments	Statewide assessment system (NH SAS) & Course-specific common performance assessments

Table 1. *PACE innovative assessment and accountability system overview by grade and subject*

In a competency-based system, students' opportunities are judged by the outcomes they achieve and not by "inputs" such as seat time[7]. Therefore, students must achieve identified learning targets before moving on to the next goals and/or graduating from high school. If they do not, school districts are expected to work with families to support additional learning opportunities to ensure that students have legitimate opportunities to master the necessary knowledge and skills.

High-quality performance assessments play a crucial role in the PACE system. We know that student performance on a single end-of-year achievement test may not be indicative of actual learning and mastery of academic competencies. PACE provides students with multiple opportunities to demonstrate their knowledge and skills in ways that effectively measure deep learning.

Prior to participating in PACE, districts must demonstrate readiness and must make certain commitments to continue with the IADA. The NH DOE is committed to supporting the development of local leadership and capacity to enable all LEAs in NH to implement the PACE system with fidelity. This process is described in more detail under the "Prior Experience, Capacity, and Stakeholder Support" section.

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[6] The NH SAS science assessment will be administered in 5th grade in the 2018-2019 school year while the PACE task development process shifts from 4th grade to 5th grade.

[7] Lopez, N., Patrick, S., & Sturgis, C. (2017). Quality and equity by design: Charting the course for the next phase of competency-based education. Washington, DC: CompetencyWorks and iNACOL.

The rest of this Innovative Assessment System section demonstrates how the PACE innovative assessment and accountability system currently meets the requirements of section 1111(b)(2)(B) of ESEA and the requirements specified in Part 3(b) of the Application for New Authorities under the Innovative Assessment Demonstration Authority.

The NH DOE has developed a comprehensive plan and explanation for how the PACE innovative assessment system meets the expected requirements. The plan and explanation is comprised of eight components: (1) meeting or exceeding all the requirements of section 1111(b)(2)(B); (2) aligning with the depth and breadth of the challenging State academic standards; (3) providing timely, disaggregated results for stakeholders; (4) providing summative determinations for all students that describe a student's mastery; (5) providing for the participation of all students; (6) providing valid, reliable, and comparable annual proficiency determinations; (7) using the results in accountability system for the academic achievement indicator; and (8) using results within the accountability system. Each component is detailed in turn below.

Meets requirements of section 1111(b)(2)(B)

This section details how the PACE innovative assessment and accountability system meets or exceeds each requirement within section 1111(b)(2)(B) of ESEA.

Section 1111(b)(2)(B)(i). SEAs in the demonstration authority are exempt from section 1111(b)(2)(B)(i) that requires the *same* academic assessments be used and administered to measure the achievement of all public elementary and secondary students in the State. The PACE innovative assessment and accountability system will be administered in a subset of schools and districts for the period of the demonstration authority as it continues to scale each year. The statewide academic assessments will be administered to all students in any non-participating LEA or any non-participating school within a participating LEA.

The PACE system is designed using a combination of local, common, and state level assessments (see Table 1). The core of the PACE innovative assessment system is locally-developed, locally-administered performance assessments tied to grade and course competencies determined by local school districts. In each grade and subject without a state academic assessment (a total of 15 grade/subject combinations), a common complex performance task called the PACE Common Task is collaboratively developed and administered by all participating schools and districts. The statewide academic assessments will be administered in several grades and subjects to provide another picture of student academic attainment and to provide ongoing calibration of PACE. The NH SAS is administered in grade 3 ELA, grade 4 math, grade 5 science, grade 8 ELA and math, and high school science. SATs are administered in grade 11 ELA and math.

Section 1111(b)(2)(B)(ii). See description and documentation provided below under the following two sections—"Aligns with depth and breadth of challenging State academic standards" and "Provides timely, disaggregated results for stakeholders"—for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(ii).

Section 1111(b)(2)(B)(iii-iv). See description and documentation provided below under "Provides valid, reliable, and comparable annual proficiency determinations" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(iii-iv).

Section 1111(b)(2)(B)(v). The PACE innovative assessment system is exempt from section 1111(b)(2)(B)(v) as the statewide academic assessments need not be administered annually in each of grades 3-8 and at least once in grades 9-12 in the case of reading/language arts and mathematics assessments, and at least once in grades 3-5, 6-9, and 10-12 in the case of science assessments, so long as the statewide academic assessments are administered in any required grade and subject in which the SEA does not choose to implement an innovative assessment.

The PACE system is designed using a combination of local, common, and state level assessments (see Table 1). The statewide academic assessments will be administered in a few grades and subjects in the PACE system according to when the results will be most useful for informing programs and auditing the innovative assessment system—grade 3 ELA, grade 4 math, grade 5 science, grade 8 ELA and math, and grade 11 ELA and math and high school science. The core of the PACE innovative assessment system is locally-developed, locally-administered performance assessments tied to grade and course competencies determined by local school districts. In each grade and subject without a state academic assessment (a total of 15 grade/subject combinations), one, common complex performance task called the PACE Common Task is collaboratively developed and administered by all participating schools and districts. The PACE Common Tasks are designed to serve as calibration tools, providing evidence about the comparability of judgments related to student achievement across NH PACE districts[8]. Determinations of student proficiency in the PACE grades/subjects required under section 1111(b)(2)(B)(v), but not covered by the statewide academic assessments are produced using a contrasting groups standard setting methodology that involves two aspects: (1) teacher judgments at the end of the school year regarding which achievement level best describes each of their students using the PACE Achievement Level Descriptors; and (2) end of year competency scores for each student. The contrasting groups methodology determines cut scores at the points in the competency score range that most accurately classify the highest percentage of students into achievement levels as judged by their classroom teachers. Logistic regression analyses are run separately for each cut point—Level 2, Level 3, and Level 4—in each district, subject, and grade. This standard setting methodology is designed so that the resulting levels are comparable in rigor and substance to the statewide academic assessment by using achievement level descriptors that are aligned across the two systems. See Appendix E for an example of this alignment. Standard setting reports from 2015, 2016, and 2017 are available upon request.

Section 1111(b)(2)(B)(vi). The PACE system meets the requirements specified in section 1111(b)(2)(B)(vi) because it includes multiple up-to-date measures of student academic achievement, including measures that assess higher-order thinking skills and understanding. The use of local and common extended performance tasks allows the PACE system to more validly measure the depth of the State's challenging academic standards than most standardized

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[8] Evans, C. M., & Lyons, S. (2017). Comparability in balanced assessment systems for state accountability. *Educational Measurement: Issues and Practice*. http://doi.org/http://dx.doi.org/10.1111/emip.12152

achievement tests[9]. This is because high-quality performance assessments are a critical piece of a multiple measures assessment system designed to measure deeper levels of student understanding that are generally not assessed as well with selected-response item types[10]. High-quality performance assessments require the application of knowledge related to higher-order thinking skills such as problem solving and communication within authentic settings. Such assessments also provide an opportunity for certain students who do not perform well on more traditional tests to "show what they know." This promotes student engagement and motivation, as well as 21st century learning skills such as creativity, collaboration, and self-direction.

Section 1111(b)(2)(B)(vii). See description and documentation provided below under "Provides for Participation of All Students" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(vii).

Section 1111(b)(2)(B)(viii). SEAs in the Demonstration Authority are exempt from section 1111(b)(2)(B)(viii) because they have discretion as to how they design the innovative assessment system. The PACE innovative system will be administered in a subset of schools and districts for the period of the Demonstration Authority until the system scales statewide. The statewide academic assessments will be administered to all students in any non-participating LEA or any non-participating school within a participating LEA.

Those schools or districts participating in the PACE system administer local and common performance assessments in those grades and subjects not covered by a statewide academic assessment (see Table 1). The information from these assessments is used in a contrasting groups standard setting methodology that involves two aspects: (1) teacher judgments at the end of the school year regarding which achievement level best describes each of their students using the PACE Achievement Level Descriptors; and (2) end of year competency scores for each student. The cut scores produced from this standard setting method result in a single individual summative proficiency determination that provides valid, reliable, and transparent information on student achievement.

Section 1111(b)(2)(B)(ix). PACE provides for assessments in reading or English language arts for any student who has attended school in the United States for three or more consecutive school years as required in section 1111(b)(2)(B)(ix). To ensure the validity of common performance assessment results, PACE has established the accommodation guidelines for English learners, excerpted and adapted from the Smarter Balanced Assessment Consortium – the statewide academic achievement test administered in NH through spring 2017—which is also aligned with the NH SAS accommodations policies (see Appendix A).

Section 1111(b)(2)(B)(x). See description and documentation provided below under "Provides summative determinations for all students that describes student's mastery" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(x).

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[9] Linn, R. L., Baker, E. L., & Dunbar, S. B. (1991). Complex, performance-based assessment: Expectations and validation criteria. *Educational Researcher*, *20*(8), 15–21.

[10] Lane, S., & Stone, C. A. (2006). Performance assessment. In R. L. Brennan (Ed.), *Educational Measurement* (4th ed, pp. 387–431). Westport, CT: American Council on Education and Praeger Publishers.

Section 1111(b)(2)(B)(xi). See description and documentation provided below under "Provides timely, disaggregated results for stakeholders" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(xi).

Section 1111(b)(2)(B)(xii). See description and documentation provided below under "Provides timely, disaggregated results for stakeholders" and "Provides summative determinations for all students that describes student's mastery" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(xii), which states: "enable itemized score analyses to be produced and reported." The PACE approach fulfills both the letter and intent of this regulation more so than traditional end-of-year tests. Performance assessments reveal the intricacies of student thinking to allow teachers to identify students' fragile understandings and misconceptions as well as their strengths in knowledge and skills in order to implement real-time corrective strategies.

Section 1111(b)(2)(B)(xiii). See description and documentation provided below under "Provides for Participation of All Students" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(xiii).

Aligns with depth and breadth of challenging State academic standards

The PACE innovative assessment system is aligned with the challenging State academic standards under section 1111(b)(1) of ESEA, including the depth and breadth of such standards, for the grade in which a student is enrolled as required in section 1111(b)(2)(B)(ii). There are four main sources of evidence that demonstrate how the PACE system meets or exceeds the requirement: (1) reviews of local summative assessment maps; (2) reviews of a sample of local summative assessments; (3) reviews of PACE Common Tasks; and (4) administration of extended, high-quality, and complex performance assessments throughout the year to measure the depth and breadth of the State's challenging academic content standards.

First, the NH DOE and the Center for Assessment collect and review local summative assessment maps from all participating PACE schools and districts as part of the Data Collection Protocols (see Appendix B for 2017-18 data collection protocol). Participating PACE schools and districts submit summative assessment maps in the grade/subject combinations where annual determinations of student proficiency are required under federal law. Updates to assessment maps are sought annually on a rotating basis. The assessment maps provide the base level of assurance and documentation that all State academic standards are addressed in the assessment system and that students are assessed at the depth of knowledge appropriate for the State academic standards. The assessment maps document:
 ➢ The competencies assessed in each course;
 ➢ The alignment of the state academic standards to the competencies; and
 ➢ The number, type, and timing of the summative assessments administered for each competency.
Appendix B contains the submission instructions for the local summative assessment maps, an example of a local assessment map, and the Assessment Map Review Tool. The assessment maps are peer reviewed using criteria that ensure that each State content standard is assessed in the local assessment system and used to inform competency determinations throughout the year.

The criteria also include assurance that students are provided meaningful and multiple opportunities to demonstrate proficiency on each course competency. Districts are provided formative feedback from the peer reviewers on their submitted assessment maps using the Assessment Map Review Tool. Peer reviewers are trained annually by the Center for Assessment.

As noted above, the assessment maps provide a foundational form of alignment evidence. Such evidence is necessary, but not sufficient to assure alignment. Therefore, a sample of local assessments is collected and peer-reviewed from all participating PACE districts to help bring the assessment maps to life. Reviewing a sample of local summative assessments helps evaluate alignment to the State academic standards and to examine the quality of local summative assessments used to inform competency determinations throughout the year. Submission instructions for the sample of local summative assessments and the review tool can be found in Appendix B. The local summative assessments are reviewed using criteria that ensure the summative assessments are aligned with the State's challenging academic standards and competencies, scored using clear guidelines and criteria, are fair and unbiased, and use appropriate text/visual resources. Districts receive formative feedback on each submitted local summative assessment using the Aligned Summative Assessments Review Tool.

Third, the PACE Common Tasks go through a rigorous technical review by the Center for Assessment prior to operational use each school year based on alignment with the state academic standards and competencies, the quality of the scoring guidelines and criteria, use of fair and unbiased presentation and response availability, and use appropriate text/visual resources (see Appendix I). The PACE Common Tasks are reviewed in an on-going, formative way where specific and meaningful feedback is provided to the teachers involved in task development during the design and piloting phase, which takes place in the year prior to operational use. Task developers use the feedback to revise/edit the PACE Common Tasks until they are ready for final approval by the NH DOE.

The PACE Common Tasks are designed using a Task Template (see Appendix C) created using a principled assessment design approach (see Appendix D). Teachers begin with specifying what students should know and be able to do using the State model academic standards and competencies (student model). Teachers then specify the nature of the evidence that students' performance is indicative of mastery of the intended learning targets (evidence model). The final step in the task development process is the design of the assessment task itself to elicit evidence related to the focal learning targets. Alignment between New Hampshire's challenging academic standards and the performance task is automatically addressed as the first step in the task design process instead of trying to retrofit or accommodate tasks that are not aligned after the fact. The PACE Common Task serves as a model for how to design other high-quality local performance assessments for use in participating schools and districts, which is why the same review criteria are used for the PACE Common Task and the sample of local summative assessments submitted from all participating districts.

Finally, one of the most compelling sources of evidence for alignment, particularly the depth of knowledge criterion, is the use of the PACE performance assessments to measure high-order thinking skills and understanding. PACE relies on curriculum-embedded, extended, high-quality,

and complex performance-based assessments to assess deeper learning. The use of local and common extended performance tasks allows the PACE system to more validly measure the true depth of the State's challenging academic standards than typical standardized statewide achievement tests[11]. The PACE system may also do a better job at measuring the breadth of the challenging State academic standards because the system uses local assessment data collected throughout the year to produce student proficiency determinations. Standardized achievement tests, on the other hand, generally sample from the broader domain and typically do not measure each State academic content standard in a given grade and subject.

Measures students on grade level. All students attending schools or districts participating in the PACE system will be have their academic proficiency determined based on the challenging State academic standards for the grade in which the student is enrolled.

Provides valid, reliable, and comparable annual proficiency determinations

The PACE system provides annual proficiency determinations that are valid, reliable, and comparable for all students and for each subgroup of students described in 34 CFR 200.2(b)(11)(i)(A)-(I) and sections 1111(b)(2)(B)(xi) and 1111(h)(1)(C)(ii) of ESEA, to the results generated by the State academic assessments described in 34 CFR 200.2(a)(1) and section 1111(b)(2) for such students. The PACE system is used for purposes for which assessments are valid and reliable, consistent with relevant, nationally recognized professional and technical testing standards, objectively measures academic achievement, knowledge and skills, and does not evaluate or assess personal or family beliefs and attitudes, or publically disclose personally identifiable information as required in section 1111(b)(2)(B)(iii). Furthermore, the PACE system is of adequate technical quality for each purpose required under ESEA and consistent with the requirements of section 1111, the evidence of which is public, including on the website of the NH DOE as required in section 1111(b)(2)(B)(iv). For the duration of the demonstration period, the PACE annual reports submitted to USED will document the technical evidence of quality and will be posted on the NH DOE website.

This section provides comprehensive and detailed evidence in support of the validity of the NH PACE innovative assessment and accountability system. Validity refers to the accuracy and defensibility of the inferences drawn from the assessment scores about what students know and can do and the appropriateness of the assessment results for their intended uses. We focus on validity related to annual determinations of student proficiency in English language arts and mathematics in grades 3-8 when those determinations are not made using a standardized achievement test. The demonstration and evaluation of validity is an ongoing process; it is not a simply yes/no answer. The collection of validity evidence described in this section represents the growing body of evidence supporting the PACE system.

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[11] Linn, R. L., Baker, E. L., & Dunbar, S. B. (1991). Complex, performance-based assessment: Expectations and validation criteria. *Educational Researcher*, *20*(8), 15–21.

The *Standards for Educational and Psychological Testing*[12], hereafter referred to as the *Standards*, was used as the foundation for developing the necessary validity evidence. The *Standards* is the authoritative document in educational measurement for evaluating the technical quality of tests and other measurement tools. Specific elements of technical quality that are included in the NH PACE system include the following:

- ✓ **Alignment** to the full breadth and depth of the state academic content standards.
- ✓ **Validity** or accuracy of the inferences drawn from the assessment scores about what students know and can do and the appropriateness of the assessment results for their intended uses.
- ✓ **Reliability** or consistency of the scoring tools and the generalizability of the inferences about students' knowledge and skills.
- ✓ **Comparability** of the assessment results for students within the pilot districts and, while the system is not yet statewide, across PACE and non-PACE districts.
- ✓ **Fairness** of the assessments with regard to accessibility for all students and minimizing bias.

In addition, characteristics of high-quality assessments and assessment systems were used in the design phase of the PACE system to support the efficacy of inferences made about student, teacher, school, and district performance. The PACE system is not simply a collection of assessment experiences for students, but instead a coherent system that has a planned flow for how information resulting from different assessments will work together to support the intended interpretations and uses. For example, the PACE assessment system is *comprehensive, coherent,* and *continuous*. These concepts of a high quality assessment system are not new, but are drawn from the National Research Council's *Knowing What Students Know*[13] and can be reviewed in greater detail from that resource or from a recent discussion of assessment system design[14].

> **Comprehensive** –The PACE system includes a range of measurement approaches "to provide a variety of evidence to support educational decision making."[15] In this way, it is comprehensive because it allows students to demonstrate their competency in a variety of ways. This helps to ensure the validity and fairness of the inferences drawn from the assessments. Comprehensiveness also means that the assessment system, as a whole, reflects the breadth and depth of college and career ready standards and learning practices adopted by the State.
>
> **Coherence** – This component of the PACE system is intricately linked with its theory of action. The PACE innovative system is not simply a different form of assessment, but reflects a systemic educational approach to promote deeper and more meaningful learning for students. Thus coherence refers to assessments that are compatible with the methods of teaching and learning and to the underlying model of learning.
>
> **Continuity** – Finally, the PACE system measures student learning over time. This element of an assessment system ensures that student progress can be monitored so that educators can make appropriate instructional decisions for students.

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[12] American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME) (2014). *Standards for Educational and Psychological Tests*. Washington, DC: AERA.

[13] Pellegrino, J., Chudowsky, N., & Glaser, R. (Eds.). (2001). *Knowing what students know: The science and design of educational assessment*. Washington, DC: National Academy Press.

[14] Chattergoon, R., & Marion, S. F. (2016). Not as easy as it sounds: Designing a balanced assessment system. *National Association of State Boards of Education*, *16*(1), 6–9.

[15] Pellegrino, et al., 2001, p. 253.

<u>Annual determinations are valid, reliable, and comparable</u>. The NH DOE has developed a comprehensive plan for collecting and synthesizing validity evidence to support the uses of the PACE system results. This section situates the validity evidence within a comparability-based framework. Evidence related to the validity and reliability of the annual determinations is provided within the discussion of comparability as these technical properties are necessary but not sufficient for the establishment of comparability. The NH DOE has designed a system that ensures annual determinations of student proficiency are comparable within PACE schools/districts, among PACE schools/districts, and across the PACE system and the statewide assessment program. The NH DOE engages in *comparability by design* to promote and evaluate the intended claims[16].

The validity of the NH PACE innovative assessment and accountability system primarily rests on both **internal** comparability—i.e., the degree to which the assessment scores for a given grade and subject area are comparable both *within and among* the PACE districts—and **external** comparability of PACE results to those of the statewide assessment system.

> <u>Defining Comparability</u>. Comparability is a judgment based on an accumulation of evidence to support claims about the meaning of test scores and whether scores from two or more tests or assessment conditions can be used to support the same interpretations and uses. In this way, assessments are not dichotomously determined to be comparable or not, but like validity, comparability is a judgment about the strength of the theory and evidence to support the comparability of score interpretations for a given time and use. This means that evidence used to support claims of comparability will differ depending on the nature (or grain-size) of the reported scores. For example, supporting claims of raw score interchangeability—the strongest form of comparability—would likely require the administration of a single assessment form with measurement properties that are the same across all respondents (i.e., measurement invariance). Most state assessment systems with multiple assessment forms fail to meet this level of score interchangeability. Instead, the design of most state assessment systems aims to be "comparable enough" to support scale score interchangeability. This level of comparability typically requires that the multiple tests forms are designed to the same blueprint, administered under almost identical conditions, and scored using the same rules and procedures. Still, many states continue to struggle to meet this level of comparability due to challenges with multiple modes of administration—paper, computer, and devices[17]. In this way, comparability is an evidence-based argument, and the strength of evidence needed will necessarily depend on the type of score being supported. As shown in Figure 2, comparability lies on a continuum and rests on two major critical dimensions: the comparability of content and the comparability of scores, and that each of these may exists\ at different degrees of granularity.

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[16] Lyons, S., Marion, S. F., Pace, L., & Williams, M. (2016). Addressing accountability issues including comparability in the design and implementation of an Innovative Assessment and Accountability System. www.knowledgeworks.org and www.nciea.org.

[17] Dadey, N., Lyons, S., & DePascale, C. (2018). The comparability of scores from different digital devices: A literature review and synthesis with recommendations for practice. *Applied Measurement in Education*, *31*(1), 30–50.
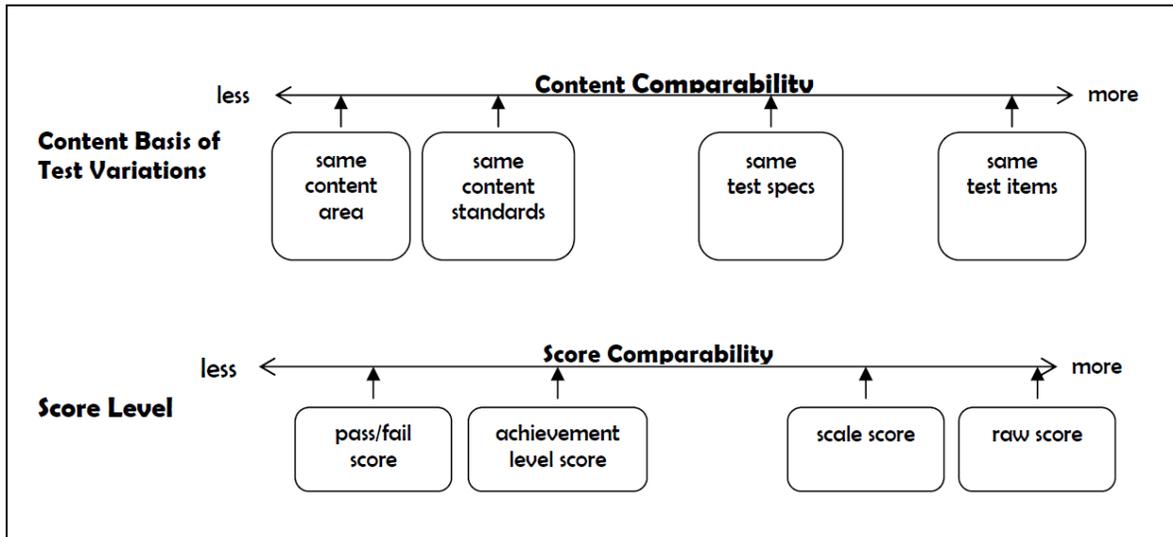
Figure 2. *Comparability Continuum*[18]

Comparability must be required at the level of the annual determinations. This means that evidence is provided to support the notion that if a student is determined to be "proficient" in one district, had that student been assigned to another district's assessment system (either PACE or non-PACE) he or she could expect to also be deemed proficient.

Overview of Comparability Methods. Consistent with New Hampshire's evaluation plan under 34 CFR 200.106(e), the NH DOE and its technical partners will annually evaluate comparability during each year of its demonstration authority period in three main ways described in more detail below: (1) method for evaluating comparability *within* LEAs and schools participating in the PACE system; (2) method for evaluating comparability *among* LEAs and schools participating in the PACE system; and (3) method for evaluating comparability *across* the PACE system and the state assessment program. Examples of the activities and audits that occur at the three levels are summarized in Figure 3 and described in detail below going from the lowest level to the highest level. Gathering evidence at each of these levels is essential for supporting the claims of comparability, and ultimately supporting the validity of the system as a whole. The data needed to examine comparability within and across districts is supplied by the LEAs and schools participating in PACE, as specified in the PACE Data Collection Protocols each year (see Appendix B for 2017-18 version). The State provides the data necessary to examine comparability across the two assessment systems.

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[18] Figure taken from page 5 in Winter, P. C. (2010). Evaluating the comparability of scores from achievement test variations. Washington, DC: Council of Chief State School Officers.
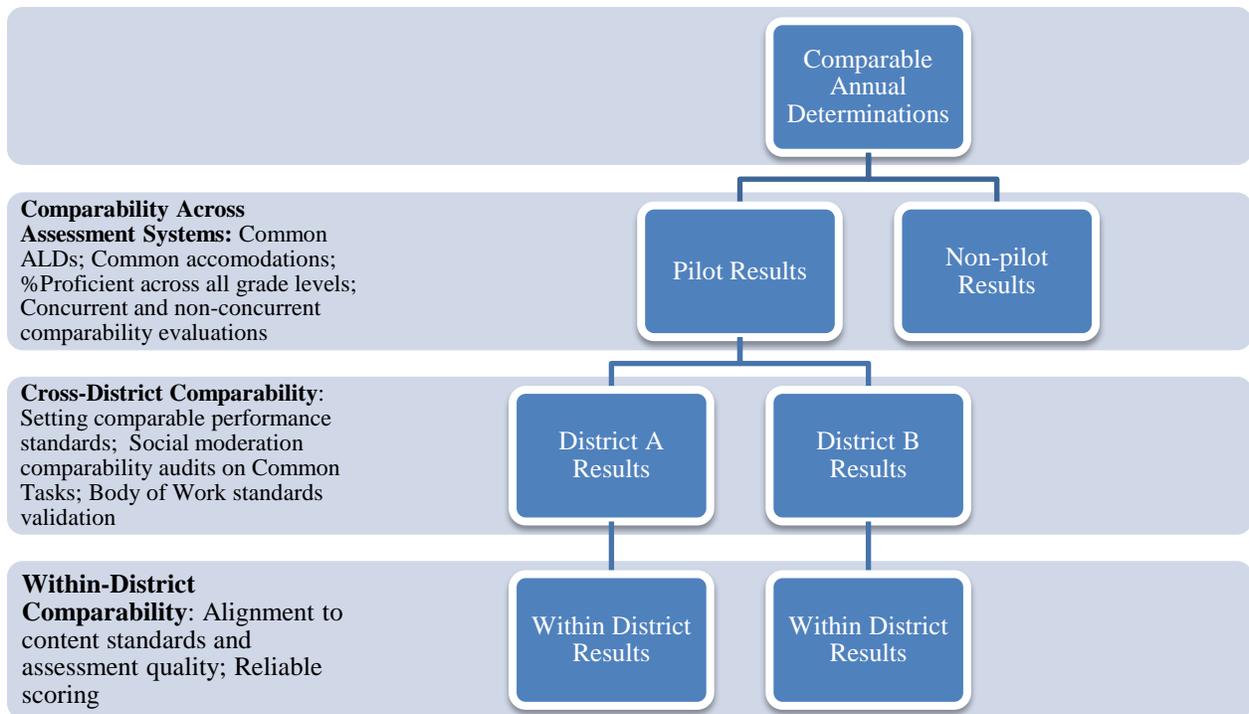
Figure 3. *Establishing an Evidence-Base for Valid, Reliable, and Comparable Annual Determinations*

Method for evaluating comparability within LEAs and schools. There are two main sources of within-district comparability evidence: A) alignment and assessment quality and B) reliable scoring. Evidence regarding alignment and assessment quality comes from 1) reviews of local assessment maps and 2) reviews of local task quality. Evidence regarding reliable scoring comes from process-based evidence (e.g., principles of scoring student work, calibration and anchor paper protocols for the PACE Common Task and local tasks, double scoring protocols), as well as audits on inter-rater reliability and the generalizability of local assessment scores. Each of these is discussed in detail below.

First, comparability within LEAs and schools participating in the PACE system is established using evidence of **alignment**. Participating LEAs and schools are aligned with the depth and breadth of the State's challenging academic standards (and therefore with one another). See the section entitled "Aligns with depth and breadth of challenging State academic standards" for more information about alignment.

Second, comparability within LEAs and schools participating in the PACE system is established using evidence of **local assessment quality**. The NH DOE and the Center for Assessment annually collect and review a sample of local summative assessments from all participating PACE schools and districts as part of the Data Collection Protocols (see Appendix B). The purpose of reviewing a sample of local summative assessments is two-fold: to ensure alignment to the State content standards and to examine the quality of local summative assessments used to inform competency determinations throughout the year. Submission instructions for the sample of local summative assessments and the review tool can be found in Appendix B. The local summative assessments are reviewed using criteria that ensure the summative assessments are

aligned with the State content standards and competencies, scored using clear guidelines and criteria, fair and unbiased (i.e., Universal Design for Learning), and use appropriate text/visual resources. Districts are provided formative feedback on each submitted local summative assessment using the Aligned Summative Assessments Review Tool.

Third, comparability within LEAs and schools participating in the PACE system is established using evidence of **reliable scoring**. Reliable scoring is established using three processes: principles of scoring student work, inter-rater reliability estimates, and generalizability analyses.

1. *Principles of Scoring Student Work.* All PACE districts hold grade-level calibration sessions for the scoring of the PACE Common Task and are encouraged to do so with their local performance assessments (see Appendix J). Teachers bring samples of their student work from the PACE Common Task representing the range of achievement in their classrooms. Teachers work together to come to a common understanding about how to use the rubrics to score papers and identify prototypical examples of student work for each score point on each rubric dimension. The educators annotate each of the anchor papers documenting the groups' rationale for the given score-point decision. These annotated anchor papers are then distributed throughout the district to help improve within-district consistency in scoring. The Data Collection Protocols each year contain detailed instructions about calibration and anchor paper protocols for PACE Common Tasks and double scoring protocols for samples collection from PACE Common Tasks. The purpose of these calibration sessions is to build LEA capacity to have meaningful discussions about the scoring of student work. Though it is only required to hold these sessions for the common task, these protocols are explicitly designed to be replicated for local use. Many districts have reported that the calibration sessions have become part of their regular practice of scoring both common and local performance assessments.

2. *Inter-Rater Reliability Estimates.* The NH DOE externally audits the consistency in scoring by asking each participating LEA or school to submit a sample of papers from each PACE Common Task that have been double-blind scored by teachers. All participating PACE districts are required in the Data Collection Protocols to submit 18 student work samples for each PACE Common Task scored by two teachers independently, thereby producing within-district double-scores for a sample of students. The collection of double scores is then analyzed using inter-rater reliability methods to estimate within-district scoring consistency. Inter-rater reliability is examined using two statistical indicators: percent agreement and Cohen's Kappa. Two indicators are used because each statistic provides unique information that is useful for making judgments about the degree of score reliability. Results of the Inter-Rater Reliability Analyses in 2015, 2016, and 2017 provide overwhelming support for the degree of inter-rater consistency in scoring of the PACE Common Tasks with the average exact agreement on the scores for each rubric dimension of the common task greater than 75%. This evidence suggests that teachers within districts are able to successfully conduct calibration sessions and comparably evaluate student work. These reports are available upon request.

3. *Generalizability Analysis.* The NH DOE externally audits the generalizability of students' overall achievement estimates by asking each participating LEA or school to submit electronic Gradebook score data from a sample of grades and subjects (see Appendix B). Generalizability analyses are designed to answer two main questions:
   a. Would students likely demonstrate similar levels of achievement had they been given a different set of assessment tasks?
   b. How many classroom assessments are needed to provide a stable measure of student achievement?

Results of the Generalizability Analyses in 2016 and 2017 suggest that classroom assessments can provide for reliable estimates of student achievement for use in a school accountability context such as in the PACE system. Results also suggest that approximately 10-20 assessments per year provide for an efficient trade-off while still ensuring a high degree of relative and absolute decision reliability. These reports are available upon request.

Method for evaluating comparability across LEAs and schools. There are three main sources of cross-district comparability evidence: A) setting comparable performance standards, B) social moderation comparability audits using the PACE Common Tasks, and C) performance standard validation. Each will be discussed in turn.

First, comparability among LEAs and schools participating in the PACE system is established by **setting comparable performance standards**. The purpose of the standard setting is to determine where in the competency scales the appropriate cut points lie for establishing achievement levels. For the participating PACE districts, student scores in the PACE subject areas and grade levels were calculated by averaging student end of year competency scores by the participating districts. Because the competencies differ across districts and the sample of students within any given district is small, a weighted factor score cannot be computed. To establish cut points we use an examinee-centered judgmental method called contrasting groups. This standard setting method involves using judgments from panelists about the qualifications of the examinees based on prior knowledge of the examinee. To implement this method for PACE, we ask teachers at the end of the school year to make judgments about which achievement level best describes each of their students. This process relies heavily on a common understanding and interpretation of the PACE Achievement Level Descriptors (ALDs), which are basically the same as the statewide academic assessment ALDs. The subject and grade specific ALDs are uploaded into an online survey where teachers can easily read the descriptions and match their students to the appropriate achievement level. The contrasting groups standard setting methodology then involves comparing end of year competency scores with student placements into achievement levels in order to determine cut scores that accurately classify the highest percentage of students into achievement levels. Logistic regression is used to determine the point in the score distribution where examinees have a 50% chance of being classified in the next performance level or above (e.g., the probability that a student is Level 3 or above is 50% at score X). A logistic regression analysis is run separately for each cut point—Level 2, Level 3, and Level 4—in each district, content area, and grade level. Results of the contrasting group standard setting analyses from 2015, 2016, and 2017 are available upon request.

Second, comparability among LEAs and schools participating in the PACE system is established through **social moderation comparability audits on PACE Common Tasks** (and adjustments

to performance standards as necessary). The PACE innovative assessment system uses PACE Common Tasks across districts to evaluate the degree of comparability in local scoring. These analyses rest on the assumption that patterns in scoring for the PACE Common Task is representative of district relative stringency and leniency in scoring of local performance tasks and assessments. This assumption has been supported by evidence of generalizability (see Generalizability analyses above). The calibration audit is intended to uncover differences in scoring between districts that can be used to support decision-making about any adjustments to cut scores that may need to be considered post hoc due systematic cross-district differences.

The calibration audit is based on methods that have been successful in Queensland, Australia for decades. The consensus scoring method involves pairing teachers together, each representing different districts, to score student work samples. The student work samples are gathered from each PACE Common Task from all participating LEAs and schools. Both judges within each pair are asked to individually score their assigned samples of student work. Working through the work samples one at a time, the teachers discuss their individual scores and then come to an agreement on a "consensus score". In the rare case that consensus cannot be reached, an expert scorer (who does not have affiliation with any particular district) decides on the appropriate consensus score. The purpose of collecting consensus score data is to get the best estimate of the "true score." These consensus scores are then used in follow-up analyses to detect any systematic, cross-district differences in the stringency of standards used for scoring. The methods described herein have been published in the leading measurement journal, *Educational Measurement: Issues and Practice*[19]. PACE teachers and leaders from each district participated in calibration audits during the PACE Summer Institute in 2015, 2016, and 2017. Results of these calibration audits and subsequent cut score adjustments are available upon request. As the PACE system continues to scale statewide, it is not feasible or necessary for all districts to develop and agree upon a single common task per course. Multiple regional cohorts of teachers will engage in the work of developing PACE common tasks that districts will be able to select from. Because the PACE common task is used only as a calibration tool, there is no need for all districts to use the same common task. For the purposes of establishing comparability in scoring, we need all teachers to administer at least one of common tasks and submit their students work samples to be consensus scored by cross-district teams of teachers.

Third, comparability among LEAs and schools participating in the PACE system is established through **performance standards validation**. As part of validating the PACE annual determinations produced over the last four academic years (2014-15 to 2017-18), we have collected validity evidence using a "body of evidence" (or Body of Work) approach. This approach requires participating schools and districts to collect student work samples on summative assessments tied to grade/course competencies for a small sample of students from a sample of courses that rotate each year (see Appendix B: Data Collection Protocols for instructions given to districts). Teachers from across the participating LEAs and schools have come together during the PACE Summer Institute to review the "body of evidence" (or portfolios) of student work and to make judgments about student achievement relative to the PACE Achievement Level Descriptors. Like the consensus scoring activity, teachers have been

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[19] Evans, C. M., & Lyons, S. (2017). Comparability in balanced assessment systems for state accountability. *Educational Measurement: Issues and Practice*. http://doi.org/http://dx.doi.org/10.1111/emip.12152

paired in cross-district teams and review bodies of work from students who do not attend any of their home districts. These teacher judgments regarding the student achievement levels are then reconciled with the reported teacher judgments within the student's home district as an additional source of validity evidence to support the PACE innovative assessment system. Results of the body of evidence audits from 2015, 2016, and 2017 are available upon request and provide extra evidence about the validity of the PACE performance standards. We do not plan to continue collecting extra validity evidence each year during the period of the demonstration authority. We will continue to explore the use of Body of Work, as well as other sources of extra validity evidence such as the NH SAS interim assessments among other potential sources of validity evidence as we continue to build out a validity argument in support of the PACE innovative assessment system.

Method for evaluating comparability across assessment systems. The accountability uses of the PACE assessment system results require the comparability of annual determinations. Therefore, the PACE innovative system's comparability claims will apply to the reported performance levels (as opposed to scale scores for more traditional assessment models). The comparability processes and audits that occur at the local, within-district level and cross-district level are all in an effort to support the claim of comparability in the annual determinations. However, because the PACE system will only be implemented in a subset of participating LEAs, a major requirement of section 1111(b)(2)(B) is that the innovative PACE system results are comparable with the non-PACE system results. The following procedures are used to formally promote and evaluate the comparability of the annual determinations across assessment systems in the State: A) common Achievement Level Descriptors (ALDs) across the assessment systems; B) common accommodations across assessment systems; C) percent proficient across all grade levels; D) concurrent comparability evaluations; and E) non-concurrent comparability evaluations. Before detailing these sources of evidence for the PACE system, we discuss reasonable expectations for comparability across the two state assessment systems.

There are a variety of reasons why there may be legitimate differences in the results produced by the two or more assessment systems. New Hampshire is applying under the Innovative Assessment Demonstration Authority for at least three reasons: (1) to measure the state-defined learning targets more flexibly (e.g., when students are ready to demonstrate "mastery"), (2) to measure the learning targets more completely and/or deeply, and (3) to measure targets from the standards that are not measured in the general statewide assessment (e.g., listening, speaking, extended research, scientific investigations). Therefore, requiring the results produced across the old and new systems to tell the same story about student achievement has the very real potential to prevent meaningful innovation. To quote one of the leading experts on score comparability, Dr. Robert Brennan, when asked about comparability between the innovative and standardized assessment systems, "perfect agreement would be an indication of failure."

Given this, *how comparable is comparable enough?* For example, if approximately 55% of the students were scoring in Levels 3 and 4 on the state standardized assessment in a given grade and subject, that does not mean we should expect exactly 55% of the students to be classified in Levels 3 and 4 in the PACE system in the same grade and subject. There could be very good reasons why the results would differ in either direction. For example, the PACE system of assessments may be capturing additional information relative to real-world application and

knowledge transfer that provides for more valid representations of the construct than possible with traditional standardized assessments. For this reason, we do not set a standard criterion, or comparability "bar", because the intended uses and contextual factors surrounding the evaluation of comparability are critical.

However, it is worthwhile to consider what might be reasonable to expect for the amount of variability in proficiency classifications across the two assessment programs. We argue that a reasonable upper bound for comparability across PACE and non-PACE systems is the degree to which comparability is achieved across forms, modes, and years of administration for the statewide standardized assessment system. This is akin to the axiom that a test cannot correlate any more with another test than it does with itself (i.e., its reliability). The literature is clear that there are significant effects associated with mode of administration (including paper/computer and across devices), accommodations, and forms across years.[20] Due to the precedence for this type of variation within our current assessment systems, it may be reasonable to expect that the variability across the PACE and non-PACE systems would be at least as large as levels we see with current state testing programs.

The unit of analysis for evaluating comparability must be at the school and subgroup levels, given the school accountability purposes of the assessment results. However, because the subgroups may involve small sample sizes, the tolerance for comparability needs to be greater for the subgroup analyses compared to the school level analyses. If school or subgroup differences across systems are detected, the state should evaluate the practical implications of those differences for decision making within the accountability system. Figure 4 presents a series of questions that could determine whether or not the levels of comparability seen are appropriate for the intended purposes:

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[20] For example: Dadey, N., Lyons, S., & DePascale, C. (2018). The comparability of scores from different digital devices: A literature review and synthesis with recommendations for practice. *Applied Measurement in Education*, *31*(1), 30–50.
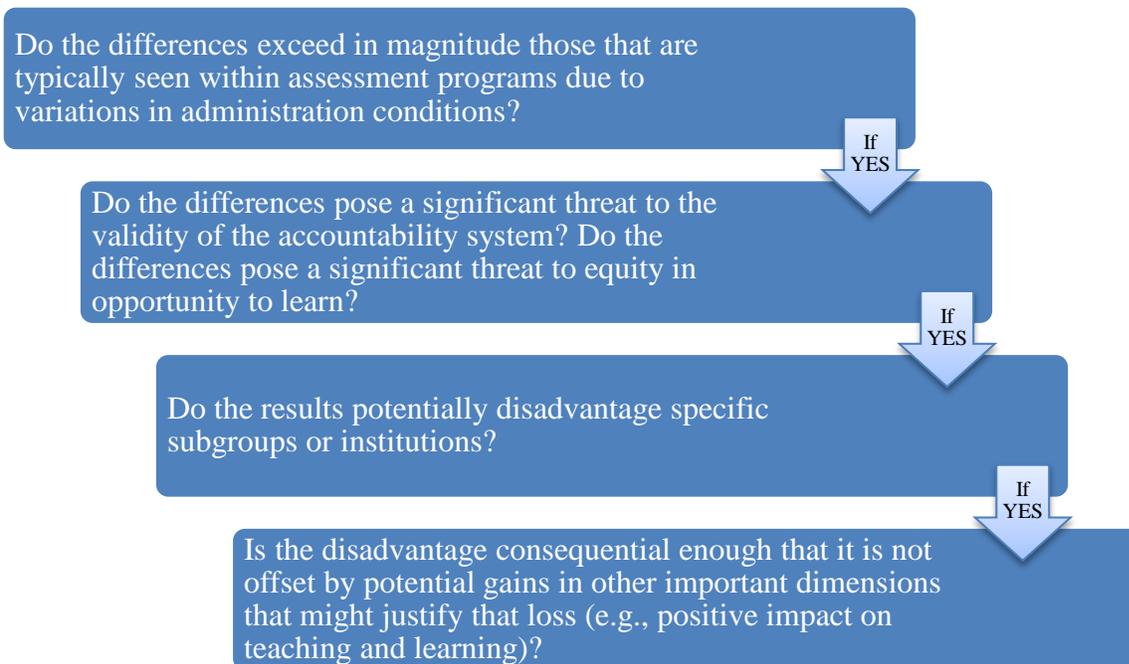
Figure 4. *Decision Tree for Determining Degree of Comparability Achieved*

If the answer to any of these questions is "no", the assessment systems can be considered comparable enough to support their intended uses for the duration of the demonstration authority period. However, in the case where all of the answers above are "yes," additional steps will need to be taken to improve the comparability of the achievement classifications to support their use in the statewide accountability system. To do so, the performance standards for either one of the assessment systems should be shifted or adjusted (such as equipercentile linking) to produce usable results for the duration of the Demonstration Authority.

The following evidence supports the comparability of the PACE system to the statewide assessment system: 1) use of common Achievement Level Descriptors across the two assessment systems, 2) use of common accommodation standards across the two assessment systems, 3) consistency in percent proficient across assessment systems, 4) concurrent comparability evaluations, and 5) non-concurrent comparability evaluations.

First, comparability across the two assessment systems is established through the **use of common Achievement Level Descriptors (ALDs) across the two assessment systems**. ALDs are exhaustive, content-based descriptions that illustrate and define student achievement at each of the reported performance levels. ALDs are used to set criterion-referenced performance standards (i.e., cutscores) for an assessment program. One of the goals of the PACE project is to provide annual determinations that can be comparable across districts and between PACE and non-PACE districts. One of the ways to help instantiate this goal is to use the statewide academic assessment's ALDs as the basis for the PACE ALDs. Because the PACE ALDs and SBAC/NH

SAS[21] ALDs are both explicitly linked to the NH Career and College Ready Standards, the similarity between the two sets of ALDs is clear. Appendix E provides snapshots of the ALDs for Grade 3 ELA. The content that is similar or identical across the two ALDs is connected with blue arrows.

Second, comparability across the two assessment systems is established through the **use of common accommodation standards across the two assessment systems**. The allowable accommodations for PACE are identical to the accommodation standards on the statewide academic assessment and both are based on principles of Universal Design Learning, (see Appendix A for PACE accommodations policy). Participating PACE districts and schools agree to implement the accommodation standards on their local and common assessments. These standards are consistent with approved accommodations for other state-level assessments, including Smarter Balanced and NECAP (the statewide assessment administered prior to Smarter Balanced). This coherence increases the comparability of results across assessment systems for students with disabilities and English learners.

Third, comparability across the two assessment systems is established through examining the **percent proficient across all grade levels on the two assessment systems within each of the pilot districts**. This analysis reveals the extent to which the rigor of the performance standards is consistent across PACE and non-PACE assessment systems, as we would not expect huge variations in percent proficient across the grade levels. Results of these analyses from 2015, 2016, and 2017 are available upon request.

Fourth, comparability across the two assessment systems is established through **concurrent comparability evaluations**. Importantly, the degree of comparability of the annual determinations across the two assessment systems within the State can be directly evaluated by administering an assessment that is common across the two programs to a sample of students. We evaluate the concurrent comparability in two criterion-related ways.

1. *Accuracy of Proficiency Classifications.* Since the statewide academic assessment is administered once per grade span in grades 3-8 and high school, the comparability of the annual determinations between PACE and non-PACE districts is evaluated by directly comparing annual determinations for the students that participated in both assessment systems. By calculating two sets of annual determinations for these students, the state has both traditional and innovative data points for some of the students in each PACE district. The degree of agreement between the two sets of annual determinations is then analyzed to provide further evidence regarding the comparability of the interpretations of the reported achievement levels, or if systematic differences are detected, inform decisions about calibrating results to provide for comparability when appropriate. The degree of similarity between the proficiency classifications provides further support the comparability of the interpretations of the reported achievement levels across the two assessment systems. The accuracy of the proficiency classifications is examined by grade

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[21] New Hampshire has recently procured a new statewide assessment for grades 3-8 called the NH SAS. The PACE ALDs will be reviewed once the NH SAS ALDs are available to ensure consistency and alignment between the two system's ALDs.

and subject and also by waiver-reported subgroup. Results of the concurrent comparability evaluations from 2016 and 2017 are available upon request.

2. *Relationship between Student Achievement Scaled Scores and Student Competency Scores*. Since the statewide academic assessment is administered in the PACE system once per grade span in grades 3-8 and high school, we will evaluate the concurrent comparability across the two assessment systems by examining the relationship between statewide tests scores and district end- of- year competency scores in the same grade and subject.

Fifth, comparability across the two assessment systems is established through **non-concurrent comparability evaluations.** Since students participate in the statewide academic assessment once per grade span in ELA and math, we use this information to compare performance on the statewide academic assessment with performance on PACE innovative assessments for students in certain grades and subjects where there is overlap from one year to the next. This means comparing a student's performance on the statewide assessment in one year to their performance in the PACE system in the next year. This also means the opposite—comparing a student's performance in the PACE system in one year to their performance on the statewide assessment in the next year. These non-concurrent comparability evaluations provide evidence that meaning of the annual determinations is reasonably stable across years and assessment systems. We would expect the classification accuracies for the non-concurrent comparability evaluations to be slightly lower than the classification accuracies observed for the concurrent year comparisons because we would expect student achievement to vary across years. Similar to the concurrent comparability evaluations, the accuracy of the proficiency classifications is examined by grade and subject and also by waiver-reported subgroup. Results of the non-concurrent comparability evaluations from 2016 and 2017 are available upon request.

Summary. The intended uses and interpretations of PACE assessment system results are supported based on all the evidence presented on the comparability of accountability determinations within districts, among PACE districts, and across the two state assessment systems. There is also additional evidence that supports the validity of the PACE assessment system results—two external evaluations of the PACE innovative system while it operated under a waiver during the 2014-15 to 2017-18 school years. The first was conducted by HumRRO starting in 2016 (see Appendix K) and the other examines grade 8 and 11 student achievement outcomes resulting from the first three years of the PACE pilot (2014-2017, see Appendix H). Details about those two external evaluations and how their findings support the validity of the PACE system can be found in section "Evaluation and Continuous Improvement".

Provides for participation of all students

The PACE system provides for the participation of all students pursuant to sections 1111(b)(2)(B)(vi and xiii) in two main ways: (1) the PACE innovative assessment system is accessible for students with disabilities and English learners and (2) the PACE innovative assessment system provides appropriate accommodations as specified in a student's Individualized Education Plan. NH DOE is committed to ensure that at least 95% of all eligible students fully participate in the pilot and has consistently met this standard annually in 2015,

2016, and 2017. Further, NH DOE will monitor all participating schools and districts to ensure that at least 95% of students in each subgroup of students fully participates in PACE.

Accessibility for SWDs and ELs. First, PACE innovative assessments are accessible for students with disabilities and English learners because the PACE Common Task is designed using a principled assessment design approach that incorporates the principles of Universal Design for Learning (UDL)(see Appendices C & D). This meets with requirements specified in section 1111(b)(2)(B)(xiii). PACE teachers are trained through the process of PACE Common Task development to consider UDL in their design of local performance tasks and assessments. For example, PACE teachers involved in task development begin with specifying what students should know and able to do (student model) and what would count as acceptable evidence that students do indeed know and can do the intended learning targets (evidence model) prior to designing the assessment task to elicit evidence related to the focal learning targets. As a result, principled assessment design automatically accounts for principles of UDL into assessment development. Instead of trying to "fix" or accommodate tasks after the fact, UDL directs us to intentionally design tasks for the widest range of student needs possible.

Furthermore, PACE Common Task developers consider during the design phase the extent to which the performance task provides students with (1) *multiple means of representation* to give learners various ways of acquiring information and knowledge, (2) *multiple means of expression* to provide learners alternatives for demonstrating what they know, and (3) *multiple means of engagement* to tap into learners' interests, challenge them appropriately, and motivate them to learn. The PACE Common Tasks are reviewed by the NH DOE and the Center for Assessment prior to operational use with UDL as one major review criteria (see Appendix I). Specifically, PACE Common Tasks are reviewed based on whether they measure student skills that are outside the intended construct, use extraneous words that potentially distract students from the main learning target of the task, use idioms, or culturally-specific language, crowd text and/or graphics too closely on the page, and/or use graphics that require certain levels of visual acuity to understand.

The PACE system is also accessible for students with disabilities and English learners because the PACE Common Task serves as a model for how to design other high-quality local performance assessments within participating schools and districts that adhere to the principles of UDL. The NH DOE and Center for Assessment audit this process by collecting a sample of local summative assessments from every participating PACE district and reviewing them, in part, based upon whether they meet principles of UDL (see Appendix B for review tool).

Provides Appropriate Accommodations. The PACE system also provides for the participation of all students in innovative assessments because instructional and assessment accommodations are available for students with disabilities, as well as students for whom English is not their native language. The PACE accommodation standards are identical to the accommodation standards on the statewide academic assessment (see Appendix A). A fundamental value of PACE is that the system should be designed to maximize the learning opportunities for each individual student.

Results can be used within the accountability system

New Hampshire's Accountability Task Force—the stakeholder group responsible for the design of the approved December 2017 ESSA plan—was intently interested on ensuring that PACE continues to play a prominent role in the State's strategic plan. This focus is represented throughout each part of New Hampshire's state plan and is especially true for accountability, where the state plan ensures that PACE schools can be effectively and comparably included in all aspects of the system including the state's long-term goals for academic achievement, the academic achievement indicator, school identification for targeted or comprehensive support and improvement, and reporting on State and LEA report cards.

<u>Use in accountability system for academic achievement indicator</u>

The PACE innovative assessment system has been designed to be comparable to the statewide system of assessments for the express purpose of use within the new state accountability system that was recently approved under the *Every Student Succeeds Act* (ESSA). Because the annual determinations are designed to be comparable, the determinations can be used to serve the same purposes within the accountability system (for more information see the section entitled "Provides valid, reliable, and comparable annual proficiency determinations"). This means that a school's participation in PACE under the Demonstration Authority will not systematically influence a school's score on the achievement indicator, and likewise the overall summative determination within the accountability system.

<u>Provides summative determinations for all students that describes student's mastery</u>

The PACE system produces individual student summative reports consistent with the requirements specified in section 1111(b)(2)(B)(x). PACE individual student summative reports meet the requirements in four ways: (1) they allow stakeholders to understand and address the specific learning needs of students; (2) they are provided as soon as practicable after the assessment(s) is given; (3) they are provided in an understandable and uniform format consistent with the statewide academic assessment reports; and (4) they are provided, to the extent practicable, in a language parents can understand.

First, PACE individual student summative reports allow parents, teachers, principals, and other school leaders to understand and address the specific academic learning needs of students. For example, PACE student reports identify which students are not making sufficient progress toward, and attaining grade-level proficiency on the State academic standards. Appendix G contains an example of a PACE individual student summative report.

Second, PACE individual student summative reports are provided to parents, teachers, and school leaders as soon as practicable after the assessment(s) is given. For example, PACE reports are provided in the same timeframe as the statewide academic assessment reports in order to allow parents, teachers, principals, and other school leaders to understand and address the specific academic needs of students. In fact, the PACE system may be better positioned to meet the requirements of sections 1111(b)(2)(B)(x and xii) than the current state assessment program as curriculum-embedded performance assessment information is available to students, parents,

teachers, and other school leaders in a timely way throughout the year. These relevant stakeholders are provided real-time, continuous information on student progress towards proficiency on the State's challenging academic standards rather than in a once a year report that is not available until the school year is over. This continuous stream of performance information throughout the year provides teachers and students with actionable, real-time data that they can use to make better instructional decisions and understand student progress towards proficiency when adjustments can still be made. This also allows teachers, parents, or other school leaders to address the specific academic needs of students as indicated by the students' achievement throughout the year using the local assessment score data. In this way, the PACE system supports best practice—the use of assessment for the improvement of education rather than the use of assessment solely as an accountability lever[22].

Third, PACE individual student summative reports are provided in an understandable and uniform format consistent with the statewide academic assessment reports. For example, the PACE student reports and statewide reports have a uniform format except that a scale score is provided on the statewide academic assessment (see Appendix G).

Fourth, PACE individual student summative reports are provided, to the extent practicable, in a language parents can understand. The NH DOE requires LEAs to sign assurances that they make PACE individual summative reports available to parents in a language they can understand. The NH DOE oversees this process.

<u>Provides timely, disaggregated results for stakeholders</u>

PACE system results are produced in such a way that they can be disaggregated within the State, as well as each LEA and school by all subgroups identified in section 1111(b)(2)(B)(xi), except in such cases in which the number of students in a subgroup is insufficient to yield statistically reliable information or the results would reveal personally identifiable information about an individual student. PACE system results in 2015, 2016, and 2017 were disaggregated by all relevant subgroups identified in section 1111(b)(2)(B)(xi) and reported to USED in the annual progress reports. The NH DOE is committed to continuing with this practice for the PACE results.

The PACE system also provides timely and coherent information about student attainment of the challenging State academic standards and whether the student is performing at the student's grade level as required by section 1111(b)(2)(B)(ii and x). PACE system results provide timely information because all of the PACE system results in 2015, 2016, and 2017 were provided alongside the statewide academic assessment system results and on the same time schedule when reporting to parents, teachers, and the public on the website of the NH DOE. PACE system results deliver coherent information because the PACE system results provide information about whether the student is proficient or not at the student's grade level using the same achievement levels as the statewide academic assessments and the reports are also accessed through the same

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[22] Baker, E. L., & Gordon, E. W. (2014). From the assessment OF education to the assessment FOR education: Policy and futures. *Teachers College Record*, *116*(11).

portal (see Appendix G for NH DOE Guidance to PACE Districts on accessing PACE and NH SAS reports to send to parents and an example of a PACE student summative report).

SELECTION CRITERIA

Project Narrative

New Hampshire is committed to ensuring that all students graduate high school career and college-ready. Although New Hampshire is one of the highest performing states in the country and has been improving its performance over the last 15 years, the State is not satisfied with the current levels of school and student performance. A key factor contributing to this unease is the unacceptably high level of remediation required by students entering post-secondary institutions.

We also believe that the performance gaps for some of our sub-group populations are too large and that doing more of the same will not close these gaps. To close these performance gaps we must be willing to implement innovative instructional practices that engage students from diverse backgrounds.

Yet another cause of our motivation to improve stems from knowing that we can do more to engage all students in meaningful and personalized learning opportunities. NH educational leaders argue that we are beginning to "top out" on the level of performance that can be expected in a top-down or externally-controlled accountability system. Rather than continue to operate within such a system, education leaders in New Hampshire want to shift to a more internally-focused improvement system aligned with research on human and organizational learning and improvement. In collaboration with a broad range of stakeholders throughout the state, the NH DOE has developed an expanded view of assessment and accountability. This view is grounded in research from the small-scale PACE pilot that started with a waiver from NCLB's federal statutory requirements granted by Secretary Duncan in the 2014-2015 school year. The PACE initiative is guided by key tenets that the NH DOE believes will lead to higher achievement for all students:
- ✓ Explicit involvement of local educational leaders in designing and implementing the assessment system,
- ✓ Intense and reciprocal support on behalf of the NH DOE for local districts involved in this initiative that includes technical, policy, and practical guidance,
- ✓ Use of a competency, mastery-based approach to instruction, learning, and assessment which can best support the goal of significant improvements in career and college readiness, and
- ✓ Use of authentic, instructionally-relevant, and validated performance-based assessments, alongside periodic administration of the New Hampshire State Assessment System (NH SAS) which assesses state standards in math and ELA, for the purpose of tracking and reporting the progress of students, schools, districts, and educators.

PACE builds on the State's firm commitment to accountability for the purposes of improving student learning and attainment, especially for educationally disadvantaged student groups, as well as supporting high-quality educator, leader, and school support and evaluation systems. New Hampshire argues that an improvement-focused approach enhances the ways in which the

state collects and uses information to better meet the needs of educators and students in New Hampshire. We present details of how PACE meets the selection criteria outlined in this application, organized in three main sections and associated subsections below:

1. History of PACE
2. Rationale for PACE, including:
   a. The distinct purpose of each assessment that is part of the innovative assessment system and how the system will advance the design and delivery of large-scale, statewide academic assessments in innovative ways; and
   b. The extent to which the innovative assessment system as a whole will promote high-quality instruction, mastery of challenging State academic standards, and improved student outcomes, including for each subgroup of students described in section 1111(c)(2) of ESEA.
3. Implementation plan
   a. Plan for developing assessments
   b. Strategy for scaling

<div align="center">History of PACE</div>

The NH DOE began a large-scale professional development initiative in 2012 with teams of NH educators from a cohort of schools who had dedicated themselves to K-12 implementation of competency, mastery-based education approaches. The NH DOE in 2013 constructed a performance assessment model of local accountability to support the implementation of competency education. This model, which laid the foundation for the PACE proof-of-concept pilot proposal in 2014, conceptualized a scalable model of state and local accountability supported by common performance assessments juried at the state level and aligned to NH state academic standards and graduation competencies in English language arts, mathematics, science, and work study practices. In the spring of 2014, the NH DOE established the PACE pilot comprised of four implementing districts and four planning districts dedicated to fully developing and implementing a system that would satisfy the accountability expectations of a federal system for the 2014-2015 school year. Significant partners in this work included the Center for Collaborative Education (CCE) and the National Center for the Improvement of Educational Assessment (Center for Assessment), charged with assuring a valid, reliable, and fair system of common performance assessments aligned with the NH College and Career Ready Standards. The NH DOE and project partners from the Center for Assessment began the detailed work of framing the specifics of the PACE proposal to the USED in early 2014.

The NH DOE leadership has met regularly with district and school leaders for the past 10 or more years, engaging in deep conversations about how assessment and school accountability can best be designed to support significant improvements in student learning. These conversations led to the initial PACE proposal to the USED in July 2014. The NH Legislature, the Governor's Office, and other key stakeholders, such as the NH Institute of Higher Education Network, the School Administrators Association, the NH School Principals Association, the NH Chapters of both the National Education Association and the American Federation of Teachers have all supported this new, more fully balanced system of reciprocal accountability based on the core principle of shared responsibility among state and local leaders.

<u>Rationale for PACE</u>

New Hampshire is committed to raising the bar for all students. For many years, even before the start of the PACE initiative, New Hampshire has recognized the value of personalized learning; the recognition that student success will not be achieved when we approach students as grade-aged cohorts versus individual students on individual learning paths toward the mastery of rigorous academic standards. We know that focused academic and skill attainments will allow each of our students to reach their full potential and to engage the New Hampshire economy as productive citizens enabled by their education.

PACE represents a key strategy, among several, that will help NH realize this vision for our students. NH's educational leaders recognize that the level of improvement to which we aspire will not occur with an externally-oriented assessment and accountability model. In fact, the state argues that the current system is likely an impediment for moving from good to great in that it forces a "one-size-fits-all" approach on a system that recognizes and emphasizes the importance of personalized and deep learning.

A competency-based system relies on a well-articulated set of learning targets that helps connect academic standards and critical skills leading to domain proficiency. Such a system requires careful tracking of student progress to ensure that students have mastered key content and skills before moving to the next logical set of knowledge and skills. Current systems that rely on compensatory systems (e.g. averaging) for grading and related record-keeping may allow students to slip through the cracks in terms of possessing necessary knowledge for building deep understandings in the focal disciplines.

<u>The PACE Assessment System</u>
The PACE system is designed to foster deeper learning on the part of students than is capable under current systems. Further, while the NH DOE is a strong supporter of state-level assessment, we argue that once per year assessments are not enough to drive and support deeper learning or accommodate variability among a diverse population of student learners. Assessments must be linked closely with curriculum and instruction if they are to provide instructionally-useful information. The PACE system is based on the belief that a rich system of local and common (across multiple districts) performance-based assessments is necessary for supporting deeper learning as well as allowing students to demonstrate their competency through multiple performance assessment measures in a variety of contexts. Thus, NH's PACE initiative was established to enable schools and districts to provide multiple means for students to demonstrate academic attainment and growth through means other than or in addition to standardized tests, with an emphasis on performance assessment.

The high-level structure of the PACE innovative assessment system is outlined in Table 1 of this document. However, PACE is much more than what is depicted in this Table 1. Figure 5 below provides a different perspective on the PACE assessment system. PACE is based on conceptual work done over the past 20 years on balanced assessment systems[23] where assessments at

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[23] See for example: National Research Council. (2001). *Knowing what students know: The science and design of educational assessment*. Washington, DC: National Academies Press.

multiple levels of the educational system exist in mutually beneficial ways. With PACE, high-quality local assessments, usually performance-based assessments, provide the bulk of the information relative to student achievement of State academic standards and competencies. However, the PACE common performance assessment plays a critical role in supporting competency determinations for students. First, common assessments provide a means for evaluating and establishing comparability (calibration) among PACE schools. Second, common performance assessments provide visible learning targets and performance expectations for all New Hampshire students.

Figure 5. *Graphic representation of the PACE assessment system*

As described elsewhere in this application (see "provides valid, reliable, and comparable annual proficiency determinations"), there are numerous quality control processes and procedures in the PACE system to ensure the technical quality of each assessment and of the full assessment system. However, we argue that because PACE operates as a well-functioning system, the whole is greater than the sum of the parts. NH DOE certainly advocates that each assessment

National Research Council. (2014). *Developing Assessments for the Next Generation Science Standards.* Washington, DC: The National Academies Press.

Perie, M., Marion, S.F., & Gong, B. (2009). Moving towards a comprehensive assessment system: A framework for considering interim assessments. *Educational Measurement: Issues and Practice*, 28, 3, 5-13.

Shepard, L. A. (2000). The role of assessment in a learning culture. *Educational Researcher, 29, 7*, 4-14.

Shepard, L. A., Penuel, W. R., & Pellegrino, J. (2018). Using learning and motivation theories to coherently link formative assessment, grading practices, and large-scale assessment. *Educational M*easurement: Issues and *Practice*.

administered to students should be high quality, but unlike single, end-of-year assessments where all of the quality eggs are in one basket, PACE benefits from an enormous amount of information about student performance collected throughout the year.

The PACE innovative assessment system was designed as an integral component of NH's larger theory of action for deepening student learning and improving educational outcomes for all of NH's students. NH has embraced the concept of personalized learning and the belief that the best way to unlock learning for all students is to engage and motivate them to want to learn, to create multiple means of expression for students (learners differ in the ways that they can navigate a learning environment), and to provide multiple ways for students to demonstrate that they have mastered the content. PACE is not simply an assessment system. The performance-nature of the assessment system influences instruction in a way that allows learning and assessments to be personalized for each student.

As noted throughout this application, PACE was designed and implemented according to a theory of action designed to increase (deepen) the level of the personalized content to which students are exposed, increase the quality of instruction and feedback, and improve student engagement in their own learning. Early evidence from HumRRO's independent evaluation (Appendix K) as well as numerous internal studies indicates that this theory of action is bearing fruit[24] for all students, but especially for typically under-performing groups of students (see Appendix H).

Implementation and Scaling Plan

NH DOE is engaged in a multi-faceted implementation plan to ensure the success of PACE. This plan includes many components, but we highlight the two most relevant to the application here:
- ✓ Plan for developing and scoring assessments and
- ✓ The strategy for scaling PACE.

Plan for developing assessments
PACE is a coherent assessment system situated within a competency and personalized learning framework designed to enhance student learning. As documented in the HumRRO independent evaluation study of PACE (Appendix K), the assessment development process follows a well-articulated theory of action for ensuring high-quality assessments and improved assessment literacy of participating educators and leaders. A detailed explanation of the assessment development processes follow:

There are two types of assessments that comprise the PACE assessment system 1) common performance tasks, and 2) locally-developed assessments. The information from these two types of assessments are used together to inform the student-level competency scores that serve as the basis for the annual determinations produced by the PACE system.

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[24] See for example: Evans, C. (*Under Review*). Effects of New Hampshire's innovative assessment and accountability system on student achievement outcomes after 3 years (2014-2017).

For the common performance tasks, teachers from all NH PACE districts collaborate in grade and subject area teams and follow a disciplined process of task development. Figure 6 illustrates the PACE Common Task development and pilot-testing process.

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┌──────────────────┐     ┌──────────────────┐     ┌──────────────────┐
│ Evidence-        │ →   │ Educator Review  │ →   │ Cognitive        │
│ centered Design  │     │ by grade level   │     │ Laboratories     │
│                  │     │ teams            │     │                  │
└──────────────────┘     └──────────────────┘     └──────────────────┘
         │
         ↓
┌──────────────────┐     ┌──────────────────┐     ┌──────────────────┐
│ Rubric           │ →   │ Formal expert    │ →   │ Piloting         │
│ Development       │     │ review           │     │                  │
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┌──────────────────┐     ┌──────────────────┐     ┌──────────────────┐
│ Pull anchor      │ →   │ Center for       │ →   │ NH DOE Final     │
│ papers           │     │ Assessment Final │     │ Approval         │
│                  │     │ Review           │     │                  │
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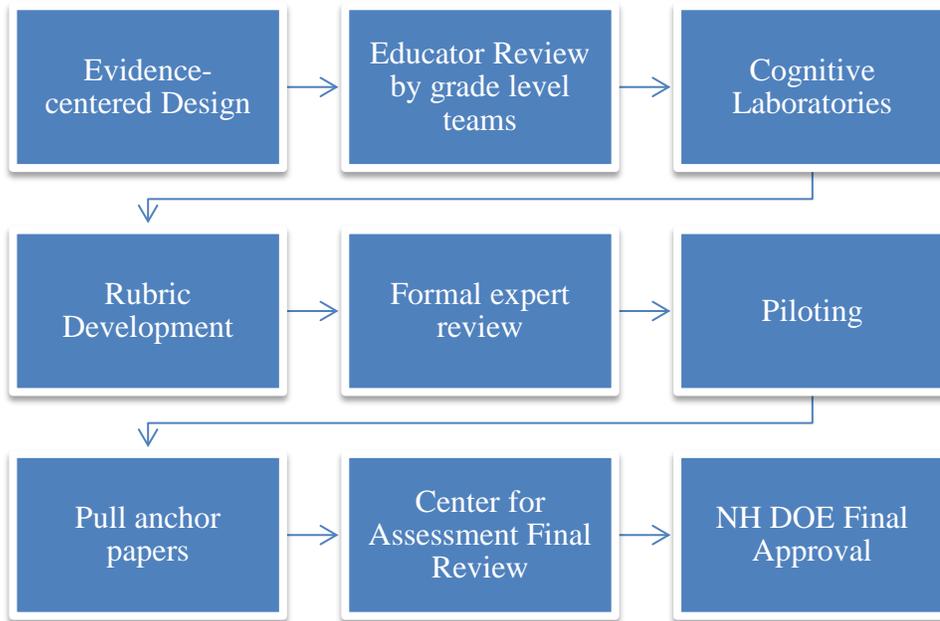
Figure 6. *PACE Common Task development and pilot-testing process*

The process begins with a principled assessment design process (see Appendix D), which means the task is developed based on 1) what students should know and at what depth of knowledge, 2) what evidence is necessary to demonstrate that the student has the desired knowledge, and 3) what tasks will allow students to demonstrate and communicate the desired knowledge. A task template based on a principled assessment design process is used to provide guidance on the characteristics of a high-quality task and PACE expectations (see Appendix C). This template is used by educators—in consultation with assessment experts and teachers leaders—to develop multiple performance tasks for each grade and subject area. The task development period occurs over the course of a school year with multiple face-to-face meetings among educators across districts. The process is iterative in that there are many rounds of review and revision before a common PACE performance task is ultimately approved by the NH DOE. The PACE common task development and approval process contains multiple layers of safeguards to ensure quality.

Though the PACE common assessment is just one assessment of many that are used throughout the year to measure student achievement, the purpose of the extensive development and review process is in large part to build local assessment literacy capacity—in other words, to improve the local performance assessment development processes and products. As described above, the PACE common tasks are run through an extensive development and review process before being approved by the NH DOE for operational use. The result is the set of operational tasks that provide models for designing rich, authentic assessment experiences that measure deep learning. This task bank can be used as a resource by participating LEAs. The tasks are designed and reviewed specifically to allow for independent student inquiry, multi-step problem solving and

argument building, and typically allow for multiple possible solutions (see Appendix I). Local capacity is not only increased by preparing for, administering, and scoring the common tasks, but by actively engaging teachers in the common task development process. Cross-district teams of teachers come together for multiple, multi-day intensive sessions throughout the academic year and summer months to develop and refine the common tasks. The teachers who participate in this process are receiving hands-on professional development about best practices in assessment design to bring back to their respective districts.

In addition to a laser focus on building local educator assessment capacity, the PACE system is designed to support many layers of verification to ensure the assessment information gathered from the schools is valid, reliable, and comparable. Samples of local assessments are reviewed by peers, experts, and the NH DOE for alignment and quality. As a result of this review feedback is provided to districts and teachers relative to assessment quality criteria. While these reviews are useful safeguards for evaluating the quality of local assessments in each of the participating PACE districts, the quality of the assessment system is better evaluated on the basis of the quality of the assessment information generated by the system for serving its intended uses. Though the full validity evaluation includes reviews of local assessment quality, the more important concern relates to the evidence supporting the appropriateness of the resulting assessment scores (i.e., the annual determinations produced as a result of the system) for drawing inferences about student achievement for use within the accountability system. Please see the section entitled "Provides valid, reliable, and comparable annual proficiency determinations" for detailed information related to the full body of evidence supporting the validity of the PACE assessment system.

Strategies for scaling
Through the initial four-year PACE pilot program (2014-15 to 2017-18) that operated under a waiver from NCLB and ESSA granted by the Secretary of Education from federal statutory requirements related to state annual achievement testing, the NH DOE has acquired a great deal of experience about how to effectively support participating PACE districts and how to effectively scale this strategy to the benefit of all students. Statewide scaling of this program begins with the basic understanding that in a personalized learning environment, students need multiple means to engage, express and represent learning.

During the initial waiver authority, NH DOE was prohibited from expanding PACE beyond nine (9) school districts. There are now over 30 school districts involved in PACE across the various levels of implementation. Under the previous model, "Tier I districts" were the only districts that participated in the accountability functions of PACE, while Tier II districts received extensive professional development and coaching to ensure that they were ready to move to Tier I. The new approach to PACE participation is based on what has been learned over the past four years in that various schools, content areas, and/or grade spans within a school district might be ready to move into PACE, but other units of the school district might not be ready at the same time. Therefore, the new approach to scaling PACE builds supports this more gradual implementation so that districts can more easily engage in the pilot.

Our model to scale PACE provides a continuum of implementation available to LEAs. At the lowest level of implementation, PACE common performance tasks are integrated into

instructional activities where they have the best fit in learning progressions. Moving across the continuum of implementation, schools will use the PACE common performance tasks at a student-personalization level to fill instructional gaps and provide students with multiple ways to demonstrate proficiency. This continuum, as depicted below, will continue to integrate further levels of performance tasks into the instruction, culminating in a fully integrated performance instruction and assessment approach.

The PACE scaling continuum reflects both the tradition of local control in New Hampshire and the recognition that many LEAs in NH are not fully ready and/or willing to fully implement PACE in all grades and subjects. Therefore, NH DOE proposes avoiding an "all or none" participation rule for PACE. This allows the NH DOE to provide capacity building resources and supports around competency-based education and performance assessment to LEAs at their point of readiness. Figure 7 depicts this continuum with five major models of participation. In reality, there are likely more than five potential models because of potential hybrid approaches among the major models, but we describe the five major models below.

PACE: Full Implementation
We have been describing the full model throughout this application whereby districts and schools implement PACE in ELA, mathematics, and science in the grades depicted in Table 1 earlier in this application. This has been the primary participation option thus far. Generally, districts have fully entered PACE with all schools at once, but in the 2017-2018 school year, a few larger school districts determined that it would be advantageous to phase in implementation with schools that are more ready than others within the same district.

PACE: Partial Implementation I
Districts implementing this model would start with one content area (e.g., mathematics) and implement it in all grades or focus on a single grade span (e.g., middle school) and fully implement all three content areas. This approach would allow districts and schools to implement PACE with those teachers and leaders that the district leadership feels are most ready, whether that is in a single content area or focused on a single grade span.

PACE: Partial Implementation II
This approach is similar to Partial Implementation I just described, but is a more limited implementation of PACE. This model would allow districts that want to enter PACE slowly, based on the local leadership's evaluation of current capacity, to start with as little as one content area at one grade span. For example, many school districts nationally are struggling with the implementation of three-dimensional science standards. Partial implementation II would allow districts to begin their participation in PACE with just a single grade span and content area (e.g., middle school science).

Districts participating in either partial implementation model I or II would be expected to eventually move toward full implementation. However, the timing of the transition toward full implementation would be decided by the district leadership and local school board in consultation with the NH DOE. Districts/schools participating in any level of PACE participation would have to adhere to the participation requirements for districts (described below), but will receive capacity building support and resources from NH DOE.
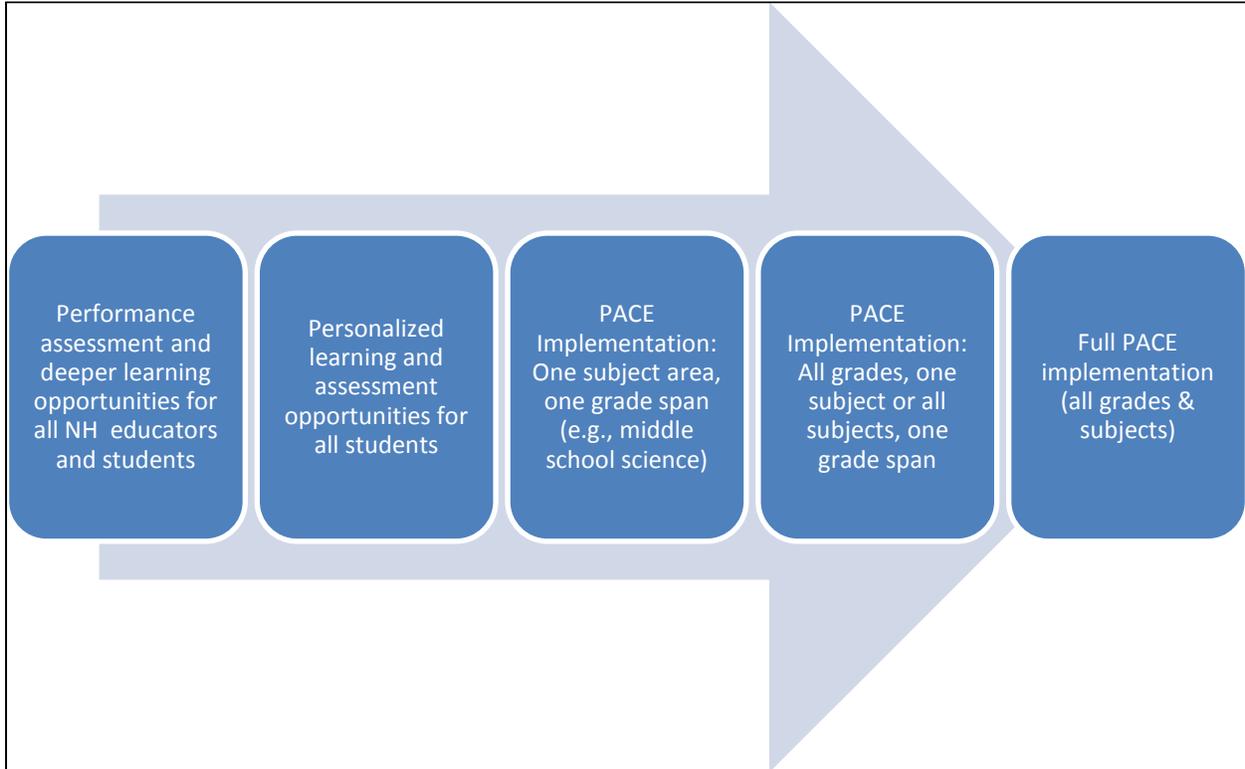
Figure 7. *Continuum of potential PACE participation models*

Personalized learning and assessment opportunities for all students
PACE common performance assessments are currently reserved for use in schools and districts already participating in PACE. The curriculum-embedded performance tasks go through extensive piloting and review and are designed to fit within specific curricular units. However, this tends to make it difficult for non-PACE schools and students to have an opportunity to experience the PACE performance assessments. Therefore, an important near-term goal for NH DOE is to create a limited number of shorter performance tasks that can be embedded in mini-curricular units (e.g., 2-3 day unit of instruction) so that any school in NH can begin to pilot performance tasks. Such tasks and units would be packaged with digital training resources (e.g., Vimeo) to help less-experienced educators administer and score the tasks appropriately. This "light touch" model can allow educators to gain valuable experience with implementing high-quality tasks without the pressures of using the results for accountability since such schools would still administer the NH SAS in all required grades and subjects. This approach is characteristic of how interventions spread in NH.

Performance assessment and deeper learning opportunities for all NH educators and students
New Hampshire has a long history of supporting schools and educators in competency education and performance assessment professional learning opportunities. Since the 2013-2014 school year these offerings and opportunities have increased dramatically both in terms of quantity of offerings and, more importantly, in terms of depth of the professional learning as part of an intensive effort to build assessment expertise among New Hampshire's educators and school

leaders. While this focus has been important, it largely limits these professional learning opportunities to PACE schools and districts. Therefore, in an effort to prepare the ground for a statewide group of assessment literate educators and to enable more schools to enter into PACE more seamlessly, NH DOE will expand the focus of professional learning offerings to all NH educators. NH DOE will build on what we have learned over the past several years about building assessment literacy and assessment expertise among educators to take these opportunities statewide.

Requirements for participating districts ("guardrails")
LEAs participating in the PACE system must have already adopted NH's graduation competencies for the relevant content areas and developed a coherent and high quality set of course and grade competencies mapped to the State's graduation competencies and academic standards. Participating LEAs must have demonstrated the leadership and educator capacity to participate effectively in PACE. Such local capacity is evaluated through a systematic interview and vetting process by the NH DOE leadership team.

In order to participate in PACE, districts must be willing to participate in a peer and expert review process where they submit their system of local and performance-based assessments for the relevant grade and subject areas for evaluation based on clear and rigorous criteria including alignment with state standards and competencies, consistency and accuracy of scoring, and fairness to all test takers (see Appendix B for the full Local Assessment Map and Aligned Summative Assessment Review Tools). Further, PACE districts will be required to administer NH's State Assessment System (NH SAS) at least once per grade span, depending on the implementation model (see Table 1), which will serve as both an internal and external audit of school and district performance.

PACE has had great success in scaling organically in its first three years of implementation starting with 4 districts in 2015-2016, growing to eight districts in 2016-2017, and now reaching 14 districts. Due to the level of commitment and engagement that is required from the educators to fully implement the PACE assessment system, the decision to join PACE must come from those who will be doing to good work of transforming instruction and assessment in their schools. Given the current rate of growth, we have confidence that we will be able to have all NH school districts participating in PACE within the period of the Demonstration Authority. Rather than a top-down approach to scaling, NH has a long history of supporting new initiatives with professional learning opportunities and collaboration to create the capacity necessary to ensure successful implementation.

As PACE continues to scale the NH DOE recognizes the need for the system of supports and data and reporting infrastructure to also grow. The New Hampshire Learning Initiative is committed to continue to seek external funding to support the on-going growth of the assessment system. As mentioned previously, funds have already been acquired to invest in the development of a technology system that can serve the many needs of PACE including supporting cross-district task development, cross-district calibration, and data and artifact collection from all of the participating districts. This technology system is one of most critical components of the long-term solution to supporting high quality implementation of PACE in all parts of the state.

Importantly, the New Hampshire policy environment has become more supportive of innovation and personalization. Legislation passed in the 2017 legislative session gave explicit permission and policy support for scaling PACE statewide. This sent an important signal to NH school districts that they had the legislature's support in advancing these efforts.

Noted educational reformer, Michael Fullan has moved away from the notion of scaling and has shifted his conception of spreading reforms to something more like a social movement. In the same way, NH DOE, participating PACE districts, and key partners have used approaches similar to social movements such as regular blogging, social media posts, talks and presentations at local, national, and international conferences and gathering to spread the word of PACE. Such an orientation makes educators and other stakeholders want to be a part of PACE compared with being presented with the "next new initiative" by their principal or superintendent.

There is an obvious tension between scaling PACE—especially trying to scale too quickly—and maintaining the exceptionally high quality of the program. Importantly, NH DOE built several structures over the past several years to help achieve this balance while trying to minimize unintended negative consequences. Most importantly, NH DOE maintains a strong, collaborative partnership with participating districts through monthly meetings with the district leadership and regular meetings with educators participating in the assessment development and scoring processes. These collaborative relationships help to keep the lines of communication open so that any risks are brought to the surface before they have a chance to fester. PACE has a proven track record of expanding over the past four years and we will rely on similar approaches to continue to expand. For example, the district leadership team has been discussing regionalizing PACE into two major regions: north and south. As PACE continues to grow, the NH DOE plans to increase the number of regions to match the seven NH professional development regions in the state.

<p style="text-align:center">Building Pedagogical and Assessment Expertise</p>

The current approach to professional development has rested largely on the cross-district task development sessions in which teachers are trained and coached in a sustained, on-going way on the development and use of performance assessments in their classrooms. However, these meetings are by no means the only opportunities for professional development offered to teachers. All teachers implementing PACE undergo within-district training on task implementation and scoring—including calibration sessions. See Appendix J for a copy of the within-district calibration protocol that all PACE districts use. In addition to cross-district task development and within-district implementation and calibration training, the following professional development is offered to PACE teachers:
1. Content Leaders: Advanced training for select PACE teachers in assessment design and development
2. Teacher Leaders: Specialized training for select PACE teachers in communication, leadership, and assessment system implementation
3. PACE Summer Institute: Open to all PACE teachers with multiple strands of professional development including training in cross-district calibration, reviewing of student bodies of work, introductory and advanced task development, and leadership training

4. <u>NH DOE Summer Summit</u>: Open to all New Hampshire teachers, multiple strands of professional development included offerings in competency-based education and performance assessment.

There is substantial thought and documentation that support the design and effectiveness of all of the supports listed above. However, we use this opportunity to highlight attention to the role of the Content Leads and the PACE Summer Institute in providing effective and high-quality capacity building supports for school staff to implement innovative assessments.

Content Leads
Content leads receive advanced performance assessment training, including discussions of how to apply principled assessment design processes to performance assessment development and scoring. Additionally, content leads receive support, tools, and resources relating to depth of knowledge so that they can understand how to increase cognitive complexity—a critical factor in increasing the rigor of instructional and assessment practices. Lastly, teacher leaders receive training on the facilitation of adult learners to help them work with their colleagues to support the development of high-quality common performance tasks. Content leaders are responsible for the following duties:

✓ Support their colleagues in the development of the local and common tasks.
✓ Facilitate the task development process.
✓ Review the LibGuide to make sure the most up to date materials are posted.
✓ Act as a liaison to the assessment experts to help resolve questions regarding assessment quality.
✓ Plan the task design process to meet deadlines.
✓ Communicate and share the feedback to teachers from task review.
✓ Encourage positive, collaborative behavior amongst the teachers in the team.
✓ Communicate the goals of the next meeting and the tasks each teacher representative needs to complete.
✓ Lead the review of student work from the pilot to improve the task.
✓ Protects the project materials by not sharing passwords to guides with anyone outside of the project.

PACE Summer Institute
Teachers from fully-implementing (and eventually partially-implementing) districts gather each summer to review and score student work from other districts. These cross-district scoring opportunities provide a rich professional development opportunity for teachers as they discuss student work with colleagues from other districts and align their understanding of student performance using evidence from student work samples. Many teachers comment each year on evaluations of the Summer Institute that it is the best professional development they have ever received. According to the 2017 PACE Summer Institute evaluations, over 82% of teachers agreed that the calibration activities positively impacted them professionally.

There is also new teacher and leadership training that takes place at the Summer Institute. Districts that will be implementing PACE either fully or partially in the following school year send teams of teachers and administrators. Teachers from these districts get extensive practice

scoring the PACE Common Tasks and also receive training in the design and implementation of high-quality performance tasks. District leaders receive training in how to support their teachers and schools through the process of implementing a new assessment and accountability system.

Demographic Similarity

The NH DOE is committed to ensuring, during the Demonstration Authority period, that the inclusion of additional LEAs and schools continues to reflect high-quality and consistent implementation across demographically diverse LEAs and schools, or contributes to progress toward achieving such implementation across demographically diverse LEAs and schools, including diversity based on enrollment of subgroups of students described in section 1111(c)(2) of the ESSA and student achievement. NH DOE does not have to rely on promises and hopes to fulfill this requirement. Rather, NH has four years of evidence, starting with the initial cohort of four districts in 2014-2015 to 14 school districts in 2017-2018, that PACE districts almost perfectly reflect the distribution of demographic and socioeconomic groups throughout NH. Table 2 shows the racial and ethnic demographic information for the state of NH and for the current set of districts committed to participating in PACE during the initial year of the Demonstration Authority.

Racial/Ethnic Identification	% for State of NH	% of PACE Districts
Am Indian or Alaskan Native	0.3	0.5
Asian or Pacific Islander	3.4	3.1
Hispanic	6.2	3.8
Black	2.0	3.2
White	85.5	88.1
Multi-Race	2.6	1.4

Table 2. *Demographic Distribution of Students for State and PACE Districts*

The NH DOE commits that it will continue to maintain this demographic representation as it adds new districts throughout the Demonstration Authority while ensure high-fidelity implementation of PACE. We will do so by updating the information in Table 2 each year and by purposefully recruiting NH's more diverse school districts to fully participate in PACE. In fact, Manchester School District, NH's most ethnically diverse district has had several schools beginning to participate in PACE and related initiatives. NH DOE will prioritize supporting Manchester and other diverse districts so they can successfully participate in PACE.

Prior Experience, Capacity, and Stakeholder Support

Development and implementation experience

(i)   The success and track record of efforts to implement innovative assessments or innovative assessment items aligned to the challenging State academic standards under section 1111(b)(1) of the Act in LEAs planning to participate;

The NH DOE and the participating LEAs have a proven track record of success in implementing PACE over the last four academic years (2014-15 to present). After initial approval by the USED in March 2015, PACE has consistently met its rigorous criteria for success in order to gain annual approval from the USED to continue to implement the innovative system and scale to additional LEAs. The 10 criteria for success were developed in consultation with PACE's Technical Advisory Committee which comprises nationally-recognized thought leaders and experts in educational measurement and assessment systems. The 10 criteria which have been consistently monitored and met are:

1. Clear commitment from local educational leaders
2. Building of cross-district leadership and cross-district collaboration
3. Development of high-quality performance assessments
4. Successful implementation of common performance assessments
5. Rates of participation in training and calibration
6. Inter-rater agreement within district
7. Cross-district calibration
8. Produce comparable annual determinations
9. "No harm" on the statewide assessment for newly implementing districts and for an increase in performance once districts have been implementing PACE for several years
10. Ensuring equitable outcomes

The NH DOE has submitted PACE technical reports annually to USED that provide evidence of success on the criteria. In addition, the PACE reports provided evidence supporting assertions of alignment, validity, reliability, and comparability of the assessment system in 2015, 2016, and 2017. As part of the Demonstration Authority, the NH DOE is committed to continuing the practice of gathering rigorous technical evidence to demonstrate that the PACE innovative assessment system continues to meet all of the requirements of the Demonstration Authority.

(ii)   The SEA's or LEAs development or use of—
(A) Effective supports and appropriate accommodations consistent with 34 CFR part 200.6(b) and (f)(1)(i) and section 1111(b)(2)(B)(vii) of the Act for administering innovative assessments to all students, including English learners and children with disabilities, which must include professional development for school staff on providing such accommodations;

The NH DOE ensures that all students have access to effective supports and appropriate accommodations consistent with relevant federal and state laws by using a consistent set of support and accommodation policies across both the statewide and the innovative assessment systems (see Appendix A). PACE has adopted the same policies and set of accommodations as Smarter Balanced in its first four years of administration, and will continue to be consistent with the statewide system moving forward as the state transitions to the new assessment, New Hampshire Statewide Assessment System (NH SAS). The accommodations provided on both the NH SAS and PACE are designed to mirror the accommodations provided to students during instruction. In this way, all teachers who educate students in their classrooms with Individualized Education Plans (IEPs) are already familiar with implementing the accommodations for the

assessment. For example, if a student's IEP dictates that the student must have access to visual supports such as high contrast materials and magnifying tools, these supports are to be provided to the student during both instructional time and assessment time. As required by the Individuals with Disabilities Education Act (IDEA) and New Hampshire State Law RSA 186-C, all educators for students with disabilities must have either already obtained full State certification as a special education teacher, or be participating in an alternate route to certification which includes a requirement for "high-quality professional development, that is sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction, before and while teaching."[25]

> *(B) Effective and high-quality supports for school staff to implement innovative assessments and innovative assessment items, including professional development; and*

The NH DOE and participating LEAs have a track record of success in implementing the PACE innovative assessment system over the last four school years (2014-15 to 2017-18). This success is due, in large part, to the dedicated and systematic way in which professional development is provided to teachers. From its onset, the programmatic efforts associated with PACE were guided by a clear and well-articulated theory of action. A critical component in the success of PACE has always been the focused effort on improving the PACE teachers' assessment literacy. As was shown in HumRRO's 2016-2017 independent formative evaluation of PACE (Appendix K), efforts to improve the assessment literacy of teachers not only results in successful implementation of the PACE assessment system, but has the added intended benefit of improving the instructional methods of teachers to better prepare students for college and careers. In the final evaluation report, evaluators found that over 80% of PACE teachers agreed that "Implementing performance tasks has had a positive impact on instructional practice, such that instruction occurs at a higher depth of knowledge in my classroom" (p. 23).[26]

A key premise of the NH PACE theory of action is that local education leaders are supported by NH DOE and each other in creating the expertise necessary to implement the system with fidelity. There are many ways in which the PACE pilot builds local capacity both prior to and while implementing the PACE system. See the subsection entitled "Building Pedagogical and Assessment Expertise" for detail.

Implementation capacity

The NH DOE has a proven track record of success in establishing the necessary implementation capacity for fully supporting and growing the PACE innovative assessment system. The data and technology systems have been tested over the past four years of implementation and are continuously improved to streamline the data collection, verification, and analysis that supports the PACE assessment system. While the NH DOE currently supports a fully functional

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[25] New Hampshire Department of Education (2017). *Guide to the New Hampshire Standards for the Education of Children with Disabilities*. Retrieved from: https://nhspecialed.org/wp-content/uploads/2017/08/Ed-1100-3-23-2017-NH-Standards-PDF.pdf

[26] HumRRO (March, 2017). *Formative Evaluation of New Hampshire's Performance Assessment for Competency Based Education (PACE).*

technology solution, the PACE leadership team has been working to partner with a software company to design a customized solution that will aide in the scaling and sustainability of the project's efforts. As stated in the most recent waiver extension request submitted to USED, external funding has been secured and contract negotiations are currently in progress to build a system that can manage not only the data generated from the PACE innovative assessment system, but the processes that comprise the PACE system itself. Examples of functionality we are looking to include in our technology system are:

- ✓ Collaborative synchronous and asynchronous performance assessment development;
- ✓ Warehousing of high-quality tasks along with accompanying administration documentation;
- ✓ Distributed double-blind scoring for the purposes of calibration and monitoring inter-rater reliability;
- ✓ Secure uploading, storage and sharing of student portfolios of work; and
- ✓ Data capturing system that works seamlessly with a diverse set of district learning management systems to transfer student-level task scores, competency scores, and teacher judgment scores.

The development of this new technology platform will allow us to ease the data burden on participating districts by automating many of the data collection tasks that are currently completed manually. Additionally, this technology solution will facilitate the scaling of the PACE system across the state in that collaborative, cross-district task development and scoring can be managed virtually, rather than requiring teachers meet in-person for every step of task development.

The NH DOE has continued to make PACE a priority within the department. The organizational structure of the department ensures that both the leadership and the day-to-day operations of the project are fully integrated within the department's existing structures. PACE is situated within both the assessment and accountability divisions at the NH DOE in order to fully leverage the expertise and resources that reside within those divisions. Figure 8 provides an organizational chart that lists the key staff associated with this effort.
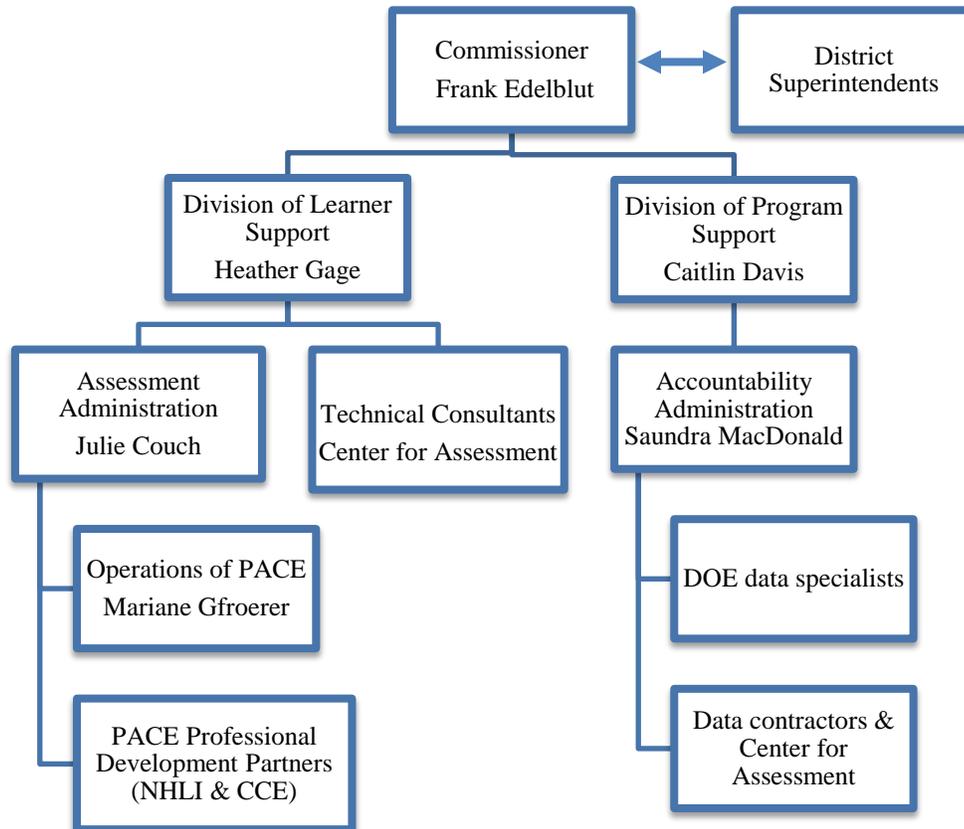
Figure 8. *Organizational chart for PACE leadership and operations within NH DOE*

Figure 8 also illustrates how external partners such as the Center for Assessment and other data contractors work closely with the NH DOE to add capacity to the existing structures. Additional information regarding the role and expertise of external partners supporting PACE implementation is located in the "Consultation" section of this application document.

The NH DOE is in a unique situation in that upon application for the Innovative Assessment Demonstration Authority, the state has a three-year track record of success in implementing and growing the innovative assessment system. This history serves as evidence of the state's capacity to develop and deliver its innovative system of assessments. It is through this success that the State has shown its ability to effectively mitigate risks and support implementation of the innovative assessment system. As the state enters into the demonstration period, the assessment system will scale, but so too will the experience the State brings to the efforts, and more importantly, the enthusiasm for high-quality implementation from all levels of the system—students, parents, teachers, school leaders, and state officials. This pledge is clearly and persuasively demonstrated in the participating LEA letters of commitment attached to this application and discussed in the following section.

<u>SEA, LEA, and school commitment</u>

Participating PACE schools and districts are in full support of NH's application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student

Succeeds Act. Letters of support and commitment from the participating PACE schools and districts can be found in Part 4: Other Attachments. It is significant that these letters represent the broad-based support and commitment of LEA leaders and affected stakeholders including signatures from representatives of parents, educators, school leaders, and school boards.

Timeline and Budget

Timeline, activities, and responsible agent(s) within each year for the IADA period

Table 3 provides an overview of the typical activities that take place in the course of a school year in the PACE innovative assessment system. These activities represent the assessment design and development, assessment implementation, data collection, data analyses, score and technical reporting, and project management meetings necessary for ensuring the high-quality implementation of PACE. NH DOE has the advantage of having four years of "practice" operating on waivers from NCLB and ESSA to hone this system. Unlike other states that will be proposing a first time implementation of their innovative systems, NH's PACE system is running and expanding. These activities will re-occur each year of the demonstration authority period and will allow PACE to scale statewide by the end of the demonstration authority period.

Timeline	Activities	Responsible Agent(s)
Jan – March	Mid-year reviews completed of the PACE common tasks that will be operational in the following school year	Center for Assessment
	Reviews of local assessment maps and aligned assessments (data collection item)	NH DOE, Center for Assessment, and school/district peer reviewers
	Monthly PACE school/district leadership meetings and leadership calls	NH DOE
April – June	Small scale field testing and pilot of PACE common tasks that will be operational in the following school year	PACE content leads and task developers supported by Center for Assessment & NHLI
	Submission of required data to produce annual determinations and provide student work samples for cross-district calibration and standard setting activities	PACE implementing schools/districts
	Monthly PACE school/district leadership meetings and leadership calls	NH DOE
July – Sept	Newly entering PACE districts and schools are welcomed	NH DOE
	PACE Summer Institute: cross-district calibration and standard setting activities	NH DOE & Center for Assessment
	PACE summer professional development for high-quality performance task development and leadership training	NH DOE, Center for Assessment, NHLI, & NEA NH

	Final reviews, revisions/edits, and approval of PACE common tasks that will be operational in this school year	NH DOE & Center for Assessment
	Start of task development process for PACE common tasks that will be operational in the following school year	NHLI & Center for Assessment
	Data Collection Protocols finalized for this school year	NH DOE & Center for Assessment
	Monthly PACE school/district leadership meetings and leadership calls (September only)	NH DOE
	Technical manual analyses conducted and annual determinations produced	Center for Assessment & NH DOE
Oct – Dec	Continued task development process for PACE common tasks that will be operational in the following school year	PACE content leads and task developers supported by Center for Assessment & NHLI
	PACE schools/districts can administer the PACE common tasks whenever they fit within their curricular scope and sequence	PACE implementing schools/districts
	Monthly PACE school/district leadership meetings and leadership calls	NH DOE

Table 3. Overview of PACE timeline, activities, and responsible agent(s) during the course of a typical school year

Budget

The 2018-2019 budget for PACE is presented below. The PACE budget is comprised of eight main components:
- ✓ Calibration, standard-setting, and task development institutes
- ✓ Data collection, analyses, and reporting
- ✓ Task development
- ✓ Local assessment review
- ✓ Leadership meetings
- ✓ Public presentations
- ✓ District Support
- ✓ Technology Platform

The costs for each of these major components are presented below with the total base budget for PACE in 2018-2019 equal to **$627,700**. NH DOE and its partners, especially NHLI, intends to search for an additional $364,000 for a total budget of $991,700. Importantly, PACE can operate effectively on the base budget, but the additional funds will allow support for the local share of the project (e.g., substitute and summer stipend costs). As seen in the PACE budget, NH DOE relies on a considerable amount of external funding to support PACE. While the NH DOE is fully committed to support PACE to ensure its success and the NH DOE is working to increase the regular on-budget PACE funding, NH DOE recognizes that at least for the near term, the **sustainability of PACE is contingent on continued state and external funding**.

PACE Project Projected Budget ~ 2018-2019					
Category	**Activity**	**Activity Detail**	**NH DOE (AU 2534)**	**Partner Support (NHLI)**	**Other Foundation Support** (*supplemental support*)
Calibration, standard-setting, and task development institutes	Planning and Implementation for PACE Summer Institute and related task development meetings	Calibration and standard setting activities during PACE Summer Institute, including the coordination of materials (i.e. student work).	$38,000		
		Workshops for task development, facilitating calibration and standard setting activities	$47,000		
		Logistical (e.g., meetings) costs for Summer Institute and all other related task development meetings		$50,000	
Data collection, analyses, and reporting	Data collection webinars	Data collection webinars offered in Fall/Spring to communicate data collection requirements and explain specific protocols and answer questions	$3,800		
	Data collection	Implement frameworks and decision rules to collect data for the PACE common assessment and teacher judgement surveys	$32,000		
	Data cleaning, analysis, and report writing	Data analysis to produce the PACE Technical Manual (standard setting report, IRR report, Generalizability report, other validity evidence)	$28,500		
		Producing key technical reports including the PACE Technical Manual and USED report	$25,000		
	Report dissemination to NHDOE, districts, USED, and other stakeholders	Production and dissemination of redacted district-level reports	$3,800		

Category	Activity	Activity Detail	NH DOE (AU 2534)	Partner Support (NHLI)	Other Foundation Support (*supplemental support*)
Task development	PACE Common Task development	Facilitate multiple task development workshops	$54,000		
	PACE Common Task reviews	Mid-year and final review of PACE Common Tasks	$22,800		
Local assessment review	Assessment map and aligned assessment reviews	Assessment map and aligned assessment reviews with PACE leadership team and other reviewers; complete assigned reviews; write summary for PACE Technical Manual and USED report	$22,800		
Leadership and content lead meetings	Content leads meetings	"Content Leads" (lead task developers) meetings (6 per year)		$54,000	
	District leads meetings and leadership calls (monthly)	Plan and participate in monthly district leads meetings and leadership calls (1 each per month x 10 months)		$30,000	
	State leadership planning meetings	PACE leadership team virtual and in-person meetings		$8,000	
Public presentations	Calls with USED	Participate in discussions with USED		$8,000	
	Presentations on PACE	Presentations to NH Legislature, State Board of Education and other audiences		$28,000	

Table continued on next page

Category	Activity	Activity Detail	NH DOE (AU 2534)	Partner Support (NHLI)	Other Foundation Support (*supplemental support*)
District support	District support	Ongoing support to assist districts on data collection requirements, data submissions, task development, etc.		$12,000	
	Stipends for Substitutes	Substitute stipends so educators can fully participate in the content lead meetings			*$158,000*
	Content lead stipends	56 content leads statewide to build capacity for sustainability and expansion of PACE (x $1,250/year)			*$70,000*
	Support for educators in Summer Institute	Reimbursement costs for educators to attend the Summer Institute			*$56,000*
	Professional development for performance assessments	Additional professional development for non-PACE schools on performance assessments in effort to expand the PACE project statewide.			$40,000
Technology platform	Technology platform development and implementation	Development and implementation of a technology platform to collect and maintain data collections, task development work, etc.		$160,000	$40,000
SUBTOTAL			**$277,700**	**$350,000**	*$364,000*
TOTAL PROJECTED BUDGET				**$627,700**	*$991,700*

<u>Adequacy of the budget</u>

As stated throughout this application, NH DOE is not applying for a new initiative. The state now has a four-year track record of successful PACE implementation and therefore, the budget presented here represents a real budget proven to support the actual work of PACE. The PACE reciprocal accountability model predicts that the financial responsibility for PACE would be shared among the various partners and that is exactly how PACE works. The NH State Legislature, through NH DOE, has been funding more than 50% of the yearly costs of PACE through its direct support of the key technical consultants (the Center for Assessment and Demonstrated Success) and allocation of key personnel responsible for leading and managing the PACE initiative. The New Hampshire Learning Initiative has been instrumental in raising and directing resources from philanthropic foundations to support PACE. In fact, essentially all of the necessary funds to support PACE for 2018-2019 have already been secured. Participating

school districts and charter organizations have been allocating resources to support substitutes for teachers participating in task development and other activities throughout the year and the districts have contributed to supporting teachers involved in the critical summer activities of calibration and standard setting. Finally, the New Hampshire chapter of the National Education Association (NH NEA) has been a critical partner in supporting many of the professional learning activities for teachers and leaders especially those that support the development of assessment literacy and assessment expertise among educators.

NH's multiple years of experience with PACE has taught us the costs associated with the expansion of PACE are thankfully non-linear. The costs for PACE in the initial year with only four school districts were proportionally more than the current costs with fourteen school districts. NHLI's investment in developing a digital platform for asynchronous task development, scoring calibration, and data collection will be a major factor in "breaking the cost curve" to enable PACE to scale statewide with costs at a reasonable multiple of current costs. Further, receiving the IADA will allow for the predictable sustainability of PACE compared to anxiously awaiting approval for waiver authority each year. This predictability will allow both the NH DOE and participating school districts to engage in long-term budget planning so that the costs of PACE increasingly can be supported through the regular budget process. NH DOE and NHLI are thankful for the generous support of many foundation partners—and we will likely continue to rely on such support for the near future—but investing in robust technology platforms and other sustainable designs will allow PACE to become a standing line item in state and local budgets.

Supports for Educators, Students, and Parents

The benefits of PACE for educators, students, and parents are often self-evident in engaging in the work of performance assessments and the instructional shifts that come along with that. The voices of educators and students regarding those shifts are captured in the following videos:
- Overview of PACE in Rochester School District: http://old.reachinghighernh.org/2016/10/11/pace-video/
- USED panel discussion with Souhegan High School teachers: https://www.youtube.com/watch?v=05SZXhYYWQg

The supports provided for educators, students and parents are outlined in the following three sections: 1) training for school staff, 2) communication with students and parents, and 3) supports for students with disabilities and English learners.

Training for school staff

The theory of action for how PACE will improve instruction and student outcomes rests centrally on the ability of the state to provide effective supports to local educators at scale. As a result of the 2017 independent formative evaluation of PACE (Appendix K), the PACE theory of action was clearly documented as shown in Figure 9.
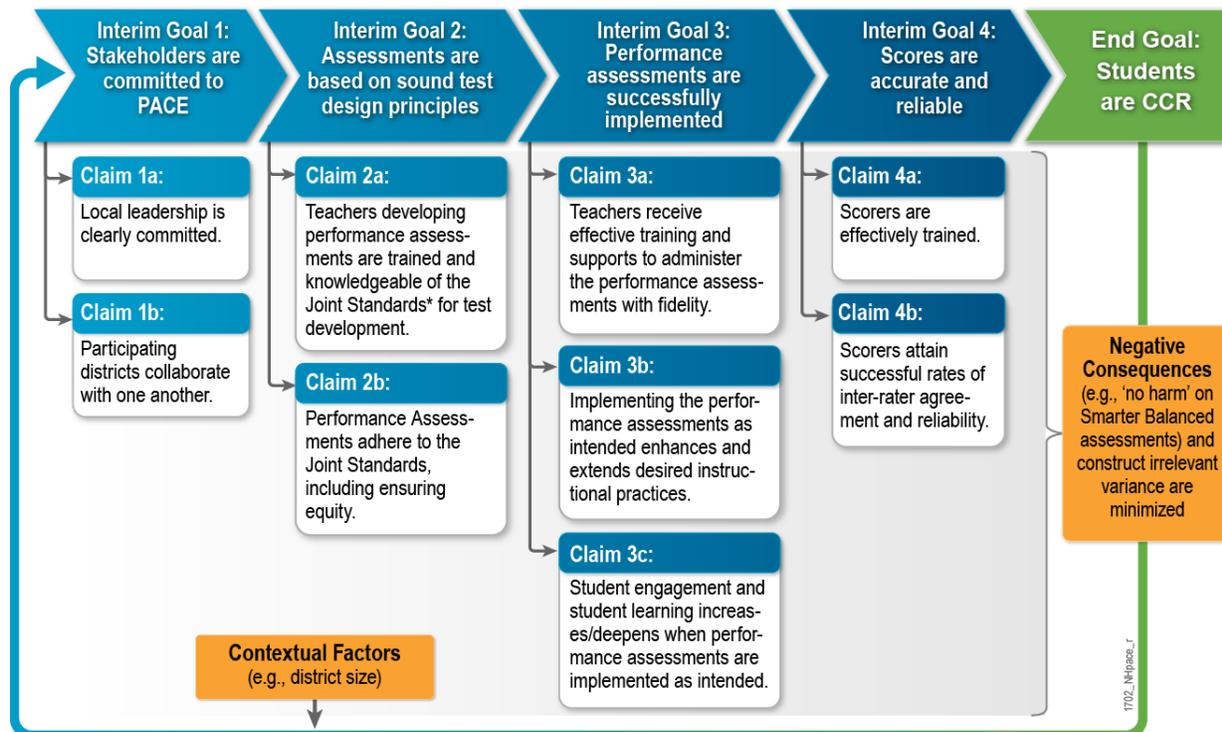
Figure 9. *PACE theory of action*

Claims 2a, 3a, and 4a, in Figure 5 necessitate effective training and supports for educators to development, administer, and score performance assessments. It is through this high-quality implementation that the intended impacts on improved instruction will be realized (Claim 3b). The NH PACE theory of action is grounded in the latest advances related to how students learn, how to assess what students know, and how to foster positive organizational learning and change. Figure 10 illustrates how implementation of the PACE system is intended to influence classroom practices, thereby advancing career and college. The PACE system is designed to drive changes to the instructional core of classroom practices such that teachers will focus on the depth and breadth of the State's challenging content standards. These changes in instruction are posited to lead to improved student achievement outcomes for all students; specifically, that students will be college or career ready.

Explicit involvement of local educational leaders in designing and implementing the accountability system

Fosters positive organizational learning and change by supporting internal accountability orientations motivation

Reciprocal support for local districts including technical, policy, and practical guidance

Builds local capacity of teachers and administrators

Use of competency-based approaches to instruction, learning and assessment

Restructures the rigor and content representation of curriculum, instruction, and assessment

Use of curriculum-embedded, high-quality performance-based assessments

Provides specific feedback to teachers, students, and parents on student progress towards proficiency

Changes to the instructional core of student engagement, improved instructional quality, and meaningful content and skills
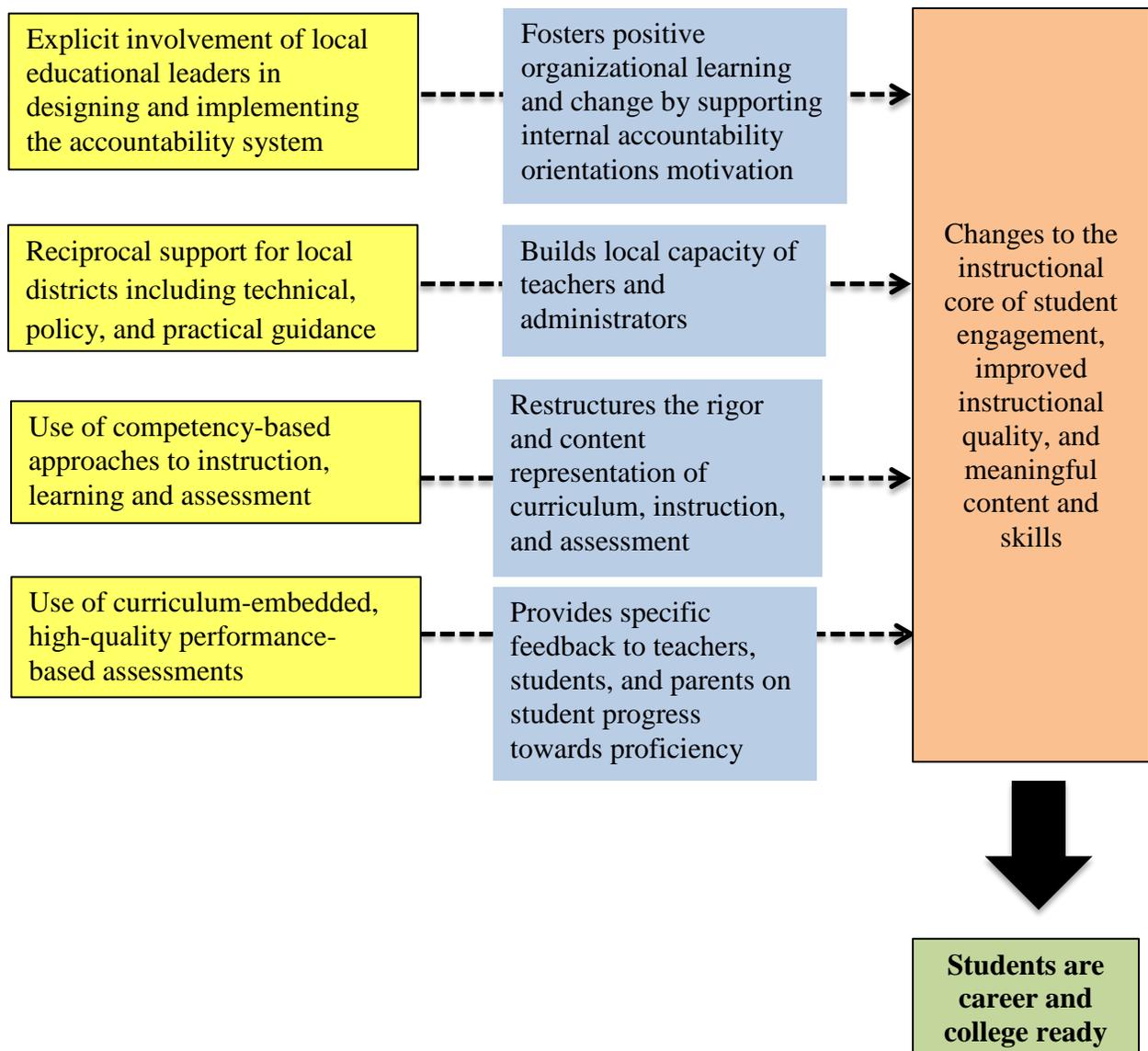
Students are career and college ready

Figure 10. *PACE influence on classroom practices*

There are four main system design features with embedded assumptions of how those design features will lead to changes in the instructional core of classroom practices.

The first design feature is that local education leaders are explicitly involved in designing and implementing their own accountability system. This fosters positive organizational learning and change by supporting the internal motivation of educators. This is in contrast to all-too-common top-down accountability and extrinsic approaches where the goals and methods of the accountability system are defined at the state or federal levels and districts are simply expected to comply.

The second design feature is that local education leaders are provided reciprocal support and capacity building to support their development of key capacities related to designing and implementing the system. This means the NH DOE and its technical partners provide high-

quality professional development, training, and support to local districts in the technical, policy, and practical issues related to the system design and implementation.

The third design feature is the use of competency-based approaches to learning, instruction, and assessment. These approaches structure learning opportunities for students to gain meaningful knowledge and skills at a depth of understanding that they can transfer to new real-world situations. These approaches also improve student motivation and engagement because they allow students more voice and choice in their own learning. However, NH DOE recognizes that operating within the requirements of ESSA, particularly, and the requirement that students be measured relative to grade-level standards by the end of a school year, limits the State's ability to fully implement a personalized and competency-based education system.

The fourth design feature is the use of locally designed and curriculum-embedded performance assessments throughout the year. These high-quality assessments signal high learning expectations, monitor student learning, and provide specific feedback to teachers and students on their performance relative to the grade and subject competencies. Since these rich, cognitively demanding assessment experiences are curriculum-embedded, teachers can adjust their instruction in real-time to meet students where they are at and help them grow towards proficiency. The PACE Common Task serves as an exemplar for teachers of a high-quality performance assessment, rubric, and scoring protocols and procedures. As more PACE Common Tasks are designed, there will be a bank of high-quality performance tasks and rubrics with anchor papers at different levels of performance to help drive positive instructional changes. The ultimate goal of NH PACE is that student achievement outcomes will improve and that all students will be college or career ready upon graduation from high school.

For more information regarding the specific supports provided to school staff please refer to the section of this application titled "Development and implementation experience."

<u>Communication with students and parents</u>

Participating LEAs have taken the lead on ensuring that students and parents are well-acquainted with and supportive of the innovative assessment system. For many students and parents, the benefits of participating in authentic and engaging performance assessments throughout the year is self-evident in the increased student engagement and improved relevant feedback students receive about their achievement. In the words of one Assistant Superintendent in a PACE district, "Moving to an innovative system of assessment isn't just about assessment; it's about changing instructional practice to provide students with more opportunities to demonstrate their understanding. It's about making sure students have provided real evidence of their ability to apply the skills they are learning. Creating a system such as this will have a profound impact on classroom practice. It will also then provide better opportunities for educators to work with both students and families in terms of communicating about their learning. A comprehensive system of assessment that is aligned to defined competencies and requires students to think deeply will provide both students and parents with better information about strengths and areas for continued growth. With the traditional standardized assessments students, educators and families are waiting to get scores that provide just one snapshot in time. They don't really capture a full picture of a student and are difficult to use in planning effective instruction in a timely

manner. With the PACE system, proficiency is determined based on a body of evidence and each assessment provides real-time information to stakeholders that can be used to help enhance student strengths and address student needs immediately."

School districts also engaged in on-going communication efforts with parents by hosting student work showcases and parent nights where parents and school board members are given example performance assessments to take themselves. Schools have found this to be a really convincing way to talk about increasing rigor! The following links provide examples of additional evidence of student and parent engagement and their support for the PACE assessment system.

- USED panel discussion with students at Souhegan High School: https://www.youtube.com/watch?v=ZSfMuoCUnnk
- New Hampshire Public Radio news coverage featuring student voices about their experience with one of the performance assessments as part of the PACE system: http://nhpr.org/post/setting-macbeth-syria-sanborn-students-find-parallels-span-centuries#stream/0
- Video recording of a NH Board of Education meeting where an elementary school parent shared her thoughts on how PACE has changed her third grader's education experience: https://reachinghighernh.org/2017/04/17/sanborn-regional-talks-about-pace/
- Transcript of parent and local school board member's testimony about her son's experience in PACE: https://reachinghighernh.org/2017/04/10/pam-wicks-sons-pace-experience-2/

<u>Supports for students with disabilities</u>

As we have already discussed in prior sections of this application, the NH DOE ensures that all students have access to effective supports and appropriate accommodations consistent with relevant federal and state laws by using a consistent set of support and accommodation policies across the statewide and the innovative assessment systems. The following is an excerpt from an Education Week blog post about the benefits of performance assessments, and PACE in particular, in supporting students with disabilities.

Our challenges in educating students with disabilities are multifaceted and stem from a number of factors, including shortages in qualified staff, historical underfunding of the Individuals with Disabilities Education Act (IDEA), and a lack of capacity to implement research-based practices in working with this population. These are all valid issues that must be addressed, but one key factor that is often overlooked is access to high-quality, engaging instruction and assessment.

This issue of alignment is one of the real potentials of performance assessments as part of a system that transforms teaching and learning for students with disabilities. Because they can facilitate complex demonstrations of knowledge, performance assessments can be more authentic measures of the skills represented in the state standards and in students' Individualized Education Plans (IEPs). Performance assessments can be used to more effectively align IEPs' goals to the measures of student learning by integrating skills across

disciplines and measuring student skills at a deeper level than traditional standardized assessments. Through this connection, performance assessments provide an opportunity for a more coherent educational experience for students with disabilities. Performance assessments not only have the potential for measuring what students know and can do more authentically and deeply than traditional assessments, but when designed and implemented well, they can also improve engagement, student voice, and ownership of learning, and they offer flexibility in how student learning is demonstrated.

These are tangible and significant benefits for any can student, but for students with disabilities–who often demonstrate their learning in different ways, who can be denied access to rigorous content, and who are particularly vulnerable to disengaging from school–performance-based assessment systems can be a real game changer.[27]

In addition to providing the necessary supports for students with Individualized Education Plans, early research suggests that while the PACE innovative assessment system is beneficial for improving outcomes for all students (as measured by the statewide assessment), it may be particularly beneficial for low performing students[28]. Though this research is still preliminary and will need to be replicated across years, it is promising early support for the PACE theory of action. At the very least, results of this study provide assurance that the use of local assessment data for accountability purposes provides all students with an equitable opportunity to learn the content standards and does not harm subgroups of students who are generally considered more at risk in terms of educational disparities. A summary of this research is located in Appendix H.

Evaluation and Continuous Improvement

From the beginning of PACE, the NH DOE and the participating LEAs have proudly cultivated a learning mindset and a culture of improvement. This commitment of continuous improvement is evident at the monthly leadership meetings where SEA and LEA leads come together to discuss relevant issues associated with the current and future design and implementation of PACE. Additionally, PACE has been subject to external review and feedback from the very start. In the early years, the PACE leadership convened a technical advisory committee comprised of national experts in educational assessment and innovation that helped shape important conversations about design and validity. More recently, PACE was subject to a multi-year, independently-conducted formative evaluation by HumRRO. As evidence of NH DOE's on-going commitment to evaluation and continuous improvement, an executive summary of HumRRO's evaluation along with their recommendations are shown in Appendix K. New Hampshire's planned actions and responses to the recommendations are then provided.

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[27] Parsi A., & Lyons, S. (2017, September 25). Performance assessments and students with disabilities. *Education Week, Learning Deeply Blog Post.*
[28] Evans, C. (*Under Review*). Effects of New Hampshire's innovative assessment and accountability system on student achievement outcomes after 3 years (2014-2017).

Given that the HumRRO evaluation was just completed, NH DOE does not foresee conducting another large scale-evaluation for at least another few years. That said, an external evaluator's perspective will be very valuable as NH increases the number of participating districts in the coming years. Therefore, NH DOE and NHLI will make fundraising to support an external evaluator by the time that NH DOE would have to submit its documentation to the Director of the Institute for Education Sciences.

However, NH maintains a culture of continuous improvement through the ongoing work of PACE analyses and reporting. The yearly calibration and standard setting results are presented to participating districts and schools so that they understand how to improve their scoring processes in subsequent years. Similarly, districts receive feedback each year on the quality of their assessment maps and local assessments to enable them to improve their performance in the future. The bottom line is that NH DOE and its technical advisors are transparent in the ways that they report the results of technical quality analyses to help support ongoing improvement in PACE. NH DOE is not satisfied with providing feedback to districts only once per year. Rather, NH DOE and its technical partners provide ongoing feedback through the year on the quality of local and common tasks and on task development processes.

ASSURANCES

See Part 1 of this application.

DESCRIPTION OF AND COMMITMENT FROM INITIAL SET OF LEAS/SCHOOLS

A description of each LEA that will initially participate in the PACE innovative system in the 2018-19 school year, including demographic information, is provided in Table 3. LEA report cards are provided in Appendix F. Please note, all of the districts listed have previously participated in PACE and therefore their achievement results in the report cards are reflective of PACE and the NH Statewide system of assessments (in select grade levels). Commitments and assurances from each participating LEA are included in the LEA letters of support attached to this application (Part 4: Other Attachments). Note, there may be additional districts added to this list as newly implementing districts are approved by the NH DOE for joining PACE during the summer of 2018. NH will send updated information and letters of commitment to USED when school selection for 2018-2019 is finalized.

SAU #	SAU Name	Grade Levels	Total # students enrolled	%Am Indian or Alaskan Native	%Asian or Pacific Islander	% Hispanic	% Black	% White	%Two or more races
39	Amherst	PK-8	1309	0.7	2.8	2.5	1.6	92.3	0.1
35	Bethlehem	PK-6	157	1.3	2.5	6.4	1.9	84.1	3.8
8	Concord	PK-12	4546	0.7	7.7	3.9	9.3	78.4	0
14	Epping	PK-12	981	0.4	1.3	2.8	0.4	93.9	1.2
23	Haverhill Cooperative	PK-12	695	0.1	0.4	2.2	0.1	95.8	1.3
30	Laconia	PK-12	1945	0.3	1.7	4.9	2.1	88.4	2.7
77	Monroe	PK-8	85	0	0	2.4	1.2	95.3	1.2
43	Newport	PK-12	994	0.3	0.7	1.8	0.4	95.9	0.9
51	Pittsfield	PK-12	573	1	0	5.8	1.2	91.1	0.9
48	Plymouth	PK-8	419	0	5	4.1	1.7	87.4	1.9
54	Rochester	Pk-12	4224	0.2	1.7	4	1.3	89.5	3.4
17	Sanborn	PK-12	1593	0.6	0.9	4.7	1.1	92.3	0.4
NA	Seacoast Charter School	K-8	300	1.7	1	2.3	0.3	94	0.7
39	Souhegan Cooperative	12-Sep	787	0.9	2.9	3.4	0.6	92.1	0
ALL			18608	0.5	3.1	3.8	3.2	88.1	1.4

Table 3. *NH Profiles for Participating LEAs*

APPENDIX A: PACE ACCOMMODATION STANDARDS

In order to ensure validity of common assessment results, the PACE districts have established the following standards. These standards are consistent with approved accommodations for other state-level assessments, including Smarter Balanced and NECAP, and the Northwest Evaluation Association – Measures of Academic Progress (NWEA – MAP).

Accommodation Standards for Common Summative Assessments	
Content Area	
Reading/ English Language Arts	No portion of the reading summative may be read (unless the summative requires a section to be read to ALL students being assessed). Written responses are allowed to be scribed* if in a student's IEP/504 and/or ELL Plan AND if doing so does not impact the results of what is being assessed. ALL students can utilize word processing for written responses. ELL students may use a bilingual dictionary. Colored overlays, filters, or changes to lighting may be used. Students may use a ruler or writing utensil to track the text.
Mathematics	Text can be read, but symbols and numbers are not allowed to be read. Written responses are allowed to be scribed* if in a student's IEP/504 and/or ELL Plan. ALL students can utilize word processing for written responses. Bilingual dictionaries may be used. Use of tools (calculators, number charts etc.) are only allowed if the summative assessment permits the use for ALL students.
Writing	Text can be read and graphic organizers provided, if in a student's IEP and/or ELL Plan, or part of the task. Written responses are allowed to be scribed* if necessary. ALL students can utilize word processing for written responses. Students may have access to a dictionary, including a bilingual dictionary for ELL students, unless the assessment specifies otherwise.
Other Content Areas	Text can be read and written response scribed*, if in a student's IEP/504 and/or ELL Plan. ALL students can utilize word processing for written responses.
Location	Any student can be assessed in an alternate location. ELL students may benefit from a location where they may read the assessment material out loud to themselves.
Time	Any student can have extended time, except in cases where reading fluency is being assessed. ALL students may take breaks when appropriate.
Number of Questions	Reducing the number of questions being assessed is not allowed. If this is required, it is considered to be a modification of the assessment, which means the student's IEP reflects that his/her progress is reported through an off grade-level report card.
Changes to Font Size/Color	Allowed in all content areas for all students.

Reorganization of Questions	Any student can have the questions reorganized. For example, you may want to chunk all questions associated with one competency. You may choose to give all these questions at one time and then, the other questions at a different time. The key is that all parts of the assessment are administered.

*Refer to the Scribing Standards document.

In addition to the table above, it is important to keep in mind your district's definition of the terms grade-level and off grade-level. A student's progress is measured to grade-level competencies unless the student has in his/her IEP the modification that he/she is working towards off grade-level competencies. In addition, one needs to distinguish the difference between instruction and assessment administration. As a teacher plans for and delivers grade-level content he/she uses differentiated instructional methods, but has the same learning target in mind for all grade-level students. The teacher scaffolds the learning for these students, which in some cases may require teaching off grade-level material in order to fill in gaps in the student's learning, however, the goal and assessment for this student is still the grade-level material.

All students benefit from the use of highly effective instructional strategies as well as being taught how to use tools for their learning. Some examples include using graphic organizers to write, learning how to identify key words/phrases and then, highlighting/underlining them. These are good strategies and ones that we hope are in regular use throughout each classroom.

PACE Accommodation Guidelines for English Language Learners

To ensure validity of common assessment results, PACE has established the following accommodation guidelines for English Language Learners, excerpted and adapted from Smarter Balanced Assessment Consortium.

Construction of Performance Tasks

For English language learner students (ELLs) who take large-scale content assessments, the most significant accessibility concern is associated with the nature of the language used in the assessments. Because ELLs have not yet acquired complete proficiency in English, the use of language that is not fully accessible to them in assessments will degrade the validity of the test score interpretations that can be inferred from their results. The following guidelines should be considered when designing performance tasks:

- Design test directions to maximize clarity and minimize the potential for confusion.
- Use vocabulary in test items that is widely accessible to all students; avoid unfamiliar vocabulary that is not directly related to the construct (August, Carlo, & Snow, 2005; Bailey et al, 2007).
- Avoid the use of syntax or vocabulary that is above the test's target grade level (Borgioli, 2008). The test item should be written at a vocabulary level no higher than the target grade level, and preferably at a slightly lower grade level, to ensure that all students understand the task presented (Young, 2008).
- Keep sentence structures as simple as possible while expressing the intended meaning. ELLs will find a series of simpler, shorter sentences to be more accessible than longer, more complex sentences (Pitoniak, Young, Martiniello, King, Buteux, & Ginsburgh, 2009).
- Avoid false cognates, which are word pairs or phrases that appear to have the same meaning in two or more languages, but in fact, do not. Examples of false cognates include: billion (the correct Spanish word is mil millones; not billón, which means *trillion*); deception (engaño; not decepción, which means disappointment).
- Do not use cultural references or idiomatic expressions (such as "being on the ball") that are not equally familiar to all students (Bernhardt, 2005). This includes questions related to sports (yards, quarterback, etc.) which could be considered culturally biased questions for ELL students.
- Avoid sentence structures that may be confusing or difficult to follow, such as the use of passive voice or sentences with multiple clauses (Abedi & Lord, 2001; Forster & Olbrei, 1973; Schachter, 1983).
- Do not use syntax that may be confusing or ambiguous, such as using negation or double negatives in constructing test items (Abedi, 2006; Cummins, Kintsch, Reusser, & Weimer, 1988).
- Minimize use of low-frequency, long, or morphologically complex words and long sentences (Abedi, 2006; Abedi, Lord & Plummer, 1995).

Excerpted from: Young, J.; Pitoniak, M.; King, T.; & Ayad, E. (2012) *Smarter Balanced Assessment Consortium: Guidelines for Accessibility for English Language Learners. Measured Progress/ETS Collaborative.*

Examples of effective instructional strategies for ELL students preparing for the PACE Assessments include:

- Teaching word learning strategies, especially the use of cognates.
- Providing sentence and paragraph frames with word banks.
- Teaching strategies to use visual cues in text to support meaning (e.g., pictures and diagrams, titles and subtitles)
- Allowing students to compose and discuss their initial ideas for writing in their first language; once they've figured out what they want to write, have them complete the finished product in English.
- Providing instruction in common assessment word and phrases (e.g., what best describes, select, mark, summarize, support with examples), and help students understand what types of responses will be expected for each.

Accommodations for English Language Learners during Assessment Administration

Read Aloud
- Read aloud of test directions in student's native language
- Read aloud of test questions (Math, Science, History/SS) to student by teacher or electronic media

Test Setting and Time
- Test in a familiar environment with other ELLs
- Small group setting
- Test Break
- Extra time within the testing day

Use of Dictionaries and Other Resources
- Customized Dictionary/glossary in English (content-related terms removed) or Bilingual Dictionary
- Picture Dictionary (alone, combined with oral reading of test items in English, and combined with bilingual glossary)
- Traditional glossary with 1st language translations (content-related terms removed)
- Computer-based test (CBT)

Excerpted from: (Abedi, J & Ewers. (2013). N. Smarter Balanced Assessment Consortium: Accommodations for English Language Learners and students with disabilities: A research‑based decision algorithm. University of CA, Davis.

APPROVED NHDOE 4.2015

APPENDIX B: DATA COLLECTION PROTOCOLS 2017-18

New Hampshire PACE

Data Collection Deadlines and Table of Contents

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[29] If missed, your student work samples will <u>not</u> be included in the Summer Institute and therefore we may <u>not</u> be able to report annual determinations for the students in your district. Please plan ahead to have all teachers administer and score the PACE common tasks and collect the bodies of work in order to meet this deadline.

#1: Sample of Assessment Maps and Aligned Assessments
Email to Mariane Gfroerer:
Mariane.Gfroerer@doe.nh.gov
Due January 15, 2018

This item is a requirement by USED and represents an opportunity for your district to receive feedback on a sample of your local course assessment maps and summative assessments. Each year the sample of grades and content areas reviewed will rotate.

Process:
- Email **one (1)** assessment map and **three (3)** aligned summative assessments for each of the following courses to Mariane Gfroerer by January 15, 2018. Should your district want to submit these materials earlier or later in the school year, please coordinate with Mariane.

Grade	Subject Area
3	Math
4	Science
5	ELA
6	Math
7	ELA
8	Science
HS	Algebra
HS	Grade 10 ELA
HS	Life Science

- An example of an assessment map is located in Appendix B of this document. All of the state standards should be mapped to at least one competency. The summative assessments for each competency should be labeled by type and mapped by time of administration. Anything included in the assessment map may be subject to a state audit to ensure assessments are aligned to intended standards and are high quality.
- For each course, three summative assessments should be submitted along with any scoring guides/rubrics and any other information teachers might need to help evaluate the quality of the assessment (e.g., samples of student work).

To provide feedback on locally developed performance assessments that are designed using the PACE template, the NH DOE has contracted with the Stanford Center for Assessment, Learning, and Equity (SCALE) to provide feedback reviews to districts.

Process:

- Submit all locally developed performance assessments that are designed using the PACE template for feedback from SCALE.

Submission:

- Email copies of the PACE templates and supplementary materials to Mariane Gfroerer.
- The contract with SCALE does not end on the January 15th, as more local tasks are developed with the PACE template, please continue to submit these assessments in an on-going fashion.

#3: PACE Common Task Student Work Samples for Cross-District Calibration
Mail/Deliver to:
Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820
Due May 25, 2018 (this deadline is fixed, please plan ahead)

The student work samples will be used in the PACE Summer Institute to provide evidence of comparability in the evaluation of student work across districts.

Process:

- Select eighteen (18)[30] final student work samples for each PACE Common Task (no names, drafts, comments, or scored rubrics). This sample should span all score points and should be representative of the distribution of achievement in the district. Original papers are requested rather than copies, if possible.
- Student ID#s should be placed in the top right hand corner on the first page of each student work sample. If possible, highlight all Student ID#s with a blue highlighter. Remove all other identifiable information such as student name or school/district name.
- Do not submit any scored rubrics or score sheets.
- Remove any foreign materials from student work samples as to not damage scanning equipment (e.g., staples, paper clips, etc.).

Submission:

- Please place[31] a cover page (Appendix A) TO THE TOP OF EACH STUDENT WORK SAMPLE so we know whether the student work sample is a PACE Common Task sample or Body of Work sample, as well as the student ID#, district, grade level, and subject area submitted. Course information for High School Math and Science is requested (e.g., Algebra/Geometry (Math); Life Science/Physical Science/Chemistry (Science)). District, grade level, and subject area boxes can be pre-populated prior to copying within-districts. Labels can be placed in the Student ID# box, if desired.
- All PACE Common Tasks and Body of Work student work samples in every requested grade and subject area for a district should be mailed/delivered IN ONE SHIPMENT to the following address on or before May 25, 2018—Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820.

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[30] For districts with fewer than 18 students in a given grade, the district should submit all available papers.

[31] Please do not staple or paper clip the cover page. Just place the cover page on top of the student work sample.

#4: Body of Work Samples
Mail/Deliver to:
Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820
Due May 25, 2018 (this deadline is fixed, please plan ahead)

The main purpose of collecting student work samples throughout the year is to help document and evaluate student performance through the year along with the PACE Common Tasks. This collection will help support standard setting activities during the PACE Summer Institute.

Process:
- Districts are asked to submit 5-7 samples of student work for a minimum of nine (9) students from each subject area and grade level specified in the table below. The nine students should be selected to represent a range of achievement. For example, three generally low-performing students, three high-performing students, and three students who perform at about an average level. Student work of the same 9 students should be used throughout the year so districts may want to select one or two additional students in case a student moves.

Grade	Subject Area
3	Math
4	Science
5	ELA
6	Math
7	ELA
8	Science
HS	Algebra
HS	Grade 10 ELA
HS	Life Science

- The student work samples should come from major <u>summative</u> assessments throughout the year (e.g., unit tests, and performance based assessments) and demonstrate student achievement across the breadth and depth of the course content. The samples will be used to provide evidence of student achievement relative to the achievement level descriptors (see the content area ALDs).
- The PACE Common Task can serve as one of the assessments submitted for each student. It is critical that enough of the context of the assessment is included so that an outside teacher would know that a student was responding to a particular problem, prompt, exercise, reading, etc. Therefore, including the student instructions and specific questions asked along with student responses is critical. **We encourage teachers to photocopy student work throughout the year prior to grading. Please remove students' names, as well as any comments, grades, scored rubrics, score sheets, and score marks prior to submission.**
- Student ID#s should be placed in the top right hand corner on the first page of each student work sample. If possible, highlight all Student ID#s with a blue highlighter. Remove all other identifiable information such as student name or school/district name.
- Remove any foreign materials from student work samples as to not damage scanning equipment (e.g., staples, paper clips, etc.).

Resources:
- Short instructional video on the administrative libguide.
- PACE Body of Work Explanation & Examples are provided on the administrative libguide.
- Content area ALDs on the administrative libguide.

Submission:
- Please place[32] a cover page (Appendix A) TO THE TOP OF EACH STUDENT WORK SAMPLE so we know whether the student work sample is a PACE Common Task sample or Body of Work sample, as well as the student ID#, district, grade level, and subject area submitted. Course information for High School Math and Science is requested (e.g., Algebra/Geometry (Math); Life Science/Physical Science/Chemistry (Science)). District, grade level, and subject area boxes can be pre-populated prior to copying within-districts. Labels can be placed in the Student ID# box, if desired.
- All PACE Common Tasks and Body of Work student work samples in every requested grade and subject area for a district should be mailed/delivered IN ONE SHIPMENT to the following address on or before May 25, 2018—Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820.

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[32] Please do not staple or paper clip the cover page. Just place the cover page on top of the student work sample.

#5: PACE Common Task Scores
Upload into the Learning Management System
Due June 15, 2018

This is a critical step for documenting that the scores that students receive are NOT contingent upon the district where the student goes to school. In other words, this step is designed to evaluate the extent to which teachers evaluate student work the same way (comparable) across districts. The PACE Common Task Scores will be reconciled with the consensus scores that are generated from the PACE Summer Institute to ensure the evaluation of student work is comparable across districts.

Process:
- Within district calibration sessions are highly encouraged to maximize the consistency and validity of scores.
- Upload PACE Common Task scores by rubric dimension into the Learning Management System for all students administered a PACE Common Task.

Resources:
- Recommended protocols for identifying anchor papers and individual teacher scoring are provided on the administrative libguide.

Submission:
- Score data (by rubric dimension) for each student who completed a PACE Common Task uploaded into the Learning Management System.
- Indicate if accommodations were used for the student.
- Indicate if the student has an IEP that modifies the instructed content standards to off grade level.

#6: Teacher Judgment Survey
Upload into the Learning Management System
Due June 15, 2018

All teachers in grades 3-11 (Math and ELA) and grades 4, 8-10 (Science) should complete a Teacher Judgment Survey for their students in the Learning Management System. Note that some of these grades are "non-PACE" grades. The results of the Teacher Judgment Surveys will be one variable used to produce each student's "annual determination" of proficiency in ELA, math, and science in grades/subjects where the PACE Common Task is administered.

The Teacher Judgment Survey asks teachers to classify their students based on PACE Achievement Level Descriptors (ALDs) for a given grade/subject. ALDs articulate the expected levels of performance related to the knowledge and skills described by the grade-level content standards.

Resources:
- Teacher Judgment Survey Instructions on the administrative libguide
- Content area ALDs on the administrative libguide[33]

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[33] Note: In the event that New Hampshire develops or procures a new statewide system of assessments (leaving behind Smarter Balanced), the district leads will be notified and these ALDs will be updated as quickly as possible.

| #7: Full Set of Student Competency Scores |
| Upload into the Learning Management System |
| Due June 15, 2018 |

In order to produce annual determinations based on multiple sources of evidence, we need to be able to collect consistent and accurate information for each student. These data will be used along with the data collected from the Teacher Judgment Surveys to produce annual determinations of student proficiency.

Process:
- All teachers in PACE districts should be keeping records of students' progress on each of the course competencies.
- The competency scores that are submitted should be reflective of summative student achievement on each competency by the end of the year.
- The competency score scale (e.g., 1.00-4.00, 0-100) is district determined, but should be consistent within each grade level and content area in each district. Work with teachers to ensure scores are not submitted that are out-of-range (e.g., 0.75 on a 1.00-4.00 scale).

Submission:
- Please ensure that all students in grades 3-11 (Math and ELA) and grades 4, 8-10 (Science) have scores entered into the Learning Management System for their work related to each competency. Note that some of these grades are "non-PACE" grades.
  - For high school, only submit the competency scores for the ELA course and Math course in which the majority/plurality of eleventh grade students are enrolled.

#8: Electronic Gradebook Score Data
Email to Susan Lyons: **slyons@nciea.org**
Due June 15, 2018

Electronic gradebook score data is used to conduct analyses designed to support the validity of the PACE assessment system including generalizability studies and factor analysis.

Process:
- The data should include all of the individual scores that go into the end of year competency scores (e.g., summative tests, quizzes, projects, performance tasks), see Appendix C for an example data sheet. The PACE Common Task scores should be one of the scores included in the data file and should be labeled as such.
- Student IDs (SASIDs) need not be included in the data file.
- Please prepare these data files for the following grade levels:

Grade	Subject Area
3	Math
4	Science
5	ELA
6	Math
7	ELA
8	Science

Submission:
- The gradebook data should be submitted via an excel file to Susan Lyons at slyons@nciea.org. See Appendix C for an example from Grade 7 ELA.
- If your district does not use a Learning Management System/Student Information System to maintain this type of data, please contact Susan Lyons as early in the year as possible.

#9: Within-District Double Scoring of the PACE Common Tasks
Email to Susan Lyons: slyons@nciea.org
Due June 15, 2018

Within-district double scoring is a critical step for documenting the quality of scoring for the PACE Common Tasks. As a result, we need every teacher administering a PACE Common Task to submit at least 3-4 student work samples for double scoring with a minimum of 20 student work samples double scored per PACE Common Task within each district. For smaller districts, this may mean that every PACE Common Task student work sample in elementary grades is double scored.

There are two potential options for conducting the inter-rater reliability analyses:
1. The "embedded" approach does not require a stand-alone step, but is embedded in individual scoring.
2. The second option would require a stand-alone event for approximately ½ day.

Option #1 (embedded):
- Each teacher submits 3-4 student work samples, depending upon the total number of teachers at the grade level, from a range of performance levels.
- These student work samples are embedded in the scoring packets of the other teachers either at their grade level or grade span such that each teacher will end up double scoring approximately 3-5 extra student work samples.
- Teachers score these embedded student work samples along with their regular student work and record the scores.

Option #2 (stand-alone):
- Each teacher submits 3-4 student work samples, depending upon the total number of teachers at the grade level, from a range of performance levels. For districts with multiple schools, the district leader can determine whether or not to do this within each school or across schools at the district level.
- These student work samples are distributed to a grade level or grade span cohort of teachers such that each paper is scored by at least one other teacher. As an example, if there are 4 teachers at a given grade/subject level and each teacher submits 3 student work samples, there would be a total pool of 12 student work samples to score among second readers. Since each of the 12 student work samples needs two scores, that means that there are 24 scored responses needed for each grade/subject. This means that each of the 4 teachers will have to score 6 other teachers' student work samples.

Resources:
- Short instructional video on the administrative libguide.
- PACE Double Scoring Collection Spreadsheet (Excel file) on the administrative libguide.

Submission:
- Using the PACE Double Scoring Collection Spreadsheet, enter your district's double scores for all courses with a PACE Common Task. Leave the columns for the extra score dimensions blank for the tasks with rubrics that have fewer dimensions than the spreadsheet allows.
- Save the Excel file as: District_PACE Double Scoring_1718.xlsx and email to slyons@nciea.org

Please circle only ONE:

PACE Common Task   *Body of Work Sample*

Each student work sample will need its own PACE Scanning Cover Sheet

Student ID#	
District	
Grade level	
Subject area *(NOTE: If High School Math or Science indicate Algebra or Geometry (Math) or Life Science, Physical Science, or Chemistry (Science).*	

All PACE Common Task and Body of Work student work samples for a district should be mailed/delivered IN ONE SHIPMENT to the following address on or before May 25, 2018

Measured Progress
Attn: Login Manager (PACE Project)
50 Education Way
Dover, NH 03821

For Measured Progress Use Only

Competency	Standards	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1. Algebraic Thinking	CC.3.OA.1	Short Summative 1		PBA 1	Unit Test 1						
	CC.3.OA.2										
	CC.3.OA.3										
	CC.3.OA.4										
	CC.3.OA.5										
	CC.3.OA.6										
	CC.3.OA.7										
	CC.3.OA.8										
	CC.3.OA.9										
2. Number Operations	CC.3.NBT.1		Short Summative 2		Unit Test 1				Short Summative 7	PBA 3	PBA 3
	CC.3.NBT.2										
	CC.3.NBT.3										
3. Fractions and Proportional Reasoning	CC.3.NF.1			Short Summative 3		Short Summative 5	Unit Test 2	PBA 2			
	CC.3.NF.2										
	CC.3.NF.2a										
	CC.3.NF.2b										
	CC.3.NF.3										
	CC.3.NF.3a										
	CC.3.NF.3b										
	CC.3.NF.3c										
	CC.3.NF.3d										
4. Data	CC.3.MD.3									Short Summative 8	Unit Test 3
	CC.3.MD.4										
5. Geometry and Measurement	CC.3.MD.1				Short Summative 4			Short Summative 6	PACE Common Task	PACE Common Task	
	CC.3.MD.2										
	CC.3.MD.5										
	CC.3.MD.6										
	CC.3.MD.7										
	CC.3.MD.7a										
	CC.3.MD.7b										
	CC.3.MD.7c										
	CC.3.MD.7d										
	CC.3.MD.8										
	CC.3.G.1										
	CC.3.G.2										

Appendix Bc
Electronic Gradebook Score Data (Example from Grade 7 ELA)

	ELA7.01: 7-Reading Literature				ELA7.02: 7-Reading Informational Text		ELA7.03: 7-Writing				ELA7.04: 7-Speaking, Listening & Viewing			ELA7.05: 7-Language						
	Sparknote Summary	Chains 1-12 Test	Chains 1-6 Summative	Choices and Change Chains Discussion	Revolutionary War Infographic	Informational Texts Summative	Poetry Book Summative	Pratchett Summative (Details)	Revolutionary War Infographic	Uniforms: Argumentative Essay ORGANIZATION	Choices and Change Chains Discussion	Poetry Book Summative	Revolutionary War Infographic	Chains 1-12 Test	Chains 1-6 Summative	Figurative Language Summative	Modifier Summative	Noun Summative	Poetry Vocabulary Summative	Verb Summative
Student 1	B	C	A	B	B	A	B	B	C	B	B	B	A	B	A	A	A	A	B	B
Student 2	IWS	C	C	X	C	C	C	C	X	C	X	C	C	C	C	C	C	C	NYC	C
Student 3	B	A	C	A	C	A	B	C	C	B	A	B	C	A	A	C	A	C	B	A
Student 4	C	C	A	A	C	B	A	B	B	C	B	B	C	C	A	A	B	B	B	A
Student 5	C	C	C	B	C	C	C	C	B	C	C	C	B	A	C	C	C	C	C	C
Student 6	B	A	A	A	B	A	A	B	B	A	B	A	B	A	A	B	A	B	B	A
Student 7	B	A	B	B	C	C	B	C	C	C	B	C	C	A	A	A	B	C	C	C
Student 8	C	C	B	C	B	C	C	C	C	C	C	C	C	A	A	C	B	A	C	C
Student 9	B	A	A	A	C	A	B	B	C	A	A	A	B	A	A	A	B	A	A	A
Student 10	C	C	A	C	C	C	IWS	C	C	C	C	C	C	B	A	A	B	A	B	C
Student 11	B	B	B	A	B	C	B	C	B	C	C	C	B	A	B	B	C	C	C	C
Student 12	C	B	B	C	C	B	B	C	C	B	C	C	C	C	A	A	NYC	C	C	C
Student 13	C	C	B	A	C	C	C	C	C	C	B	C	C	C	B	C	C	C	C	C
Student 14	C	C	C	C	C	C	B	C	C	C	C	B	B	C	B	C	C	C	C	A
Student 15	C	C	B	A	B	C	C	C	C	C	A	C	C	B	B	B	C	A	C	C
Student 16	IWS	IWS	C	A	NYC	NYC	C	NYC	C	IWS	B	IWS	C	IWS	NYC	NYC	NYC	C	NYC	IWS
Student 17	C	C	C	B	C	C	C	C	C	C	B	B	C	B	A	A	C	C	C	A
Student 18	B	A	B	B	C	A	A	B	C	B	C	A	B	A	A	A	A	B	A	C
Student 19	B	C	C	A	C	C	B	C	C	C	C	B	C	C	A	C	B	C	C	B
Student 20	C	B	B	A	C	C	C	C	C	C	B	C	C	B	C	A	B	B	C	B
Student 21								IWS										IWS		
Student 22	C	C	C	C	C	B	B	C	C	B	C	B	C	B	C	A	C	C	B	A
Student 23	C	C	B	C	C	C	C	X	C	X	C	C	C	C	B	B	C	X	C	X
Student 24	C	B	A	C	C	A	B	B	C	B	C	B	B	B	A	A	C	C	C	B
Student 25	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	NYC	C	C	C
Student 26	C	C	A	A	C	C	C	B	C	C	B	C	C	C	C	A	B	C	C	C
Student 27	IWS	C	C	A	C	C	IWS	C	C	C	B	C	C	B	C	C	C	C	C	C
Student 28	B	A	B	B	B	C	B	B	C	C	B	C	B	A	B	B	B	A	C	A
Student 29	C	C	B	C	B	B	B	B	C	C	B	C	C	A	B	A	C	B	C	C
Student 30	B	C	C	C	C	C	IWS	C	C	C	C	C	C	C	C	B	C	B	C	C
Student 31	C	C	A	B	C	C	B	B	C	C	B	B	C	B	A	B	B	C	B	C
Student 32	X	C	X	C	C	C	IWS	C	NYC	IWS	X	C	C	X	NYC	B	X	C	C	C
Student 33	C	C	C	C	C	C	C	B	C	C	C	C	C	C	C	B	C	A	A	A
Student 34	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Student 35	C	B	B	B	C	B	C	B	C	B	C	C	C	C	A	A	C	B	B	A
Student 36	C	C	A	B	C	C	B	C	C	C	A	C	C	C	A	B	C	C	C	C
Student 37	C	B	C	B	C	B	B	B	C	B	C	B	C	B	A	C	C	B	C	B
Student 38	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Student 39	C	B	B	C	C	C	B	A	C	C	C	B	C	C	A	A	C	A	A	A
Student 40	A	A	C	B	B	A	C	A	C	B	B	B	C	A	C	B	C	C	C	C
Student 41	C	C	C	C	C	C	C	B	C	C	C	C	B	A	A	C	C	C	C	A
Student 42	C	C	A	A	C	A	B	A	C	B	B	A	B	A	A	A	C	A	C	A
Student 43	C	C	C	B	C	C	C	C	C	C	B	B	C	C	C	C	C	C	C	C

Notes

(1) The file includes all students in grade 7 ELA in the district.

(2) You can use either letter grades or numeric grades – just provide the score scale (e.g., IWS "Insufficient Work Shown"=1, NYC "Not Yet Competent"=2, C "Competent"=3, B "Beyond Competent"=4, A "Above Competent"=5).

Appendix Bd
Data Collection Checklist[34]

Grade Level	Subject Area	#1 Sample of Assessment Maps and Aligned Assessments (Y/N)	#2 Performance Tasks for Feedback Review-SCALE Emailed (Y/N)	#3 Common Task Work Samples Mailed (x/18)	#4 Body of Work Samples Mailed (x/9)	#5 Common Task Scores Uploaded (Y/N)	#6 Teacher Judgment Surveys Completed (Y/N)	#7 Full Set of Student Competency Scores Uploaded (Y/N)	#8 Electronic Gradebook Data Emailed (Y/N)	#9 Within-District Double Scoring Emailed (Y/N)
		Jan 15, 2018	Jan 15, 2018	May 25, 2018	May 25, 2018	June 15, 2018	June 15, 2018	June 15, 2018	June 15, 2018	June 15,2018
3	ELA									
3	MATH			/18	/9					
4	ELA			/18						
4	MATH									
4	SCI			/18	/9					
5	ELA			/18	/9					
5	MATH			/18						
6	ELA			/18						
6	MATH			/18	/9					
7	ELA			/18	/9					
7	MATH			/18						
8	ELA									
8	MATH									
8	SCI			/18	/9					

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[34] This checklist is provided for internal district use only; it does not need to be submitted.

Grade Level	Subject Area	#1 Sample of Assessment Maps and Aligned Assessments (Y/N)	#2 Performance Tasks for Feedback Review-SCALE Emailed (Y/N)	#3 Common Task Work Samples Mailed (x/18)	#4 Body of Work Samples Mailed (x/9)	#5 Common Task Scores Uploaded (Y/N)	#6 Teacher Judgment Surveys Completed (Y/N)	#7 Full Set of Student Competency Scores Uploaded (Y/N)	#8 Electronic Gradebook Data Emailed (Y/N)	#9 Within-District Double Scoring Emailed (Y/N)
		Jan 15, 2018	Jan 15, 2018	May 25, 2018	May 25, 2018	June 15, 2018	June 15, 2018	June 15, 2018	June 15, 2018	June 15,2018
9	ELA			/18						
10	ELA			/18	/9					
11	ELA									
HS	Algebra			/18	/9					
HS	Geometry			/18						
11	MATH									
HS	Life Sci			/18	/9					
HS	Phys Sci			/18						
HS	Chemistry									

ASSESSMENT MAP REVIEW CRITERIA AND FEEDBACK FOR DISTRICTS

☐ **All standards are addressed or an explanation is provided to explain if certain standards are addressed in another grade level (or course) or if the standard is assessed through formative means.**   •
☐ **Multiple summative assessment opportunities are available for every competency.**   •
☐ **All competencies are assessed by at least one performance assessment that measures deeper levels of understanding.**   •
☐ **Please provide comment(s) regarding what you think the district did well with this assessment map.**
☐ **Please provide suggestion(s) for improving the quality of this assessment map.**

SUMMATIVE ASSESSMENT REVIEW CRITERIA AND FEEDBACK TO DISTRICTS

Part 1: Assessment Profile

Brief Description of the Summative Assessment Submitted:

Part 2: Alignment

A high quality summative assessment should be … Aligned

To what extent do you see a content match between the submitted summative assessment and the standards?

☐ **Full/Close match** – all or most aspects of the task or items address or exceed the relevant skills and knowledge described in the corresponding standard(s)

☐ **Partial match** – Some aspects of the task or items address or partially address the skills and knowledge described in the corresponding state standard(s)

☐ **Minimal/No match** – Few or no aspects of the task or items match some relevant skills and knowledge described in the corresponding state standard(s)

Estimate the Depth-of-Knowledge range of the standards measured by the assessment (see Webb's DOK charts; check all that apply):

☐ **DOK 1:** recall and reproduction

☐ **DOK 2:** skills and concepts

☐ **DOK 3:** strategic thinking/reasoning; requires deeper cognitive processing

☐ **DOK 4:** extended thinking; requires higher-order thinking including complex reasoning, planning, and developing of concepts.

Is the summative assessment reviewed as cognitively challenging as the standards? In other words, the summative assessment elicits sufficient evidence for judging the level of student understanding related to the competencies and standards identified. Use the definitions below to select your rating:

☐ **More rigor** – the summative assessment reviewed is at a higher DOK level than the range indicated for the state standard(s)

☐ **Similar rigor** – the summative assessment reviewed is similar to the DOK range indicated for the state standard(s)

☐ **Less rigor** – the summative assessment reviewed is lower than the DOK range indicated for the state standard(s)

Comments/Suggestions for Improving Alignment (if any)

Relevant evidence to justify ratings:

Part 3: Rubric

A high quality summative assessment should be … Scored using Clear Guidelines and Criteria

Note: This section may not apply. It will only be completed if a rubric was submitted with the summative assessment.

Is the rubric aligned to the assessment task and/or standards identified?

☐ **Fully aligned**

☐ **Partially aligned**

☐ **Not aligned**

Are the score categories clearly defined and represent a sensible progression of knowledge and skills across performance levels?

☐ **Yes**

☐ **Partial**
☐ **No**

Is it clear which aspects of the task will be evaluated by this rubric?

☐ **Yes**

☐ **Partial/Unclear**
☐ **No**

Based on your review of the rubric would the scoring rubric most likely lead different raters to arrive at the same score for a given response? ☐ **Yes** ☐ **Partial/Unclear** ☐ **No**

Comments/Suggestions for Improving Rubric(s) (if any)
Relevant evidence to justify ratings:

Part 4: Fair and Unbiased (the areas below should be discussed relative to the needs of ELLs, gifted and talented students, and students with disabilities)
A high quality summative assessment should be…Fair and Unbiased To what extent is the summative assessment visually clear and uncluttered (e.g., appropriate white space and/or lines for student responses, graphics and/or illustrations are clear and support the test content, the font size seems appropriate for the students)? ☐ **Formatting is visually clear and uncluttered** ☐ **Formatting is somewhat confusing or distracting** ☐ **Formatting is unclear, cluttered, and inappropriate for students**
Are the directions and questions presented in as straightforward a way as possible for a range of learners? ☐ **Yes** ☐ **Partial/Unclear** ☐ **No**
Is the vocabulary and context(s) presented by the summative assessment free from cultural or other unintended bias? ☐ **Yes** ☐ **Partial/Unclear** ☐ **No**

Comments/Suggestions for Improving Fair and Unbiased (if any)
Relevant evidence to justify ratings:

Part 5: Appropriateness of Text/Visual Resources
A high quality summative assessment should…include appropriate reading and visual materials Note: This section may not apply. It will only be completed if reading or visual materials were included. The texts and visual resources support the topic and prompt: ☐ **Yes** ☐ **Partial/Unclear** ☐ **No** ☐ **N/A**
The texts have characteristics relative to grade-level expectations of a: ☐ **Simple Text** ☐ **Somewhat Complex Texts** ☐ **Complex Texts** ☐ **Very Complex Texts** ☐ **N/A** **Note:** Refer to the *Text Complexity Rubric for Literary Texts or Informational Texts*

The amount of texts and visual resources are:
- ☐ **Appropriate for the grade level and the time allotted for the task**
- ☐ **Appropriate for the grade level, but may exceed the time allotted for the task**
- ☐ **Burdensome for the grade level and the time allotted for the task**
- ☐ **No texts and/or resources are included**
- ☐ **N/A**

Comments/Suggestions for Improvement for Fair and Unbiased (if any)

Relevant evidence to justify ratings:

Overall Recommendation

☐ **No changes needed**

☐ **Minor changes suggested (please specify up to three suggestions)**

☐ **Substantial changes suggested (please specify up to three suggestions)**

Discussion:

APPENDIX C: PACE TASK DEVELOPMENT FRAMEWORK

	NH PACE Performance Assessment for Competency Education Performance Task Development Framework 2017-2018 *This is a complete NH PACE Performance Task Template. Additional teacher/student directions and administration guidelines should match this template.*				
☐ LOCAL TASK	☐ COMMON TASK	☐ IN DEVELOPMENT	☐ REVIEWED #1	☐ REVIEWED #2 (NCIEA)	☐ FINAL NHDOE APPROVED
Performance Task Name *Unique name given to this performance task*					
Content Area *For example: ELA, Science, Math, Social Studies, etc.*					
Grade-Level/Course Name *If this is a middle or high school task, indicate course name as well as grade level(s)*					
Contributing Author(s) *List the names, emails, and schools or agencies of ALL contributing authors in the task.*					
Citations/Attributions *If this task is an adaptation of work published elsewhere, list all citations/attributions. Permission to include copyrighted work must be obtained by the author(s) listed above from the originator of the adapted work and documented here. Using hyperlinks does not substitute for proper citations/attributions.*					

The Student Model	
1. What are the big ideas of the content area(s) that are the ultimate target for student learning (e.g., literary analysis, proportionality, natural selection, thermodynamics)?	
2. What are the enduring understandings that students should possess after participating in this learning experience (Students will understand …)?	
3. What are the key knowledge, skills, and work study practices that comprise the learning target(s) we are intending to measure? ➢ What is the level of thinking (e.g., DOK levels) associated with this learning target? ➢ How do you know?	
4. What NH Model Competencies represent the primary targets of student learning this task is being designed to measure?	
5. Standards: List the complete wording of the target standards associated with the key competencies included above (may copy & paste). ➢ Please describe why you think that the standards listed are subsumed by the competencies referenced in #4. ➢ Source of Standards*: List the document(s) from which the standards are drawn i.e. CCSS, NH State Frameworks, NGSS, etc., including any locally developed standards.*	
6. What NH competencies that support the competencies may be secondarily measured with this task (e.g., will the task measure any competencies beyond the focal competencies?)?	
7. Universal Design for Learning: To what extent can the learning targets described above: ➢ Be represented using multiple means or approaches? ➢ Allow for multiple ways for learners to express and demonstrate what they know and can do? and ➢ Permit multiple means of engagement to	

tap into learners' interests, challenging them appropriately while motivating them to learn? *Please refer to the NH PACE Accommodations and ELL Guidelines for more information.*	
8. Please describe the Work Study Practices that students need to use to perform the task. Such Work Study Practices may include any or all of the following: ➢ Communication: Use various media to interpret, question, and express knowledge, information, ideas, feelings, and reasoning to create mutual understanding. ➢ Creativity: Use original and flexible thinking to communicate ideas or construct a unique product or solution. ➢ Collaboration: Work in diverse groups to achieve a common goal. ➢ Self-direction: Initiate and manage my learning through self-awareness, self-motivation, self-control, self-advocacy and adaptability as a reflective learner.	

The Evidence Model	

1. Describe the evidence that would make a convincing case that the student had demonstrated competence in the domain defined by the student model?
  ➤ What are the key features of this evidence (this will define the dimensions represented in the rubric)?
  ➤ What types of products and/or processes would you expect to see from student who had mastered the knowledge and skills described in the Student Model? For example, would the student produce papers, presentations, videos, equations, drawings, or other types of products? How many and of what type would provide the necessary evidence?	

2. What is the expected range of performance for these various sources of evidence and what are the distinguishing characteristics that will help differentiate levels of performance on this task (this will help conceptualize the levels of performance of the rubric)?	

3. Universal Design for Learning: Please describe the extent to which your expected evidence takes into account the need for:
  ➤ Multiple means of representation to give learners various ways of acquiring information and knowledge,
  ➤ Multiple means of expression to provide learner with alternatives for demonstrating what they know, and
  ➤ Multiple means of engagement to tap into learners' interests, challenging them appropriately while motivating them to learn.
For more information, please refer to the NH PACE Accommodations and ELL Guidelines.	

The Task Model	
1. Task Description: What are students being asked to do? Please provide an overview of the task.	
2. Task Features: Does the task include appropriate grade-specific content targets (e.g., whole numbers up to 1000) and skills/practices (e.g., can use mathematical models to represent the natural world)? ➢ Is any scaffolding permitted on this task? How much and of what type and for what types of students (e.g., SWD, EL)? ➢ Will things like illustrations, speaking, and other graphical representations be included in this type of task? ➢ Will tools like calculators and graphic organizers be allowed? What types of tools and what are the limitations (may students use auto-correcting tools)?	
3. What level of thinking is the task designed to elicit? Why do you think this task will elicit this level of thinking for students at this grade level? ➢ Is there an expected "ceiling" depth of thinking expected (e.g., no more than DOK level 3)? ➢ Is there a minimum (floor) depth of thinking expected (e.g., no less than DOK level 2)?	
4. Materials and presentations: How will the task be presented to students? ➢ What types of stimuli or prompts will be used to introduce the task? ➢ What materials will they be required/allowed to use (e.g., number/types of literature sources, measurement tools such as thermometers)? ➢ Will certain types of support materials be used to help students better understand the expectations of the task such as photos, websites, and/or videos?	

5. Work products: What will students produce as a result of engaging with this task (e.g., essay, mathematical proof, lab report)? What are the limits on acceptable work products? ➢ Will all of the work products contribute to evaluating a student's performance? For example, if there are group products, how will these contribute to a student's score if at all?	
6. Observation variables/outcomes: Describe the acceptable solutions for this task. What are the acceptable values (math/science) or formats/genres (ELA) for the potential solutions?	
7. Universal Design for Learning: Please describe the extent to which your task provides: ➢ Multiple means of representation to give learners various ways of acquiring information and knowledge, ➢ Multiple means of expression to provide learner with alternatives for demonstrating what they know, and ➢ Multiple means of engagement to tap into learners' interests, challenging them appropriately while motivating them to learn. *Refer to the NH PACE Accommodations and ELL Guidelines in ensuring that the construction of the task leads to activities that are accessible to all students.*	

Appendices

The following documents must be included as appendices to your task template

    A. The rubric(s) used to score the student performances

    B. The actual task that will be presented to the student (i.e., student instructions)

    C. The directions to teachers responsible for teaching, administering, and scoring this task

Additional details regarding each of the three appendices follow:

Appendix A: Rubrics

Please attach as Appendix A all rubrics that will be used to evaluate students' work on this performance task. Make sure you indicate which student product(s) and activities will be scored by the rubric. Rubrics adapted to student-friendly language should be included in the student instructions section. However, they should align with teacher-use rubrics included here.

You may use a general or task-specific rubric to score the work. However, if using a general rubric (applied to multiple tasks for your content area and grade level), you should annotate the rubric(s) to make clear which standards and competencies are aligned with each scoring dimension as well as the "look-fors" in the student work tied to the specific dimensions and levels of the rubric. The annotations also serve to highlight for the implementing teachers the thinking of the task development team and what a teacher should be looking for when assessing student work.

Appendix B: Student task instructions

Please include the task as it will be presented to the students. This includes all student instructions used in the administration of this performance task. The rubrics that have been adapted to student-friendly language should also be included in this appendix. Please also include any supplemental materials that are presented to students (or descriptions for non-paper materials).

Appendix C: Teacher instructions

This appendix will include all directions that the teacher needs to use in the administration of all aspects of the performance task. Keep in mind that teachers, other than the original author(s) will need these directions in order to administer the task. Include hyperlinks for online resources. Additionally, the teacher directions should include:

1. A description of a potential unit of instruction (curricular unit) that would serve as a foundation for the performance task. This includes lesson sequences and activities as well as formative assessment suggestions.
2. A clear list of materials, including the technology required to complete the task.
3. A very specific description of the intended scaffolding allowed and specific limits of such scaffolding.
4. A description of the accommodations for students with disabilities and English learners.
5. The list of references (full references!) that you used to create the task and that are needed to support the task administration and use.

APPENDIX D: PRINCIPLED ASSESSMENT DESIGN BRIEF

Principled Assessment Design for the Performance Assessment of Competency Education (PACE)
Scott Marion and Erika Landl
September 23, 2017

Introduction and Rationale

How should we design performance-based assessments to support learning, instructional, and accountability purposes? The performance assessments used to evaluate student learning of key competencies in PACE are well-suited to using a principled approach to design such as Evidence Centered Design (ECD; Mislevy, 1994, 1996) or following the assessment triangle as articulated in *Knowing What Students Know* (Pellegrino, Chudowsky, and Glaser, 2001). Principled design is an attempt to move from inefficient "one-off" designs to more replicable task designs and templates. It is also an effort to *design for validity* by requiring that evidence supporting each task be articulated throughout the design process, rather than post-hoc. Principled assessment design requires task developers to consider the following set of questions:

- ➢ What claims do we want to be able to make about what students know and can do?
- ➢ What knowledge and skills comprise the learning target(s) we are intending to measure?
- ➢ What evidence is necessary to demonstrate that a student has mastered those knowledge and skills?
- ➢ What type of task will serve to elicit that evidence?
- ➢ What characteristics/features will make a task harder or easier?
- ➢ What characteristics/features will make a task more or less complex?

These questions are usually thought of implicitly, if at all, in task design, but current work using principled assessment design such as with the Advanced Placement program and with the consortium assessments (i.e., PARCC, Smarter Balanced, and NCSC) has demonstrated the practical and theoretical advantages of answering such questions explicitly.

Importantly, principled assessment design intends to ensure that assessments are based on research-based models of learning. Bob Mislevy, the originator of Evidence Centered Design, once famously noted "It is only a slight exaggeration to describe the test theory that dominates educational measurement today as the application of 20th century statistics to 19th century psychology (Mislevy, 1993, p. 19)." Adherence to outdated, naïve, and/or implicit notions of learning is an impediment to the design of performance assessments of deeper learning as well as to the usefulness of such assessments for improving learning and instruction. Principled assessment design is an attempt to ensure that assessments are built on modern theories of learning to provide a more robust framework for the design, interpretation and validation of assessment results.

Too often assessments are designed by superficially matching test questions and tasks to individual standards or competencies (e.g., using surface features such as common language), or by developing items that have no evidentiary basis. This leaves us wanting in how to meaningfully interpret the results. We want information about the degree to which students are developing and demonstrating competence in a domain, but unless an assessment is purposefully

designed to provide such information, assessment results will likely not be especially useful for informing instruction and learning.

Principled Assessment Design

Bob Mislevy and his colleagues (e.g., 2003, 2006) proposed Evidence Centered Design as a test design and interpretation framework for better evaluating and supporting inferences derived from test scores. In 2001, the National Research Council (NRC) published *Knowing What Students Know*: *The Science and Design of Educational Assessment* (Pellegrino, Chudowsky, & Glaser, 2001), which synthesized a tremendous body of learning and measurement research and set an ambitious direction for the development of more valid assessments. *Knowing What Students Know* (KWSK) built off of Mislevy's (1996) notion of assessment as a process of reasoning from evidence and previous NRC work synthesizing research on human learning (Bransford, Brown, and Cocking, 2000). The authors of *Knowing What Students Know* used the heuristic of an "assessment triangle" to illustrate the relationship among learning models (cognition), assessment methods (observation), and inferences from assessment scores (interpretation). We provide a little detail here because it serves as an important background to understanding ECD.

Cognition refers to the empirically-based theories and beliefs about how humans represent information and develop competence in a particular academic domain (Pellegrino et al., 2001). These theories of "learning and knowing" help explain varying levels of performance in a particular domain, and therefore, are necessary for the design and interpretation of assessments. The observation vertex of the triangle refers to "a set of specifications for assessment tasks that will elicit illuminating responses from students" (Pellegrino et al., 2001 p. 42). The design of items or tasks is based upon the belief that those particular assessment events will allow students to demonstrate their understanding of the domain, in a manner consistent with the specified theory of learning. The interpretation component in this diagram includes all of the methods and analytic tools (e.g., psychometric and statistical models) used to make sense of and reason from the assessment observations (Pellegrino et al., 2001).
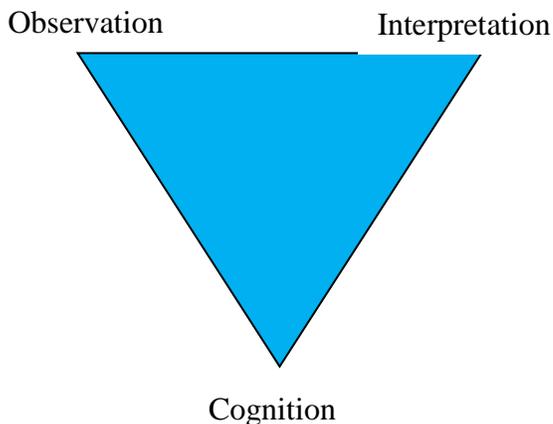

Observation   Interpretation

Cognition

Figure 1. The Assessment Triangle (from NRC, 2001, p. 39)

Evidence Centered Design

The Assessment Triangle was based on Misley's original work in principled assessment design and we while the assessment triangle is often an easier-to-understand heuristic than ECD, we

have found that the foundational elements of ECD provide an understandable and powerful framework for helping educators design high quality performance tasks. In its simplest formulation, the core of the ECD framework has 3 components: a student model, an evidence model, and a task model. The student model describes the construct or learning outcome(s) that is the intended focus of assessment. The evidence model, which links the task and student models, describes the evidence necessary to evaluate the student model and the manner in which that evidence should evaluated to determine whether students mastered the intended knowledge and skills. Finally, the task model describes the characteristics of tasks (e.g., work products/demonstrations) that will produce the desired evidence and the variable features that can influence task difficulty and cognitive complexity.

The Student Model
The student model is analogous to the cognition vertex in the assessment triangle but focuses on the construct-specific claims that we intend to make and support based on the learning demonstrated through the assessment results. In defining the student model, assessment designers are asked to specify exactly what they want students to know and how well they want them to know it. This requires an unpacking of the construct—i.e., what we intend to measure-- by clearly articulating the range of knowledge, skills and abilities necessary to support the claims of interest. The construct is not just a content standard or even set of content standards or competencies. Rather, the construct refers to a hypothesized attribute such as reading comprehension or scientific inquiry that is based on a theoretical understanding of how various knowledge, skills, and dispositions come together to make meaning. The student model also takes into account how learners progress in their mastery of this construct along a continuum from fragile to deeper understanding.

Evidence Model
The evidence model calls for assessment designers to describe the range of **evidence** that would convince users that the student has demonstrated the knowledge and skills at the level of proficiency described in the student model. The evidence model also calls for the explication of the ways in which this evidence would be quantified (e.g., scored) and how the results will be analyzed to most validly support interpretations related to the student model. For example, if the student model focused on the construct of argumentative writing, an evidence model might include such expectations as high-quality performance on a series of diverse pieces of argumentative essays on a range of topics along with the rules by which these observations and other pieces of evidence would be scored and analyzed. Ultimately, assessment designers need to ask, "what will we accept as evidence that the student has mastered the knowledge and skills that define the student model (construct)?"
The evidence model is almost always bypassed in task design in the rush to create items and tasks. In order to avoid a tail wagging the dog phenomenon, specifying the desired evidence *a priori* will help ensure that the focus is on the construct and not simply on the assessment tasks. Taking the necessary time up front to clearly articulate the student and evidence models will facilitate the design of the assessment task(s) much more smoothly than starting with the idea for a task before the intended measurement target and evidence needed to evaluate student achievement have been fully specified. These steps also contribute to task revision because once the task has been piloted, the samples of student work can be compared to the already existing evidence model to see what gaps might exist in the evidence necessary to evaluate student

competency. Lastly, development of the rubric can draw explicitly from the student and evidence models instead of trying to figure out what the assessment task actually measures after it has been developed. Each of these steps contribute to the validity of the assessment as the intended interpretation and use of the assessment results remains central to the design of the task at every step of the way.

Task Model

Once the evidence model is specified, we can then turn our attention to task design. Notice that we do not start with the tasks and try to retrofit the learning goal. The task model requires designers to outline the characteristics and features of the tasks that students will perform to demonstrate and communicate their knowledge. Task designers should ask themselves:

- What types of scenarios/problems would elicit the student evidence defined in the student model?
- What characteristics of an assessment task are necessary to measure the student model at a deep level?

The relationship among the different elements of the ECD framework supporting task development is represented in Figure 2.

Figure 2. Elements of ECD Framework Supporting Task Template Design

An Example

The following example from the Advanced Placement program (Huff & Plake, 2010) helps to highlight the type of information that is necessary to specify the student model for a given assessment. Note that the enduring understanding represents the major claim the designers would like to have evidence to support, in this case that students demonstrate an understanding that "chemical reactions are represented by a balanced chemical reaction that identifies the ratios with which reactants react and products form." As shown in Figure 3, the big idea and enduring understanding provide grounding in the major ideas of the domain, but the supporting understandings help provide the level of detail necessary to support evidence and task

conceptualizations. Within the AP process, content requirements defined within the "supporting understandings" were combined with the core skills in the domain (see Figure 4) to articulate finer-grained claims that were ultimately the focus of item and task development (see Hendrickson, Huff, & Luecht, 2010).

Big Idea: Changes in matter involve the rearrangement and/or reorganization of atoms and/or the transfer of electrons.

Enduring Understanding: Chemical reactions are represented by a balanced chemical reaction that identifies the ratios with which reactants react and products form.

Supporting Understandings:

A.1. A chemical change may be represented by a molecular, ionic, or net ionic equation.

A.2. Quantitative information can be derived from stoichiometric calculations which utilize the mole ratios from the balanced equations. (Possible examples: the role of stoichiometry in the real world applications is important to note so that it does not seem to be simply an exercise done only by chemists; and the concept of fuel-air ratios in combustion engines, for example, is able to provide context for this form of calculation.)

A.3. Solid solutions, particularly of semiconductors, provide important, non- stoichiometric compounds. These materials have useful applications in electronic technology and provide an important extension of the concept of stoichiometry beyond the whole number mole-ratio concept.

Figure 3. From Huff & Plake (2010). An example content outline in chemistry for one big idea.

TABLE 2
Sample Skills and Skill Definitions from Science

1. **Evaluate scientific questions**
   1A. Justification that question is in scope of investigation and domain
   1B. Evaluation and criteria for the evaluation appropriate to the question
   1C. Specification of causal mechanism(s) that is related to the question
   1D. Validity of the claim that the focus of the question is related to its purpose

2. **Apply mathematical routines to quantities that describe natural phenomena**
   2A. Appropriateness of application of mathematical routine in new context
   2B. Appropriateness of selected mathematical routine
   2C. Correctness of mapping of variables and relationships to natural phenomena
   2D. Correctness of application of mathematical routine
   2E. Correctness of results of mathematical routine
   2F. Reasonableness of solution given the context
   2G. Description of the dynamic relationships in the natural phenomena
   2H. Prediction of the dynamic relationships in the natural phenomena
   2I. Precision of values consistent with context

3. **Connect concepts in and across domain(s) to generalize or extrapolate in and/or across enduring understandings and/or big ideas.**
   3A. Articulation of content-specific relationships between concepts or phenomena
   3B. Prediction of how a change in one phenomenon might effect another
   3C. Comparison of salient features of phenomena that are related
   3D. Appropriateness of connection across concepts
   3E. Appropriateness of connection of a concept among contexts

Figure 4. From Huff & Plake (2010). Defining knowledge and skills related to the big idea.

The Task Template

The point of all of this discussion is to support the creation of task templates that can be used for efficient and replicable task design. In the case of PACE, we use a task design template to ensure that performance tasks are designed to best represent the intended learning targets. Under ECD, each task template is aligned to a specific claim, KSA and task model, and is intended to be general enough to allow for the generation of multiple tasks. A template provides a guide for how to generate and score tasks, but also specifies which variables can be changed while still providing information that informs the claim and KSAs targeted for assessment. The task template is not the same as a test blueprint. A test blueprint is generally thought of as a table with the claims of interest on one side and the depth of knowledge on the other and then in the fields of the table there is the number of items or the points that will be dedicated to each intersection. A task template has more specificity and information than is generally seen in a test blueprint. There is more discussion on what the items might look like and how they might combine to address the student model. Components that may be included in a task template include the following:

- the focal knowledge, skills and abilities to be assessed by the task;
- a general description of what students will be asked to do;
- a list of features that may be varied during task development to influence task difficulty or complexity (e.g., item content, format, supporting information);
- a description of the manner in which the task will be presented (e.g., The task will have 2 parts. In part 1 the student calculates a solution to a presented problem, in Part 2 he/she provides a rationale for procedure used.);
- a description of the intended product/evidence resulting from the task; and
- a list of the specific elements in the response that are target of evaluation and how they should be scored (e.g., a general scoring rubric).

<u>Universal Design for Learning</u>
The use of principled assessment design has tremendous advantages for the design of assessments, including the types of curriculum-embedded performance tasks used in PACE and similar projects. But what about students with disabilities, English learners, or others struggling to access the content in expected ways?

Universal Design for Learning (UDL) is an educational framework, originally drawn from architectural design principles, based on research in the learning sciences that guides the development of flexible learning environments that can accommodate individual learning differences. The UDL framework, first defined by David H. Rose and the Center for Applied Special Technology (CAST) in the 1990s, calls for creating curriculum from the outset that provides:
- *Multiple means of representation* to give learners various ways of acquiring information and knowledge,
- *Multiple means of expression* to provide learners alternatives for demonstrating what they know, and
- *Multiple means of engagement* to tap into learners' interests, challenge them appropriately, and motivate them to learn

UDL has been applied to assessment design increasingly over the past 15 years or so. In fact, when asked about the relationship of UDL to principled assessment design, Mislevy responded:

> *UDL prompts you to target learning goals; you identify what we call the "focal knowledge, skills, and abilities" or "focal KSAs," that you want your students to develop. When applying UDL to assessment, you are evaluating these focal KSAs in order to determine if students are making progress in those capabilities. UDL also encourages us to carefully consider all of the knowledge, skills, or abilities that might tangentially be involved in assessing the focal ones. These "non-focal KSAs" might prevent students from accurately being able to demonstrate what they know and what they can do. For example, students with a visual impairment might do poorly on a science assessment not because they do not know the content but because they are unable to see the material. Other students may do poorly on a specific item simply because they were not given some construct-irrelevant information that they would need to know in order to interact with the task. In both of these examples, non-focal KSAs interfere with students' learning and performance on tests, and lead to invalid assessment. UDL pushes us to think about the ways in which we can support students' non-focal KSAs so that we can target and address the actual learning goals (p.7).*

This applies to our work of performance assessment design throughout the design and implementation stages. By clearly specifying our student model we are explicitly listing the focal KSAs associated with what we intend to measure. Designing tasks to elicit evidence related to the focal KSAs, and not related to other irrelevant or interfering content, automatically accounts for principles of Universal Design for Learning into assessment development. Instead of trying to "fix" or accommodate tasks after the fact, UDL directs us to intentionally design tasks for the widest range of student needs possible. For example, we should avoid:

- Measuring student skills that are outside the intended construct (e.g., facility with scissors in a performance task requiring some degree of cutting and pasting)
- Using extraneous words that potential distract students from the main learning target of the task
- Using idioms or culturally-specific language
- Crowding text and/or graphics too closely on the page
- Using graphics that require certain levels of visual acuity to understand

Summary

This is a working document. We will develop and share grade- and subject-specific examples in coming months and we will be updating the PACE task template to better fit the principled assessment design processes outlined here. While some of the steps outlined in this document may appear more cumbersome compared to just designing a task, we argue that following the actions outlined in this document will lead to significantly higher quality tasks than those developed in a more ad-hoc manner. Importantly, a principled design process will improve the validity, efficiency, and replicability of our task design efforts.

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APPENDIX E: GRADE 3 ELA ALDS, PACE TO SBAC MAP

Achievement Level 3- PACE		Achievement Level 3- SBAC
Fluently and accurately reads grade level appropriate texts at a **moderate to high level of complexity** to do the following:	Reading Targets 1-7	The student who just enters Level 3 should be able to: • Use explicit details and information from texts of moderate complexity to support answers or basic inferences. • Identify or summarize central ideas, key events, or sequence of events presented in texts of moderate complexity. • Determine intended meaning of words through context, relationships, structure, or resources in texts of moderate complexity. • Interpret and explain inferences and author's message and distinguish point of view in texts of moderate complexity. • Specify and compare or contrast relationships across texts of moderate complexity. • Demonstrate knowledge of text structures or text features to obtain, interpret, explain, or connect information in texts of moderate complexity. • Interpret use of language by distinguishing literal from non-literal meanings of words or phrases used in context in texts of moderate complexity.
Identify and summarize or explain the central idea or author's message using explicit and implicit key details as text evidence.		
Compare and contrast relationships between events, ideas, or concepts within and across two texts.		
Explain literary elements, text structure, and text features by comparing and contrasting texts and/or making connections.		
Identify and explain information delivered orally or visually (e.g., maps, photographs, pictures) and connect to textual information.		
Determine literal and non-literal meanings of words in context, including general academic and domain-specific words and phrases and apply them in writing.		
	Reading Targets 8-14	The student who just enters Level 3 should be able to: • Use details and information from texts of moderate complexity to support answers or inferences. • Identify or summarize central ideas/key events or procedures or details that support them in texts of moderate complexity. • Determine intended meanings of words, including words with multiple meanings, based on context, word relationships, word structure, or use of resources in texts of moderate complexity. • Use supporting evidence to interpret and explain how information is presented across texts of moderate complexity. • Specify, integrate, and compare information within and across texts of moderate complexity. • Demonstrate knowledge of text structures or text features to obtain, interpret, explain, and connect information in texts of moderate complexity. • Interpret use of language by distinguishing literal from non-literal meanings of words and phrases used in context in texts of moderate complexity.

Achievement Level 3- PACE		Achievement Level 3- SBAC
Compose full compositions with grade-appropriate techniques, transitions, structure, organization, details, concluding statement, audience, purpose, and text features for narrative, informational, and opinion writing using the elements of the writing process and publishing with technology.	Writing Targets 1-10	The student who just enters Level 3 should be able to: • Write or revise one paragraph, demonstrating narrative techniques, chronology, appropriate transitional strategies for coherence, or author's craft appropriate to purpose. • Write full compositions, demonstrating narrative techniques: chronology, transitional strategies for coherence, or author's craft with minimal demonstration of purpose. • Write or revise one or more informational/explanatory paragraphs, demonstrating ability to organize ideas by stating focus, including transitional strategies for coherence, supporting details, or a conclusion. • Use text features in information texts to enhance meaning without support. • Write or revise one or more paragraphs, demonstrating ability to state an opinion about a topic or source, set a context, organize ideas using linking words, develop supporting reasons, or provide an appropriate conclusion. • Write full opinion pieces, demonstrating ability to state opinions about topics or sources, attend to purpose and audience, organize ideas by stating a context and focus, include structures and transitional strategies for coherence, develop supporting reasons, and provide a conclusion. • Without support, use grade-level vocabulary appropriate to the purpose and audience when revising and composing text. • Apply or edit grade-appropriate grammar, usage, and mechanics to clarify a message and edit narrative, informational, and opinion texts. • Without support, use tools of technology to produce texts.
Conduct short research projects to answer a question or investigate a topic or concept and locate information from data, print, or non-print resources; select and use sufficient accurate text evidence for research and writing.		
Use of grade-appropriate conventions of standard English grammar, usage, capitalization, punctuation and spelling when writing in all genres; errors may occur, but overall meaning is clear.		
	Listening Target 4	The student who just enters Level 3 should be able to: • Interpret and use information delivered orally or audio-visually without support.
	Research Targets 1, 2, and 4	The student who just enters Level 3 should be able to: • Conduct short, limited research projects to answer a question or to investigate a topic or concept. • Locate information to support central ideas and key details; select information from data or print and non-print text sources without support. • Generate opinions with evidence to support the opinion based on prior knowledge and information collected.

APPENDIX F: 2016-2017 LEA REPORT CARDS FOR INITIALLY IMPLEMENTING DISTRICTS

Amherst

District Report Card 2017-18

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	35	3,876		
Kindergarten	108	11,415		
Readiness	0	58		
Grade 1	138	12,678	23	16
Grade 2	116	12,495	19	16
Grade 3	132	12,978	22	17
Grade 4	143	13,436	24	18
Grade 5	136	13,659	0	18
Grade 6	142	13,753	0	16
Grade 7	174	13,811	0	17
Grade 8	185	14,134	0	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	1309	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Teacher Quality

School Staff

	District	State
Teachers	90	13,492
Instructional Support	48	6,637
Librarians	2	305
Specialists	30	2,697
Admin Support	9	1,137
All Other Support	24	2,897

[More Details]

[More Details]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	134	65		
	Mathematics	132	75		
4	Reading	122	63		
	Mathematics	123	60		
5	Reading	125	74		
	Mathematics	126	60		

6	Reading	136	71		
	Mathematics	136	58		
7	Reading	167	78		
	Mathematics	168	66		
8	Reading	161	79		
	Mathematics	161	75		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Bethlehem

District Report Card 2017-18

Enrollment				
	October 1 Enrollment		**Average Class Size**	
Grade(s)	District	State	District	State
PreSchool	12	3,876		
Kindergarten	28	11,415		
Readiness	0	58		
Grade 1	17	12,678	11	16
Grade 2	16	12,495	11	16
Grade 3	13	12,978	13	17
Grade 4	26	13,436	13	18

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 5	16	13,659	16	18
Grade 6	29	13,753	14	16
Grade 7	0	13,811	0	17
Grade 8	0	14,134	0	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	157	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	20	13,492
Instructional Support	9	6,637
Librarians	1	305
Specialists	2	2,697
Admin Support	2	1,137
All Other Support	0	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	24	58		
	Mathematics	24	71		
4	Reading	13	54		
	Mathematics	13	46		
5	Reading	30	63		
	Mathematics	30	67		
6	Reading	22	59		
	Mathematics	22	64		

N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Concord

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this

PreSchool	83	3,876		
Kindergarten	276	11,415		
Readiness	0	58		
Grade 1	308	12,678	19	16
Grade 2	293	12,495	20	16
Grade 3	308	12,978	21	17
Grade 4	326	13,436	20	18
Grade 5	333	13,659	21	18
Grade 6	336	13,753	0	16
Grade 7	312	13,811	0	17
Grade 8	323	14,134	0	17
Grade 9	451	14,838		
Grade 10	404	14,374		
Grade 11	425	13,585		
Grade 12	368	13,235		
Total Enrollment	4546	178,328		

year.

[More Details]

Teacher Quality

[More Details]

School Staff

	District	State
Teachers	309	13,492
Instructional Support	180	6,637
Librarians	7	305
Specialists	68	2,697
Admin Support	24	1,137
All Other Support	105	2,897

[More Details]

NH Accountability Information:	**Elementary and Middle - Performance Indicator Report** **High School - Performance Indicator Report** [**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	322	53		
	Mathematics	325	47		
4	Reading	319	63		
	Mathematics	322	52		
5	Reading	300	67		
	Mathematics	301	60		
6	Reading	299	48		
	Mathematics	303	55		
7	Reading	311	50		
	Mathematics	314	52		
8	Reading	341	56		
	Mathematics	343	48		
11	Reading	317	66		
	Mathematics	317	40		

NECAP and NH Alternative Assessment Science Results 2017-18

Epping

District Report Card 2017-18

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	36	3,876		
Kindergarten	78	11,415		
Readiness	0	58		
Grade 1	65	12,678	16	16
Grade 2	84	12,495	17	16
Grade 3	69	12,978	17	17
Grade 4	70	13,436	18	18
Grade 5	81	13,659	20	18
Grade 6	73	13,753	0	16
Grade 7	74	13,811	0	17
Grade 8	72	14,134	0	17
Grade 9	80	14,838		
Grade 10	70	14,374		
Grade 11	71	13,585		
Grade 12	58	13,235		
Total	981	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[More Details]

Enrollment					

Teacher Quality
[More Details]

School Staff

	District	State
Teachers	81	13,492
Instructional Support	42	6,637
Librarians	2	305
Specialists	14	2,697
Admin Support	10	1,137
All Other Support	23	2,897

[More Details]

State and Federal Accountability

NH Accountability Information:	Elementary and Middle - Performance Indicator Report High School - Performance Indicator Report [NH Performance Based Accountability System]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	67	57		
	Mathematics	67	87		
4	Reading	80	57		

			District	State		
		Mathematics	80	38		
5		Reading	72	50		
		Mathematics	72	56		
6		Reading	77	52		
		Mathematics	77	60		
7		Reading	70	46		
		Mathematics	72	64		
8		Reading	78	62		
		Mathematics	74	39		
11		Reading	56	55		
		Mathematics	56	36		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Haverhill Cooperative

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	41	3,876		
Kindergarten	58	11,415		
Readiness	0	58		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 1	58	12,678	14	16
Grade 2	43	12,495	22	16
Grade 3	50	12,978	25	17
Grade 4	45	13,436	15	18
Grade 5	53	13,659	18	18
Grade 6	45	13,753	15	16
Grade 7	53	13,811	18	17
Grade 8	49	14,134	16	17
Grade 9	55	14,838		
Grade 10	45	14,374		
Grade 11	43	13,585		
Grade 12	57	13,235		
Total Enrollment	695	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	67	13,492
Instructional Support	31	6,637
Librarians	2	305
Specialists	6	2,697
Admin Support	7	1,137
All Other Support	10	2,897

[**More Details**]

State and Federal Accountability

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	45	42		
	Mathematics	45	44		
4	Reading	52	56		
	Mathematics	52	38		
5	Reading	39	56		
	Mathematics	41	29		
6	Reading	53	58		
	Mathematics	53	32		
7	Reading	50	56		
	Mathematics	51	27		
8	Reading	51	49		
	Mathematics	50	42		
11	Reading	50	50		
	Mathematics	50	38		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Laconia

District Report Card 2017-18

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	77	3,876		
Kindergarten	134	11,415		
Readiness	0	58		
Grade 1	141	12,678	18	16
Grade 2	160	12,495	20	16
Grade 3	147	12,978	18	17
Grade 4	163	13,436	20	18
Grade 5	160	13,659	20	18
Grade 6	139	13,753	0	16
Grade 7	131	13,811	0	17
Grade 8	146	14,134	0	17
Grade 9	135	14,838		
Grade 10	133	14,374		
Grade 11	129	13,585		
Grade 12	150	13,235		
Total Enrollment	1945	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Teacher Quality

School Staff

	District	State

		164	13,492
[**More Details**]	Teachers	164	13,492
	Instructional Support	66	6,637
	Librarians	5	305
	Specialists	35	2,697
	Admin Support	12	1,137
	All Other Support	37	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	152	26		
	Mathematics	152	26		
4	Reading	160	31		
	Mathematics	160	19		
5	Reading	136	42		
	Mathematics	134	31		
6	Reading	121	39		

		Mathematics	121	26		
7		Reading	131	42		
		Mathematics	132	33		
8		Reading	125	42		
		Mathematics	127	31		
11		Reading	135	59		
		Mathematics	135	38		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Monroe

<table>
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</table>

	Enrollment				School Safety	

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	6	3,876		
Kindergarten	5	11,415		
Readiness	0	58		
Grade 1	8	12,678	8	16
Grade 2	12	12,495	12	16
Grade 3	6	12,978	0	17
Grade 4	6	13,436	0	18

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 5	7	13,659	0	18
Grade 6	11	13,753	0	16
Grade 7	11	13,811	11	17
Grade 8	13	14,134	13	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	85	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	10	13,492
Instructional Support	6	6,637
Librarians	1	305
Specialists	2	2,697
Admin Support	1	1,137
All Other Support	2	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends

	N is the number of students participating.				
	% is the percent of students scoring proficient or above.				
	Click on a grade to show the achievement trend for that grade.				
	Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015				

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	6			
	Mathematics	6			
4	Reading	5			
	Mathematics	5			
5	Reading	10			
	Mathematics	10			
6	Reading				
	Mathematics				
7	Reading	13	46		
	Mathematics	13	38		
8	Reading	6			
	Mathematics	6			
11	Reading				
	Mathematics				

NECAP and NH Alternative Assessment Science Results 2017-18
Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Newport

<table>
<tr><td colspan="5" style="background:green;color:white;text-align:center">**District Report Card 2017-18**</td></tr>
</table>

Enrollment				
	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	35	3,876		
Kindergarten	51	11,415		
Readiness	0	58		
Grade 1	78	12,678	20	16
Grade 2	67	12,495	17	16
Grade 3	66	12,978	16	17
Grade 4	84	13,436	21	18
Grade 5	66	13,659	22	18
Grade 6	67	13,753	0	16
Grade 7	60	13,811	0	17
Grade 8	70	14,134	0	17
Grade 9	94	14,838		
Grade 10	83	14,374		
Grade 11	85	13,585		
Grade 12	88	13,235		
Total Enrollment	994	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	87	13,492

		40	6,637
Instructional Support		40	6,637
Librarians		2	305
Specialists		30	2,697
Admin Support		7	1,137
All Other Support		19	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	82	24		
	Mathematics	82	30		
4	Reading	58	19		
	Mathematics	57	11		
5	Reading	58	31		
	Mathematics	58	17		
6	Reading	66	26		
	Mathematics	64	23		

7	Reading	65	48		
	Mathematics	65	32		
8	Reading	88	28		
	Mathematics	87	22		
11	Reading	54	50		
	Mathematics	54	22		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Pittsfield

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	17	3,876		
Kindergarten	46	11,415		
Readiness	0	58		
Grade 1	50	12,678	18	16
Grade 2	41	12,495	19	16
Grade 3	56	12,978	18	17
Grade 4	28	13,436	16	18
Grade 5	42	13,659	21	18

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 6	51	13,753	26	16
Grade 7	36	13,811	0	17
Grade 8	41	14,134	0	17
Grade 9	68	14,838		
Grade 10	37	14,374		
Grade 11	30	13,585		
Grade 12	30	13,235		
Total Enrollment	573	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	56	13,492
Instructional Support	32	6,637
Librarians	2	305
Specialists	10	2,697
Admin Support	7	1,137
All Other Support	8	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	30	30		
	Mathematics	30	43		
4	Reading	40	38		
	Mathematics	40	48		
5	Reading	47	51		
	Mathematics	47	38		
6	Reading	40	68		
	Mathematics	41	61		
7	Reading	34	56		
	Mathematics	25	56		
8	Reading	36	50		
	Mathematics	34	24		
11	Reading	26	58		
	Mathematics	26	19		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Plymouth

District Report Card 2017-18

Enrollment				
	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	28	3,876		
Kindergarten	30	11,415		
Readiness	0	58		
Grade 1	44	12,678	15	16
Grade 2	39	12,495	13	16
Grade 3	42	12,978	14	17
Grade 4	47	13,436	16	18
Grade 5	43	13,659	14	18
Grade 6	61	13,753	20	16
Grade 7	41	13,811	14	17
Grade 8	44	14,134	15	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	419	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[More Details]

Teacher Quality

[More Details]

School Staff		
	District	**State**
Teachers	42	13,492
Instructional Support	24	6,637
Librarians	1	305
Specialists	5	2,697

| Admin Support | 3 | 1,137 |
| All Other Support | 3 | 2,897 |

[**More Details**]

State and Federal Accountability

| NH Accountability Information: | **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**] |

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	42	60		
	Mathematics	42	45		
4	Reading	38	47		
	Mathematics	38	55		
5	Reading	50	56		
	Mathematics	50	28		
6	Reading	37	43		
	Mathematics	37	41		
7	Reading	43	77		
	Mathematics	43	56		
8	Reading	46	63		

	Mathematics	46	52		

NECAP and NH Alternative Assessment Science Results 2017-18
Student Assessment   * indicates total number of test takers is 10 or less.   Blank indicates no science assessment test administered.

Rochester

District Report Card 2017-18	

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	60	3,876		
Kindergarten	285	11,415		
Readiness	0	58		
Grade 1	312	12,678	18	16
Grade 2	283	12,495	18	16
Grade 3	324	12,978	19	17
Grade 4	288	13,436	19	18
Grade 5	315	13,659	20	18
Grade 6	326	13,753	0	16
Grade 7	305	13,811	0	17
Grade 8	286	14,134	0	17
Grade 9	371	14,838		
Grade 10	373	14,374		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 11	383	13,585		
Grade 12	313	13,235		
Total Enrollment	4224	178,328		

Teacher Quality

[More Details]

School Staff

	District	State
Teachers	341	13,492
Instructional Support	154	6,637
Librarians	4	305
Specialists	88	2,697
Admin Support	27	1,137
All Other Support	68	2,897

[More Details]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends

N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	269	40		

		Mathematics	268	75	
4		Reading	299	56	
		Mathematics	298	43	
5		Reading	328	60	
		Mathematics	328	77	
6		Reading	284	49	
		Mathematics	283	37	
7		Reading	260	31	
		Mathematics	260	49	
8		Reading	294	46	
		Mathematics	294	32	
11		Reading	289	53	
		Mathematics	289	30	

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Sanborn

District Report Card 2017-18

Enrollment				
	October 1 Enrollment		**Average Class Size**	
Grade(s)	District	State	District	State

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this

PreSchool	47	3,876		
Kindergarten	93	11,415		
Readiness	0	58		
Grade 1	102	12,678	15	16
Grade 2	78	12,495	16	16
Grade 3	102	12,978	17	17
Grade 4	101	13,436	17	18
Grade 5	99	13,659	16	18
Grade 6	111	13,753	0	16
Grade 7	95	13,811	0	17
Grade 8	129	14,134	0	17
Grade 9	167	14,838		
Grade 10	174	14,374		
Grade 11	154	13,585		
Grade 12	141	13,235		
Total Enrollment	1593	178,328		

year.

[**More Details**]

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	153	13,492
Instructional Support	68	6,637
Librarians	4	305
Specialists	23	2,697
Admin Support	11	1,137
All Other Support	25	2,897

[**More Details**]

NH Accountability Information:	Elementary and Middle - Performance Indicator Report
	High School - Performance Indicator Report
	[NH Performance Based Accountability System]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	100	61		
	Mathematics	100	53		
4	Reading	102	52		
	Mathematics	102	57		
5	Reading	112	57		
	Mathematics	112	56		
6	Reading	96	64		
	Mathematics	96	66		
7	Reading	134	35		
	Mathematics	135	67		
8	Reading	131	69		
	Mathematics	131	53		
11	Reading	139	53		
	Mathematics	139	37		

NECAP and NH Alternative Assessment Science Results 2017-18

Seacoast Charter School

District Report Card 2017-18				

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	0	3,876		
Kindergarten	38	11,415		
Readiness	0	58		
Grade 1	36	12,678	0	16
Grade 2	30	12,495	0	16
Grade 3	32	12,978	0	17
Grade 4	32	13,436	0	18
Grade 5	34	13,659	0	18
Grade 6	32	13,753	0	16
Grade 7	36	13,811	0	17
Grade 8	30	14,134	0	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total	300	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[More Details]

Enrollment				

Teacher Quality	School Staff
[More Details]	[More Details]

State and Federal Accountability

NH Accountability Information:	**Elementary and Middle - Performance Indicator Report** **High School - Performance Indicator Report** [**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	25	64		
	Mathematics	24	42		
4	Reading	36	61		
	Mathematics	36	53		
5	Reading	29	45		
	Mathematics	29	48		
6	Reading	31	52		
	Mathematics	31	65		
7	Reading	21	62		
	Mathematics	22	64		

| 8 | Reading | 22 | 82 | | |
| | Mathematics | 22 | 59 | | |

NECAP and NH Alternative Assessment Science Results 2017-18
Student Assessment * indicates total number of test takers is 10 or less. Blank indicates no science assessment test administered.

Souhegan Cooperative

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	0	3,876		
Kindergarten	0	11,415		
Readiness	0	58		
Grade 1	0	12,678	0	16
Grade 2	0	12,495	0	16
Grade 3	0	12,978	0	17
Grade 4	0	13,436	0	18
Grade 5	0	13,659	0	18
Grade 6	0	13,753	0	16
Grade 7	0	13,811	0	17
Grade 8	0	14,134	0	17
Grade 9	178	14,838		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 10	194	14,374		
Grade 11	182	13,585		
Grade 12	233	13,235		
Total Enrollment	787	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	73	13,492
Instructional Support	17	6,637
Librarians	1	305
Specialists	14	2,697
Admin Support	7	1,137
All Other Support	21	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%

11	Reading	230	82		
	Mathematics	230	54		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

APPENDIX G: PACE AND STATEWIDE ACADEMIC ASSESSMENT REPORTS

NH DOE Guidance to PACE Schools – Access to Parent Reports

PerformancePLUS offers PACE schools a single place to print both PACE and SBAC reports. Although these reports are not identical to the AIR reports, they contain similar information.

We 'shared' a series of reports (1 per grade) with each superintendent. These shared reports allow you to print out student reports. You can share these reports with your principals, so that they can run and print the reports (see more information below).

Following are directions:
1. Access PerformancePLUS and Choose the Report Option
2. Run the report (share with your principals or other users)
3. Save the results as a PDF and print for distribution

Please contact the Department with questions.

1. Access PerformancePLUS and Choose the Report Option

2. Run the report

2b. You can also share the report with other users, by clicking the 'Gear' icon. Once you click the icon, a Save/Share option will be displayed. Choose the "Share" option and then find a user.

3. Finally, after running the report, choose the "PDF" option to create (and then print) the PDF.

Example of a PACE Individual Summative Student Report
(student name and SASID redacted)

Individual Student Report

How did my student perform in **Mathematics** in the 2016-17 school year?

Test: Grade 3 End of Year Math Competency Scores 16-17
Year: 2016-17
Name:

This report provides information about your child's performance in mathematics as part of your district's participation in the Performance Assessment of Competency Education (PACE) Pilot program. New Hampshire PACE Annual Determination describes your child's achievement of the New Hampshire state model competencies and local district competencies in mathematics. These competencies are aligned to the New Hampshire College and Career Ready Standards, and define learning expectations for what students should know and be able to do at each grade level. The PACE Annual Determination is based on a body of evidence collected throughout the school year, including classroom assessments and performance tasks given at your child's school as part of the regular curriculum.

Please note, the annual determination is based on the results of an innovative assessment system. Therefore, the NH DOE is in the early stages of gathering validity evidence to support the use of these reported scores for school accountability purposes. For more information about the student work related to the New Hampshire competencies that contributes to your child's annual determination, please contact your local building principal. The New Hampshire PACE Annual Determination is only one indicator of your child's performance. These results should be used along with other information, such as teacher reports and observations, when making educational decisions. For more information about the New Hampshire PACE Pilot, please visit: http://education.nh.gov/assessment-systems/.

Student Test Performance

Name	SASID	Achievement Level
	i	**Level 3**

Overall Level: Mathematics

	Level 4	Level 4: The student has exceeded the achievement standard and demonstrates advanced progress toward mastery of the knowledge and skills in mathematics needed for likely success in future coursework.
achieved Level 3	Level 3	Level 3: The student has met the achievement standard and demonstrates progress toward mastery of the knowledge and skills in mathematics needed for likely success in future coursework.
	Level 2	Level 2: The student has nearly met the achievement standard and may require further development to demonstrate the knowledge and skills in mathematics needed for likely success in future coursework.
	Level 1	Level 1: The student has not met the achievement standard and needs substantial improvement to demonstrate the knowledge and skills in mathematics needed for likely success in future coursework.

APPENDIX H: SUMMARY OF RESEARCH STUDY

Effects of New Hampshire's Innovative Assessment and Accountability System on Student Achievement Outcomes After 3 Years (2014-2017)
by Carla Evans

Carla Evans, a recent Ph.D. graduate from the University of New Hampshire, investigated the effects of New Hampshire's PACE pilot on grade 8 and 11 student achievement outcomes in ELA and math from the first three years of the pilot (2014-15, 2015-16, and 2016-17). The research study built upon her dissertation research that focused on only grade 8 and the first two years. The research study summarized below is currently under review with a major journal in the field and will be available for distribution once published.

The purpose of the study was to examine the effects of NH's PACE pilot on student achievement outcomes in math and ELA. The study is de-limited to Grade 8 and 11 because students in NH's PACE pilot only take a state-level achievement test once per grade span: grade 3 ELA, grade 4 math, and grades 8 and 11 ELA and math. There is no prior achievement data available for grade 3 ELA or grade 4 math, which is why those grades were not examined. There were three research questions:

Research Question 1: What is the average treatment effect of the PACE pilot on Grade 8 and 11 student achievement in mathematics and English language arts when comparing students with similar probabilities of being selected into the pilot?

Research Question 2: To what extent does the number of years a district has implemented the PACE pilot affect student achievement outcomes?

Research Question 3: To what extent do effects vary for certain subgroups of students?

In order to examine these three research questions, it was first important to establish equivalent treatment and comparison groups at baseline in order to address the likely selection bias inherent in the PACE group. Districts self-selected into the PACE pilot and there are pre-existing differences between PACE and non-PACE districts that are likely related to both selection and student outcomes. These pre-existing differences potentially bias effect estimates and threaten the internal validity of the study. Therefore, inverse propensity score weighting was used to create roughly equivalent groups at baseline based on observable district characteristics of the students in the PACE and non-PACE groups. Since students are nested within schools, multilevel modeling was then used with the inverse propensity score weights to examine the effects of treatment on Grade 8 and 11 student achievement outcomes in math and ELA. Interactions between treatment and student-level characteristics were also examined to investigate whether effects varied for different subgroups of students.

Findings suggest that PACE students in Grades 8 and 11 perform slightly better on the state math and ELA achievement tests in comparison to demographically-similar students. Lower achieving students tended to exhibit small positive differential effects whereas male students tended to

exhibit small negative differential effects. There were inconclusive findings related to special education and free-and-reduced price lunch students. Results of this study may also provide assurance to the U.S. Department of Education that the use of local assessment data for accountability purposes provides all students with an equitable opportunity to learn the content standards and does not harm subgroups of students who are generally considered more at risk in terms of educational disparities. Other implications for research, policy, and practice are discussed in the conclusion of the study that will be available once published.

APPENDIX I: PACE COMMON TASK HIGH-QUALITY ASSESSMENT REVIEW TOOL

Assessment Profile
Items Submitted – check all that is submitted and <u>fully</u> completed: ☐ **NH PACE Performance Task Template** ☐ **Appendix A: Scoring Rubric** ☐ **Appendix B: Student Performance Tasks:** what the student is required to do and produce (prompt, directions, materials, checklists, etc.)? ☐ **Appendix C: Teacher Instructions:** materials needed, time required for administration, procedure ☐ **Resources: Actual Texts or links to texts, videos, data charts, etc.**
Appendix B: Student Task Instructions ☐ **Fully** describes all student expectations. ☐ **Partially** describes student expectations. ☐ **Minimally** describes student expectations.
Appendix C: Teacher Instructions ☐ **Fully** describes all aspects of the administration of the task including pre-requisite learning, lessons for scaffolding, what the students will do independently. These directions follow the guidance outlined in the document entitled "Guidelines for Independent Student Work Products for NH PACE Assessments: Implications for instructional scaffolding." ☐ **Partially** describes the aspects of the administration of the task including pre-requisite learning, lessons for scaffolding, what the students will do independently. These directions partially follow the guidance outlined in the document entitled "Guidelines for Independent Student Work Products for NH PACE Assessments: Implications for instructional scaffolding." ☐ **Minimally** describes aspects of the administration of the task including pre-requisite learning, lessons for scaffolding, what the students will do independently. These directions minimally follow the guidance outlined in the document entitled "Guidelines for Independent Student Work Products for NH PACE Assessments: Implications for instructional scaffolding."

Part 1: Alignment
A high quality summative assessment should be … Aligned

To what extent do you see a content match between the big ideas, enduring understandings, and standards?

☐ **Full/Close match** – all or most aspects of the task address or exceed the expectations and relevant skills and knowledge described in the Student Model.

☐ **Partial match** – Some aspects of the task address or partially address the expectations and skills and knowledge described in the Student Model.

☐ **Minimal/No match** – Few or no aspects of the task match some relevant skills and knowledge described in the Student Model.

The content expectations evaluated by the performance assessment are aligned to the expectations of the competencies/state standard(s):

☐ Yes

☐ Partial/Unclear

☐ No

Are the expectations of the task as cognitively challenging as the content expectations? In other words, the student performance task elicits sufficient evidence for judging the level of student understanding related to the competencies and standards identified. Use the definitions below to select your rating:

☐ **More rigor** – most items or the tasks reviewed are at a higher DOK level than the range indicated for the competencies/state standard(s)

☐ **Similar rigor** – most items or the task reviewed are similar to the DOK range indicated for the competencies/ state standard(s)

☐ **Less rigor** – most items or the task reviewed are lower than the DOK range indicated for the competencies/state standard(s)

Performance Task Description:

☐ **Fully** describes the context, the anticipated activities, products and/or presentations, resources, texts, and materials needed, and what students are expected to demonstrate.

☐ **Partially** describes the context, the anticipated activities, products and/or presentations, resources, texts, and materials needed, and what students are expected to demonstrate.

☐ **Minimally** describes the context, the anticipated activities, products and/or presentations, resources, texts, and materials needed, and what students are expected to demonstrate.

To what extent is scaffolding provided?

☐ **No scaffolding** is provided for aspects of the task that are being scored with the rubric

☐ **Low level of scaffolding** is provided for aspects of the task that are being scored with the rubric

☐ **Some scaffolding** is provided for aspects of the task that are being scored with the rubric

☐ **High level of scaffolding** (teaching, modeling, think-alouds, conferences, and/or organizers) is provided for aspects of the task that are being scored with the rubric

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Comments/Suggestions for Improving Alignment (if any)

Relevant evidence to justify ratings:

Part 3: Evidence and Rubric
A high quality assessment should be … Scored using Clear Guidelines and Criteria

The appropriate PACE Rubric is used for the assessment: ☐ **Yes**   ☐ **No**

Is there an additional rubric (or rubric dimensions) used to score the assessment:
 	
 ☐ **Yes** If yes, is the rubric aligned to the components of the assessment task it is intended to score:
 	
     ☐ **Fully aligned**
 	
     ☐ **Partially aligned**
 	
     ☐ **Not aligned**
 	
 ☐ **No**

Is the expected range of performance coherently described across performance levels?   ☐ **Yes**   ☐**Partial**   ☐ **No**
Is it clear which aspects of the task the rubrics will be used to evaluate?   ☐ **Yes**   ☐**Partial/Unclear**   ☐ **No**
Based on your review of the rubric would the scoring rubric most likely lead different raters to arrive at the same score for a given response?   ☐ **Yes**   ☐**Partial/Unclear**   ☐ **No**
Comments/Suggestions for Improvement for the Rubric (if any)
Relevant evidence to justify ratings:

Student Task Instructions

Part 4: Fair and Unbiased **A high quality performance assessment should be…Fair and Unbiased** (the areas below should be discussed relative to the needs of ELLs, gifted and talented students, and students with disabilities)

To what extent are the tasks visually clear and uncluttered (e.g., appropriate white space and/or lines for student responses, graphics and/or illustrations are clear and support the test content, the font size seems appropriate for the students)?

☐ **Formatting is visually clear and uncluttered**

☐ **Formatting is somewhat confusing or distracting**

☐ **Formatting is unclear, cluttered, and inappropriate for students**

Are the directions and questions presented in as straightforward a way as possible for a range of learners?

☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

Is the vocabulary and context(s) presented by the task free from cultural or other unintended bias?

☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

Comments/Suggestions for Improvement for Fair and Unbiased (if any)

Relevant evidence to justify ratings:

Resources
Part 5: Appropriateness of Text/Visual Resources
A high quality performance assessment should be…include appropriate reading and visual materials
This section may not apply. It will only be completed if reading or visual materials were included.

The texts and visual resources support the topic and prompt:

☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

☐ **N/A**

The texts have characteristics relative to grade-level expectations of a:

☐ **Simple Text**

☐ **Somewhat Complex Texts**

☐ **Complex Texts**

☐ **Very Complex Texts**

☐ **N/A**

Note: Refer to the *Text Complexity Rubric for Literary Texts or Informational Texts*

The amount of texts and visual resources are:

☐ **Appropriate for the grade level and the time allotted for the task**

☐ **Appropriate for the grade level, but may exceed the time allotted for the task**

☐ **Burdensome for the grade level and the time allotted for the task**

☐ **No texts and/or resources are included**

☐ **N/A**

Comments/Suggestions for Improvement for Appropriateness of Text/Visual Resources (if any)
Relevant evidence to justify ratings:
Recommendation for this assessment:

☐ **No changes needed**

☐ **Minor changes recommended**

☐ **Substantial changes needed, please address and resubmit**

Discussion:

APPENDIX J: WITHIN-DISTRICT CALIBRATION PROTOCOL

New Hampshire PACE

Step 1: Identification of Anchor Papers

This step is designed to help make the rubrics "real" by identifying student papers that can serve as anchors for scoring the PACE Common Task in each subject/grade this year and in subsequent years. In fact, developing a robust set of anchor papers for tasks will allow PACE Common Tasks to be administered asynchronously and still serve as PACE Common Tasks. This is one suggested process to identify anchor papers for the PACE Common Tasks, however, districts may utilize other methods and/or share anchor papers with other districts as well.

Process:
- Content or grade-level teams within each district select approximately 10-20 student work samples (if possible) from the PACE Common Task that represent the range of possible scores and that generally represent the distribution of student scores. This process can be initiated by having each teacher select a handful of papers representing the distribution in their class and making enough copies for the other members of their group. Papers should have no score marks or student names on them.
- The teachers review each of the student papers together and place them into one of four score piles (4, 3, 2, or 1), discussing how they are judging the overall quality of student work against the rubric and trying to identify and agree upon prototypical (anchor) papers at each score point (4, 3, 2, & 1). If possible, it is helpful to have more than one anchor paper for each score point, to give scorers an idea of the range of possible responses for each score.
- As anchor papers are agreed upon, teachers should feel encouraged to annotate the student work with comments as to why the paper was chosen. These notes can help capture the discussion around the papers for teachers who were not involved in this process, but who will be using them to help score.
- Recognizing that most of the rubrics contain multiple dimensions, it would be ideal to have anchor papers identified for each score point for each dimension. This might not require unique papers for each point because certain papers might serve as anchors for multiple dimensions.

Products:

- Each teacher who will be participating in the scoring process should receive copies of the chosen anchor papers for the tasks he/she will be scoring.

Notes:
- We anticipate that a 2-3 hour meeting will be needed to identify anchor papers.
- Please work with your building and district administration to coordinate this effort.

Step 2: Individual Teacher Scoring

This step is the major work of scoring the operational papers for competency determinations and other classroom and school uses of the scores.

Process:
- Teachers read the Principles of Scoring Work one-page handout (next page). This can be done individually or together during meeting time.
- Together with the Principles of Scoring Work, teachers should use the anchor papers to match student work to score points by rubric dimension. The anchor papers can be used to help decide between adjacent score points. For example, teachers can ask themselves, "Does this work look more like the anchor paper for score 2 or score 3 for this rubric dimension?" This step will help ensure that teachers' scores are consistent within districts.
- Each teacher scores his/her student responses to the PACE Common Task.

Notes:
- If one district administers the PACE Common Task earlier than the others, we recommend that they share the anchor papers that they used with the remaining districts. However, these papers will not eliminate the need for Step 1, but rather become a starting point for teacher discussion as they are looking at student work from their respective districts. Should the teachers decide to adopt the same or some of the same anchor papers, that is all the better.

Principles of Scoring Student Work

1. Know the rubric. It is your "Constitution." Granted, that means it is sometimes hard to interpret, but every score must be an attempt to apply the rubric's language and meaning.

2. Trust evidence, not intuition. Intuition is a powerful force, but it is also highly subjective (or specific to an individual). Calibration with other scorers requires us to base our judgments on the evidence that everyone can see, not on what a particular person feels or thinks the student might know even if he/she hasn't shown it.

3. Match evidence to language in the rubric and to the anchor papers. A safe rule of thumb: If you circle something on the rubric, be sure you can circle its justification(s) in the student essay itself. Further, it is important that you try to make sure that the score you give to the particular paper has the features that closely match one or more of the anchor papers for that score point.

4. Weigh evidence carefully; base judgments on the preponderance of evidence. Within each scoring dimension, the score must be based on the overall performance as evidenced throughout the essay. Therefore, the score is not based on the student's best or worst moment; rather, the score reflects what is generally true about the student's overall performance within each of the analytic scoring dimensions.

5. Know your biases; leave them at the door. The trick is not to rid yourself of bias; that's impossible. But you do need to recognize what your biases are, and be mindful of how they can trigger first impressions that can color all judgments that follow. The violation of a cherished grammar rule, for example, must not blind you to all other grammatical aspects the student handled correctly.

6. Focus on what the student does, not on what the student does not do. Scorers who attend to what is in the essay, rather than what is not or what is missing, tend to score more accurately. That shouldn't surprise us: It is easier to agree on what is than on what could be. A score is always based on what is.

7. Isolate your judgment: One bad element does not equal a bad paper. Problems in essays often affect the overall reading experience. But an analytic rubric is not designed to assess the overall reading experience. Rather, it is isolating variables, distinguishing between relative strengths and weaknesses. Certain essays will require that you invest more cognitive work into their scoring. Be sure not to be overly punitive in scoring those essays, and be mindful that a student's poor performance in one scoring dimension does not cloud your judgment on the scoring of other, unrelated dimensions.

8. Resist seduction: One good element does not equal a good paper. It also works the other way. You read an insightful and fluidly written introduction, and after that the writer can do no wrong. (This is known as the "halo effect.") One exceptional insight does not cancel out the many vague points the student does not develop. Correct punctuation or good syntax in one paragraph does not cancel out errors in other paragraphs. Beautiful syntax does not equate to deep content understanding.

9. Recognize direct copy or plagiarism. Be sure to distinguish between the use of quotes in support of the student's ideas and what may be intentional copying of the author's words.

10. Stick to the rubric. Don't measure what is not being measured. Handwriting or choice of font, for example, is not criteria on the rubric.

Adapted from a tool developed for the Literacy Design Collaborative by Measured Progress and the Stanford Center for Assessment, Learning, and Equity.

APPENDIX K: HUMRRO EVALUATION EXCERPT

Executive Summary of Evaluation

HumRRO conducted several data collection activities over the course of the evaluation. These included interviews with nine PACE District Leads; visits to schools in eight PACE districts to conduct interviews or focus groups with administrators, teachers, parents, and students, as well as classroom observations; observation of cross-district meetings including task development sessions and scoring and calibration sessions; participation in monthly PACE Leads Meetings; and review and analysis of scoring and calibration data. In addition, we administered a teacher survey to all teachers in Tier 1[35] districts, in part to help determine the generalizability of our findings from the teacher focus groups.

Buy-in
One of the most challenging requirements for the success of any educational intervention is securing buy-in from the major participants and leadership of classrooms, schools, and districts. PACE addresses this challenge in several ways. First, educators are in charge of nearly all aspects of the program. Teachers decide what is assessed, how it is assessed, and how the tasks are scored. By placing the responsibility for creating the tasks on the primary users of the assessment data, PACE gives teachers more say in how their students will be assessed than in more traditional testing systems.

The second way PACE gains buy-in is by emphasizing the integrated nature of the assessments. Unlike end-of-year comprehensive statewide assessments, which sample from the past year's curriculum, PACE is targeted to the learning that is occurring at the time of administration. Since there is no specific testing window for PACE, and since the tasks are targeted to one broad curricular topic, teachers can administer the tasks when it makes the most sense. There is no need for intensive review during the weeks leading up to the testing window and no post-test slump between the end of the testing window and the end of the school year.

PACE tasks require deep knowledge on the part of students. There is no chance of getting an answer correct by guessing. Students actually perform the tasks on which they are assessed, rather than answer questions about those tasks.

Collaboration
Participating districts reported a high degree of collaboration. First, educators from all Tier 1 districts meet regularly throughout the year. They participate in task development sessions, professional development, scoring sessions, standard-setting, and other meetings.

Districts also interact through the "LibGuide" system. This system is a repository for "all things PACE." It is a web-based repository for PACE tasks, rubrics, and shared resources. Teachers who implement common tasks early share their lessons and provide tips for smoother implementation among their colleagues. The teachers share book lists that are suitable for use in

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[35]PACE Tier 1 districts refers to those districts that are fully implementing the PACE innovative assessment system. This term is no longer used.

English language arts tasks. They share equipment lists for science labs, including locally available inexpensive options for commonly needed equipment.

Over the course of the evaluation period, PACE implemented three key new collaboration measures:
- Naming an overall curriculum coordinator to assist with PACE task development activities.
- Naming of multiple Content Leads (about 30 total) for each grade level and content area combination. These teachers were identified as leaders in PACE and were recommended by peers and ultimately selected by the PACE District Leads to help coordinate subject/grade-specific activities.
- The third new innovation is the "buddy district." Districts are now paired with other districts to promote collaboration. Districts with Content Leads are often paired with districts that do not have them. Newer PACE districts are typically paired with experienced districts.

These new collaboration initiatives help PACE cope with expansion. As the program expands, these efforts become increasingly necessary to maintain the requisite levels of participation and ownership among PACE educators.

Teaching & Learning
Teachers across districts expressed that PACE has had a positive impact on increasing the depth of knowledge at which they teach and gives them real-time feedback that they can use to make "on-the-spot" adjustments to their instruction to better meet the needs of their students.

Unlike most large-scale assessment systems, which are focused on the estimation of student and/or school performance, PACE is also intended to influence instructional practices. PACE leadership is not overly concerned about teachers "teaching to the test." PACE, ideally, supports "testing to what is taught."

PACE also represents a shift for students. Typically, students learn content prior to the tests and then demonstrate their learning through their performance on the tests. PACE certainly has similar aspects, but because of the integrated nature of the assessments, students learn while testing as well. PACE tasks often require multiple classes to complete and might involve several steps (e.g., reading a novel, discussing the characters and their motivations, then writing a response to a prompt related to the novel). Because of the integrated nature of PACE, testing and learning are not entirely separate components of a student's day.

Context
While there are several contextual factors influencing the quality of PACE implementation worth mentioning, the largest stems from implementing PACE at the district level. Districts vary in their capacity, student populations, and in the expertise and experience of their staff members. Early adopters of competency-based education had a significant advantage in implementing PACE. They already had a collection of locally developed tasks from which to start and were

familiar with the design of competency-based rubrics. In many cases, their students had largely become accustomed to the kinds of tasks PACE requires.

District size plays an important role in PACE implementation as well. Smaller districts typically have only one teacher per grade/subject. In some cases, there may be only one teacher per grade; in elementary school this teacher is responsible for ELA, mathematics, and science tasks. This means that all of the work associated with developing and administering the local tasks is concentrated among very few people. Smaller districts often have to solicit help from outside the district to conduct double scoring.

Larger districts have more support staff and typically have same-grade/subject teachers who can work as teams within districts, or even within the same school. This does not always mean that the teachers in larger districts have less work, however. The more students in a school who take a PACE assessment, the larger the effort required for scoring. A very small district might only have 10 students who complete a task. A larger district could have a few hundred students completing a task.

PACE was implemented, in part, to reduce perceived negative consequences associated with large-scale, end-of-year standardized testing. PACE was designed to stave off reductions in the depth of learning of students, to promote critical thinking, and to integrate curriculum, instruction, and assessment into a cohesive system of education.

But PACE requires a tremendous amount of work on the part of teachers. While most teachers were very supportive of PACE, it was not uncommon for them to comment on the time and effort required to implement the program, including development of tasks and rubrics as well as task administration and scoring. Survey results indicate that approximately one fourth of respondents did not think that the time and effort required by the PACE initiative was worth the benefits.

Recommendations
Our evaluation found that PACE is currently functioning largely as intended. The recommendations included here call for additional monitoring or minor improvements to current processes. As the system expands, more substantial changes may become necessary, but this evaluation does not indicate a need for major modifications at this time.

Recommendation 1: Monitor and Support District Engagement
PACE should regularly gauge local leadership support and target interventions when district leaders voice concerns or reduce their district's involvement with the program. PACE has done this for one district by helping support a PACE coordinator within the district with experienced consultants. As the program expands, these checks and interventions should become more routinized to ensure that all districts maintain adequate support for the educators implementing the program.

Recommendation 2: Evaluate Effectiveness of Collaboration Methods
PACE should evaluate the effectiveness of the new collaboration methods. While task development meetings with teachers from all Tier 1 districts were becoming unwieldy, one of the

attributes teachers reported as positive was having direct input into the program. Findings from the survey indicate that those teachers who had not participated in cross-district collaborations tended to have less favorable ratings of PACE. If the new collaboration methods reduce opportunities for cross-district collaborations, then teachers may perceive less personal value in PACE. Regular monitoring and adjustments can help safeguard against this potential issue.

Recommendation 3: Consider Additional Training/Supports for Teachers Not Directly Involved in Common Task Development
As the percentage of PACE participants directly involved in future common task development decreases (either through including a smaller number of teachers in a meeting or by expanding into additional districts), the professional development and training stemming from those activities may need to be supplemented with additional training.

Recommendation 4: Infuse Equity and Accommodations Training into PACE Activities
Include training on scaffolding and accommodations as part of the regular schedule of PACE activities. Despite quality documentation and training, teachers continued to report uncertainty regarding equity issues, especially for accommodating students with disabilities (SWD). Scaffolding should be available to all students, including SWD, and is currently built into task development activities.

Recommendation 5: Investigate the Impact of Reading/Writing Requirements on Accessibility
Investigate the impact of the reading and writing demands of the PACE tasks on accessibility and student performance. If, for instance, we are interested in knowing whether students understand and can perform computations associated with a mathematics concept, including a long reading passage to set up the task might interfere with a student demonstrating her math abilities. We recommend examining score patterns among the PACE tasks, course grades, and performance on comparison measures (e.g., Smarter Balanced) for students with and without disabilities as one way to investigate whether the reading and writing requirements may be impacting students' scores.

Recommendation 6: Routinize Timely Reviews of Local Performance Tasks
Evaluate the quality of the locally developed performance tasks and rubrics. As the pool of locally developed tasks expands, it is important to ensure that the tasks and rubrics are of sufficient quality to be used to generate student scores and annual determinations. Teachers report that their skill level in developing these tasks improves with each year of PACE participation, so it stands to reason that the validity and reliability of students' scores should improve with time.

Recommendation 7: Plan for Future Research on the Impact of PACE on Teaching and Learning
The positive impacts of PACE on teaching and learning should continue to be externally verified beyond this evaluation. This may be part of a future research agenda when it becomes possible to evaluate the predictive strength of PACE results on college and career performance. In the interim, it may be possible to compare PACE versus non-PACE student performance on Smarter Balanced assessments, college entrance exams, or other measures.

Recommendation 8: Evaluate the Benefit of Time in Program on Outcomes
As the system expands, it may be possible to investigate the benefits of time in the program on instructional practice and student learning. It would not be surprising if there was a direct correlation between years in the program and benefits, both perceived and realized, on assessment practice and student learning. We would not expect this correlation to be perfect, however. Contextual factors such as district size, fidelity of implementation, and the effectiveness of district or school teams could certainly impact the effects of time in the program.

Recommendation 9: Consider Systematically Recycling Tasks
After the operational year, common tasks may still be used in place of, or in addition to, local tasks. PACE should consider some method of systematically repeating tasks across years as another check on the consistency of scoring. If tasks were repeated, previously scored "check sets" of student work from the prior year could be included in the current year. Score consistency across years could then be checked in a more systematic way.

Recommendation 10: Begin Tracking Performance from Year to Year
The PACE system has the potential for variability across years. Comparing performance across years will allow PACE to see where there are large changes in the proportions of students at each achievement level in any district and to investigate potential reasons for those changes. Early reports to USED comparing student performance on PACE with performance on Smarter Balanced within and across years, as well as the data analyses completed for this evaluation, should be repeated annually. This will allow for continuous monitoring and by investigating anomalous results, PACE may be better able to identify potential threats to reliability and validity.

End Goal: Students are College and Career Ready

Graduating students who are college and career ready is the ultimate goal of PACE. While we have found considerable evidence supporting the interim goals of PACE, it is still too early to evaluate college and career readiness. Once PACE has matured sufficiently and there are students who experienced both the PACE program and at least one year of college or career, we recommend that PACE support an ongoing research agenda to investigate claims under this ultimate goal.

The PACE Story

PACE has lofty ambitions. Ideally, PACE will lead to an integrated competency based education system that is unbound by time in class, age, location where learning takes place, and other artificial methods of categorizing students. Instead, the system would focus on a core set of competencies and move students to the next phase of their education irrespective of when, where, or how the student achieves those competencies. The system will incorporate a large number of ways for students to demonstrate the competencies, and demonstration will take place in an on-demand way, where students can choose to complete a performance event (not necessarily limited to the current task format) when they are ready, rather than on a school calendar. Instruction would be more individualized and targeted toward the next competency the student needs to master. Such a system would represent a dramatic shift from the traditional system of schooling.

PACE, as it is implemented currently, has taken steps toward this ideal. The PACE districts have begun identifying important competencies and they have designed performance tasks to measure those competencies. They have begun to build a bank of high-quality performance tasks that can be drawn on throughout a student's academic preparation. They have moved toward a more integrated system of curriculum, instruction, and assessment. Assessment is being woven into all aspects of teaching and learning, and the consideration of assessment when planning curricular sequence and planning lessons have increased among teachers since joining PACE. Students, even those who don't like PACE, describe the tasks as complex and difficult, but as strong measures of their knowledge, skills, and abilities.

But there is still a long road ahead if PACE is to realize all of its bold goals. First, PACE has to prove to be sustainable. The program is relatively new and a few highly-motivated districts have been instrumental in implementing the system. As new districts join PACE, there will be challenges. Getting new staff members oriented to such a complex new way of educating students takes considerable time and effort. If the experienced teachers train the new ones, they will need time to do so.

The sustainability of PACE will rely on demonstrating that the benefits of PACE continue to outweigh the challenges. For this to happen, PACE will require continuous feedback and improvement as the system expands.

In addition to sustainability, PACE must also prove that it is scalable. New districts are joining PACE, but NH DOE recognizes the considerable challenges involved in scaling PACE statewide as it is currently conceived. PACE is currently adopted at the district level.

In New Hampshire, PACE began with a few highly motivated districts and is expanding carefully. This model seems to be effective for a system like PACE, and if the system is transported outside New Hampshire, other states may want to adopt a similar implementation plan.
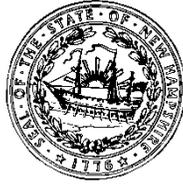
<u>New Hampshire Responses to Evaluation Recommendations</u>

The PACE leadership team has been working to address the recommendations offered by HumRRO in their very useful evaluation report. The following list highlights some of the programmatic improvements that have been made in response to the report's findings and recommendations.
- ✓ Provided communications training to a cohort of Teacher Leaders within districts to better transmit PACE knowledge to all teachers.
- ✓ Procured an online intranet (Libguide) for all PACE teachers to share key documents and resources.
- ✓ Expanded high quality performance assessment development training for schools and districts working towards full implementation.
- ✓ Developed a set of common resources for assessment literacy.

- ✓ All content leads have been trained on the use of Universal Design for Learning (UDL) and the use of accommodations and/or other supports are listed on the task templates. Additionally, the project assessment leaders have provided additional training tools on the use of UDL to support increased fairness and accessibility.
- ✓ Implementation of assessment map review with aligned assessment audit to evaluate quality of local assessments. NH DOE will provide feedback to districts related to their assessment systems and targeted supports for those districts in need of additional guidance.
- ✓ Initiated contract with Stanford University to review local performance assessments.
- ✓ Commissioned research studies that longitudinal track district performance on standardized assessments. Using propensity score matching, this research allows us to evaluate the potential influence of time in PACE on student outcomes.
- ✓ We have been working with the PACE Content Leads to develop plans for task recycling in the coming years to leverage and improve upon the strong work that has been completed in first few years of PACE implementation.
- ✓ We will continue adding to the PACE common task bank each year in order to grow the number of tasks available for local use. Such tasks will include the rubrics, teacher materials, and annotate samples of student work. The highest quality tasks will be reserved from the main task bank for potential reuse as operational tasks or inclusion in local assessment systems.

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APPLICATION FOR THE NEW AUTHORITIES UNDER THE INNOVATIVE ASSESSMENT DEMONSTRATION AUTHORITY:

PART 2

PROJECT ABSTRACT

New Hampshire was awarded permission from the U.S. Department of Education in March 2015 to pilot an assessment and accountability system designed to support deeper learning for students and powerful organization change for schools and districts. New Hampshire's Performance Assessment of Competency Education (PACE) is grounded in a competency-based educational approach designed to ensure that all students have meaningful opportunities to achieve critical knowledge and skills. **PACE is a learning system** designed to structure learning and assessment opportunities that allow students to gain and demonstrate their knowledge and skills at a depth of understanding that will transfer beyond K-12 education to success in careers and college. As a coherent system, PACE is designed to foster positive organizational learning and change by supporting the internally-driven motivation of educators instead of the all-too-common top-down accountability approaches where districts are simply expected to comply with assessment and accountability systems defined at the state and federal level.

The primary objective of the PACE innovative assessment and accountability system is to improve student outcomes by transforming instruction and assessment in classrooms across the state. The New Hampshire Department of Education (NH DOE) has based its Innovative Assessment Demonstration Authority (IADA) application on the demonstrated success of the PACE initiative. The application describes the following key components that NH DOE believes will help us achieve better results for all students:

- ✓ Explicit involvement of local educational leaders in designing and implementing the assessment system;
- ✓ Intense and reciprocal support on behalf of the NH DOE for local districts involved in this initiative that will include technical, policy, and practical guidance;
- ✓ Using competency-based education approaches to instruction, learning, and assessment as a purposeful approach for ensuring that all students, from the most advanced to the

most challenged, move on only when they have mastered critical knowledge and skills; and

✓ Use of instructionally-relevant, high-quality performance-based assessments, alongside periodic administration of the New Hampshire Student Assessment System (NH SAS) and SAT assessments of state standards in math and English language arts (ELA), for the purpose of tracking and reporting the progress of students, schools, districts, and educators.

The IADA sets a high standard of quality for any state proposing an innovative system of assessment. The following table provides four of the most central requirements to the application and New Hampshire's responses.

Requirement	New Hampshire Response
Assessment Quality	The NH DOE has been employing a multi-pronged approach for ensuring the technical quality of the PACE assessments, including closely monitoring accuracy and consistency in scoring of student work. These approaches have been reviewed and approved by the PACE Technical Advisory Committee and the U.S. Department of Education for the past three years.
Comparability	PACE has been designed to be comparable with the statewide assessment and annual evaluations of comparability are consistently strong. The NH DOE and its technical advisors have received considerable national recognition for the ways in which they have monitored and evaluated comparability among PACE districts and between PACE and non-PACE districts.
Scale Statewide	In our Live Free or Die State, the NH DOE has tremendous respect for local control. That said, NH DOE plans to offer multiple entry points into PACE ranging from high-quality professional learning opportunities for all New Hampshire educators to full implementation of the PACE performance assessment system with the eventual goal of having all schools providing personalized and deeper learning opportunities for all NH students.
Demographic Diversity & Similarity	This guardrail ensures that the innovative assessment system is not earmarked for certain types of districts to the exclusion of others. The current PACE districts are already highly representative of New Hampshire as a whole and therefore will continue to be so as PACE reaches additional schools and districts.[1]

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[1] Please see Part 3 of this application (section entitled, "Description of and Commitment from Initial Set of LEAs/schools") for the number of participants to be served and number and location of proposed sites.

NH PACE Section 1204 Application: Part 2 ED Abstract

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APPLICATION FOR THE NEW AUTHORITIES UNDER THE INNOVATIVE ASSESSMENT DEMONSTRATION AUTHORITY:

PART 3
PROJECT NARRATIVE ATTACHMENT

March 29, 2018

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INTRODUCTION

NEW HAMPSHIRE'S VISION FOR SUPPORT AND ACCOUNTABILITY

New Hampshire (NH) is committed to raising the bar for all students by defining college and career readiness as the knowledge, skills, and work-study practices needed for post-secondary success. This includes not only high levels of academic proficiency, but also deeper skills, such as critical thinking, problem-solving, persistence, communication, and collaboration. NH's educational leaders recognize that the level of improvement required cannot occur with the same type of externally-oriented accountability model that has been employed for most of the 21st century. In fact, top-down accountability approaches are likely impediments to education innovation and helping students grow academically.

As part of this shift in orientation, NH supports a personalized and competency-based approach to instruction, learning, and assessment. NH understands competency-based learning, or personalized learning, defined as: "… a structure that creates flexibility, allows students to progress as they demonstrate mastery of academic content, regardless of time, place or pace of learning."[1] This approach supports high levels and multiple means of student engagement in learning with the goal of significant improvements in college and career readiness.

The vision for the full model of NH State accountability rests on the idea of creating a complete and transparent system of internal control borrowing both from Deming-like orientations familiar to the business world, but also coherent with Richard Elmore's concept of reciprocal accountability, which has been at the core of NH's approach to educational reform for several years:

> *For every increment of performance I demand from you, I have an equal responsibility to provide you with the capacity to meet that expectation. Likewise, for every investment you make in my skill and knowledge, I have a reciprocal responsibility to demonstrate some new increment in performance* (Elmore, 2002, p.5)[2].

To operationalize a truly reciprocal accountability system, the expectations and responsibilities of all stakeholders in the public education system must be identified and addressed. Every stakeholder holding expectations of the education system is likewise responsible for its own contribution to the system.

The set of indicators that comprise the full State accountability system represents the expectations and responsibilities of each stakeholder group. The public reporting of the full set of indicators creates a system of internal control whereby the system can self-correct in response to student outcomes, environmental changes, and variations in system inputs.

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[1] https://www.ed.gov/oii-news/competency-based-learning-or-personalized-learning.
[2] Elmore, R. (2002). *Bridging the gap between standards and achievement: The imperative for professional development in education.* Washington, DC: Albert Shanker Institute.

Figure 1. *Stakeholders in Public Education*

This reciprocal approach plays out along each of the lines of influence shown above in Figure 1. For example, parents expect that the school will help maximize their child's achievement and growth in the various content areas, as well as engaging their child in a love of learning. However, schools cannot do this alone. Parents must be expected to reciprocate by interacting with, and playing an active and substantive role in supporting the school and their child. At the most basic level, these expectations are manifested by ensuring that children—to the extent possible—arrive at school as active and engaged learners. It also means that schools seek out opportunity to give parents (and other caregivers) voice in substantive decisions affecting their child's education. This type of engagement goes beyond typical activities and should include research-based practices for facilitating relationship building with parents to support student outcomes. Schools will be encouraged and supported to engage all parents by implementing a multi-tiered approach. This will ensure that all parents are supported to engage with the school to the fullest extent possible.

On the more macro level, district leaders and school board members expect to see well-functioning schools characterized as safe and nurturing places for students to learn with all staff members committed to maximizing each student's learning and growth. Therefore, these district leaders must be expected to provide the school with an adequate budget that is directed toward

maximizing student learning and growth. Evidence of such reciprocation would include such things as the percentage of the operating budget directly allocated toward student and teacher learning—including the amount of high-quality professional development provided, and the degree to which the board and superintendent follow key principles and best practices of district governance (e.g., high levels of transparency).

Lastly, schools and districts rely on the State and Federal government as important partners in providing resources and support to students. In turn, these government agencies can expect that the funds are managed and distributed appropriately to maximize impact on student learning. This robust system is based on the premise that expectations for and realization of great educational outcomes for our students is a responsibility shared among many stakeholders.

The New Hampshire Department of Education (NH DOE) intends to advance this vision through the design and implementation of an innovative assessment system. NH DOE is pleased to submit the application that follows for the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. This application represents the continuation of over four years of intense work to design and implement New Hampshire's Performance Assessment of Competency Education (PACE) pilot program. Originally implemented under a waiver from Secretary of Education Duncan under the No Child Left Behind Act (NCLB) during the 2014-2015 school year and continued under subsequent waivers from the testing provisions of the Every Student Succeeds Act (ESSA), PACE is an operational system rather than simply a hopeful design. To that end, the NH DOE will be presenting a comprehensive set of empirical results and analyses throughout this application documenting the early successes of PACE. We are confident that the proposal described in this application satisfies all of the application requirements and selection criteria.

CONSULTATION

The NH DOE has consulted with a variety of experts and affected stakeholders in the state in the development of the PACE innovative assessment and accountability system and in the development of this application.

Technical and Professional Learning Experts

The National Center for the Improvement of Educational Assessment
The National Center for the Improvement of Educational Assessment (Center for Assessment), a NH-based national non-profit consulting firm, has been the lead technical and policy partner since the inception of PACE. The Center for Assessment has been responsible for ensuring the quality and rigor of PACE common performance assessments and designing methods for evaluating the comparability of student results across districts. The Center for Assessment has also produced the PACE technical documentation each year since 2015, along with other aspects of the annual report, to the U.S. Department of Education (USED). The Center for Assessment will continue to play this critical role under the Innovative Assessment Demonstration Authority (IADA). For more information about the Center for Assessment's expertise with innovative and performance-based assessments see here.

<u>New Hampshire Learning Initiative</u>
The New Hampshire Learning Initiative (NHLI) has been an invaluable training and funding partner to PACE since 2015. In addition to helping raise external funds to support PACE, NHLI professionals have coordinated the task development work for PACE and provided critical leadership of the content experts, the teachers who lead the task development process.

<u>Demonstrated Success</u>
Demonstrated Success has been an important operational partner to PACE since 2015. Demonstrated Success works with the Center for Assessment to support PACE schools and districts to prepare and upload the required data into the Learning Management System where all of the PACE data are submitted. Demonstrated Success extracts data used to run the technical analyses, as well as implements the supplied randomization and anonymization of data for use in cross-district calibration and standard setting activities. Demonstrated Success also works with the NH DOE to apply the cut scores and business rules provided by the Center for Assessment for all PACE students in order to produce annual determinations of student proficiency and LEA report cards.

Affected Stakeholders

Like other reform initiatives in New Hampshire, PACE has been developed following Elmore's framework of reciprocal accountability. This means that the original and continuing NH PACE design has been based on a collaborative partnership among school districts and the NH DOE. In this partnership, both school districts and the NH DOE have expectations and responsibilities regarding the ultimate success of our participating students. These expectations and responsibilities cascade throughout school districts and the NH DOE, bringing important constituent groups into the process. This plays out by having participating school districts and their key constituents involved in all project design decisions from the inception of this work. We briefly highlight below the involvement and participation of these important stakeholders named in the application.

i. *Students and parents, including parents of children described in paragraph (a)(2)(i) of this section*: Using the reciprocal accountability framework described above, school district leaders engage with and solicit feedback from the various constituencies represented in their school district including parents and guardians of students with disabilities and English learners (EL). The NH DOE and PACE leadership support the district leaders with materials and ideas for how best to engage with parents of special education and EL students. National advocacy organizations such as the National Council for Learning Disabilities have also been interested and involved with PACE to ensure all students are being served within the new instructional and assessment model.

ii. *Teachers, principals, and other school leaders*: Educators and school leaders are actively involved in all PACE decisions. PACE involves several decision-making bodies, but the main group involves the leadership of all districts that meet together monthly to review and approve plans for PACE and help chart the direction forward. Each district also has a cadre of teacher-leaders to ensure that information and decisions about PACE are communicated

to the teacher level and that the interests and needs of the participating teachers are communicated to the district-state leadership team. Teachers are the heart of the PACE task development work and they work at two levels of the system. First, a core group of approximately sixty "content lead" teachers across the three content areas and grade spans help lead the task development work for PACE. In addition to leading the task development work, these content leads receive specialized training in performance assessment development and scoring from experts at the Center for Assessment as well as facilitation training from NH DOE staff members and NHLI training partners. These content leads then work with almost 400 teachers responsible for task development using support from the Center for Assessment, NH DOE, and NHLI. This deep involvement with almost 500 teachers from all PACE districts ensures that the needs of teachers and school leaders are not just addressed, but are highly valued.

School principals are also actively involved in the PACE initiative by working closely with their teachers on performance task administration and data collection. Principals are also involved with district leaders in key decisions about the implementation of PACE at the school building level. Finally, the NH DOE and its partners have supported school and district leaders during the last three summers with a leadership strand as part of the PACE Summer Institute. This leadership strand has addressed such topics as "becoming an assessment leader" and "leading a competency-based education initiative" along with many other critical leadership issues.

iii. *Those representing the interests of children with disabilities, English learners, and other subgroups of students described in section 1111(c)(2) of the Act*: The NH DOE and PACE leadership team support district leaders with materials and ideas for how best to engage with parents of special education and EL students. National advocacy organizations such as the National Council for Learning Disabilities have also been interested and involved with PACE to ensure all students are being served within the new instructional and assessment model. Special education and EL teachers have been full participants in the development of the PACE innovative system and the PACE common performance assessments since the beginning of PACE. The NH DOE special education and EL directors, as well as special education and EL teachers from participating school districts helped write the PACE accommodations manual (see Appendix A) and they continue to play an active role in performance task development. New Hampshire educators, including special education and EL teachers, have additionally participated in professional learning communities to be up-to-date on best and innovative practices for ensuring equity while moving to a competency-based learning model.

iv. *Local educational agencies (LEAs)*: As noted in (ii) above, all PACE decisions are made by leaders of LEAs and the NH DOE in a reciprocal and shared manner. This approach is described in great detail in Marion and Leather (2015)[3].

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[3] Marion, S., & Leather, P. (2015). Assessment and accountability to support meaningful learning. *Education Policy Analysis Archives*, *23*(9). Retrieved from http://dx.doi.org/10.14507/epaa.v23.1984.

v. *Representatives of Indian tribes located in the State*: Native American's represent less than 0.3% of New Hampshire's population[4] and, as such, do not have specific tribal organizations that consult on education issues.

vi. *Civil rights organizations*: Governor Chris Sununu established the Governor's Advisory Council on Diversity and Inclusion, and the formation of a new Civil Rights Unit at the New Hampshire Department of Justice. New Hampshire NAACP State Coordinator Rogers Johnson was appointed as the first chair of the Council and NH Commissioner of Education, Frank Edelblut, is a charter member of the Council. Commissioner Edelblut has discussed the PACE initiative with Council members and will present the draft application at the next meeting of the Council to solicit feedback from Council members.

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[4] https://www.census.gov/quickfacts/NH

INNOVATIVE ASSESSMENT SYSTEM

New Hampshire's PACE is an innovative assessment and accountability system. The innovative system was designed to support deeper learning for students and powerful organization change for schools and districts[5]. PACE is grounded in a competency-based educational approach designed to ensure that students have meaningful opportunities to achieve critical knowledge and skills. PACE was implemented with a subset of schools and districts in the State as a proof of concept pilot under waivers from the USED during the last four school years (2014-15, 2015-16, 2016-17, and 2017-18).

The PACE assessment system includes a combination of locally- developed and administered performance tasks and common tasks that are shared among all participating schools.

Local performance tasks are tied to grade and course competencies determined by local school districts that are aligned with the State's challenging academic content standards. Performance assessments are used both to inform teachers and students of how the learning activities are working and what might need to be adjusted (formative) along with serving to help document what students have actually learned (summative).

Common performance assessments are employed in each grade and subject (a total of 15 grade/subject combinations) where the state academic assessment is not administered. The PACE Common Performance Task is administered by all participating districts. The common tasks are developed collaboratively among the participating districts and are used to both evaluate student attainment and to ensure calibration of student performance by teachers within and across districts. Common performance tasks are also developed for a variety of high school courses to support deeper learning coherently through high school. The difference between these high school tasks and the ones administered in other grades is that the high school tasks are not part of the school accountability system.

In addition to local and common performance tasks, student academic attainment is also calibrated in participating PACE districts using the statewide academic assessment (NH SAS). The NH SAS is administered in grade 3 (English language arts), 4 (math), grade 5 (science), grade 8 ELA and math, and high school science. The SAT is administered to all grade 11 students in ELA and math.

Table 1 illustrates the grade and subject combinations where the innovative assessment system and the statewide academic assessments will be implemented in the PACE system. Annual determinations of student proficiency described in section 1111(b)(2)(B) of ESEA in PACE schools and districts are based on local assessment data (including common and local performance-based assessments) alongside teacher judgment surveys using PACE Achievement Level Descriptors, except in those grades and subject areas where the state achievement test is administered.

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[5]See Marion & Leather (2015).

Grade	ELA	Math	Science
3	Statewide assessment system (NH SAS)	Performance assessment system	Local Performance Assessments
4	Performance assessment system	Statewide assessment system (NH SAS)	Local Performance Assessments
5	Performance assessment system	Performance assessment system	Statewide assessment system (NH SAS)[6]
6	Performance assessment system	Performance assessment system	Local Performance Assessments
7	Performance assessment system	Performance assessment system	Local Performance Assessments
8	Statewide assessment system (NH SAS)	Statewide assessment system (NH SAS)	Performance assessment system
High School	Statewide assessment system (SAT) & Course-specific common performance assessments	Statewide assessment system (SAT) & Course-specific common performance assessments	Statewide assessment system (NH SAS) & Course-specific common performance assessments

Table 1. *PACE innovative assessment and accountability system overview by grade and subject*

In a competency-based system, students' opportunities are judged by the outcomes they achieve and not by "inputs" such as seat time[7]. Therefore, students must achieve identified learning targets before moving on to the next goals and/or graduating from high school. If they do not, school districts are expected to work with families to support additional learning opportunities to ensure that students have legitimate opportunities to master the necessary knowledge and skills.

High-quality performance assessments play a crucial role in the PACE system. We know that student performance on a single end-of-year achievement test may not be indicative of actual learning and mastery of academic competencies. PACE provides students with multiple opportunities to demonstrate their knowledge and skills in ways that effectively measure deep learning.

Prior to participating in PACE, districts must demonstrate readiness and must make certain commitments to continue with the IADA. The NH DOE is committed to supporting the development of local leadership and capacity to enable all LEAs in NH to implement the PACE system with fidelity. This process is described in more detail under the "Prior Experience, Capacity, and Stakeholder Support" section.

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[6] The NH SAS science assessment will be administered in 5th grade in the 2018-2019 school year while the PACE task development process shifts from 4th grade to 5th grade.

[7] Lopez, N., Patrick, S., & Sturgis, C. (2017). Quality and equity by design: Charting the course for the next phase of competency-based education. Washington, DC: CompetencyWorks and iNACOL.

The rest of this Innovative Assessment System section demonstrates how the PACE innovative assessment and accountability system currently meets the requirements of section 1111(b)(2)(B) of ESEA and the requirements specified in Part 3(b) of the Application for New Authorities under the Innovative Assessment Demonstration Authority.

The NH DOE has developed a comprehensive plan and explanation for how the PACE innovative assessment system meets the expected requirements. The plan and explanation is comprised of eight components: (1) meeting or exceeding all the requirements of section 1111(b)(2)(B); (2) aligning with the depth and breadth of the challenging State academic standards; (3) providing timely, disaggregated results for stakeholders; (4) providing summative determinations for all students that describe a student's mastery; (5) providing for the participation of all students; (6) providing valid, reliable, and comparable annual proficiency determinations; (7) using the results in accountability system for the academic achievement indicator; and (8) using results within the accountability system. Each component is detailed in turn below.

Meets requirements of section 1111(b)(2)(B)

This section details how the PACE innovative assessment and accountability system meets or exceeds each requirement within section 1111(b)(2)(B) of ESEA.

Section 1111(b)(2)(B)(i). SEAs in the demonstration authority are exempt from section 1111(b)(2)(B)(i) that requires the *same* academic assessments be used and administered to measure the achievement of all public elementary and secondary students in the State. The PACE innovative assessment and accountability system will be administered in a subset of schools and districts for the period of the demonstration authority as it continues to scale each year. The statewide academic assessments will be administered to all students in any non-participating LEA or any non-participating school within a participating LEA.

The PACE system is designed using a combination of local, common, and state level assessments (see Table 1). The core of the PACE innovative assessment system is locally-developed, locally-administered performance assessments tied to grade and course competencies determined by local school districts. In each grade and subject without a state academic assessment (a total of 15 grade/subject combinations), a common complex performance task called the PACE Common Task is collaboratively developed and administered by all participating schools and districts. The statewide academic assessments will be administered in several grades and subjects to provide another picture of student academic attainment and to provide ongoing calibration of PACE. The NH SAS is administered in grade 3 ELA, grade 4 math, grade 5 science, grade 8 ELA and math, and high school science. SATs are administered in grade 11 ELA and math.

Section 1111(b)(2)(B)(ii). See description and documentation provided below under the following two sections—"Aligns with depth and breadth of challenging State academic standards" and "Provides timely, disaggregated results for stakeholders"—for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(ii).

Section 1111(b)(2)(B)(iii-iv). See description and documentation provided below under "Provides valid, reliable, and comparable annual proficiency determinations" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(iii-iv).

Section 1111(b)(2)(B)(v). The PACE innovative assessment system is exempt from section 1111(b)(2)(B)(v) as the statewide academic assessments need not be administered annually in each of grades 3-8 and at least once in grades 9-12 in the case of reading/language arts and mathematics assessments, and at least once in grades 3-5, 6-9, and 10-12 in the case of science assessments, so long as the statewide academic assessments are administered in any required grade and subject in which the SEA does not choose to implement an innovative assessment.

The PACE system is designed using a combination of local, common, and state level assessments (see Table 1). The statewide academic assessments will be administered in a few grades and subjects in the PACE system according to when the results will be most useful for informing programs and auditing the innovative assessment system—grade 3 ELA, grade 4 math, grade 5 science, grade 8 ELA and math, and grade 11 ELA and math and high school science. The core of the PACE innovative assessment system is locally-developed, locally-administered performance assessments tied to grade and course competencies determined by local school districts. In each grade and subject without a state academic assessment (a total of 15 grade/subject combinations), one, common complex performance task called the PACE Common Task is collaboratively developed and administered by all participating schools and districts. The PACE Common Tasks are designed to serve as calibration tools, providing evidence about the comparability of judgments related to student achievement across NH PACE districts[8]. Determinations of student proficiency in the PACE grades/subjects required under section 1111(b)(2)(B)(v), but not covered by the statewide academic assessments are produced using a contrasting groups standard setting methodology that involves two aspects: (1) teacher judgments at the end of the school year regarding which achievement level best describes each of their students using the PACE Achievement Level Descriptors; and (2) end of year competency scores for each student. The contrasting groups methodology determines cut scores at the points in the competency score range that most accurately classify the highest percentage of students into achievement levels as judged by their classroom teachers. Logistic regression analyses are run separately for each cut point—Level 2, Level 3, and Level 4—in each district, subject, and grade. This standard setting methodology is designed so that the resulting levels are comparable in rigor and substance to the statewide academic assessment by using achievement level descriptors that are aligned across the two systems. See Appendix E for an example of this alignment. Standard setting reports from 2015, 2016, and 2017 are available upon request.

Section 1111(b)(2)(B)(vi). The PACE system meets the requirements specified in section 1111(b)(2)(B)(vi) because it includes multiple up-to-date measures of student academic achievement, including measures that assess higher-order thinking skills and understanding. The use of local and common extended performance tasks allows the PACE system to more validly measure the depth of the State's challenging academic standards than most standardized

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[8] Evans, C. M., & Lyons, S. (2017). Comparability in balanced assessment systems for state accountability. *Educational Measurement: Issues and Practice*. http://doi.org/http://dx.doi.org/10.1111/emip.12152

achievement tests[9]. This is because high-quality performance assessments are a critical piece of a multiple measures assessment system designed to measure deeper levels of student understanding that are generally not assessed as well with selected-response item types[10]. High-quality performance assessments require the application of knowledge related to higher-order thinking skills such as problem solving and communication within authentic settings. Such assessments also provide an opportunity for certain students who do not perform well on more traditional tests to "show what they know." This promotes student engagement and motivation, as well as 21st century learning skills such as creativity, collaboration, and self-direction.

Section 1111(b)(2)(B)(vii). See description and documentation provided below under "Provides for Participation of All Students" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(vii).

Section 1111(b)(2)(B)(viii). SEAs in the Demonstration Authority are exempt from section 1111(b)(2)(B)(viii) because they have discretion as to how they design the innovative assessment system. The PACE innovative system will be administered in a subset of schools and districts for the period of the Demonstration Authority until the system scales statewide. The statewide academic assessments will be administered to all students in any non-participating LEA or any non-participating school within a participating LEA.

Those schools or districts participating in the PACE system administer local and common performance assessments in those grades and subjects not covered by a statewide academic assessment (see Table 1). The information from these assessments is used in a contrasting groups standard setting methodology that involves two aspects: (1) teacher judgments at the end of the school year regarding which achievement level best describes each of their students using the PACE Achievement Level Descriptors; and (2) end of year competency scores for each student. The cut scores produced from this standard setting method result in a single individual summative proficiency determination that provides valid, reliable, and transparent information on student achievement.

Section 1111(b)(2)(B)(ix). PACE provides for assessments in reading or English language arts for any student who has attended school in the United States for three or more consecutive school years as required in section 1111(b)(2)(B)(ix). To ensure the validity of common performance assessment results, PACE has established the accommodation guidelines for English learners, excerpted and adapted from the Smarter Balanced Assessment Consortium – the statewide academic achievement test administered in NH through spring 2017—which is also aligned with the NH SAS accommodations policies (see Appendix A).

Section 1111(b)(2)(B)(x). See description and documentation provided below under "Provides summative determinations for all students that describes student's mastery" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(x).

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[9] Linn, R. L., Baker, E. L., & Dunbar, S. B. (1991). Complex, performance-based assessment: Expectations and validation criteria. *Educational Researcher*, *20*(8), 15–21.

[10] Lane, S., & Stone, C. A. (2006). Performance assessment. In R. L. Brennan (Ed.), *Educational Measurement* (4th ed, pp. 387–431). Westport, CT: American Council on Education and Praeger Publishers.

Section 1111(b)(2)(B)(xi). See description and documentation provided below under "Provides timely, disaggregated results for stakeholders" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(xi).

Section 1111(b)(2)(B)(xii). See description and documentation provided below under "Provides timely, disaggregated results for stakeholders" and "Provides summative determinations for all students that describes student's mastery" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(xii), which states: "enable itemized score analyses to be produced and reported." The PACE approach fulfills both the letter and intent of this regulation more so than traditional end-of-year tests. Performance assessments reveal the intricacies of student thinking to allow teachers to identify students' fragile understandings and misconceptions as well as their strengths in knowledge and skills in order to implement real-time corrective strategies.

Section 1111(b)(2)(B)(xiii). See description and documentation provided below under "Provides for Participation of All Students" for how PACE meets the requirements outlined in Section 1111(b)(2)(B)(xiii).

Aligns with depth and breadth of challenging State academic standards

The PACE innovative assessment system is aligned with the challenging State academic standards under section 1111(b)(1) of ESEA, including the depth and breadth of such standards, for the grade in which a student is enrolled as required in section 1111(b)(2)(B)(ii). There are four main sources of evidence that demonstrate how the PACE system meets or exceeds the requirement: (1) reviews of local summative assessment maps; (2) reviews of a sample of local summative assessments; (3) reviews of PACE Common Tasks; and (4) administration of extended, high-quality, and complex performance assessments throughout the year to measure the depth and breadth of the State's challenging academic content standards.

First, the NH DOE and the Center for Assessment collect and review local summative assessment maps from all participating PACE schools and districts as part of the Data Collection Protocols (see Appendix B for 2017-18 data collection protocol). Participating PACE schools and districts submit summative assessment maps in the grade/subject combinations where annual determinations of student proficiency are required under federal law. Updates to assessment maps are sought annually on a rotating basis. The assessment maps provide the base level of assurance and documentation that all State academic standards are addressed in the assessment system and that students are assessed at the depth of knowledge appropriate for the State academic standards. The assessment maps document:
  ➢ The competencies assessed in each course;
  ➢ The alignment of the state academic standards to the competencies; and
  ➢ The number, type, and timing of the summative assessments administered for each competency.
Appendix B contains the submission instructions for the local summative assessment maps, an example of a local assessment map, and the Assessment Map Review Tool. The assessment maps are peer reviewed using criteria that ensure that each State content standard is assessed in the local assessment system and used to inform competency determinations throughout the year.

The criteria also include assurance that students are provided meaningful and multiple opportunities to demonstrate proficiency on each course competency. Districts are provided formative feedback from the peer reviewers on their submitted assessment maps using the Assessment Map Review Tool. Peer reviewers are trained annually by the Center for Assessment.

As noted above, the assessment maps provide a foundational form of alignment evidence. Such evidence is necessary, but not sufficient to assure alignment. Therefore, a sample of local assessments is collected and peer-reviewed from all participating PACE districts to help bring the assessment maps to life. Reviewing a sample of local summative assessments helps evaluate alignment to the State academic standards and to examine the quality of local summative assessments used to inform competency determinations throughout the year. Submission instructions for the sample of local summative assessments and the review tool can be found in Appendix B. The local summative assessments are reviewed using criteria that ensure the summative assessments are aligned with the State's challenging academic standards and competencies, scored using clear guidelines and criteria, are fair and unbiased, and use appropriate text/visual resources. Districts receive formative feedback on each submitted local summative assessment using the Aligned Summative Assessments Review Tool.

Third, the PACE Common Tasks go through a rigorous technical review by the Center for Assessment prior to operational use each school year based on alignment with the state academic standards and competencies, the quality of the scoring guidelines and criteria, use of fair and unbiased presentation and response availability, and use appropriate text/visual resources (see Appendix I). The PACE Common Tasks are reviewed in an on-going, formative way where specific and meaningful feedback is provided to the teachers involved in task development during the design and piloting phase, which takes place in the year prior to operational use. Task developers use the feedback to revise/edit the PACE Common Tasks until they are ready for final approval by the NH DOE.

The PACE Common Tasks are designed using a Task Template (see Appendix C) created using a principled assessment design approach (see Appendix D). Teachers begin with specifying what students should know and be able to do using the State model academic standards and competencies (student model). Teachers then specify the nature of the evidence that students' performance is indicative of mastery of the intended learning targets (evidence model). The final step in the task development process is the design of the assessment task itself to elicit evidence related to the focal learning targets. Alignment between New Hampshire's challenging academic standards and the performance task is automatically addressed as the first step in the task design process instead of trying to retrofit or accommodate tasks that are not aligned after the fact. The PACE Common Task serves as a model for how to design other high-quality local performance assessments for use in participating schools and districts, which is why the same review criteria are used for the PACE Common Task and the sample of local summative assessments submitted from all participating districts.

Finally, one of the most compelling sources of evidence for alignment, particularly the depth of knowledge criterion, is the use of the PACE performance assessments to measure high-order thinking skills and understanding. PACE relies on curriculum-embedded, extended, high-quality,

and complex performance-based assessments to assess deeper learning. The use of local and common extended performance tasks allows the PACE system to more validly measure the true depth of the State's challenging academic standards than typical standardized statewide achievement tests[11]. The PACE system may also do a better job at measuring the breadth of the challenging State academic standards because the system uses local assessment data collected throughout the year to produce student proficiency determinations. Standardized achievement tests, on the other hand, generally sample from the broader domain and typically do not measure each State academic content standard in a given grade and subject.

Measures students on grade level. All students attending schools or districts participating in the PACE system will be have their academic proficiency determined based on the challenging State academic standards for the grade in which the student is enrolled.

Provides valid, reliable, and comparable annual proficiency determinations

The PACE system provides annual proficiency determinations that are valid, reliable, and comparable for all students and for each subgroup of students described in 34 CFR 200.2(b)(11)(i)(A)-(I) and sections 1111(b)(2)(B)(xi) and 1111(h)(1)(C)(ii) of ESEA, to the results generated by the State academic assessments described in 34 CFR 200.2(a)(1) and section 1111(b)(2) for such students. The PACE system is used for purposes for which assessments are valid and reliable, consistent with relevant, nationally recognized professional and technical testing standards, objectively measures academic achievement, knowledge and skills, and does not evaluate or assess personal or family beliefs and attitudes, or publically disclose personally identifiable information as required in section 1111(b)(2)(B)(iii). Furthermore, the PACE system is of adequate technical quality for each purpose required under ESEA and consistent with the requirements of section 1111, the evidence of which is public, including on the website of the NH DOE as required in section 1111(b)(2)(B)(iv). For the duration of the demonstration period, the PACE annual reports submitted to USED will document the technical evidence of quality and will be posted on the NH DOE website.

This section provides comprehensive and detailed evidence in support of the validity of the NH PACE innovative assessment and accountability system. Validity refers to the accuracy and defensibility of the inferences drawn from the assessment scores about what students know and can do and the appropriateness of the assessment results for their intended uses. We focus on validity related to annual determinations of student proficiency in English language arts and mathematics in grades 3-8 when those determinations are not made using a standardized achievement test. The demonstration and evaluation of validity is an ongoing process; it is not a simply yes/no answer. The collection of validity evidence described in this section represents the growing body of evidence supporting the PACE system.

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[11] Linn, R. L., Baker, E. L., & Dunbar, S. B. (1991). Complex, performance-based assessment: Expectations and validation criteria. *Educational Researcher*, *20*(8), 15–21.

The *Standards for Educational and Psychological Testing*[12], hereafter referred to as the *Standards*, was used as the foundation for developing the necessary validity evidence. The *Standards* is the authoritative document in educational measurement for evaluating the technical quality of tests and other measurement tools. Specific elements of technical quality that are included in the NH PACE system include the following:

✓ **Alignment** to the full breadth and depth of the state academic content standards.
✓ **Validity** or accuracy of the inferences drawn from the assessment scores about what students know and can do and the appropriateness of the assessment results for their intended uses.
✓ **Reliability** or consistency of the scoring tools and the generalizability of the inferences about students' knowledge and skills.
✓ **Comparability** of the assessment results for students within the pilot districts and, while the system is not yet statewide, across PACE and non-PACE districts.
✓ **Fairness** of the assessments with regard to accessibility for all students and minimizing bias.

In addition, characteristics of high-quality assessments and assessment systems were used in the design phase of the PACE system to support the efficacy of inferences made about student, teacher, school, and district performance. The PACE system is not simply a collection of assessment experiences for students, but instead a coherent system that has a planned flow for how information resulting from different assessments will work together to support the intended interpretations and uses. For example, the PACE assessment system is *comprehensive, coherent,* and *continuous*. These concepts of a high quality assessment system are not new, but are drawn from the National Research Council's *Knowing What Students Know*[13] and can be reviewed in greater detail from that resource or from a recent discussion of assessment system design[14].

Comprehensive –The PACE system includes a range of measurement approaches "to provide a variety of evidence to support educational decision making."[15] In this way, it is comprehensive because it allows students to demonstrate their competency in a variety of ways. This helps to ensure the validity and fairness of the inferences drawn from the assessments. Comprehensiveness also means that the assessment system, as a whole, reflects the breadth and depth of college and career ready standards and learning practices adopted by the State.

Coherence – This component of the PACE system is intricately linked with its theory of action. The PACE innovative system is not simply a different form of assessment, but reflects a systemic educational approach to promote deeper and more meaningful learning for students. Thus coherence refers to assessments that are compatible with the methods of teaching and learning and to the underlying model of learning.

Continuity – Finally, the PACE system measures student learning over time. This element of an assessment system ensures that student progress can be monitored so that educators can make appropriate instructional decisions for students.

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[12] American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME) (2014). *Standards for Educational and Psychological Tests*. Washington, DC: AERA.

[13] Pellegrino, J., Chudowsky, N., & Glaser, R. (Eds.). (2001). *Knowing what students know: The science and design of educational assessment*. Washington, DC: National Academy Press.

[14] Chattergoon, R., & Marion, S. F. (2016). Not as easy as it sounds: Designing a balanced assessment system. *National Association of State Boards of Education*, *16*(1), 6–9.

[15] Pellegrino, et al., 2001, p. 253.

Annual determinations are valid, reliable, and comparable. The NH DOE has developed a comprehensive plan for collecting and synthesizing validity evidence to support the uses of the PACE system results. This section situates the validity evidence within a comparability-based framework. Evidence related to the validity and reliability of the annual determinations is provided within the discussion of comparability as these technical properties are necessary but not sufficient for the establishment of comparability. The NH DOE has designed a system that ensures annual determinations of student proficiency are comparable within PACE schools/districts, among PACE schools/districts, and across the PACE system and the statewide assessment program. The NH DOE engages in *comparability by design* to promote and evaluate the intended claims[16].

The validity of the NH PACE innovative assessment and accountability system primarily rests on both **internal** comparability—i.e., the degree to which the assessment scores for a given grade and subject area are comparable both *within and among* the PACE districts—and **external** comparability of PACE results to those of the statewide assessment system.

Defining Comparability. Comparability is a judgment based on an accumulation of evidence to support claims about the meaning of test scores and whether scores from two or more tests or assessment conditions can be used to support the same interpretations and uses. In this way, assessments are not dichotomously determined to be comparable or not, but like validity, comparability is a judgment about the strength of the theory and evidence to support the comparability of score interpretations for a given time and use. This means that evidence used to support claims of comparability will differ depending on the nature (or grain-size) of the reported scores. For example, supporting claims of raw score interchangeability—the strongest form of comparability—would likely require the administration of a single assessment form with measurement properties that are the same across all respondents (i.e., measurement invariance). Most state assessment systems with multiple assessment forms fail to meet this level of score interchangeability. Instead, the design of most state assessment systems aims to be "comparable enough" to support scale score interchangeability. This level of comparability typically requires that the multiple tests forms are designed to the same blueprint, administered under almost identical conditions, and scored using the same rules and procedures. Still, many states continue to struggle to meet this level of comparability due to challenges with multiple modes of administration—paper, computer, and devices[17]. In this way, comparability is an evidence-based argument, and the strength of evidence needed will necessarily depend on the type of score being supported. As shown in Figure 2, comparability lies on a continuum and rests on two major critical dimensions: the comparability of content and the comparability of scores, and that each of these may exists\ at different degrees of granularity.

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[16] Lyons, S., Marion, S. F., Pace, L., & Williams, M. (2016). Addressing accountability issues including comparability in the design and implementation of an Innovative Assessment and Accountability System. www.knowledgeworks.org and www.nciea.org.

[17] Dadey, N., Lyons, S., & DePascale, C. (2018). The comparability of scores from different digital devices: A literature review and synthesis with recommendations for practice. *Applied Measurement in Education*, *31*(1), 30–50.
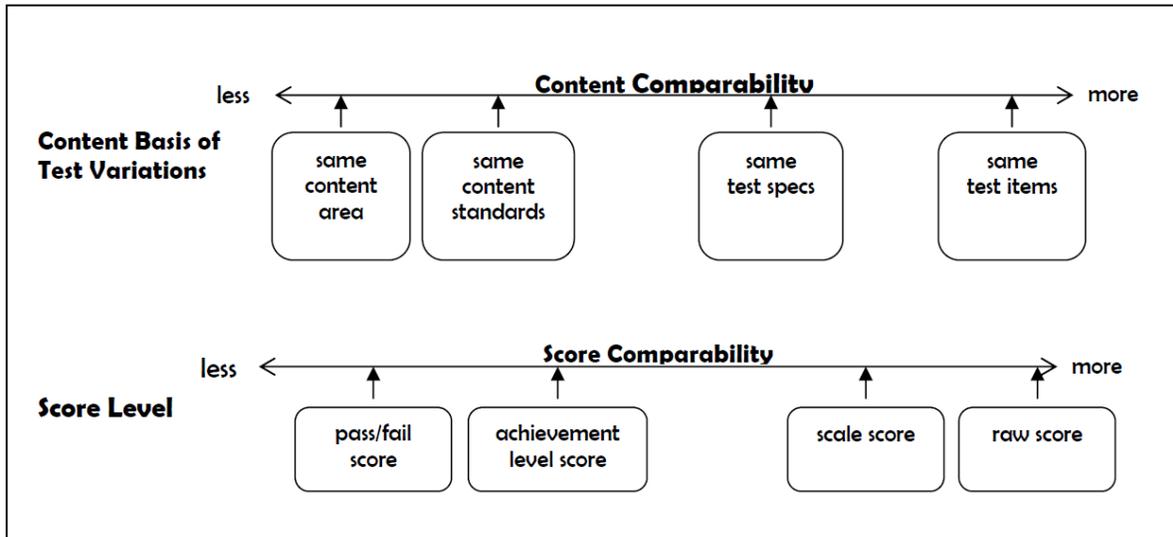
Figure 2. *Comparability Continuum*[18]

Comparability must be required at the level of the annual determinations. This means that evidence is provided to support the notion that if a student is determined to be "proficient" in one district, had that student been assigned to another district's assessment system (either PACE or non-PACE) he or she could expect to also be deemed proficient.

 Overview of Comparability Methods. Consistent with New Hampshire's evaluation plan under 34 CFR 200.106(e), the NH DOE and its technical partners will annually evaluate comparability during each year of its demonstration authority period in three main ways described in more detail below: (1) method for evaluating comparability *within* LEAs and schools participating in the PACE system; (2) method for evaluating comparability *among* LEAs and schools participating in the PACE system; and (3) method for evaluating comparability *across* the PACE system and the state assessment program. Examples of the activities and audits that occur at the three levels are summarized in Figure 3 and described in detail below going from the lowest level to the highest level. Gathering evidence at each of these levels is essential for supporting the claims of comparability, and ultimately supporting the validity of the system as a whole. The data needed to examine comparability within and across districts is supplied by the LEAs and schools participating in PACE, as specified in the PACE Data Collection Protocols each year (see Appendix B for 2017-18 version). The State provides the data necessary to examine comparability across the two assessment systems.

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[18] Figure taken from page 5 in Winter, P. C. (2010). Evaluating the comparability of scores from achievement test variations. Washington, DC: Council of Chief State School Officers.

Comparability Across Assessment Systems: Common ALDs; Common accomodations; %Proficient across all grade levels; Concurrent and non-concurrent comparability evaluations

Cross-District Comparability: Setting comparable performance standards; Social moderation comparability audits on Common Tasks; Body of Work standards validation

Within-District Comparability: Alignment to content standards and assessment quality; Reliable scoring
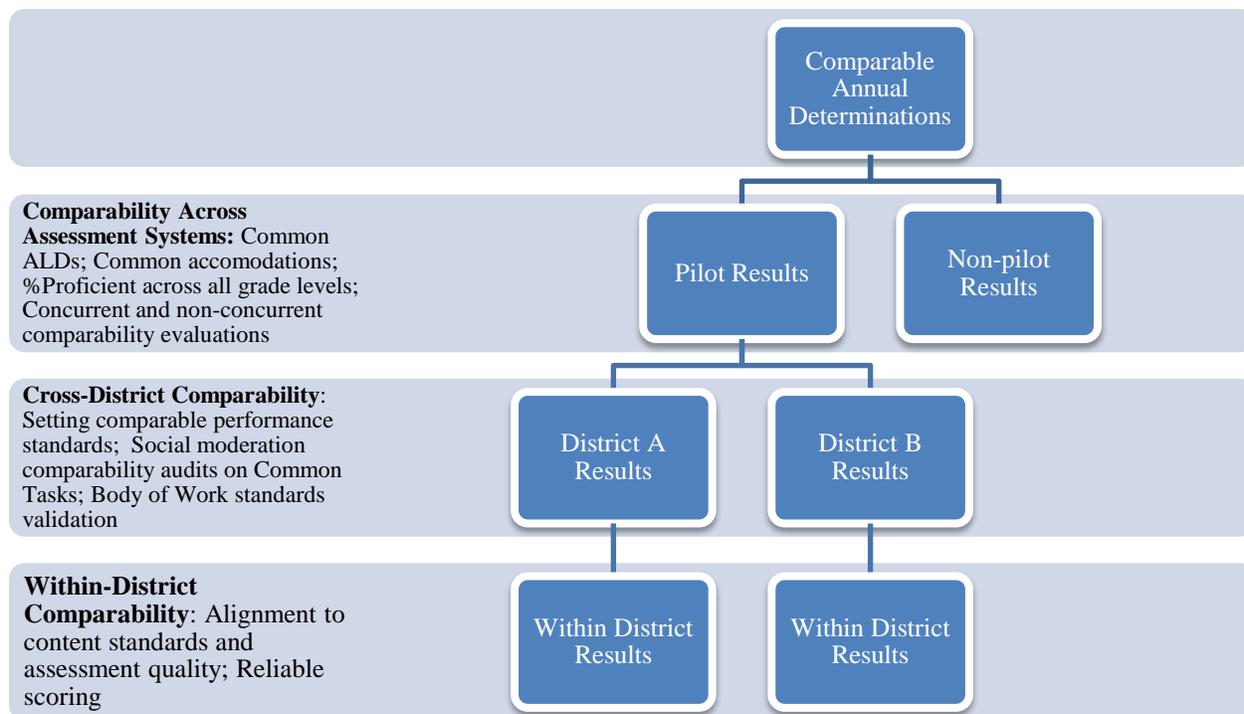
Figure 3. *Establishing an Evidence-Base for Valid, Reliable, and Comparable Annual Determinations*

Method for evaluating comparability within LEAs and schools. There are two main sources of within-district comparability evidence: A) alignment and assessment quality and B) reliable scoring. Evidence regarding alignment and assessment quality comes from 1) reviews of local assessment maps and 2) reviews of local task quality. Evidence regarding reliable scoring comes from process-based evidence (e.g., principles of scoring student work, calibration and anchor paper protocols for the PACE Common Task and local tasks, double scoring protocols), as well as audits on inter-rater reliability and the generalizability of local assessment scores. Each of these is discussed in detail below.

First, comparability within LEAs and schools participating in the PACE system is established using evidence of **alignment**. Participating LEAs and schools are aligned with the depth and breadth of the State's challenging academic standards (and therefore with one another). See the section entitled "Aligns with depth and breadth of challenging State academic standards" for more information about alignment.

Second, comparability within LEAs and schools participating in the PACE system is established using evidence of **local assessment quality**. The NH DOE and the Center for Assessment annually collect and review a sample of local summative assessments from all participating PACE schools and districts as part of the Data Collection Protocols (see Appendix B). The purpose of reviewing a sample of local summative assessments is two-fold: to ensure alignment to the State content standards and to examine the quality of local summative assessments used to inform competency determinations throughout the year. Submission instructions for the sample of local summative assessments and the review tool can be found in Appendix B. The local summative assessments are reviewed using criteria that ensure the summative assessments are

aligned with the State content standards and competencies, scored using clear guidelines and criteria, fair and unbiased (i.e., Universal Design for Learning), and use appropriate text/visual resources. Districts are provided formative feedback on each submitted local summative assessment using the Aligned Summative Assessments Review Tool.

Third, comparability within LEAs and schools participating in the PACE system is established using evidence of **reliable scoring**. Reliable scoring is established using three processes: principles of scoring student work, inter-rater reliability estimates, and generalizability analyses.

1. *Principles of Scoring Student Work.* All PACE districts hold grade-level calibration sessions for the scoring of the PACE Common Task and are encouraged to do so with their local performance assessments (see Appendix J). Teachers bring samples of their student work from the PACE Common Task representing the range of achievement in their classrooms. Teachers work together to come to a common understanding about how to use the rubrics to score papers and identify prototypical examples of student work for each score point on each rubric dimension. The educators annotate each of the anchor papers documenting the groups' rationale for the given score-point decision. These annotated anchor papers are then distributed throughout the district to help improve within-district consistency in scoring. The Data Collection Protocols each year contain detailed instructions about calibration and anchor paper protocols for PACE Common Tasks and double scoring protocols for samples collection from PACE Common Tasks. The purpose of these calibration sessions is to build LEA capacity to have meaningful discussions about the scoring of student work. Though it is only required to hold these sessions for the common task, these protocols are explicitly designed to be replicated for local use. Many districts have reported that the calibration sessions have become part of their regular practice of scoring both common and local performance assessments.

2. *Inter-Rater Reliability Estimates.* The NH DOE externally audits the consistency in scoring by asking each participating LEA or school to submit a sample of papers from each PACE Common Task that have been double-blind scored by teachers. All participating PACE districts are required in the Data Collection Protocols to submit 18 student work samples for each PACE Common Task scored by two teachers independently, thereby producing within-district double-scores for a sample of students. The collection of double scores is then analyzed using inter-rater reliability methods to estimate within-district scoring consistency. Inter-rater reliability is examined using two statistical indicators: percent agreement and Cohen's Kappa. Two indicators are used because each statistic provides unique information that is useful for making judgments about the degree of score reliability. Results of the Inter-Rater Reliability Analyses in 2015, 2016, and 2017 provide overwhelming support for the degree of inter-rater consistency in scoring of the PACE Common Tasks with the average exact agreement on the scores for each rubric dimension of the common task greater than 75%. This evidence suggests that teachers within districts are able to successfully conduct calibration sessions and comparably evaluate student work. These reports are available upon request.

3. *Generalizability Analysis.* The NH DOE externally audits the generalizability of students' overall achievement estimates by asking each participating LEA or school to submit electronic Gradebook score data from a sample of grades and subjects (see Appendix B). Generalizability analyses are designed to answer two main questions:
   a. Would students likely demonstrate similar levels of achievement had they been given a different set of assessment tasks?
   b. How many classroom assessments are needed to provide a stable measure of student achievement?

Results of the Generalizability Analyses in 2016 and 2017 suggest that classroom assessments can provide for reliable estimates of student achievement for use in a school accountability context such as in the PACE system. Results also suggest that approximately 10-20 assessments per year provide for an efficient trade-off while still ensuring a high degree of relative and absolute decision reliability. These reports are available upon request.

Method for evaluating comparability across LEAs and schools. There are three main sources of cross-district comparability evidence: A) setting comparable performance standards, B) social moderation comparability audits using the PACE Common Tasks, and C) performance standard validation. Each will be discussed in turn.

First, comparability among LEAs and schools participating in the PACE system is established by **setting comparable performance standards**. The purpose of the standard setting is to determine where in the competency scales the appropriate cut points lie for establishing achievement levels. For the participating PACE districts, student scores in the PACE subject areas and grade levels were calculated by averaging student end of year competency scores by the participating districts. Because the competencies differ across districts and the sample of students within any given district is small, a weighted factor score cannot be computed. To establish cut points we use an examinee-centered judgmental method called contrasting groups. This standard setting method involves using judgments from panelists about the qualifications of the examinees based on prior knowledge of the examinee. To implement this method for PACE, we ask teachers at the end of the school year to make judgments about which achievement level best describes each of their students. This process relies heavily on a common understanding and interpretation of the PACE Achievement Level Descriptors (ALDs), which are basically the same as the statewide academic assessment ALDs. The subject and grade specific ALDs are uploaded into an online survey where teachers can easily read the descriptions and match their students to the appropriate achievement level. The contrasting groups standard setting methodology then involves comparing end of year competency scores with student placements into achievement levels in order to determine cut scores that accurately classify the highest percentage of students into achievement levels. Logistic regression is used to determine the point in the score distribution where examinees have a 50% chance of being classified in the next performance level or above (e.g., the probability that a student is Level 3 or above is 50% at score X). A logistic regression analysis is run separately for each cut point—Level 2, Level 3, and Level 4—in each district, content area, and grade level. Results of the contrasting group standard setting analyses from 2015, 2016, and 2017 are available upon request.

Second, comparability among LEAs and schools participating in the PACE system is established through **social moderation comparability audits on PACE Common Tasks** (and adjustments

to performance standards as necessary). The PACE innovative assessment system uses PACE Common Tasks across districts to evaluate the degree of comparability in local scoring. These analyses rest on the assumption that patterns in scoring for the PACE Common Task is representative of district relative stringency and leniency in scoring of local performance tasks and assessments. This assumption has been supported by evidence of generalizability (see Generalizability analyses above). The calibration audit is intended to uncover differences in scoring between districts that can be used to support decision-making about any adjustments to cut scores that may need to be considered post hoc due systematic cross-district differences.

The calibration audit is based on methods that have been successful in Queensland, Australia for decades. The consensus scoring method involves pairing teachers together, each representing different districts, to score student work samples. The student work samples are gathered from each PACE Common Task from all participating LEAs and schools. Both judges within each pair are asked to individually score their assigned samples of student work. Working through the work samples one at a time, the teachers discuss their individual scores and then come to an agreement on a "consensus score". In the rare case that consensus cannot be reached, an expert scorer (who does not have affiliation with any particular district) decides on the appropriate consensus score. The purpose of collecting consensus score data is to get the best estimate of the "true score." These consensus scores are then used in follow-up analyses to detect any systematic, cross-district differences in the stringency of standards used for scoring. The methods described herein have been published in the leading measurement journal, *Educational Measurement: Issues and Practice*[19]. PACE teachers and leaders from each district participated in calibration audits during the PACE Summer Institute in 2015, 2016, and 2017. Results of these calibration audits and subsequent cut score adjustments are available upon request. As the PACE system continues to scale statewide, it is not feasible or necessary for all districts to develop and agree upon a single common task per course. Multiple regional cohorts of teachers will engage in the work of developing PACE common tasks that districts will be able to select from. Because the PACE common task is used only as a calibration tool, there is no need for all districts to use the same common task. For the purposes of establishing comparability in scoring, we need all teachers to administer at least one of common tasks and submit their students work samples to be consensus scored by cross-district teams of teachers.

Third, comparability among LEAs and schools participating in the PACE system is established through **performance standards validation**. As part of validating the PACE annual determinations produced over the last four academic years (2014-15 to 2017-18), we have collected validity evidence using a "body of evidence" (or Body of Work) approach. This approach requires participating schools and districts to collect student work samples on summative assessments tied to grade/course competencies for a small sample of students from a sample of courses that rotate each year (see Appendix B: Data Collection Protocols for instructions given to districts). Teachers from across the participating LEAs and schools have come together during the PACE Summer Institute to review the "body of evidence" (or portfolios) of student work and to make judgments about student achievement relative to the PACE Achievement Level Descriptors. Like the consensus scoring activity, teachers have been

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[19] Evans, C. M., & Lyons, S. (2017). Comparability in balanced assessment systems for state accountability. *Educational Measurement: Issues and Practice*. http://doi.org/http://dx.doi.org/10.1111/emip.12152

paired in cross-district teams and review bodies of work from students who do not attend any of their home districts. These teacher judgments regarding the student achievement levels are then reconciled with the reported teacher judgments within the student's home district as an additional source of validity evidence to support the PACE innovative assessment system. Results of the body of evidence audits from 2015, 2016, and 2017 are available upon request and provide extra evidence about the validity of the PACE performance standards. We do not plan to continue collecting extra validity evidence each year during the period of the demonstration authority. We will continue to explore the use of Body of Work, as well as other sources of extra validity evidence such as the NH SAS interim assessments among other potential sources of validity evidence as we continue to build out a validity argument in support of the PACE innovative assessment system.

Method for evaluating comparability across assessment systems. The accountability uses of the PACE assessment system results require the comparability of annual determinations. Therefore, the PACE innovative system's comparability claims will apply to the reported performance levels (as opposed to scale scores for more traditional assessment models). The comparability processes and audits that occur at the local, within-district level and cross-district level are all in an effort to support the claim of comparability in the annual determinations. However, because the PACE system will only be implemented in a subset of participating LEAs, a major requirement of section 1111(b)(2)(B) is that the innovative PACE system results are comparable with the non-PACE system results. The following procedures are used to formally promote and evaluate the comparability of the annual determinations across assessment systems in the State: A) common Achievement Level Descriptors (ALDs) across the assessment systems; B) common accommodations across assessment systems; C) percent proficient across all grade levels; D) concurrent comparability evaluations; and E) non-concurrent comparability evaluations. Before detailing these sources of evidence for the PACE system, we discuss reasonable expectations for comparability across the two state assessment systems.

There are a variety of reasons why there may be legitimate differences in the results produced by the two or more assessment systems. New Hampshire is applying under the Innovative Assessment Demonstration Authority for at least three reasons: (1) to measure the state-defined learning targets more flexibly (e.g., when students are ready to demonstrate "mastery"), (2) to measure the learning targets more completely and/or deeply, and (3) to measure targets from the standards that are not measured in the general statewide assessment (e.g., listening, speaking, extended research, scientific investigations). Therefore, requiring the results produced across the old and new systems to tell the same story about student achievement has the very real potential to prevent meaningful innovation. To quote one of the leading experts on score comparability, Dr. Robert Brennan, when asked about comparability between the innovative and standardized assessment systems, "perfect agreement would be an indication of failure."

Given this, *how comparable is comparable enough?* For example, if approximately 55% of the students were scoring in Levels 3 and 4 on the state standardized assessment in a given grade and subject, that does not mean we should expect exactly 55% of the students to be classified in Levels 3 and 4 in the PACE system in the same grade and subject. There could be very good reasons why the results would differ in either direction. For example, the PACE system of assessments may be capturing additional information relative to real-world application and

knowledge transfer that provides for more valid representations of the construct than possible with traditional standardized assessments. For this reason, we do not set a standard criterion, or comparability "bar", because the intended uses and contextual factors surrounding the evaluation of comparability are critical.

However, it is worthwhile to consider what might be reasonable to expect for the amount of variability in proficiency classifications across the two assessment programs. We argue that a reasonable upper bound for comparability across PACE and non-PACE systems is the degree to which comparability is achieved across forms, modes, and years of administration for the statewide standardized assessment system. This is akin to the axiom that a test cannot correlate any more with another test than it does with itself (i.e., its reliability). The literature is clear that there are significant effects associated with mode of administration (including paper/computer and across devices), accommodations, and forms across years.[20] Due to the precedence for this type of variation within our current assessment systems, it may be reasonable to expect that the variability across the PACE and non-PACE systems would be at least as large as levels we see with current state testing programs.

The unit of analysis for evaluating comparability must be at the school and subgroup levels, given the school accountability purposes of the assessment results. However, because the subgroups may involve small sample sizes, the tolerance for comparability needs to be greater for the subgroup analyses compared to the school level analyses. If school or subgroup differences across systems are detected, the state should evaluate the practical implications of those differences for decision making within the accountability system. Figure 4 presents a series of questions that could determine whether or not the levels of comparability seen are appropriate for the intended purposes:

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[20] For example: Dadey, N., Lyons, S., & DePascale, C. (2018). The comparability of scores from different digital devices: A literature review and synthesis with recommendations for practice. *Applied Measurement in Education*, *31*(1), 30–50.
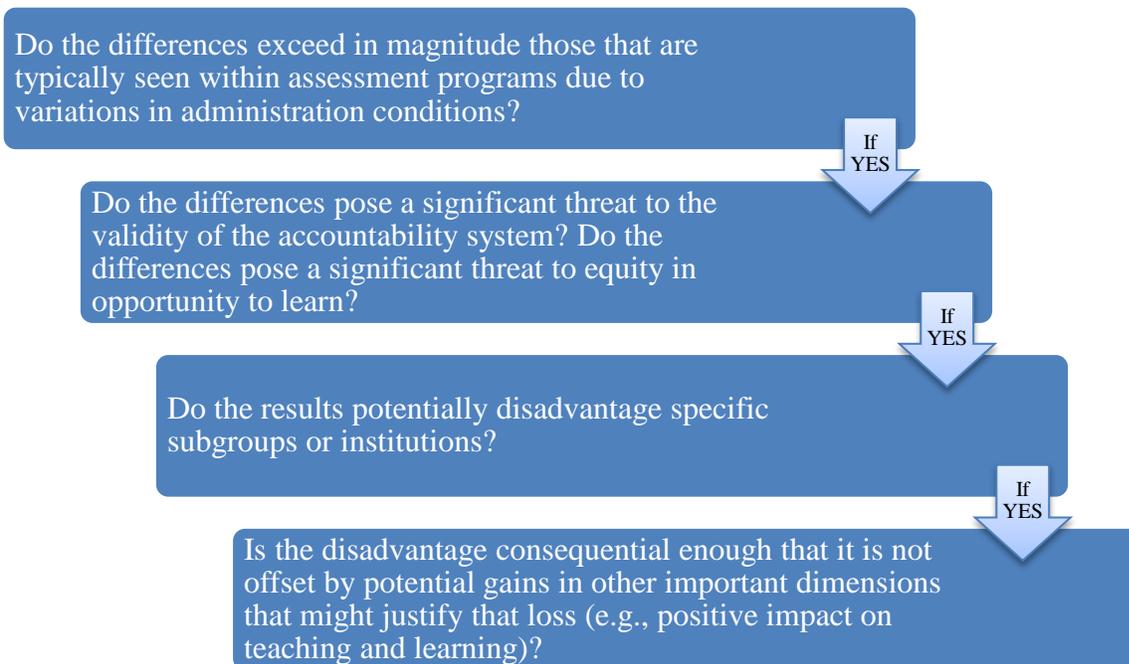
Figure 4. *Decision Tree for Determining Degree of Comparability Achieved*

If the answer to any of these questions is "no", the assessment systems can be considered comparable enough to support their intended uses for the duration of the demonstration authority period. However, in the case where all of the answers above are "yes," additional steps will need to be taken to improve the comparability of the achievement classifications to support their use in the statewide accountability system. To do so, the performance standards for either one of the assessment systems should be shifted or adjusted (such as equipercentile linking) to produce usable results for the duration of the Demonstration Authority.

The following evidence supports the comparability of the PACE system to the statewide assessment system: 1) use of common Achievement Level Descriptors across the two assessment systems, 2) use of common accommodation standards across the two assessment systems, 3) consistency in percent proficient across assessment systems, 4) concurrent comparability evaluations, and 5) non-concurrent comparability evaluations.

First, comparability across the two assessment systems is established through the **use of common Achievement Level Descriptors (ALDs) across the two assessment systems**. ALDs are exhaustive, content-based descriptions that illustrate and define student achievement at each of the reported performance levels. ALDs are used to set criterion-referenced performance standards (i.e., cutscores) for an assessment program. One of the goals of the PACE project is to provide annual determinations that can be comparable across districts and between PACE and non-PACE districts. One of the ways to help instantiate this goal is to use the statewide academic assessment's ALDs as the basis for the PACE ALDs. Because the PACE ALDs and SBAC/NH

SAS[21] ALDs are both explicitly linked to the NH Career and College Ready Standards, the similarity between the two sets of ALDs is clear. Appendix E provides snapshots of the ALDs for Grade 3 ELA. The content that is similar or identical across the two ALDs is connected with blue arrows.

Second, comparability across the two assessment systems is established through the **use of common accommodation standards across the two assessment systems**. The allowable accommodations for PACE are identical to the accommodation standards on the statewide academic assessment and both are based on principles of Universal Design Learning, (see Appendix A for PACE accommodations policy). Participating PACE districts and schools agree to implement the accommodation standards on their local and common assessments. These standards are consistent with approved accommodations for other state-level assessments, including Smarter Balanced and NECAP (the statewide assessment administered prior to Smarter Balanced). This coherence increases the comparability of results across assessment systems for students with disabilities and English learners.

Third, comparability across the two assessment systems is established through examining the **percent proficient across all grade levels on the two assessment systems within each of the pilot districts**. This analysis reveals the extent to which the rigor of the performance standards is consistent across PACE and non-PACE assessment systems, as we would not expect huge variations in percent proficient across the grade levels. Results of these analyses from 2015, 2016, and 2017 are available upon request.

Fourth, comparability across the two assessment systems is established through **concurrent comparability evaluations**. Importantly, the degree of comparability of the annual determinations across the two assessment systems within the State can be directly evaluated by administering an assessment that is common across the two programs to a sample of students. We evaluate the concurrent comparability in two criterion-related ways.

1. *Accuracy of Proficiency Classifications.* Since the statewide academic assessment is administered once per grade span in grades 3-8 and high school, the comparability of the annual determinations between PACE and non-PACE districts is evaluated by directly comparing annual determinations for the students that participated in both assessment systems. By calculating two sets of annual determinations for these students, the state has both traditional and innovative data points for some of the students in each PACE district. The degree of agreement between the two sets of annual determinations is then analyzed to provide further evidence regarding the comparability of the interpretations of the reported achievement levels, or if systematic differences are detected, inform decisions about calibrating results to provide for comparability when appropriate. The degree of similarity between the proficiency classifications provides further support the comparability of the interpretations of the reported achievement levels across the two assessment systems. The accuracy of the proficiency classifications is examined by grade

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[21] New Hampshire has recently procured a new statewide assessment for grades 3-8 called the NH SAS. The PACE ALDs will be reviewed once the NH SAS ALDs are available to ensure consistency and alignment between the two system's ALDs.

and subject and also by waiver-reported subgroup. Results of the concurrent comparability evaluations from 2016 and 2017 are available upon request.

2. *Relationship between Student Achievement Scaled Scores and Student Competency Scores*. Since the statewide academic assessment is administered in the PACE system once per grade span in grades 3-8 and high school, we will evaluate the concurrent comparability across the two assessment systems by examining the relationship between statewide tests scores and district end- of- year competency scores in the same grade and subject.

Fifth, comparability across the two assessment systems is established through **non-concurrent comparability evaluations.** Since students participate in the statewide academic assessment once per grade span in ELA and math, we use this information to compare performance on the statewide academic assessment with performance on PACE innovative assessments for students in certain grades and subjects where there is overlap from one year to the next. This means comparing a student's performance on the statewide assessment in one year to their performance in the PACE system in the next year. This also means the opposite—comparing a student's performance in the PACE system in one year to their performance on the statewide assessment in the next year. These non-concurrent comparability evaluations provide evidence that meaning of the annual determinations is reasonably stable across years and assessment systems. We would expect the classification accuracies for the non-concurrent comparability evaluations to be slightly lower than the classification accuracies observed for the concurrent year comparisons because we would expect student achievement to vary across years. Similar to the concurrent comparability evaluations, the accuracy of the proficiency classifications is examined by grade and subject and also by waiver-reported subgroup. Results of the non-concurrent comparability evaluations from 2016 and 2017 are available upon request.

Summary. The intended uses and interpretations of PACE assessment system results are supported based on all the evidence presented on the comparability of accountability determinations within districts, among PACE districts, and across the two state assessment systems. There is also additional evidence that supports the validity of the PACE assessment system results—two external evaluations of the PACE innovative system while it operated under a waiver during the 2014-15 to 2017-18 school years. The first was conducted by HumRRO starting in 2016 (see Appendix K) and the other examines grade 8 and 11 student achievement outcomes resulting from the first three years of the PACE pilot (2014-2017, see Appendix H). Details about those two external evaluations and how their findings support the validity of the PACE system can be found in section "Evaluation and Continuous Improvement".

Provides for participation of all students

The PACE system provides for the participation of all students pursuant to sections 1111(b)(2)(B)(vi and xiii) in two main ways: (1) the PACE innovative assessment system is accessible for students with disabilities and English learners and (2) the PACE innovative assessment system provides appropriate accommodations as specified in a student's Individualized Education Plan. NH DOE is committed to ensure that at least 95% of all eligible students fully participate in the pilot and has consistently met this standard annually in 2015,

2016, and 2017. Further, NH DOE will monitor all participating schools and districts to ensure that at least 95% of students in each subgroup of students fully participates in PACE.

Accessibility for SWDs and ELs. First, PACE innovative assessments are accessible for students with disabilities and English learners because the PACE Common Task is designed using a principled assessment design approach that incorporates the principles of Universal Design for Learning (UDL)(see Appendices C & D). This meets with requirements specified in section 1111(b)(2)(B)(xiii). PACE teachers are trained through the process of PACE Common Task development to consider UDL in their design of local performance tasks and assessments. For example, PACE teachers involved in task development begin with specifying what students should know and able to do (student model) and what would count as acceptable evidence that students do indeed know and can do the intended learning targets (evidence model) prior to designing the assessment task to elicit evidence related to the focal learning targets. As a result, principled assessment design automatically accounts for principles of UDL into assessment development. Instead of trying to "fix" or accommodate tasks after the fact, UDL directs us to intentionally design tasks for the widest range of student needs possible.

Furthermore, PACE Common Task developers consider during the design phase the extent to which the performance task provides students with (1) *multiple means of representation* to give learners various ways of acquiring information and knowledge, (2) *multiple means of expression* to provide learners alternatives for demonstrating what they know, and (3) *multiple means of engagement* to tap into learners' interests, challenge them appropriately, and motivate them to learn. The PACE Common Tasks are reviewed by the NH DOE and the Center for Assessment prior to operational use with UDL as one major review criteria (see Appendix I). Specifically, PACE Common Tasks are reviewed based on whether they measure student skills that are outside the intended construct, use extraneous words that potentially distract students from the main learning target of the task, use idioms, or culturally-specific language, crowd text and/or graphics too closely on the page, and/or use graphics that require certain levels of visual acuity to understand.

The PACE system is also accessible for students with disabilities and English learners because the PACE Common Task serves as a model for how to design other high-quality local performance assessments within participating schools and districts that adhere to the principles of UDL. The NH DOE and Center for Assessment audit this process by collecting a sample of local summative assessments from every participating PACE district and reviewing them, in part, based upon whether they meet principles of UDL (see Appendix B for review tool).

Provides Appropriate Accommodations. The PACE system also provides for the participation of all students in innovative assessments because instructional and assessment accommodations are available for students with disabilities, as well as students for whom English is not their native language. The PACE accommodation standards are identical to the accommodation standards on the statewide academic assessment (see Appendix A). A fundamental value of PACE is that the system should be designed to maximize the learning opportunities for each individual student.

Results can be used within the accountability system

New Hampshire's Accountability Task Force—the stakeholder group responsible for the design of the approved December 2017 ESSA plan—was intently interested on ensuring that PACE continues to play a prominent role in the State's strategic plan. This focus is represented throughout each part of New Hampshire's state plan and is especially true for accountability, where the state plan ensures that PACE schools can be effectively and comparably included in all aspects of the system including the state's long-term goals for academic achievement, the academic achievement indicator, school identification for targeted or comprehensive support and improvement, and reporting on State and LEA report cards.

<u>Use in accountability system for academic achievement indicator</u>

The PACE innovative assessment system has been designed to be comparable to the statewide system of assessments for the express purpose of use within the new state accountability system that was recently approved under the *Every Student Succeeds Act* (ESSA). Because the annual determinations are designed to be comparable, the determinations can be used to serve the same purposes within the accountability system (for more information see the section entitled "Provides valid, reliable, and comparable annual proficiency determinations"). This means that a school's participation in PACE under the Demonstration Authority will not systematically influence a school's score on the achievement indicator, and likewise the overall summative determination within the accountability system.

<u>Provides summative determinations for all students that describes student's mastery</u>

The PACE system produces individual student summative reports consistent with the requirements specified in section 1111(b)(2)(B)(x). PACE individual student summative reports meet the requirements in four ways: (1) they allow stakeholders to understand and address the specific learning needs of students; (2) they are provided as soon as practicable after the assessment(s) is given; (3) they are provided in an understandable and uniform format consistent with the statewide academic assessment reports; and (4) they are provided, to the extent practicable, in a language parents can understand.

First, PACE individual student summative reports allow parents, teachers, principals, and other school leaders to understand and address the specific academic learning needs of students. For example, PACE student reports identify which students are not making sufficient progress toward, and attaining grade-level proficiency on the State academic standards. Appendix G contains an example of a PACE individual student summative report.

Second, PACE individual student summative reports are provided to parents, teachers, and school leaders as soon as practicable after the assessment(s) is given. For example, PACE reports are provided in the same timeframe as the statewide academic assessment reports in order to allow parents, teachers, principals, and other school leaders to understand and address the specific academic needs of students. In fact, the PACE system may be better positioned to meet the requirements of sections 1111(b)(2)(B)(x and xii) than the current state assessment program as curriculum-embedded performance assessment information is available to students, parents,

teachers, and other school leaders in a timely way throughout the year. These relevant stakeholders are provided real-time, continuous information on student progress towards proficiency on the State's challenging academic standards rather than in a once a year report that is not available until the school year is over. This continuous stream of performance information throughout the year provides teachers and students with actionable, real-time data that they can use to make better instructional decisions and understand student progress towards proficiency when adjustments can still be made. This also allows teachers, parents, or other school leaders to address the specific academic needs of students as indicated by the students' achievement throughout the year using the local assessment score data. In this way, the PACE system supports best practice—the use of assessment for the improvement of education rather than the use of assessment solely as an accountability lever[22].

Third, PACE individual student summative reports are provided in an understandable and uniform format consistent with the statewide academic assessment reports. For example, the PACE student reports and statewide reports have a uniform format except that a scale score is provided on the statewide academic assessment (see Appendix G).

Fourth, PACE individual student summative reports are provided, to the extent practicable, in a language parents can understand. The NH DOE requires LEAs to sign assurances that they make PACE individual summative reports available to parents in a language they can understand. The NH DOE oversees this process.

Provides timely, disaggregated results for stakeholders

PACE system results are produced in such a way that they can be disaggregated within the State, as well as each LEA and school by all subgroups identified in section 1111(b)(2)(B)(xi), except in such cases in which the number of students in a subgroup is insufficient to yield statistically reliable information or the results would reveal personally identifiable information about an individual student. PACE system results in 2015, 2016, and 2017 were disaggregated by all relevant subgroups identified in section 1111(b)(2)(B)(xi) and reported to USED in the annual progress reports. The NH DOE is committed to continuing with this practice for the PACE results.

The PACE system also provides timely and coherent information about student attainment of the challenging State academic standards and whether the student is performing at the student's grade level as required by section 1111(b)(2)(B)(ii and x). PACE system results provide timely information because all of the PACE system results in 2015, 2016, and 2017 were provided alongside the statewide academic assessment system results and on the same time schedule when reporting to parents, teachers, and the public on the website of the NH DOE. PACE system results deliver coherent information because the PACE system results provide information about whether the student is proficient or not at the student's grade level using the same achievement levels as the statewide academic assessments and the reports are also accessed through the same

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[22] Baker, E. L., & Gordon, E. W. (2014). From the assessment OF education to the assessment FOR education: Policy and futures. *Teachers College Record*, *116*(11).

portal (see Appendix G for NH DOE Guidance to PACE Districts on accessing PACE and NH SAS reports to send to parents and an example of a PACE student summative report).

SELECTION CRITERIA

Project Narrative

New Hampshire is committed to ensuring that all students graduate high school career and college-ready. Although New Hampshire is one of the highest performing states in the country and has been improving its performance over the last 15 years, the State is not satisfied with the current levels of school and student performance. A key factor contributing to this unease is the unacceptably high level of remediation required by students entering post-secondary institutions.

We also believe that the performance gaps for some of our sub-group populations are too large and that doing more of the same will not close these gaps. To close these performance gaps we must be willing to implement innovative instructional practices that engage students from diverse backgrounds.

Yet another cause of our motivation to improve stems from knowing that we can do more to engage all students in meaningful and personalized learning opportunities. NH educational leaders argue that we are beginning to "top out" on the level of performance that can be expected in a top-down or externally-controlled accountability system. Rather than continue to operate within such a system, education leaders in New Hampshire want to shift to a more internally-focused improvement system aligned with research on human and organizational learning and improvement. In collaboration with a broad range of stakeholders throughout the state, the NH DOE has developed an expanded view of assessment and accountability. This view is grounded in research from the small-scale PACE pilot that started with a waiver from NCLB's federal statutory requirements granted by Secretary Duncan in the 2014-2015 school year. The PACE initiative is guided by key tenets that the NH DOE believes will lead to higher achievement for all students:
- ✓ Explicit involvement of local educational leaders in designing and implementing the assessment system,
- ✓ Intense and reciprocal support on behalf of the NH DOE for local districts involved in this initiative that includes technical, policy, and practical guidance,
- ✓ Use of a competency, mastery-based approach to instruction, learning, and assessment which can best support the goal of significant improvements in career and college readiness, and
- ✓ Use of authentic, instructionally-relevant, and validated performance-based assessments, alongside periodic administration of the New Hampshire State Assessment System (NH SAS) which assesses state standards in math and ELA, for the purpose of tracking and reporting the progress of students, schools, districts, and educators.

PACE builds on the State's firm commitment to accountability for the purposes of improving student learning and attainment, especially for educationally disadvantaged student groups, as well as supporting high-quality educator, leader, and school support and evaluation systems. New Hampshire argues that an improvement-focused approach enhances the ways in which the

state collects and uses information to better meet the needs of educators and students in New Hampshire. We present details of how PACE meets the selection criteria outlined in this application, organized in three main sections and associated subsections below:

1. History of PACE
2. Rationale for PACE, including:
   a. The distinct purpose of each assessment that is part of the innovative assessment system and how the system will advance the design and delivery of large-scale, statewide academic assessments in innovative ways; and
   b. The extent to which the innovative assessment system as a whole will promote high-quality instruction, mastery of challenging State academic standards, and improved student outcomes, including for each subgroup of students described in section 1111(c)(2) of ESEA.
3. Implementation plan
   a. Plan for developing assessments
   b. Strategy for scaling

History of PACE

The NH DOE began a large-scale professional development initiative in 2012 with teams of NH educators from a cohort of schools who had dedicated themselves to K-12 implementation of competency, mastery-based education approaches. The NH DOE in 2013 constructed a performance assessment model of local accountability to support the implementation of competency education. This model, which laid the foundation for the PACE proof-of-concept pilot proposal in 2014, conceptualized a scalable model of state and local accountability supported by common performance assessments juried at the state level and aligned to NH state academic standards and graduation competencies in English language arts, mathematics, science, and work study practices. In the spring of 2014, the NH DOE established the PACE pilot comprised of four implementing districts and four planning districts dedicated to fully developing and implementing a system that would satisfy the accountability expectations of a federal system for the 2014-2015 school year. Significant partners in this work included the Center for Collaborative Education (CCE) and the National Center for the Improvement of Educational Assessment (Center for Assessment), charged with assuring a valid, reliable, and fair system of common performance assessments aligned with the NH College and Career Ready Standards. The NH DOE and project partners from the Center for Assessment began the detailed work of framing the specifics of the PACE proposal to the USED in early 2014.

The NH DOE leadership has met regularly with district and school leaders for the past 10 or more years, engaging in deep conversations about how assessment and school accountability can best be designed to support significant improvements in student learning. These conversations led to the initial PACE proposal to the USED in July 2014. The NH Legislature, the Governor's Office, and other key stakeholders, such as the NH Institute of Higher Education Network, the School Administrators Association, the NH School Principals Association, the NH Chapters of both the National Education Association and the American Federation of Teachers have all supported this new, more fully balanced system of reciprocal accountability based on the core principle of shared responsibility among state and local leaders.

Rationale for PACE

New Hampshire is committed to raising the bar for all students. For many years, even before the start of the PACE initiative, New Hampshire has recognized the value of personalized learning; the recognition that student success will not be achieved when we approach students as grade-aged cohorts versus individual students on individual learning paths toward the mastery of rigorous academic standards. We know that focused academic and skill attainments will allow each of our students to reach their full potential and to engage the New Hampshire economy as productive citizens enabled by their education.

PACE represents a key strategy, among several, that will help NH realize this vision for our students. NH's educational leaders recognize that the level of improvement to which we aspire will not occur with an externally-oriented assessment and accountability model. In fact, the state argues that the current system is likely an impediment for moving from good to great in that it forces a "one-size-fits-all" approach on a system that recognizes and emphasizes the importance of personalized and deep learning.

A competency-based system relies on a well-articulated set of learning targets that helps connect academic standards and critical skills leading to domain proficiency. Such a system requires careful tracking of student progress to ensure that students have mastered key content and skills before moving to the next logical set of knowledge and skills. Current systems that rely on compensatory systems (e.g. averaging) for grading and related record-keeping may allow students to slip through the cracks in terms of possessing necessary knowledge for building deep understandings in the focal disciplines.

The PACE Assessment System
The PACE system is designed to foster deeper learning on the part of students than is capable under current systems. Further, while the NH DOE is a strong supporter of state-level assessment, we argue that once per year assessments are not enough to drive and support deeper learning or accommodate variability among a diverse population of student learners. Assessments must be linked closely with curriculum and instruction if they are to provide instructionally-useful information. The PACE system is based on the belief that a rich system of local and common (across multiple districts) performance-based assessments is necessary for supporting deeper learning as well as allowing students to demonstrate their competency through multiple performance assessment measures in a variety of contexts. Thus, NH's PACE initiative was established to enable schools and districts to provide multiple means for students to demonstrate academic attainment and growth through means other than or in addition to standardized tests, with an emphasis on performance assessment.

The high-level structure of the PACE innovative assessment system is outlined in Table 1 of this document. However, PACE is much more than what is depicted in this Table 1. Figure 5 below provides a different perspective on the PACE assessment system. PACE is based on conceptual work done over the past 20 years on balanced assessment systems[23] where assessments at

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[23] See for example: National Research Council. (2001). *Knowing what students know: The science and design of educational assessment*. Washington, DC: National Academies Press.

multiple levels of the educational system exist in mutually beneficial ways. With PACE, high-quality local assessments, usually performance-based assessments, provide the bulk of the information relative to student achievement of State academic standards and competencies. However, the PACE common performance assessment plays a critical role in supporting competency determinations for students. First, common assessments provide a means for evaluating and establishing comparability (calibration) among PACE schools. Second, common performance assessments provide visible learning targets and performance expectations for all New Hampshire students.
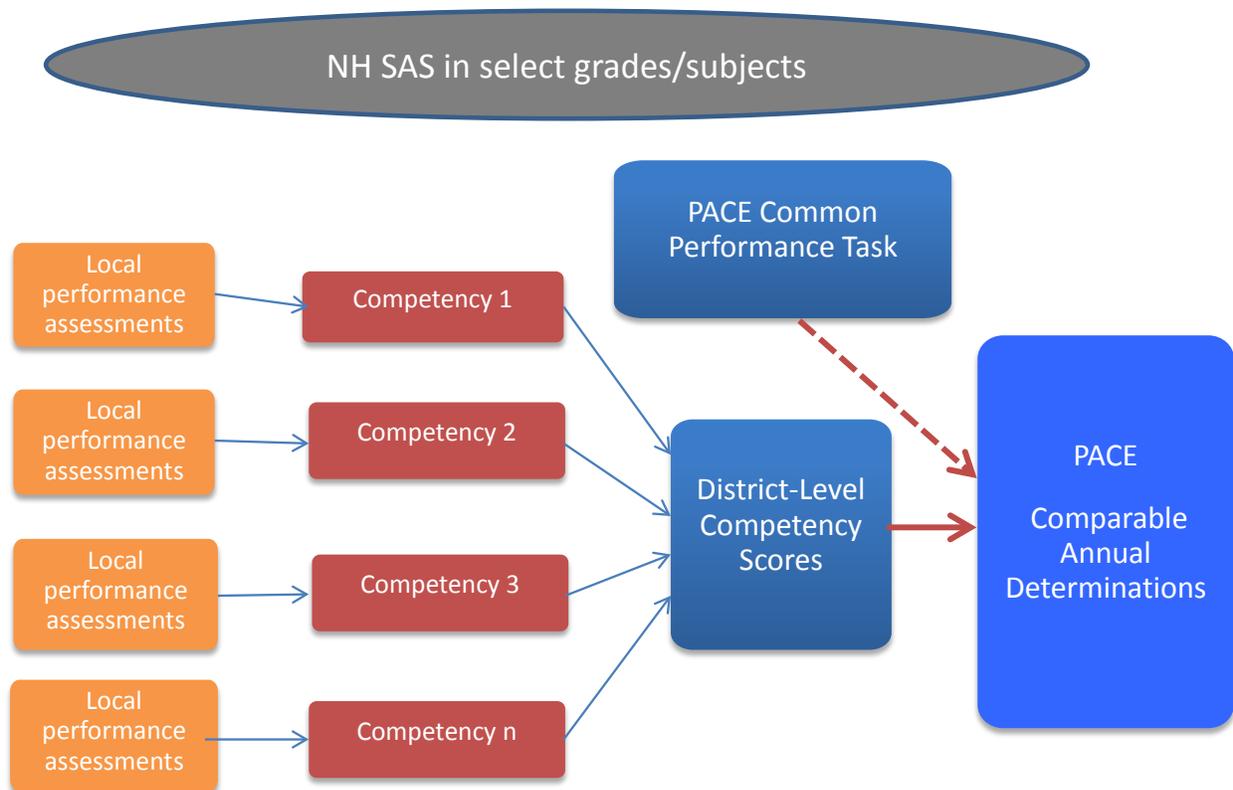
Figure 5. *Graphic representation of the PACE assessment system*

As described elsewhere in this application (see "provides valid, reliable, and comparable annual proficiency determinations"), there are numerous quality control processes and procedures in the PACE system to ensure the technical quality of each assessment and of the full assessment system. However, we argue that because PACE operates as a well-functioning system, the whole is greater than the sum of the parts. NH DOE certainly advocates that each assessment

National Research Council. (2014). *Developing Assessments for the Next Generation Science Standards.* Washington, DC: The National Academies Press.

Perie, M., Marion, S.F., & Gong, B. (2009). Moving towards a comprehensive assessment system: A framework for considering interim assessments. *Educational Measurement: Issues and Practice*, 28, 3, 5-13.

Shepard, L. A. (2000). The role of assessment in a learning culture. *Educational Researcher, 29, 7*, 4-14.

Shepard, L. A., Penuel, W. R., & Pellegrino, J. (2018). Using learning and motivation theories to coherently link formative assessment, grading practices, and large-scale assessment. *Educational Measurement: Issues and Practice.*

administered to students should be high quality, but unlike single, end-of-year assessments where all of the quality eggs are in one basket, PACE benefits from an enormous amount of information about student performance collected throughout the year.

The PACE innovative assessment system was designed as an integral component of NH's larger theory of action for deepening student learning and improving educational outcomes for all of NH's students. NH has embraced the concept of personalized learning and the belief that the best way to unlock learning for all students is to engage and motivate them to want to learn, to create multiple means of expression for students (learners differ in the ways that they can navigate a learning environment), and to provide multiple ways for students to demonstrate that they have mastered the content. PACE is not simply an assessment system. The performance-nature of the assessment system influences instruction in a way that allows learning and assessments to be personalized for each student.

As noted throughout this application, PACE was designed and implemented according to a theory of action designed to increase (deepen) the level of the personalized content to which students are exposed, increase the quality of instruction and feedback, and improve student engagement in their own learning. Early evidence from HumRRO's independent evaluation (Appendix K) as well as numerous internal studies indicates that this theory of action is bearing fruit[24] for all students, but especially for typically under-performing groups of students (see Appendix H).

Implementation and Scaling Plan

NH DOE is engaged in a multi-faceted implementation plan to ensure the success of PACE. This plan includes many components, but we highlight the two most relevant to the application here:
- ✓ Plan for developing and scoring assessments and
- ✓ The strategy for scaling PACE.

Plan for developing assessments
PACE is a coherent assessment system situated within a competency and personalized learning framework designed to enhance student learning. As documented in the HumRRO independent evaluation study of PACE (Appendix K), the assessment development process follows a well-articulated theory of action for ensuring high-quality assessments and improved assessment literacy of participating educators and leaders. A detailed explanation of the assessment development processes follow:

There are two types of assessments that comprise the PACE assessment system 1) common performance tasks, and 2) locally-developed assessments. The information from these two types of assessments are used together to inform the student-level competency scores that serve as the basis for the annual determinations produced by the PACE system.

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[24] See for example: Evans, C. (*Under Review*). Effects of New Hampshire's innovative assessment and accountability system on student achievement outcomes after 3 years (2014-2017).

For the common performance tasks, teachers from all NH PACE districts collaborate in grade and subject area teams and follow a disciplined process of task development. Figure 6 illustrates the PACE Common Task development and pilot-testing process.

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│                  │      │  Educator Review │      │                  │
│   Evidence-      │ ───> │  by grade level  │ ───> │   Cognitive      │
│ centered Design  │      │      teams       │      │  Laboratories    │
└──────────────────┘      └──────────────────┘      └──────────────────┘
         │
         v
┌──────────────────┐      ┌──────────────────┐      ┌──────────────────┐
│     Rubric       │ ───> │  Formal expert   │ ───> │                  │
│  Development     │      │     review       │      │    Piloting      │
└──────────────────┘      └──────────────────┘      └──────────────────┘
         │
         v
┌──────────────────┐      ┌──────────────────┐      ┌──────────────────┐
│   Pull anchor    │ ───> │   Center for     │ ───> │  NH DOE Final    │
│     papers       │      │ Assessment Final │      │    Approval      │
│                  │      │     Review       │      │                  │
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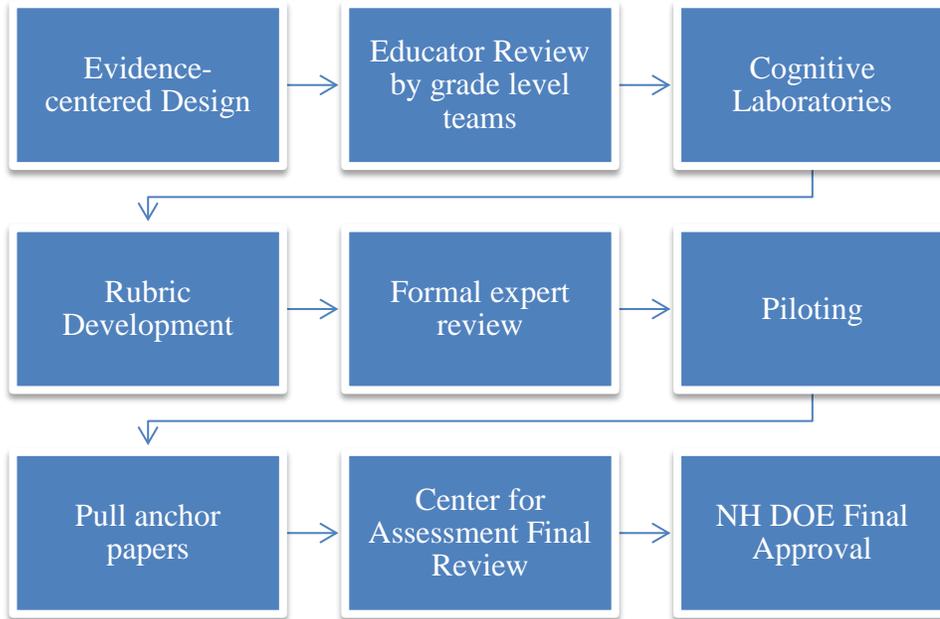
Figure 6. *PACE Common Task development and pilot-testing process*

The process begins with a principled assessment design process (see Appendix D), which means the task is developed based on 1) what students should know and at what depth of knowledge, 2) what evidence is necessary to demonstrate that the student has the desired knowledge, and 3) what tasks will allow students to demonstrate and communicate the desired knowledge. A task template based on a principled assessment design process is used to provide guidance on the characteristics of a high-quality task and PACE expectations (see Appendix C). This template is used by educators—in consultation with assessment experts and teachers leaders—to develop multiple performance tasks for each grade and subject area. The task development period occurs over the course of a school year with multiple face-to-face meetings among educators across districts. The process is iterative in that there are many rounds of review and revision before a common PACE performance task is ultimately approved by the NH DOE. The PACE common task development and approval process contains multiple layers of safeguards to ensure quality.

Though the PACE common assessment is just one assessment of many that are used throughout the year to measure student achievement, the purpose of the extensive development and review process is in large part to build local assessment literacy capacity—in other words, to improve the local performance assessment development processes and products. As described above, the PACE common tasks are run through an extensive development and review process before being approved by the NH DOE for operational use. The result is the set of operational tasks that provide models for designing rich, authentic assessment experiences that measure deep learning. This task bank can be used as a resource by participating LEAs. The tasks are designed and reviewed specifically to allow for independent student inquiry, multi-step problem solving and

argument building, and typically allow for multiple possible solutions (see Appendix I). Local capacity is not only increased by preparing for, administering, and scoring the common tasks, but by actively engaging teachers in the common task development process. Cross-district teams of teachers come together for multiple, multi-day intensive sessions throughout the academic year and summer months to develop and refine the common tasks. The teachers who participate in this process are receiving hands-on professional development about best practices in assessment design to bring back to their respective districts.

In addition to a laser focus on building local educator assessment capacity, the PACE system is designed to support many layers of verification to ensure the assessment information gathered from the schools is valid, reliable, and comparable. Samples of local assessments are reviewed by peers, experts, and the NH DOE for alignment and quality. As a result of this review feedback is provided to districts and teachers relative to assessment quality criteria. While these reviews are useful safeguards for evaluating the quality of local assessments in each of the participating PACE districts, the quality of the assessment system is better evaluated on the basis of the quality of the assessment information generated by the system for serving its intended uses. Though the full validity evaluation includes reviews of local assessment quality, the more important concern relates to the evidence supporting the appropriateness of the resulting assessment scores (i.e., the annual determinations produced as a result of the system) for drawing inferences about student achievement for use within the accountability system. Please see the section entitled "Provides valid, reliable, and comparable annual proficiency determinations" for detailed information related to the full body of evidence supporting the validity of the PACE assessment system.

Strategies for scaling
Through the initial four-year PACE pilot program (2014-15 to 2017-18) that operated under a waiver from NCLB and ESSA granted by the Secretary of Education from federal statutory requirements related to state annual achievement testing, the NH DOE has acquired a great deal of experience about how to effectively support participating PACE districts and how to effectively scale this strategy to the benefit of all students. Statewide scaling of this program begins with the basic understanding that in a personalized learning environment, students need multiple means to engage, express and represent learning.

During the initial waiver authority, NH DOE was prohibited from expanding PACE beyond nine (9) school districts. There are now over 30 school districts involved in PACE across the various levels of implementation. Under the previous model, "Tier I districts" were the only districts that participated in the accountability functions of PACE, while Tier II districts received extensive professional development and coaching to ensure that they were ready to move to Tier I. The new approach to PACE participation is based on what has been learned over the past four years in that various schools, content areas, and/or grade spans within a school district might be ready to move into PACE, but other units of the school district might not be ready at the same time. Therefore, the new approach to scaling PACE builds supports this more gradual implementation so that districts can more easily engage in the pilot.

Our model to scale PACE provides a continuum of implementation available to LEAs. At the lowest level of implementation, PACE common performance tasks are integrated into

instructional activities where they have the best fit in learning progressions. Moving across the continuum of implementation, schools will use the PACE common performance tasks at a student-personalization level to fill instructional gaps and provide students with multiple ways to demonstrate proficiency. This continuum, as depicted below, will continue to integrate further levels of performance tasks into the instruction, culminating in a fully integrated performance instruction and assessment approach.

The PACE scaling continuum reflects both the tradition of local control in New Hampshire and the recognition that many LEAs in NH are not fully ready and/or willing to fully implement PACE in all grades and subjects. Therefore, NH DOE proposes avoiding an "all or none" participation rule for PACE. This allows the NH DOE to provide capacity building resources and supports around competency-based education and performance assessment to LEAs at their point of readiness. Figure 7 depicts this continuum with five major models of participation. In reality, there are likely more than five potential models because of potential hybrid approaches among the major models, but we describe the five major models below.

PACE: Full Implementation
We have been describing the full model throughout this application whereby districts and schools implement PACE in ELA, mathematics, and science in the grades depicted in Table 1 earlier in this application. This has been the primary participation option thus far. Generally, districts have fully entered PACE with all schools at once, but in the 2017-2018 school year, a few larger school districts determined that it would be advantageous to phase in implementation with schools that are more ready than others within the same district.

PACE: Partial Implementation I
Districts implementing this model would start with one content area (e.g., mathematics) and implement it in all grades or focus on a single grade span (e.g., middle school) and fully implement all three content areas. This approach would allow districts and schools to implement PACE with those teachers and leaders that the district leadership feels are most ready, whether that is in a single content area or focused on a single grade span.

PACE: Partial Implementation II
This approach is similar to Partial Implementation I just described, but is a more limited implementation of PACE. This model would allow districts that want to enter PACE slowly, based on the local leadership's evaluation of current capacity, to start with as little as one content area at one grade span. For example, many school districts nationally are struggling with the implementation of three-dimensional science standards. Partial implementation II would allow districts to begin their participation in PACE with just a single grade span and content area (e.g., middle school science).

Districts participating in either partial implementation model I or II would be expected to eventually move toward full implementation. However, the timing of the transition toward full implementation would be decided by the district leadership and local school board in consultation with the NH DOE. Districts/schools participating in any level of PACE participation would have to adhere to the participation requirements for districts (described below), but will receive capacity building support and resources from NH DOE.
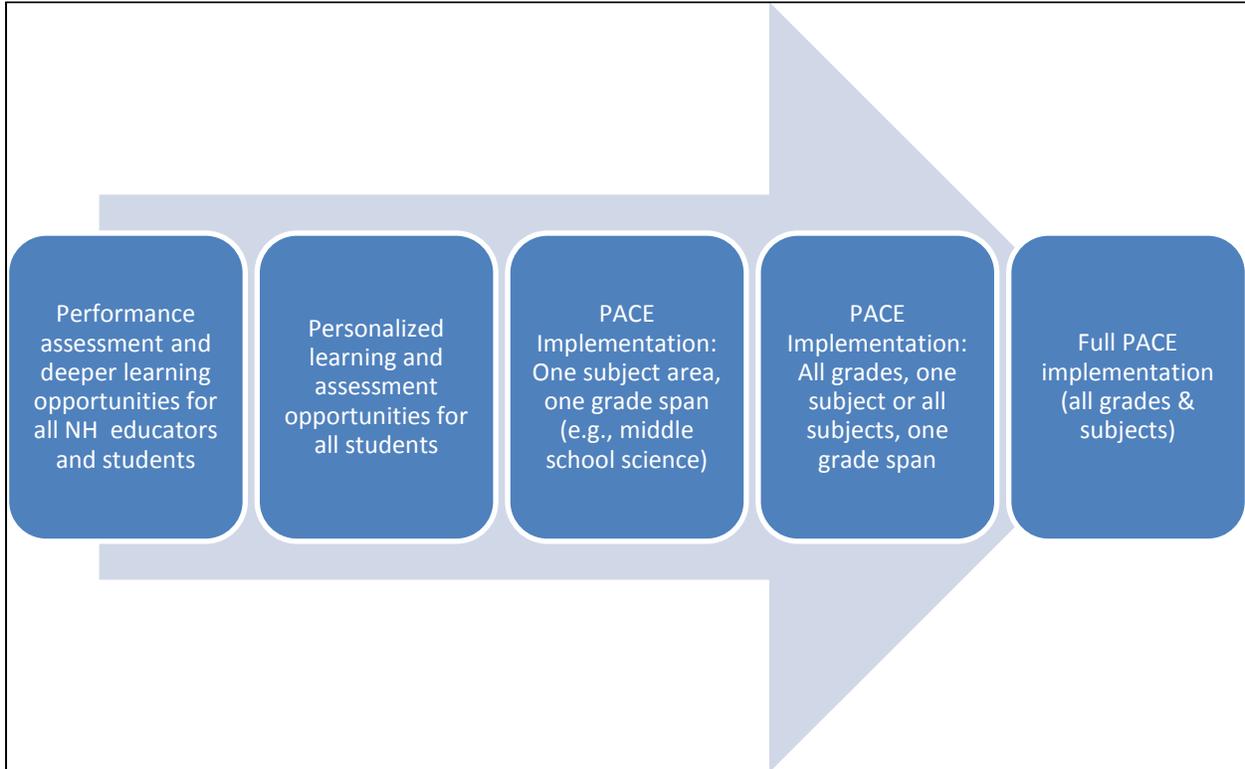
Figure 7. *Continuum of potential PACE participation models*

Personalized learning and assessment opportunities for all students
PACE common performance assessments are currently reserved for use in schools and districts already participating in PACE. The curriculum-embedded performance tasks go through extensive piloting and review and are designed to fit within specific curricular units. However, this tends to make it difficult for non-PACE schools and students to have an opportunity to experience the PACE performance assessments. Therefore, an important near-term goal for NH DOE is to create a limited number of shorter performance tasks that can be embedded in mini-curricular units (e.g., 2-3 day unit of instruction) so that any school in NH can begin to pilot performance tasks. Such tasks and units would be packaged with digital training resources (e.g., Vimeo) to help less-experienced educators administer and score the tasks appropriately. This "light touch" model can allow educators to gain valuable experience with implementing high-quality tasks without the pressures of using the results for accountability since such schools would still administer the NH SAS in all required grades and subjects. This approach is characteristic of how interventions spread in NH.

Performance assessment and deeper learning opportunities for all NH educators and students
New Hampshire has a long history of supporting schools and educators in competency education and performance assessment professional learning opportunities. Since the 2013-2014 school year these offerings and opportunities have increased dramatically both in terms of quantity of offerings and, more importantly, in terms of depth of the professional learning as part of an intensive effort to build assessment expertise among New Hampshire's educators and school

leaders. While this focus has been important, it largely limits these professional learning opportunities to PACE schools and districts. Therefore, in an effort to prepare the ground for a statewide group of assessment literate educators and to enable more schools to enter into PACE more seamlessly, NH DOE will expand the focus of professional learning offerings to all NH educators. NH DOE will build on what we have learned over the past several years about building assessment literacy and assessment expertise among educators to take these opportunities statewide.

Requirements for participating districts ("guardrails")
LEAs participating in the PACE system must have already adopted NH's graduation competencies for the relevant content areas and developed a coherent and high quality set of course and grade competencies mapped to the State's graduation competencies and academic standards. Participating LEAs must have demonstrated the leadership and educator capacity to participate effectively in PACE. Such local capacity is evaluated through a systematic interview and vetting process by the NH DOE leadership team.

In order to participate in PACE, districts must be willing to participate in a peer and expert review process where they submit their system of local and performance-based assessments for the relevant grade and subject areas for evaluation based on clear and rigorous criteria including alignment with state standards and competencies, consistency and accuracy of scoring, and fairness to all test takers (see Appendix B for the full Local Assessment Map and Aligned Summative Assessment Review Tools). Further, PACE districts will be required to administer NH's State Assessment System (NH SAS) at least once per grade span, depending on the implementation model (see Table 1), which will serve as both an internal and external audit of school and district performance.

PACE has had great success in scaling organically in its first three years of implementation starting with 4 districts in 2015-2016, growing to eight districts in 2016-2017, and now reaching 14 districts. Due to the level of commitment and engagement that is required from the educators to fully implement the PACE assessment system, the decision to join PACE must come from those who will be doing to good work of transforming instruction and assessment in their schools. Given the current rate of growth, we have confidence that we will be able to have all NH school districts participating in PACE within the period of the Demonstration Authority. Rather than a top-down approach to scaling, NH has a long history of supporting new initiatives with professional learning opportunities and collaboration to create the capacity necessary to ensure successful implementation.

As PACE continues to scale the NH DOE recognizes the need for the system of supports and data and reporting infrastructure to also grow. The New Hampshire Learning Initiative is committed to continue to seek external funding to support the on-going growth of the assessment system. As mentioned previously, funds have already been acquired to invest in the development of a technology system that can serve the many needs of PACE including supporting cross-district task development, cross-district calibration, and data and artifact collection from all of the participating districts. This technology system is one of most critical components of the long-term solution to supporting high quality implementation of PACE in all parts of the state.

Importantly, the New Hampshire policy environment has become more supportive of innovation and personalization. Legislation passed in the 2017 legislative session gave explicit permission and policy support for scaling PACE statewide. This sent an important signal to NH school districts that they had the legislature's support in advancing these efforts.

Noted educational reformer, Michael Fullan has moved away from the notion of scaling and has shifted his conception of spreading reforms to something more like a social movement. In the same way, NH DOE, participating PACE districts, and key partners have used approaches similar to social movements such as regular blogging, social media posts, talks and presentations at local, national, and international conferences and gathering to spread the word of PACE. Such an orientation makes educators and other stakeholders want to be a part of PACE compared with being presented with the "next new initiative" by their principal or superintendent.

There is an obvious tension between scaling PACE—especially trying to scale too quickly—and maintaining the exceptionally high quality of the program. Importantly, NH DOE built several structures over the past several years to help achieve this balance while trying to minimize unintended negative consequences. Most importantly, NH DOE maintains a strong, collaborative partnership with participating districts through monthly meetings with the district leadership and regular meetings with educators participating in the assessment development and scoring processes. These collaborative relationships help to keep the lines of communication open so that any risks are brought to the surface before they have a chance to fester. PACE has a proven track record of expanding over the past four years and we will rely on similar approaches to continue to expand. For example, the district leadership team has been discussing regionalizing PACE into two major regions: north and south. As PACE continues to grow, the NH DOE plans to increase the number of regions to match the seven NH professional development regions in the state.

<u>Building Pedagogical and Assessment Expertise</u>

The current approach to professional development has rested largely on the cross-district task development sessions in which teachers are trained and coached in a sustained, on-going way on the development and use of performance assessments in their classrooms. However, these meetings are by no means the only opportunities for professional development offered to teachers. All teachers implementing PACE undergo within-district training on task implementation and scoring—including calibration sessions. See Appendix J for a copy of the within-district calibration protocol that all PACE districts use. In addition to cross-district task development and within-district implementation and calibration training, the following professional development is offered to PACE teachers:
1. <u>Content Leaders:</u> Advanced training for select PACE teachers in assessment design and development
2. <u>Teacher Leaders:</u> Specialized training for select PACE teachers in communication, leadership, and assessment system implementation
3. <u>PACE Summer Institute:</u> Open to all PACE teachers with multiple strands of professional development including training in cross-district calibration, reviewing of student bodies of work, introductory and advanced task development, and leadership training

4. <u>NH DOE Summer Summit</u>: Open to all New Hampshire teachers, multiple strands of professional development included offerings in competency-based education and performance assessment.

There is substantial thought and documentation that support the design and effectiveness of all of the supports listed above. However, we use this opportunity to highlight attention to the role of the Content Leads and the PACE Summer Institute in providing effective and high-quality capacity building supports for school staff to implement innovative assessments.

Content Leads

Content leads receive advanced performance assessment training, including discussions of how to apply principled assessment design processes to performance assessment development and scoring. Additionally, content leads receive support, tools, and resources relating to depth of knowledge so that they can understand how to increase cognitive complexity—a critical factor in increasing the rigor of instructional and assessment practices. Lastly, teacher leaders receive training on the facilitation of adult learners to help them work with their colleagues to support the development of high-quality common performance tasks. Content leaders are responsible for the following duties:

- ✓ Support their colleagues in the development of the local and common tasks.
- ✓ Facilitate the task development process.
- ✓ Review the LibGuide to make sure the most up to date materials are posted.
- ✓ Act as a liaison to the assessment experts to help resolve questions regarding assessment quality.
- ✓ Plan the task design process to meet deadlines.
- ✓ Communicate and share the feedback to teachers from task review.
- ✓ Encourage positive, collaborative behavior amongst the teachers in the team.
- ✓ Communicate the goals of the next meeting and the tasks each teacher representative needs to complete.
- ✓ Lead the review of student work from the pilot to improve the task.
- ✓ Protects the project materials by not sharing passwords to guides with anyone outside of the project.

PACE Summer Institute

Teachers from fully-implementing (and eventually partially-implementing) districts gather each summer to review and score student work from other districts. These cross-district scoring opportunities provide a rich professional development opportunity for teachers as they discuss student work with colleagues from other districts and align their understanding of student performance using evidence from student work samples. Many teachers comment each year on evaluations of the Summer Institute that it is the best professional development they have ever received. According to the 2017 PACE Summer Institute evaluations, over 82% of teachers agreed that the calibration activities positively impacted them professionally.

There is also new teacher and leadership training that takes place at the Summer Institute. Districts that will be implementing PACE either fully or partially in the following school year send teams of teachers and administrators. Teachers from these districts get extensive practice

scoring the PACE Common Tasks and also receive training in the design and implementation of high-quality performance tasks. District leaders receive training in how to support their teachers and schools through the process of implementing a new assessment and accountability system.

Demographic Similarity

The NH DOE is committed to ensuring, during the Demonstration Authority period, that the inclusion of additional LEAs and schools continues to reflect high-quality and consistent implementation across demographically diverse LEAs and schools, or contributes to progress toward achieving such implementation across demographically diverse LEAs and schools, including diversity based on enrollment of subgroups of students described in section 1111(c)(2) of the ESSA and student achievement. NH DOE does not have to rely on promises and hopes to fulfill this requirement. Rather, NH has four years of evidence, starting with the initial cohort of four districts in 2014-2015 to 14 school districts in 2017-2018, that PACE districts almost perfectly reflect the distribution of demographic and socioeconomic groups throughout NH. Table 2 shows the racial and ethnic demographic information for the state of NH and for the current set of districts committed to participating in PACE during the initial year of the Demonstration Authority.

Racial/Ethnic Identification	% for State of NH	% of PACE Districts
Am Indian or Alaskan Native	0.3	0.5
Asian or Pacific Islander	3.4	3.1
Hispanic	6.2	3.8
Black	2.0	3.2
White	85.5	88.1
Multi-Race	2.6	1.4

Table 2. *Demographic Distribution of Students for State and PACE Districts*

The NH DOE commits that it will continue to maintain this demographic representation as it adds new districts throughout the Demonstration Authority while ensure high-fidelity implementation of PACE. We will do so by updating the information in Table 2 each year and by purposefully recruiting NH's more diverse school districts to fully participate in PACE. In fact, Manchester School District, NH's most ethnically diverse district has had several schools beginning to participate in PACE and related initiatives. NH DOE will prioritize supporting Manchester and other diverse districts so they can successfully participate in PACE.

Prior Experience, Capacity, and Stakeholder Support

Development and implementation experience

(i)   *The success and track record of efforts to implement innovative assessments or innovative assessment items aligned to the challenging State academic standards under section 1111(b)(1) of the Act in LEAs planning to participate;*

The NH DOE and the participating LEAs have a proven track record of success in implementing PACE over the last four academic years (2014-15 to present). After initial approval by the USED in March 2015, PACE has consistently met its rigorous criteria for success in order to gain annual approval from the USED to continue to implement the innovative system and scale to additional LEAs. The 10 criteria for success were developed in consultation with PACE's Technical Advisory Committee which comprises nationally-recognized thought leaders and experts in educational measurement and assessment systems. The 10 criteria which have been consistently monitored and met are:

1. Clear commitment from local educational leaders
2. Building of cross-district leadership and cross-district collaboration
3. Development of high-quality performance assessments
4. Successful implementation of common performance assessments
5. Rates of participation in training and calibration
6. Inter-rater agreement within district
7. Cross-district calibration
8. Produce comparable annual determinations
9. "No harm" on the statewide assessment for newly implementing districts and for an increase in performance once districts have been implementing PACE for several years
10. Ensuring equitable outcomes

The NH DOE has submitted PACE technical reports annually to USED that provide evidence of success on the criteria. In addition, the PACE reports provided evidence supporting assertions of alignment, validity, reliability, and comparability of the assessment system in 2015, 2016, and 2017. As part of the Demonstration Authority, the NH DOE is committed to continuing the practice of gathering rigorous technical evidence to demonstrate that the PACE innovative assessment system continues to meet all of the requirements of the Demonstration Authority.

(ii)   The SEA's or LEAs development or use of—
(A) Effective supports and appropriate accommodations consistent with 34 CFR part 200.6(b) and (f)(1)(i) and section 1111(b)(2)(B)(vii) of the Act for administering innovative assessments to all students, including English learners and children with disabilities, which must include professional development for school staff on providing such accommodations;

The NH DOE ensures that all students have access to effective supports and appropriate accommodations consistent with relevant federal and state laws by using a consistent set of support and accommodation policies across both the statewide and the innovative assessment systems (see Appendix A). PACE has adopted the same policies and set of accommodations as Smarter Balanced in its first four years of administration, and will continue to be consistent with the statewide system moving forward as the state transitions to the new assessment, New Hampshire Statewide Assessment System (NH SAS). The accommodations provided on both the NH SAS and PACE are designed to mirror the accommodations provided to students during instruction. In this way, all teachers who educate students in their classrooms with Individualized Education Plans (IEPs) are already familiar with implementing the accommodations for the

assessment. For example, if a student's IEP dictates that the student must have access to visual supports such as high contrast materials and magnifying tools, these supports are to be provided to the student during both instructional time and assessment time. As required by the Individuals with Disabilities Education Act (IDEA) and New Hampshire State Law RSA 186-C, all educators for students with disabilities must have either already obtained full State certification as a special education teacher, or be participating in an alternate route to certification which includes a requirement for "high-quality professional development, that is sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction, before and while teaching."[25]

> *(B) Effective and high-quality supports for school staff to implement innovative assessments and innovative assessment items, including professional development; and*

The NH DOE and participating LEAs have a track record of success in implementing the PACE innovative assessment system over the last four school years (2014-15 to 2017-18). This success is due, in large part, to the dedicated and systematic way in which professional development is provided to teachers. From its onset, the programmatic efforts associated with PACE were guided by a clear and well-articulated theory of action. A critical component in the success of PACE has always been the focused effort on improving the PACE teachers' assessment literacy. As was shown in HumRRO's 2016-2017 independent formative evaluation of PACE (Appendix K), efforts to improve the assessment literacy of teachers not only results in successful implementation of the PACE assessment system, but has the added intended benefit of improving the instructional methods of teachers to better prepare students for college and careers. In the final evaluation report, evaluators found that over 80% of PACE teachers agreed that "Implementing performance tasks has had a positive impact on instructional practice, such that instruction occurs at a higher depth of knowledge in my classroom" (p. 23).[26]

A key premise of the NH PACE theory of action is that local education leaders are supported by NH DOE and each other in creating the expertise necessary to implement the system with fidelity. There are many ways in which the PACE pilot builds local capacity both prior to and while implementing the PACE system. See the subsection entitled "Building Pedagogical and Assessment Expertise" for detail.

Implementation capacity

The NH DOE has a proven track record of success in establishing the necessary implementation capacity for fully supporting and growing the PACE innovative assessment system. The data and technology systems have been tested over the past four years of implementation and are continuously improved to streamline the data collection, verification, and analysis that supports the PACE assessment system. While the NH DOE currently supports a fully functional

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[25] New Hampshire Department of Education (2017). *Guide to the New Hampshire Standards for the Education of Children with Disabilities*. Retrieved from: https://nhspecialed.org/wp-content/uploads/2017/08/Ed-1100-3-23-2017-NH-Standards-PDF.pdf

[26] HumRRO (March, 2017). *Formative Evaluation of New Hampshire's Performance Assessment for Competency Based Education (PACE).*

technology solution, the PACE leadership team has been working to partner with a software company to design a customized solution that will aide in the scaling and sustainability of the project's efforts. As stated in the most recent waiver extension request submitted to USED, external funding has been secured and contract negotiations are currently in progress to build a system that can manage not only the data generated from the PACE innovative assessment system, but the processes that comprise the PACE system itself. Examples of functionality we are looking to include in our technology system are:

- ✓ Collaborative synchronous and asynchronous performance assessment development;
- ✓ Warehousing of high-quality tasks along with accompanying administration documentation;
- ✓ Distributed double-blind scoring for the purposes of calibration and monitoring inter-rater reliability;
- ✓ Secure uploading, storage and sharing of student portfolios of work; and
- ✓ Data capturing system that works seamlessly with a diverse set of district learning management systems to transfer student-level task scores, competency scores, and teacher judgment scores.

The development of this new technology platform will allow us to ease the data burden on participating districts by automating many of the data collection tasks that are currently completed manually. Additionally, this technology solution will facilitate the scaling of the PACE system across the state in that collaborative, cross-district task development and scoring can be managed virtually, rather than requiring teachers meet in-person for every step of task development.

The NH DOE has continued to make PACE a priority within the department. The organizational structure of the department ensures that both the leadership and the day-to-day operations of the project are fully integrated within the department's existing structures. PACE is situated within both the assessment and accountability divisions at the NH DOE in order to fully leverage the expertise and resources that reside within those divisions. Figure 8 provides an organizational chart that lists the key staff associated with this effort.
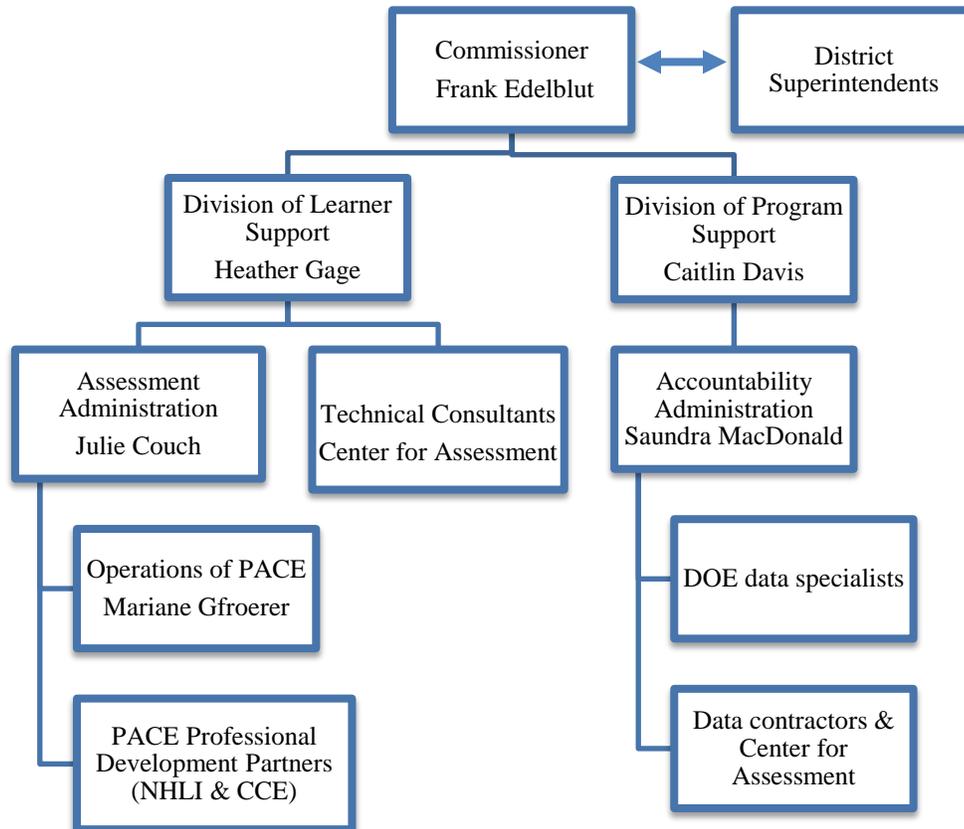
Figure 8. *Organizational chart for PACE leadership and operations within NH DOE*

Figure 8 also illustrates how external partners such as the Center for Assessment and other data contractors work closely with the NH DOE to add capacity to the existing structures. Additional information regarding the role and expertise of external partners supporting PACE implementation is located in the "Consultation" section of this application document.

The NH DOE is in a unique situation in that upon application for the Innovative Assessment Demonstration Authority, the state has a three-year track record of success in implementing and growing the innovative assessment system. This history serves as evidence of the state's capacity to develop and deliver its innovative system of assessments. It is through this success that the State has shown its ability to effectively mitigate risks and support implementation of the innovative assessment system. As the state enters into the demonstration period, the assessment system will scale, but so too will the experience the State brings to the efforts, and more importantly, the enthusiasm for high-quality implementation from all levels of the system—students, parents, teachers, school leaders, and state officials. This pledge is clearly and persuasively demonstrated in the participating LEA letters of commitment attached to this application and discussed in the following section.

SEA, LEA, and school commitment

Participating PACE schools and districts are in full support of NH's application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student

Succeeds Act. Letters of support and commitment from the participating PACE schools and districts can be found in Part 4: Other Attachments. It is significant that these letters represent the broad-based support and commitment of LEA leaders and affected stakeholders including signatures from representatives of parents, educators, school leaders, and school boards.

Timeline and Budget

<u>Timeline, activities, and responsible agent(s) within each year for the IADA period</u>

Table 3 provides an overview of the typical activities that take place in the course of a school year in the PACE innovative assessment system. These activities represent the assessment design and development, assessment implementation, data collection, data analyses, score and technical reporting, and project management meetings necessary for ensuring the high-quality implementation of PACE. NH DOE has the advantage of having four years of "practice" operating on waivers from NCLB and ESSA to hone this system. Unlike other states that will be proposing a first time implementation of their innovative systems, NH's PACE system is running and expanding. These activities will re-occur each year of the demonstration authority period and will allow PACE to scale statewide by the end of the demonstration authority period.

Timeline	Activities	Responsible Agent(s)
Jan – March	Mid-year reviews completed of the PACE common tasks that will be operational in the following school year	Center for Assessment
	Reviews of local assessment maps and aligned assessments (data collection item)	NH DOE, Center for Assessment, and school/district peer reviewers
	Monthly PACE school/district leadership meetings and leadership calls	NH DOE
April – June	Small scale field testing and pilot of PACE common tasks that will be operational in the following school year	PACE content leads and task developers supported by Center for Assessment & NHLI
	Submission of required data to produce annual determinations and provide student work samples for cross-district calibration and standard setting activities	PACE implementing schools/districts
	Monthly PACE school/district leadership meetings and leadership calls	NH DOE
July – Sept	Newly entering PACE districts and schools are welcomed	NH DOE
	PACE Summer Institute: cross-district calibration and standard setting activities	NH DOE & Center for Assessment
	PACE summer professional development for high-quality performance task development and leadership training	NH DOE, Center for Assessment, NHLI, & NEA NH

	Final reviews, revisions/edits, and approval of PACE common tasks that will be operational in this school year	NH DOE & Center for Assessment
	Start of task development process for PACE common tasks that will be operational in the following school year	NHLI & Center for Assessment
	Data Collection Protocols finalized for this school year	NH DOE & Center for Assessment
	Monthly PACE school/district leadership meetings and leadership calls (September only)	NH DOE
	Technical manual analyses conducted and annual determinations produced	Center for Assessment & NH DOE
Oct – Dec	Continued task development process for PACE common tasks that will be operational in the following school year	PACE content leads and task developers supported by Center for Assessment & NHLI
	PACE schools/districts can administer the PACE common tasks whenever they fit within their curricular scope and sequence	PACE implementing schools/districts
	Monthly PACE school/district leadership meetings and leadership calls	NH DOE

Table 3. Overview of PACE timeline, activities, and responsible agent(s) during the course of a typical school year

Budget

The 2018-2019 budget for PACE is presented below. The PACE budget is comprised of eight main components:
- ✓ Calibration, standard-setting, and task development institutes
- ✓ Data collection, analyses, and reporting
- ✓ Task development
- ✓ Local assessment review
- ✓ Leadership meetings
- ✓ Public presentations
- ✓ District Support
- ✓ Technology Platform

The costs for each of these major components are presented below with the total base budget for PACE in 2018-2019 equal to **$627,700**. NH DOE and its partners, especially NHLI, intend to raise an additional $364,000 for a total budget of $991,700. Importantly, PACE can operate effectively on the base budget, but the additional funds will allow. As seen in the PACE budget, NH DOE relies on a considerable amount of external funding to support PACE. While the NH DOE is fully committed to support PACE to ensure its success and the NH DOE is working to increase the regular on-budget PACE funding, NH DOE recognizes that at least for the near term, the sustainability of PACE is contingent to continued state and external funding.

PACE Project Projected Budget ~ 2018-2019					
Category	**Activity**	**Activity Detail**	**NH DOE (AU 2534)**	**Partner Support (NHLI)**	**Other Foundation Support** (*supplemental support*)
Calibration, standard-setting, and task development institutes	Planning and Implementation for PACE Summer Institute and related task development meetings	Calibration and standard setting activities during PACE Summer Institute, including the coordination of materials (i.e. student work).	$38,000		
		Workshops for task development, facilitating calibration and standard setting activities	$47,000		
		Logistical (e.g., meetings) costs for Summer Institute and all other related task development meetings		$50,000	
Data collection, analyses, and reporting	Data collection webinars	Data collection webinars offered in Fall/Spring to communicate data collection requirements and explain specific protocols and answer questions	$3,800		
	Data collection	Implement frameworks and decision rules to collect data for the PACE common assessment and teacher judgement surveys	$32,000		
	Data cleaning, analysis, and report writing	Data analysis to produce the PACE Technical Manual (standard setting report, IRR report, Generalizability report, other validity evidence)	$28,500		
		Producing key technical reports including the PACE Technical Manual and USED report	$25,000		
	Report dissemination to NHDOE, districts, USED, and other stakeholders	Production and dissemination of redacted district-level reports	$3,800		

Category	Activity	Activity Detail	NH DOE (AU 2534)	Partner Support (NHLI)	Other Foundation Support (*supplemental support*)
Task development	PACE Common Task development	Facilitate multiple task development workshops	$54,000		
	PACE Common Task reviews	Mid-year and final review of PACE Common Tasks	$22,800		
Local assessment review	Assessment map and aligned assessment reviews	Assessment map and aligned assessment reviews with PACE leadership team and other reviewers; complete assigned reviews; write summary for PACE Technical Manual and USED report	$22,800		
Leadership and content lead meetings	Content leads meetings	"Content Leads" (lead task developers) meetings (6 per year)		$54,000	
	District leads meetings and leadership calls (monthly)	Plan and participate in monthly district leads meetings and leadership calls (1 each per month x 10 months)		$30,000	
	State leadership planning meetings	PACE leadership team virtual and in-person meetings		$8,000	
Public presentations	Calls with USED	Participate in discussions with USED		$8,000	
	Presentations on PACE	Presentations to NH Legislature, State Board of Education and other audiences		$28,000	

Table continued on next page

Category	Activity	Activity Detail	NH DOE (AU 2534)	Partner Support (NHLI)	Other Foundation Support (*supplemental support*)
District support	District support	Ongoing support to assist districts on data collection requirements, data submissions, task development, etc.		$12,000	
	Stipends for Substitutes	Substitute stipends so educators can fully participate in the content lead meetings			*$158,000*
	Content lead stipends	56 content leads statewide to build capacity for sustainability and expansion of PACE (x $1,250/year)			*$70,000*
	Support for educators in Summer Institute	Reimbursement costs for educators to attend the Summer Institute			*$56,000*
	Professional development for performance assessments	Additional professional development for non-PACE schools on performance assessments in effort to expand the PACE project statewide.			$40,000
Technology platform	Technology platform development and implementation	Development and implementation of a technology platform to collect and maintain data collections, task development work, etc.		$160,000	$40,000
SUBTOTAL			**$277,700**	**$350,000**	*$364,000*
TOTAL PROJECTED BUDGET				**$627,700**	*$991,700*

<u>Adequacy of the budget</u>

As stated throughout this application, NH DOE is not applying for a new initiative. The state now has a four-year track record of successful PACE implementation and therefore, the budget presented here represents a real budget proven to support the actual work of PACE. The PACE reciprocal accountability model predicts that the financial responsibility for PACE would be shared among the various partners and that is exactly how PACE works. The NH State Legislature, through NH DOE, has been funding more than 50% of the yearly costs of PACE through its direct support of the key technical consultants (the Center for Assessment and Demonstrated Success) and allocation of key personnel responsible for leading and managing the PACE initiative. The New Hampshire Learning Initiative has been instrumental in raising and directing resources from philanthropic foundations to support PACE. In fact, essentially all of the necessary funds to support PACE for 2018-2019 have already been secured. Participating

school districts and charter organizations have been allocating resources to support substitutes for teachers participating in task development and other activities throughout the year and the districts have contributed to supporting teachers involved in the critical summer activities of calibration and standard setting. Finally, the New Hampshire chapter of the National Education Association (NH NEA) has been a critical partner in supporting many of the professional learning activities for teachers and leaders especially those that support the development of assessment literacy and assessment expertise among educators.

NH's multiple years of experience with PACE has taught us the costs associated with the expansion of PACE are thankfully non-linear. The costs for PACE in the initial year with only four school districts were proportionally more than the current costs with fourteen school districts. NHLI's investment in developing a digital platform for asynchronous task development, scoring calibration, and data collection will be a major factor in "breaking the cost curve" to enable PACE to scale statewide with costs at a reasonable multiple of current costs. Further, receiving the IADA will allow for the predictable sustainability of PACE compared to anxiously awaiting approval for waiver authority each year. This predictability will allow both the NH DOE and participating school districts to engage in long-term budget planning so that the costs of PACE increasingly can be supported through the regular budget process. NH DOE and NHLI are thankful for the generous support of many foundation partners—and we will likely continue to rely on such support for the near future—but investing in robust technology platforms and other sustainable designs will allow PACE to become a standing line item in state and local budgets.

Supports for Educators, Students, and Parents

The benefits of PACE for educators, students, and parents are often self-evident in engaging in the work of performance assessments and the instructional shifts that come along with that. The voices of educators and students regarding those shifts are captured in the following videos:
- Overview of PACE in Rochester School District: http://old.reachinghighernh.org/2016/10/11/pace-video/
- USED panel discussion with Souhegan High School teachers: https://www.youtube.com/watch?v=05SZXhYYWQg

The supports provided for educators, students and parents are outlined in the following three sections: 1) training for school staff, 2) communication with students and parents, and 3) supports for students with disabilities and English learners.

Training for school staff

The theory of action for how PACE will improve instruction and student outcomes rests centrally on the ability of the state to provide effective supports to local educators at scale. As a result of the 2017 independent formative evaluation of PACE (Appendix K), the PACE theory of action was clearly documented as shown in Figure 9.
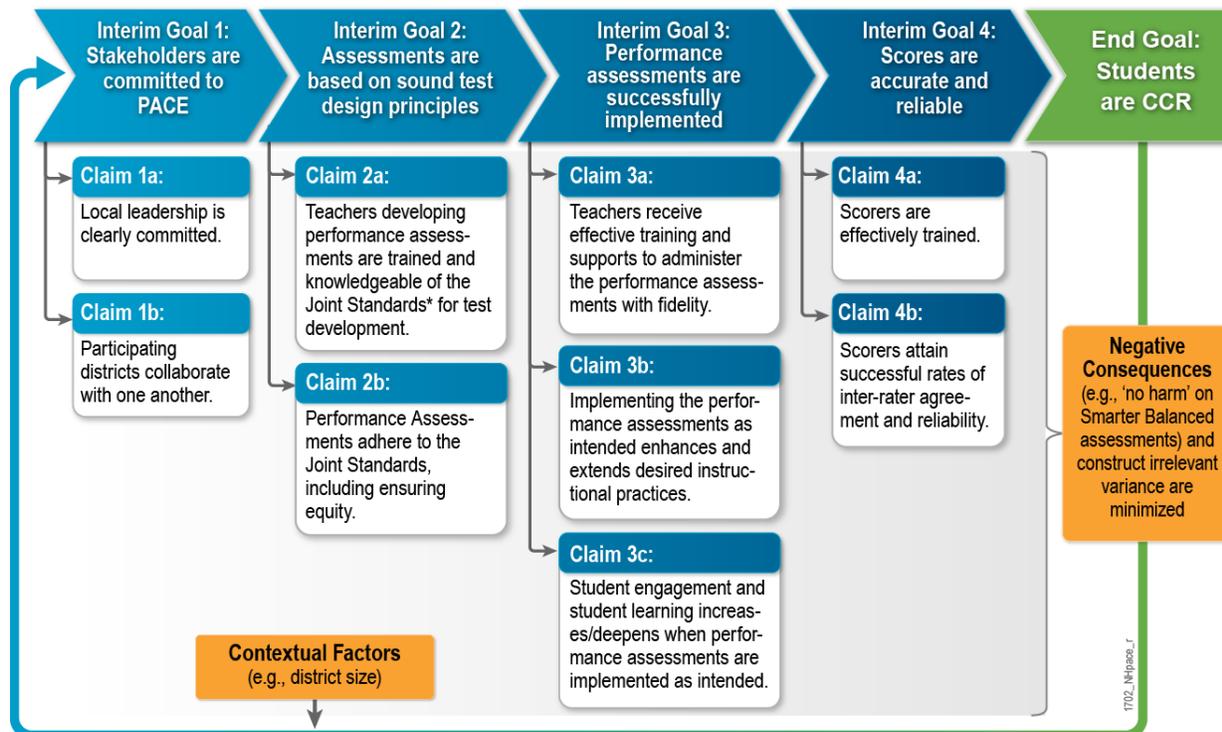
Figure 9. *PACE theory of action*

Claims 2a, 3a, and 4a, in Figure 5 necessitate effective training and supports for educators to development, administer, and score performance assessments. It is through this high-quality implementation that the intended impacts on improved instruction will be realized (Claim 3b). The NH PACE theory of action is grounded in the latest advances related to how students learn, how to assess what students know, and how to foster positive organizational learning and change. Figure 10 illustrates how implementation of the PACE system is intended to influence classroom practices, thereby advancing career and college. The PACE system is designed to drive changes to the instructional core of classroom practices such that teachers will focus on the depth and breadth of the State's challenging content standards. These changes in instruction are posited to lead to improved student achievement outcomes for all students; specifically, that students will be college or career ready.
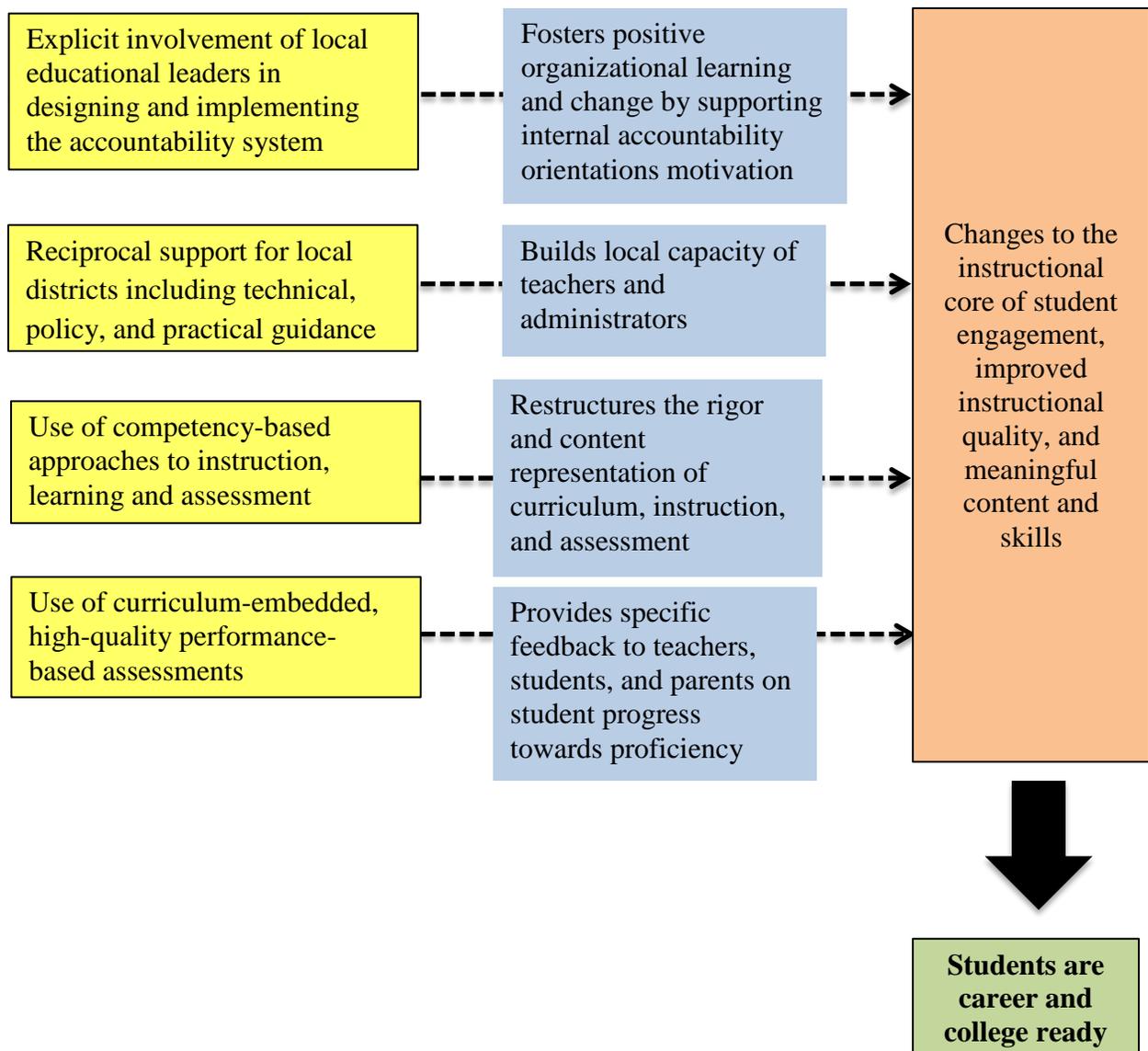
Figure 10. *PACE influence on classroom practices*

There are four main system design features with embedded assumptions of how those design features will lead to changes in the instructional core of classroom practices.

The first design feature is that local education leaders are explicitly involved in designing and implementing their own accountability system. This fosters positive organizational learning and change by supporting the internal motivation of educators. This is in contrast to all-too-common top-down accountability and extrinsic approaches where the goals and methods of the accountability system are defined at the state or federal levels and districts are simply expected to comply.

The second design feature is that local education leaders are provided reciprocal support and capacity building to support their development of key capacities related to designing and implementing the system. This means the NH DOE and its technical partners provide high-

quality professional development, training, and support to local districts in the technical, policy, and practical issues related to the system design and implementation.

The third design feature is the use of competency-based approaches to learning, instruction, and assessment. These approaches structure learning opportunities for students to gain meaningful knowledge and skills at a depth of understanding that they can transfer to new real-world situations. These approaches also improve student motivation and engagement because they allow students more voice and choice in their own learning. However, NH DOE recognizes that operating within the requirements of ESSA, particularly, and the requirement that students be measured relative to grade-level standards by the end of a school year, limits the State's ability to fully implement a personalized and competency-based education system.

The fourth design feature is the use of locally designed and curriculum-embedded performance assessments throughout the year. These high-quality assessments signal high learning expectations, monitor student learning, and provide specific feedback to teachers and students on their performance relative to the grade and subject competencies. Since these rich, cognitively demanding assessment experiences are curriculum-embedded, teachers can adjust their instruction in real-time to meet students where they are at and help them grow towards proficiency. The PACE Common Task serves as an exemplar for teachers of a high-quality performance assessment, rubric, and scoring protocols and procedures. As more PACE Common Tasks are designed, there will be a bank of high-quality performance tasks and rubrics with anchor papers at different levels of performance to help drive positive instructional changes. The ultimate goal of NH PACE is that student achievement outcomes will improve and that all students will be college or career ready upon graduation from high school.

For more information regarding the specific supports provided to school staff please refer to the section of this application titled "Development and implementation experience."

<u>Communication with students and parents</u>

Participating LEAs have taken the lead on ensuring that students and parents are well-acquainted with and supportive of the innovative assessment system. For many students and parents, the benefits of participating in authentic and engaging performance assessments throughout the year is self-evident in the increased student engagement and improved relevant feedback students receive about their achievement. In the words of one Assistant Superintendent in a PACE district, "Moving to an innovative system of assessment isn't just about assessment; it's about changing instructional practice to provide students with more opportunities to demonstrate their understanding. It's about making sure students have provided real evidence of their ability to apply the skills they are learning. Creating a system such as this will have a profound impact on classroom practice. It will also then provide better opportunities for educators to work with both students and families in terms of communicating about their learning. A comprehensive system of assessment that is aligned to defined competencies and requires students to think deeply will provide both students and parents with better information about strengths and areas for continued growth. With the traditional standardized assessments students, educators and families are waiting to get scores that provide just one snapshot in time. They don't really capture a full picture of a student and are difficult to use in planning effective instruction in a timely

manner. With the PACE system, proficiency is determined based on a body of evidence and each assessment provides real-time information to stakeholders that can be used to help enhance student strengths and address student needs immediately."

School districts also engaged in on-going communication efforts with parents by hosting student work showcases and parent nights where parents and school board members are given example performance assessments to take themselves. Schools have found this to be a really convincing way to talk about increasing rigor! The following links provide examples of additional evidence of student and parent engagement and their support for the PACE assessment system.

- USED panel discussion with students at Souhegan High School: https://www.youtube.com/watch?v=ZSfMuoCUnnk
- New Hampshire Public Radio news coverage featuring student voices about their experience with one of the performance assessments as part of the PACE system: http://nhpr.org/post/setting-macbeth-syria-sanborn-students-find-parallels-span-centuries#stream/0
- Video recording of a NH Board of Education meeting where an elementary school parent shared her thoughts on how PACE has changed her third grader's education experience: https://reachinghighernh.org/2017/04/17/sanborn-regional-talks-about-pace/
- Transcript of parent and local school board member's testimony about her son's experience in PACE: https://reachinghighernh.org/2017/04/10/pam-wicks-sons-pace-experience-2/

<u>Supports for students with disabilities</u>

As we have already discussed in prior sections of this application, the NH DOE ensures that all students have access to effective supports and appropriate accommodations consistent with relevant federal and state laws by using a consistent set of support and accommodation policies across the statewide and the innovative assessment systems. The following is an excerpt from an Education Week blog post about the benefits of performance assessments, and PACE in particular, in supporting students with disabilities.

> *Our challenges in educating students with disabilities are multifaceted and stem from a number of factors, including shortages in qualified staff, historical underfunding of the Individuals with Disabilities Education Act (IDEA), and a lack of capacity to implement research-based practices in working with this population. These are all valid issues that must be addressed, but one key factor that is often overlooked is access to high-quality, engaging instruction and assessment.*

> *This issue of alignment is one of the real potentials of performance assessments as part of a system that transforms teaching and learning for students with disabilities. Because they can facilitate complex demonstrations of knowledge, performance assessments can be more authentic measures of the skills represented in the state standards and in students' Individualized Education Plans (IEPs). Performance assessments can be used to more effectively align IEPs' goals to the measures of student learning by integrating skills across*

disciplines and measuring student skills at a deeper level than traditional standardized assessments. Through this connection, performance assessments provide an opportunity for a more coherent educational experience for students with disabilities. Performance assessments not only have the potential for measuring what students know and can do more authentically and deeply than traditional assessments, but when designed and implemented well, they can also improve engagement, student voice, and ownership of learning, and they offer flexibility in how student learning is demonstrated.

These are tangible and significant benefits for any can student, but for students with disabilities–who often demonstrate their learning in different ways, who can be denied access to rigorous content, and who are particularly vulnerable to disengaging from school–performance-based assessment systems can be a real game changer.[27]

In addition to providing the necessary supports for students with Individualized Education Plans, early research suggests that while the PACE innovative assessment system is beneficial for improving outcomes for all students (as measured by the statewide assessment), it may be particularly beneficial for low performing students[28]. Though this research is still preliminary and will need to be replicated across years, it is promising early support for the PACE theory of action. At the very least, results of this study provide assurance that the use of local assessment data for accountability purposes provides all students with an equitable opportunity to learn the content standards and does not harm subgroups of students who are generally considered more at risk in terms of educational disparities. A summary of this research is located in Appendix H.

Evaluation and Continuous Improvement

From the beginning of PACE, the NH DOE and the participating LEAs have proudly cultivated a learning mindset and a culture of improvement. This commitment of continuous improvement is evident at the monthly leadership meetings where SEA and LEA leads come together to discuss relevant issues associated with the current and future design and implementation of PACE. Additionally, PACE has been subject to external review and feedback from the very start. In the early years, the PACE leadership convened a technical advisory committee comprised of national experts in educational assessment and innovation that helped shape important conversations about design and validity. More recently, PACE was subject to a multi-year, independently-conducted formative evaluation by HumRRO. As evidence of NH DOE's on-going commitment to evaluation and continuous improvement, an executive summary of HumRRO's evaluation along with their recommendations are shown in Appendix K. New Hampshire's planned actions and responses to the recommendations are then provided.

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[27] Parsi A., & Lyons, S. (2017, September 25). Performance assessments and students with disabilities. *Education Week, Learning Deeply Blog Post.*
[28] Evans, C. (*Under Review*). Effects of New Hampshire's innovative assessment and accountability system on student achievement outcomes after 3 years (2014-2017).

Given that the HumRRO evaluation was just completed, NH DOE does not foresee conducting another large scale-evaluation for at least another few years. That said, an external evaluator's perspective will be very valuable as NH increases the number of participating districts in the coming years. Therefore, NH DOE and NHLI will make fundraising to support an external evaluator by the time that NH DOE would have to submit its documentation to the Director of the Institute for Education Sciences.

However, NH maintains a culture of continuous improvement through the ongoing work of PACE analyses and reporting. The yearly calibration and standard setting results are presented to participating districts and schools so that they understand how to improve their scoring processes in subsequent years. Similarly, districts receive feedback each year on the quality of their assessment maps and local assessments to enable them to improve their performance in the future. The bottom line is that NH DOE and its technical advisors are transparent in the ways that they report the results of technical quality analyses to help support ongoing improvement in PACE. NH DOE is not satisfied with providing feedback to districts only once per year. Rather, NH DOE and its technical partners provide ongoing feedback through the year on the quality of local and common tasks and on task development processes.

ASSURANCES

See Part 1 of this application.

DESCRIPTION OF AND COMMITMENT FROM INITIAL SET OF LEAS/SCHOOLS

A description of each LEA that will initially participate in the PACE innovative system in the 2018-19 school year, including demographic information, is provided in Table 3. LEA report cards are provided in Appendix F. Please note, all of the districts listed have previously participated in PACE and therefore their achievement results in the report cards are reflective of PACE and the NH Statewide system of assessments (in select grade levels). Commitments and assurances from each participating LEA are included in the LEA letters of support attached to this application (Part 4: Other Attachments). Note, there may be additional districts added to this list as newly implementing districts are approved by the NH DOE for joining PACE during the summer of 2018. NH will send updated information and letters of commitment to USED when school selection for 2018-2019 is finalized.

SAU #	SAU Name	Grade Levels	Total # students enrolled	% Am Indian or Alaskan Native	% Asian or Pacific Islander	% Hisp anic	% Black	% White	% Two or more races
39	Amherst	PK-8	1309	0.7	2.8	2.5	1.6	92.3	0.1
35	Bethlehem	PK-6	157	1.3	2.5	6.4	1.9	84.1	3.8
8	Concord	PK-12	4546	0.7	7.7	3.9	9.3	78.4	0
14	Epping	PK-12	981	0.4	1.3	2.8	0.4	93.9	1.2
23	Haverhill Cooperative	PK-12	695	0.1	0.4	2.2	0.1	95.8	1.3
30	Laconia	PK-12	1945	0.3	1.7	4.9	2.1	88.4	2.7
77	Monroe	PK-8	85	0	0	2.4	1.2	95.3	1.2
43	Newport	PK-12	994	0.3	0.7	1.8	0.4	95.9	0.9
51	Pittsfield	PK-12	573	1	0	5.8	1.2	91.1	0.9
48	Plymouth	PK-8	419	0	5	4.1	1.7	87.4	1.9
54	Rochester	Pk-12	4224	0.2	1.7	4	1.3	89.5	3.4
17	Sanborn	PK-12	1593	0.6	0.9	4.7	1.1	92.3	0.4
NA	Seacoast Charter School	K-8	300	1.7	1	2.3	0.3	94	0.7
39	Souhegan Cooperative	12-Sep	787	0.9	2.9	3.4	0.6	92.1	0
ALL			18608	0.5	3.1	3.8	3.2	88.1	1.4

Table 3. *NH Profiles for Participating LEAs*

APPENDIX A: PACE ACCOMMODATION STANDARDS

In order to ensure validity of common assessment results, the PACE districts have established the following standards. These standards are consistent with approved accommodations for other state-level assessments, including Smarter Balanced and NECAP, and the Northwest Evaluation Association – Measures of Academic Progress (NWEA – MAP).

Accommodation Standards for Common Summative Assessments	
Content Area	
Reading/ English Language Arts	No portion of the reading summative may be read (unless the summative requires a section to be read to ALL students being assessed). Written responses are allowed to be scribed* if in a student's IEP/504 and/or ELL Plan AND if doing so does not impact the results of what is being assessed. ALL students can utilize word processing for written responses. ELL students may use a bilingual dictionary. Colored overlays, filters, or changes to lighting may be used. Students may use a ruler or writing utensil to track the text.
Mathematics	Text can be read, but symbols and numbers are not allowed to be read. Written responses are allowed to be scribed* if in a student's IEP/504 and/or ELL Plan. ALL students can utilize word processing for written responses. Bilingual dictionaries may be used. Use of tools (calculators, number charts etc.) are only allowed if the summative assessment permits the use for ALL students.
Writing	Text can be read and graphic organizers provided, if in a student's IEP and/or ELL Plan, or part of the task. Written responses are allowed to be scribed* if necessary. ALL students can utilize word processing for written responses. Students may have access to a dictionary, including a bilingual dictionary for ELL students, unless the assessment specifies otherwise.
Other Content Areas	Text can be read and written response scribed*, if in a student's IEP/504 and/or ELL Plan. ALL students can utilize word processing for written responses.
Location	Any student can be assessed in an alternate location. ELL students may benefit from a location where they may read the assessment material out loud to themselves.
Time	Any student can have extended time, except in cases where reading fluency is being assessed. ALL students may take breaks when appropriate.
Number of Questions	Reducing the number of questions being assessed is not allowed. If this is required, it is considered to be a modification of the assessment, which means the student's IEP reflects that his/her progress is reported through an off grade-level report card.
Changes to Font Size/Color	Allowed in all content areas for all students.

Reorganization of Questions	Any student can have the questions reorganized. For example, you may want to chunk all questions associated with one competency. You may choose to give all these questions at one time and then, the other questions at a different time. The key is that all parts of the assessment are administered.

*Refer to the Scribing Standards document.

In addition to the table above, it is important to keep in mind your district's definition of the terms grade-level and off grade-level. A student's progress is measured to grade-level competencies unless the student has in his/her IEP the modification that he/she is working towards off grade-level competencies. In addition, one needs to distinguish the difference between instruction and assessment administration. As a teacher plans for and delivers grade-level content he/she uses differentiated instructional methods, but has the same learning target in mind for all grade-level students. The teacher scaffolds the learning for these students, which in some cases may require teaching off grade-level material in order to fill in gaps in the student's learning, however, the goal and assessment for this student is still the grade-level material.

All students benefit from the use of highly effective instructional strategies as well as being taught how to use tools for their learning. Some examples include using graphic organizers to write, learning how to identify key words/phrases and then, highlighting/underlining them. These are good strategies and ones that we hope are in regular use throughout each classroom.

PACE Accommodation Guidelines for English Language Learners

To ensure validity of common assessment results, PACE has established the following accommodation guidelines for English Language Learners, excerpted and adapted from Smarter Balanced Assessment Consortium.

Construction of Performance Tasks

For English language learner students (ELLs) who take large-scale content assessments, the most significant accessibility concern is associated with the nature of the language used in the assessments. Because ELLs have not yet acquired complete proficiency in English, the use of language that is not fully accessible to them in assessments will degrade the validity of the test score interpretations that can be inferred from their results. The following guidelines should be considered when designing performance tasks:

- Design test directions to maximize clarity and minimize the potential for confusion.
- Use vocabulary in test items that is widely accessible to all students; avoid unfamiliar vocabulary that is not directly related to the construct (August, Carlo, & Snow, 2005; Bailey et al, 2007).
- Avoid the use of syntax or vocabulary that is above the test's target grade level (Borgioli, 2008). The test item should be written at a vocabulary level no higher than the target grade level, and preferably at a slightly lower grade level, to ensure that all students understand the task presented (Young, 2008).
- Keep sentence structures as simple as possible while expressing the intended meaning. ELLs will find a series of simpler, shorter sentences to be more accessible than longer, more complex sentences (Pitoniak, Young, Martiniello, King, Buteux, & Ginsburgh, 2009).
- Avoid false cognates, which are word pairs or phrases that appear to have the same meaning in two or more languages, but in fact, do not. Examples of false cognates include: billion (the correct Spanish word is mil millones; not billón, which means *trillion*); deception (engaño; not decepción, which means disappointment).
- Do not use cultural references or idiomatic expressions (such as "being on the ball") that are not equally familiar to all students (Bernhardt, 2005). This includes questions related to sports (yards, quarterback, etc.) which could be considered culturally biased questions for ELL students.
- Avoid sentence structures that may be confusing or difficult to follow, such as the use of passive voice or sentences with multiple clauses (Abedi & Lord, 2001; Forster & Olbrei, 1973; Schachter, 1983).
- Do not use syntax that may be confusing or ambiguous, such as using negation or double negatives in constructing test items (Abedi, 2006; Cummins, Kintsch, Reusser, & Weimer, 1988).
- Minimize use of low-frequency, long, or morphologically complex words and long sentences (Abedi, 2006; Abedi, Lord & Plummer, 1995).

Excerpted from: Young, J.; Pitoniak, M.; King, T.; & Ayad, E. (2012) *Smarter Balanced Assessment Consortium: Guidelines for Accessibility for English Language Learners. Measured Progress/ETS Collaborative.*

Examples of effective instructional strategies for ELL students preparing for the PACE Assessments include:

- Teaching word learning strategies, especially the use of cognates.
- Providing sentence and paragraph frames with word banks.
- Teaching strategies to use visual cues in text to support meaning (e.g., pictures and diagrams, titles and subtitles)
- Allowing students to compose and discuss their initial ideas for writing in their first language; once they've figured out what they want to write, have them complete the finished product in English.
- Providing instruction in common assessment word and phrases (e.g., what best describes, select, mark, summarize, support with examples), and help students understand what types of responses will be expected for each.

Accommodations for English Language Learners during Assessment Administration

Read Aloud

- Read aloud of test directions in student's native language
- Read aloud of test questions (Math, Science, History/SS) to student by teacher or electronic media

Test Setting and Time

- Test in a familiar environment with other ELLs
- Small group setting
- Test Break
- Extra time within the testing day

Use of Dictionaries and Other Resources

- Customized Dictionary/glossary in English (content-related terms removed) or Bilingual Dictionary
- Picture Dictionary (alone, combined with oral reading of test items in English, and combined with bilingual glossary)
- Traditional glossary with 1st language translations (content-related terms removed)
- Computer-based test (CBT)

Excerpted from: (Abedi, J & Ewers. (2013). N. Smarter Balanced Assessment Consortium: Accommodations for English Language Learners and students with disabilities: A research-based decision algorithm. University of CA, Davis.

APPROVED NHDOE 4.2015

APPENDIX B: DATA COLLECTION PROTOCOLS 2017-18

New Hampshire PACE

Data Collection Deadlines and Table of Contents

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[29] If missed, your student work samples will <u>not</u> be included in the Summer Institute and therefore we may <u>not</u> be able to report annual determinations for the students in your district. Please plan ahead to have all teachers administer and score the PACE common tasks and collect the bodies of work in order to meet this deadline.

#1: Sample of Assessment Maps and Aligned Assessments
Email to Mariane Gfroerer:
Mariane.Gfroerer@doe.nh.gov
Due January 15, 2018

This item is a requirement by USED and represents an opportunity for your district to receive feedback on a sample of your local course assessment maps and summative assessments. Each year the sample of grades and content areas reviewed will rotate.

Process:
- Email **one (1)** assessment map and **three (3)** aligned summative assessments for each of the following courses to Mariane Gfroerer by January 15, 2018. Should your district want to submit these materials earlier or later in the school year, please coordinate with Mariane.

Grade	Subject Area
3	Math
4	Science
5	ELA
6	Math
7	ELA
8	Science
HS	Algebra
HS	Grade 10 ELA
HS	Life Science

- An example of an assessment map is located in Appendix B of this document. All of the state standards should be mapped to at least one competency. The summative assessments for each competency should be labeled by type and mapped by time of administration. Anything included in the assessment map may be subject to a state audit to ensure assessments are aligned to intended standards and are high quality.
- For each course, three summative assessments should be submitted along with any scoring guides/rubrics and any other information teachers might need to help evaluate the quality of the assessment (e.g., samples of student work).

> **#2: Performance Task Feedback Review - SCALE**
> **Email to Mariane Gfroerer**
> **Mariane.Gfroerer@doe.nh.gov**
> Due January 15, 2018

To provide feedback on locally developed performance assessments that are designed using the PACE template, the NH DOE has contracted with the Stanford Center for Assessment, Learning, and Equity (SCALE) to provide feedback reviews to districts.

Process:

- Submit all locally developed performance assessments that are designed using the PACE template for feedback from SCALE.

Submission:

- Email copies of the PACE templates and supplementary materials to Mariane Gfroerer.
- The contract with SCALE does not end on the January 15th, as more local tasks are developed with the PACE template, please continue to submit these assessments in an on-going fashion.

#3: PACE Common Task Student Work Samples for Cross-District Calibration
Mail/Deliver to:
Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820
Due May 25, 2018 (this deadline is fixed, please plan ahead)

The student work samples will be used in the PACE Summer Institute to provide evidence of comparability in the evaluation of student work across districts.

Process:
- Select eighteen (18)[30] final student work samples for each PACE Common Task (no names, drafts, comments, or scored rubrics). This sample should span all score points and should be representative of the distribution of achievement in the district. Original papers are requested rather than copies, if possible.
- Student ID#s should be placed in the top right hand corner on the first page of each student work sample. If possible, highlight all Student ID#s with a blue highlighter. Remove all other identifiable information such as student name or school/district name.
- Do not submit any scored rubrics or score sheets.
- Remove any foreign materials from student work samples as to not damage scanning equipment (e.g., staples, paper clips, etc.).

Submission:
- Please place[31] a cover page (Appendix A) TO THE TOP OF EACH STUDENT WORK SAMPLE so we know whether the student work sample is a PACE Common Task sample or Body of Work sample, as well as the student ID#, district, grade level, and subject area submitted. Course information for High School Math and Science is requested (e.g., Algebra/Geometry (Math); Life Science/Physical Science/Chemistry (Science)). District, grade level, and subject area boxes can be pre-populated prior to copying within-districts. Labels can be placed in the Student ID# box, if desired.
- All PACE Common Tasks and Body of Work student work samples in every requested grade and subject area for a district should be mailed/delivered IN ONE SHIPMENT to the following address on or before May 25, 2018—Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820.

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[30] For districts with fewer than 18 students in a given grade, the district should submit all available papers.

[31] Please do not staple or paper clip the cover page. Just place the cover page on top of the student work sample.

#4: Body of Work Samples
Mail/Deliver to:
Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820
Due May 25, 2018 (this deadline is fixed, please plan ahead)

The main purpose of collecting student work samples throughout the year is to help document and evaluate student performance through the year along with the PACE Common Tasks. This collection will help support standard setting activities during the PACE Summer Institute.

Process:

- Districts are asked to submit 5-7 samples of student work for a minimum of nine (9) students from each subject area and grade level specified in the table below. The nine students should be selected to represent a range of achievement. For example, three generally low-performing students, three high-performing students, and three students who perform at about an average level. Student work of the same 9 students should be used throughout the year so districts may want to select one or two additional students in case a student moves.

Grade	Subject Area
3	Math
4	Science
5	ELA
6	Math
7	ELA
8	Science
HS	Algebra
HS	Grade 10 ELA
HS	Life Science

- The student work samples should come from major <u>summative</u> assessments throughout the year (e.g., unit tests, and performance based assessments) and demonstrate student achievement across the breadth and depth of the course content. The samples will be used to provide evidence of student achievement relative to the achievement level descriptors (see the content area ALDs).
- The PACE Common Task can serve as one of the assessments submitted for each student. It is critical that enough of the context of the assessment is included so that an outside teacher would know that a student was responding to a particular problem, prompt, exercise, reading, etc. Therefore, including the student instructions and specific questions asked along with student responses is critical. **We encourage teachers to photocopy student work throughout the year prior to grading. Please remove students' names, as well as any comments, grades, scored rubrics, score sheets, and score marks prior to submission.**
- Student ID#s should be placed in the top right hand corner on the first page of each student work sample. If possible, highlight all Student ID#s with a blue highlighter. Remove all other identifiable information such as student name or school/district name.
- Remove any foreign materials from student work samples as to not damage scanning equipment (e.g., staples, paper clips, etc.).

Resources:
- Short instructional video on the administrative libguide.
- PACE Body of Work Explanation & Examples are provided on the administrative libguide.
- Content area ALDs on the administrative libguide.

Submission:
- Please place[32] a cover page (Appendix A) TO THE TOP OF EACH STUDENT WORK SAMPLE so we know whether the student work sample is a PACE Common Task sample or Body of Work sample, as well as the student ID#, district, grade level, and subject area submitted. Course information for High School Math and Science is requested (e.g., Algebra/Geometry (Math); Life Science/Physical Science/Chemistry (Science)). District, grade level, and subject area boxes can be pre-populated prior to copying within-districts. Labels can be placed in the Student ID# box, if desired.
- All PACE Common Tasks and Body of Work student work samples in every requested grade and subject area for a district should be mailed/delivered IN ONE SHIPMENT to the following address on or before May 25, 2018—Measured Progress, Attn: Login Manager (PACE Project), 50 Education Way, Dover, NH 03820.

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[32] Please do not staple or paper clip the cover page. Just place the cover page on top of the student work sample.

#5: PACE Common Task Scores
Upload into the Learning Management System
Due June 15, 2018

This is a critical step for documenting that the scores that students receive are NOT contingent upon the district where the student goes to school. In other words, this step is designed to evaluate the extent to which teachers evaluate student work the same way (comparable) across districts. The PACE Common Task Scores will be reconciled with the consensus scores that are generated from the PACE Summer Institute to ensure the evaluation of student work is comparable across districts.

Process:
- Within district calibration sessions are highly encouraged to maximize the consistency and validity of scores.
- Upload PACE Common Task scores by rubric dimension into the Learning Management System for all students administered a PACE Common Task.

Resources:
- Recommended protocols for identifying anchor papers and individual teacher scoring are provided on the administrative libguide.

Submission:
- Score data (by rubric dimension) for each student who completed a PACE Common Task uploaded into the Learning Management System.
- Indicate if accommodations were used for the student.
- Indicate if the student has an IEP that modifies the instructed content standards to off grade level.

#6: Teacher Judgment Survey
Upload into the Learning Management System
Due June 15, 2018

All teachers in grades 3-11 (Math and ELA) and grades 4, 8-10 (Science) should complete a Teacher Judgment Survey for their students in the Learning Management System. Note that some of these grades are "non-PACE" grades. The results of the Teacher Judgment Surveys will be one variable used to produce each student's "annual determination" of proficiency in ELA, math, and science in grades/subjects where the PACE Common Task is administered.

The Teacher Judgment Survey asks teachers to classify their students based on PACE Achievement Level Descriptors (ALDs) for a given grade/subject. ALDs articulate the expected levels of performance related to the knowledge and skills described by the grade-level content standards.

Resources:
- Teacher Judgment Survey Instructions on the administrative libguide
- Content area ALDs on the administrative libguide[33]

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[33] Note: In the event that New Hampshire develops or procures a new statewide system of assessments (leaving behind Smarter Balanced), the district leads will be notified and these ALDs will be updated as quickly as possible.

#7: Full Set of Student Competency Scores
Upload into the Learning Management System
Due June 15, 2018

In order to produce annual determinations based on multiple sources of evidence, we need to be able to collect consistent and accurate information for each student. These data will be used along with the data collected from the Teacher Judgment Surveys to produce annual determinations of student proficiency.

Process:
- All teachers in PACE districts should be keeping records of students' progress on each of the course competencies.
- The competency scores that are submitted should be reflective of summative student achievement on each competency by the end of the year.
- The competency score scale (e.g., 1.00-4.00, 0-100) is district determined, but should be consistent within each grade level and content area in each district. Work with teachers to ensure scores are not submitted that are out-of-range (e.g., 0.75 on a 1.00-4.00 scale).

Submission:
- Please ensure that all students in grades 3-11 (Math and ELA) and grades 4, 8-10 (Science) have scores entered into the Learning Management System for their work related to each competency. Note that some of these grades are "non-PACE" grades.
  - For high school, only submit the competency scores for the ELA course and Math course in which the majority/plurality of eleventh grade students are enrolled.

#8: Electronic Gradebook Score Data
Email to Susan Lyons: **slyons@nciea.org**
Due June 15, 2018

Electronic gradebook score data is used to conduct analyses designed to support the validity of the PACE assessment system including generalizability studies and factor analysis.

Process:
- The data should include all of the individual scores that go into the end of year competency scores (e.g., summative tests, quizzes, projects, performance tasks), see Appendix C for an example data sheet. The PACE Common Task scores should be one of the scores included in the data file and should be labeled as such.
- Student IDs (SASIDs) need not be included in the data file.
- Please prepare these data files for the following grade levels:

Grade	Subject Area
3	Math
4	Science
5	ELA
6	Math
7	ELA
8	Science

Submission:
- The gradebook data should be submitted via an excel file to Susan Lyons at slyons@nciea.org. See Appendix C for an example from Grade 7 ELA.
- If your district does not use a Learning Management System/Student Information System to maintain this type of data, please contact Susan Lyons as early in the year as possible.

#9: Within-District Double Scoring of the PACE Common Tasks
Email to Susan Lyons: slyons@nciea.org
Due June 15, 2018

Within-district double scoring is a critical step for documenting the quality of scoring for the PACE Common Tasks. As a result, we need every teacher administering a PACE Common Task to submit at least 3-4 student work samples for double scoring with a minimum of 20 student work samples double scored per PACE Common Task within each district. For smaller districts, this may mean that every PACE Common Task student work sample in elementary grades is double scored.

There are two potential options for conducting the inter-rater reliability analyses:
1. The "embedded" approach does not require a stand-alone step, but is embedded in individual scoring.
2. The second option would require a stand-alone event for approximately ½ day.

Option #1 (embedded):
- Each teacher submits 3-4 student work samples, depending upon the total number of teachers at the grade level, from a range of performance levels.
- These student work samples are embedded in the scoring packets of the other teachers either at their grade level or grade span such that each teacher will end up double scoring approximately 3-5 extra student work samples.
- Teachers score these embedded student work samples along with their regular student work and record the scores.

Option #2 (stand-alone):
- Each teacher submits 3-4 student work samples, depending upon the total number of teachers at the grade level, from a range of performance levels. For districts with multiple schools, the district leader can determine whether or not to do this within each school or across schools at the district level.
- These student work samples are distributed to a grade level or grade span cohort of teachers such that each paper is scored by at least one other teacher. As an example, if there are 4 teachers at a given grade/subject level and each teacher submits 3 student work samples, there would be a total pool of 12 student work samples to score among second readers. Since each of the 12 student work samples needs two scores, that means that there are 24 scored responses needed for each grade/subject. This means that each of the 4 teachers will have to score 6 other teachers' student work samples.

Resources:
- Short instructional video on the administrative libguide.
- PACE Double Scoring Collection Spreadsheet (Excel file) on the administrative libguide.

Submission:
- Using the PACE Double Scoring Collection Spreadsheet, enter your district's double scores for all courses with a PACE Common Task. Leave the columns for the extra score dimensions blank for the tasks with rubrics that have fewer dimensions than the spreadsheet allows.
- Save the Excel file as: District_PACE Double Scoring_1718.xlsx and email to slyons@nciea.org

Please circle only ONE:

PACE Common Task   *Body of Work Sample*

Each student work sample will need its own PACE Scanning Cover Sheet

Student ID#	
District	
Grade level	
Subject area *(NOTE: If High School Math or Science indicate Algebra or Geometry (Math) or Life Science, Physical Science, or Chemistry (Science).*	

All PACE Common Task and Body of Work student work samples for a district should be mailed/delivered IN ONE SHIPMENT to the following address on or before May 25, 2018

Measured Progress
Attn: Login Manager (PACE Project)
50 Education Way
Dover, NH 03821

For Measured Progress
Use Only

Appendix Bb
Example Grade 3 Assessment Map

Competency	Standards	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1. Algebraic Thinking	CC.3.OA.1	Short Summative 1		PBA 1	Unit Test 1						
	CC.3.OA.2										
	CC.3.OA.3										
	CC.3.OA.4										
	CC.3.OA.5										
	CC.3.OA.6										
	CC.3.OA.7										
	CC.3.OA.8										
	CC.3.OA.9										
2. Number Operations	CC.3.NBT.1		Short Summative 2						Short Summative 7	PBA 3	
	CC.3.NBT.2										
	CC.3.NBT.3										
3. Fractions and Proportional Reasoning	CC.3.NF.1			Short Summative 3		Short Summative 5	Unit Test 2	PBA 2			
	CC.3.NF.2										
	CC.3.NF.2a										
	CC.3.NF.2b										
	CC.3.NF.3										
	CC.3.NF.3a										
	CC.3.NF.3b										
	CC.3.NF.3c										
	CC.3.NF.3d										
4. Data	CC.3.MD.3									Short Summative 8	Unit Test 3
	CC.3.MD.4										
5. Geometry and Measurement	CC.3.MD.1				Short Summative 4			Short Summative 6	PACE Common Task		
	CC.3.MD.2										
	CC.3.MD.5										
	CC.3.MD.6										
	CC.3.MD.7										
	CC.3.MD.7a										
	CC.3.MD.7b										
	CC.3.MD.7c										
	CC.3.MD.7d										
	CC.3.MD.8										
	CC.3.G.1										
	CC.3.G.2										

Electronic Gradebook Score Data (Example from Grade 7 ELA)

	ELA7.01: 7-Reading Literature				ELA7.02: 7-Reading Informational Text		ELA7.03: 7- Writing				ELA7.04: 7-Speaking, Listening & Viewing			ELA7.05: 7-Language						
	Sparknote Summary	Chains 1-12 Test	Chains 1-6 Summative	Choices and Change Chains Discussion	Revolutionary War Infographic	Informational Texts Summative	Poetry Book Summative	Pratchett Summative (Details)	Revolutionary War Infographic	Uniforms: Argumentative Essay ORGANIZATION	Choices and Change Chains Discussion	Poetry Book Summative	Revolutionary War Infographic	Chains 1-12 Test	Chains 1-6 Summative	Figurative Language Summative	Modifier Summative	Noun Summative	Poetry Vocabulary Summative	Verb Summative
Student 1	B	C	A	B	B	A	B	B	C	B	B	B	A	B	A	A	A	A	A	B
Student 2	IWS	C	C	X	C	C	C	C	X	C	X	C	C	C	C	C	C	C	NYC	C
Student 3	B	A	C	A	C	A	B	C	C	B	A	B	C	A	A	C	A	C	B	A
Student 4	C	C	A	A	C	B	A	B	B	C	B	B	C	C	A	A	B	B	B	A
Student 5	C	C	C	B	C	C	C	C	B	C	C	C	B	A	C	C	C	C	C	C
Student 6	B	A	A	A	B	A	A	B	B	A	B	A	B	A	A	B	A	B	B	A
Student 7	B	A	B	B	C	C	B	C	C	C	B	C	C	A	A	A	B	C	C	C
Student 8	C	C	B	C	B	C	C	C	C	C	C	C	C	A	A	C	B	A	C	C
Student 9	B	A	A	A	C	A	B	B	C	A	A	A	B	A	A	A	B	A	A	A
Student 10	C	C	A	C	C	C	IWS	C	C	C	C	C	C	B	A	A	B	A	B	C
Student 11	B	B	B	A	B	C	B	C	B	C	C	C	B	A	B	B	C	C	C	C
Student 12	C	B	B	C	C	B	B	C	C	B	C	C	C	C	A	A	NYC	C	C	C
Student 13	C	C	B	A	C	C	C	C	C	C	B	C	C	C	B	C	C	C	C	C
Student 14	C	C	C	C	C	C	B	C	C	C	C	B	B	C	B	C	C	C	C	A
Student 15	C	C	B	A	B	C	C	C	C	C	A	C	C	B	B	B	C	C	C	C
Student 16	IWS	IWS	C	A	NYC	NYC	C	NYC	C	IWS	B	IWS	C	IWS	NYC	NYC	NYC	C	NYC	IWS
Student 17	C	C	C	B	C	C	C	C	C	C	B	B	C	B	A	A	C	C	C	A
Student 18	B	A	B	B	C	A	A	B	C	B	C	A	B	A	A	A	A	B	A	C
Student 19	B	C	C	A	C	C	B	C	C	C	C	B	C	C	A	C	B	C	C	B
Student 20	C	B	B	A	C	C	C	C	C	C	B	C	C	B	C	A	B	B	C	B
Student 21								IWS											IWS	
Student 22	C	C	C	C	C	B	B	C	C	B	C	B	C	B	C	A	C	C	B	A
Student 23	C	C	B	C	C	C	C	X	C	X	C	C	C	C	B	B	C	X	C	X
Student 24	C	B	A	C	C	A	B	B	C	B	C	B	B	B	A	A	C	C	C	B
Student 25	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	NYC	C	C	C
Student 26	C	C	A	A	C	C	C	B	C	C	B	C	C	C	C	A	B	C	C	C
Student 27	IWS	C	C	A	C	C	IWS	C	C	C	B	C	C	B	C	C	C	C	C	C
Student 28	B	A	B	B	B	C	B	B	C	C	B	C	B	A	B	B	B	A	C	A
Student 29	C	C	B	C	B	B	B	B	C	C	B	C	C	A	B	A	C	B	C	C
Student 30	B	C	C	C	C	C	IWS	C	C	C	C	C	C	C	C	B	C	B	C	C
Student 31	C	C	A	B	C	C	B	B	C	C	B	B	C	B	A	B	B	C	B	C
Student 32	X	C	X	C	C	C	IWS	C	NYC	IWS	X	C	C	X	NYC	B	X	C	C	C
Student 33	C	C	C	C	C	C	C	B	C	C	C	C	C	C	C	B	C	C	A	A
Student 34	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Student 35	C	B	B	B	C	B	C	B	C	B	C	C	C	C	A	A	C	B	B	A
Student 36	C	C	A	B	C	C	B	C	C	C	A	C	C	C	A	B	C	C	C	C
Student 37	C	B	C	B	C	B	B	B	C	B	C	B	C	B	A	C	C	B	C	B
Student 38	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Student 39	C	B	B	C	C	C	B	A	C	C	C	B	C	C	A	A	C	A	A	A
Student 40	A	A	C	B	B	A	C	A	C	B	B	B	C	A	C	B	C	C	C	C
Student 41	C	C	C	C	C	C	C	B	C	C	C	C	C	B	A	A	C	C	C	A
Student 42	C	C	A	A	C	A	B	A	C	B	B	A	B	A	A	A	C	A	C	A
Student 43	C	C	C	B	C	C	C	C	C	C	B	B	C	C	C	C	C	C	C	C

Notes

(1) The file includes all students in grade 7 ELA in the district.

(2) You can use either letter grades or numeric grades – just provide the score scale (e.g., IWS "Insufficient Work Shown"=1, NYC "Not Yet Competent"=2, C "Competent"=3, B "Beyond Competent"=4, A "Above Competent"=5).

Appendix Bd
Data Collection Checklist[34]

Grade Level	Subject Area	#1 Sample of Assessment Maps and Aligned Assessments (Y/N) Jan 15, 2018	#2 Performance Tasks for Feedback Review-SCALE Emailed (Y/N) Jan 15, 2018	#3 Common Task Work Samples Mailed (x/18) May 25, 2018	#4 Body of Work Samples Mailed (x/9) May 25, 2018	#5 Common Task Scores Uploaded (Y/N) June 15, 2018	#6 Teacher Judgment Surveys Completed (Y/N) June 15, 2018	#7 Full Set of Student Competency Scores Uploaded (Y/N) June 15, 2018	#8 Electronic Gradebook Data Emailed (Y/N) June 15, 2018	#9 Within-District Double Scoring Emailed (Y/N) June 15,2018
3	ELA									
3	MATH			/18	/9					
4	ELA			/18						
4	MATH									
4	SCI			/18	/9					
5	ELA			/18	/9					
5	MATH			/18						
6	ELA			/18						
6	MATH			/18	/9					
7	ELA			/18	/9					
7	MATH			/18						
8	ELA									
8	MATH									
8	SCI			/18	/9					

[34] This checklist is provided for internal district use only; it does not need to be submitted.

Grade Level	Subject Area	#1 Sample of Assessment Maps and Aligned Assessments (Y/N)	#2 Performance Tasks for Feedback Review-SCALE Emailed (Y/N)	#3 Common Task Work Samples Mailed (x/18)	#4 Body of Work Samples Mailed (x/9)	#5 Common Task Scores Uploaded (Y/N)	#6 Teacher Judgment Surveys Completed (Y/N)	#7 Full Set of Student Competency Scores Uploaded (Y/N)	#8 Electronic Gradebook Data Emailed (Y/N)	#9 Within-District Double Scoring Emailed (Y/N)
		Jan 15, 2018	Jan 15, 2018	May 25, 2018	May 25, 2018	June 15, 2018	June 15, 2018	June 15, 2018	June 15, 2018	June 15,2018
9	ELA			/18						
10	ELA			/18	/9					
11	ELA									
HS	Algebra			/18	/9					
HS	Geometry			/18						
11	MATH									
HS	Life Sci			/18	/9					
HS	Phys Sci			/18						
HS	Chemistry									

ASSESSMENT MAP REVIEW CRITERIA AND FEEDBACK FOR DISTRICTS

☐ **All standards are addressed or an explanation is provided to explain if certain standards are addressed in another grade level (or course) or if the standard is assessed through formative means.**   •
☐ **Multiple summative assessment opportunities are available for every competency.**   •
☐ **All competencies are assessed by at least one performance assessment that measures deeper levels of understanding.**   •
☐ **Please provide comment(s) regarding what you think the district did well with this assessment map.**
☐ **Please provide suggestion(s) for improving the quality of this assessment map.**

SUMMATIVE ASSESSMENT REVIEW CRITERIA AND FEEDBACK TO DISTRICTS

Part 1: Assessment Profile

Brief Description of the Summative Assessment Submitted:

Part 2: Alignment

A high quality summative assessment should be … Aligned

To what extent do you see a content match between the submitted summative assessment and the standards?

☐ **Full/Close match** – all or most aspects of the task or items address or exceed the relevant skills and knowledge described in the corresponding standard(s)

☐ **Partial match** – Some aspects of the task or items address or partially address the skills and knowledge described in the corresponding state standard(s)

☐ **Minimal/No match** – Few or no aspects of the task or items match some relevant skills and knowledge described in the corresponding state standard(s)

Estimate the Depth-of-Knowledge range of the standards measured by the assessment (see Webb's DOK charts; check all that apply):

☐ **DOK 1:** recall and reproduction

☐ **DOK 2:** skills and concepts

☐ **DOK 3:** strategic thinking/reasoning; requires deeper cognitive processing

☐ **DOK 4:** extended thinking; requires higher-order thinking including complex reasoning, planning, and developing of concepts.

Is the summative assessment reviewed as cognitively challenging as the standards? In other words, the summative assessment elicits sufficient evidence for judging the level of student understanding related to the competencies and standards identified. Use the definitions below to select your rating:

☐ **More rigor** – the summative assessment reviewed is at a higher DOK level than the range indicated for the state standard(s)

☐ **Similar rigor** – the summative assessment reviewed is similar to the DOK range indicated for the state standard(s)

☐ **Less rigor** – the summative assessment reviewed is lower than the DOK range indicated for the state standard(s)

Comments/Suggestions for Improving Alignment (if any)

Relevant evidence to justify ratings:

Part 3: Rubric

A high quality summative assessment should be … Scored using Clear Guidelines and Criteria

Note: This section may not apply. It will only be completed if a rubric was submitted with the summative assessment.

Is the rubric aligned to the assessment task and/or standards identified?

☐ **Fully aligned**

☐ **Partially aligned**

☐ **Not aligned**

Are the score categories clearly defined and represent a sensible progression of knowledge and skills across performance levels?

☐ **Yes**

☐ **Partial**
☐ **No**

Is it clear which aspects of the task will be evaluated by this rubric?

☐ **Yes**

☐ **Partial/Unclear**
☐ **No**

Based on your review of the rubric would the scoring rubric most likely lead different raters to arrive at the same score for a given response? ☐ **Yes** ☐ **Partial/Unclear** ☐ **No**

Relevant evidence to justify ratings:

Part 4: Fair and Unbiased
(the areas below should be discussed relative to the needs of ELLs, gifted and talented students, and students with disabilities)

A high quality summative assessment should be…Fair and Unbiased

To what extent is the summative assessment visually clear and uncluttered (e.g., appropriate white space and/or lines for student responses, graphics and/or illustrations are clear and support the test content, the font size seems appropriate for the students)?

☐ **Formatting is visually clear and uncluttered**

☐ **Formatting is somewhat confusing or distracting**

☐ **Formatting is unclear, cluttered, and inappropriate for students**

Are the directions and questions presented in as straightforward a way as possible for a range of learners?
☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

Is the vocabulary and context(s) presented by the summative assessment free from cultural or other unintended bias?
☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

Comments/Suggestions for Improving Fair and Unbiased (if any)

Relevant evidence to justify ratings:

Part 5: Appropriateness of Text/Visual Resources

A high quality summative assessment should…include appropriate reading and visual materials

Note: This section may not apply. It will only be completed if reading or visual materials were included.

The texts and visual resources support the topic and prompt:
☐ **Yes**
☐ **Partial/Unclear**
☐ **No**
☐ **N/A**

The texts have characteristics relative to grade-level expectations of a:
☐ **Simple Text**
☐ **Somewhat Complex Texts**
☐ **Complex Texts**
☐ **Very Complex Texts**
☐ **N/A**

Note: Refer to the *Text Complexity Rubric for Literary Texts or Informational Texts*

The amount of texts and visual resources are:

- ☐ **Appropriate for the grade level and the time allotted for the task**
- ☐ **Appropriate for the grade level, but may exceed the time allotted for the task**
- ☐ **Burdensome for the grade level and the time allotted for the task**
- ☐ **No texts and/or resources are included**
- ☐ **N/A**

Comments/Suggestions for Improvement for Fair and Unbiased (if any)

Relevant evidence to justify ratings:

Overall Recommendation

- ☐ **No changes needed**

- ☐ **Minor changes suggested (please specify up to three suggestions)**

- ☐ **Substantial changes suggested (please specify up to three suggestions)**

Discussion:

APPENDIX C: PACE TASK DEVELOPMENT FRAMEWORK

	NH PACE Performance Assessment for Competency Education Performance Task Development Framework 2017-2018 *This is a complete NH PACE Performance Task Template. Additional teacher/student directions and administration guidelines should match this template.*				
☐ LOCAL TASK	☐ COMMON TASK	☐ IN DEVELOPMENT	☐ REVIEWED #1	☐ REVIEWED #2 (NCIEA)	☐ FINAL NHDOE APPROVED
Performance Task Name *Unique name given to this performance task*					
Content Area *For example: ELA, Science, Math, Social Studies, etc.*					
Grade-Level/Course Name *If this is a middle or high school task, indicate course name as well as grade level(s)*					
Contributing Author(s) *List the names, emails, and schools or agencies of ALL contributing authors in the task.*					
Citations/Attributions *If this task is an adaptation of work published elsewhere, list all citations/attributions. Permission to include copyrighted work must be obtained by the author(s) listed above from the originator of the adapted work and documented here. Using hyperlinks does not substitute for proper citations/attributions.*					

The Student Model	
1. What are the big ideas of the content area(s) that are the ultimate target for student learning (e.g., literary analysis, proportionality, natural selection, thermodynamics)?	
2. What are the enduring understandings that students should possess after participating in this learning experience (Students will understand …)?	
3. What are the key knowledge, skills, and work study practices that comprise the learning target(s) we are intending to measure? ➢ What is the level of thinking (e.g., DOK levels) associated with this learning target? ➢ How do you know?	
4. What NH Model Competencies represent the primary targets of student learning this task is being designed to measure?	
5. Standards: List the complete wording of the target standards associated with the key competencies included above (may copy & paste). ➢ Please describe why you think that the standards listed are subsumed by the competencies referenced in #4. ➢ Source of Standards: *List the document(s) from which the standards are drawn i.e. CCSS, NH State Frameworks, NGSS, etc., including any locally developed standards.*	
6. What NH competencies that support the competencies may be secondarily measured with this task (e.g., will the task measure any competencies beyond the focal competencies?)?	
7. Universal Design for Learning: To what extent can the learning targets described above: ➢ Be represented using multiple means or approaches? ➢ Allow for multiple ways for learners to express and demonstrate what they know and can do? and ➢ Permit multiple means of engagement to	

tap into learners' interests, challenging them appropriately while motivating them to learn? *Please refer to the NH PACE Accommodations and ELL Guidelines for more information.*	
8. Please describe the Work Study Practices that students need to use to perform the task. Such Work Study Practices may include any or all of the following: ➢ Communication: Use various media to interpret, question, and express knowledge, information, ideas, feelings, and reasoning to create mutual understanding. ➢ Creativity: Use original and flexible thinking to communicate ideas or construct a unique product or solution. ➢ Collaboration: Work in diverse groups to achieve a common goal. ➢ Self-direction: Initiate and manage my learning through self-awareness, self-motivation, self-control, self-advocacy and adaptability as a reflective learner.	

The Evidence Model	

1. Describe the evidence that would make a convincing case that the student had demonstrated competence in the domain defined by the student model?
  ➢ What are the key features of this evidence (this will define the dimensions represented in the rubric)?
  ➢ What types of products and/or processes would you expect to see from student who had mastered the knowledge and skills described in the Student Model? For example, would the student produce papers, presentations, videos, equations, drawings, or other types of products? How many and of what type would provide the necessary evidence?	

2. What is the expected range of performance for these various sources of evidence and what are the distinguishing characteristics that will help differentiate levels of performance on this task (this will help conceptualize the levels of performance of the rubric)?	

3. Universal Design for Learning: Please describe the extent to which your expected evidence takes into account the need for:
  ➢ Multiple means of representation to give learners various ways of acquiring information and knowledge,
  ➢ Multiple means of expression to provide learner with alternatives for demonstrating what they know, and
  ➢ Multiple means of engagement to tap into learners' interests, challenging them appropriately while motivating them to learn.
For more information, please refer to the NH PACE Accommodations and ELL Guidelines.	

The Task Model	
1. Task Description: What are students being asked to do? Please provide an overview of the task.	
2. Task Features: Does the task include appropriate grade-specific content targets (e.g., whole numbers up to 1000) and skills/practices (e.g., can use mathematical models to represent the natural world)? ➢ Is any scaffolding permitted on this task? How much and of what type and for what types of students (e.g., SWD, EL)? ➢ Will things like illustrations, speaking, and other graphical representations be included in this type of task? ➢ Will tools like calculators and graphic organizers be allowed? What types of tools and what are the limitations (may students use auto-correcting tools)?	
3. What level of thinking is the task designed to elicit? Why do you think this task will elicit this level of thinking for students at this grade level? ➢ Is there an expected "ceiling" depth of thinking expected (e.g., no more than DOK level 3)? ➢ Is there a minimum (floor) depth of thinking expected (e.g., no less than DOK level 2)?	
4. Materials and presentations: How will the task be presented to students? ➢ What types of stimuli or prompts will be used to introduce the task? ➢ What materials will they be required/allowed to use (e.g., number/types of literature sources, measurement tools such as thermometers)? ➢ Will certain types of support materials be used to help students better understand the expectations of the task such as photos, websites, and/or videos?	

5. Work products: What will students produce as a result of engaging with this task (e.g., essay, mathematical proof, lab report)? What are the limits on acceptable work products? ➢ Will all of the work products contribute to evaluating a student's performance? For example, if there are group products, how will these contribute to a student's score if at all?	
6. Observation variables/outcomes: Describe the acceptable solutions for this task. What are the acceptable values (math/science) or formats/genres (ELA) for the potential solutions?	

7. Universal Design for Learning: Please describe the extent to which your task provides:
   ➢ Multiple means of representation to give learners various ways of acquiring information and knowledge,
   ➢ Multiple means of expression to provide learner with alternatives for demonstrating what they know, and
   ➢ Multiple means of engagement to tap into learners' interests, challenging them appropriately while motivating them to learn.
Refer to the NH PACE Accommodations and ELL Guidelines in ensuring that the construction of the task leads to activities that are accessible to all students.	

Appendices
The following documents must be included as appendices to your task template
    A. The rubric(s) used to score the student performances
    B. The actual task that will be presented to the student (i.e., student instructions)
    C. The directions to teachers responsible for teaching, administering, and scoring this task
Additional details regarding each of the three appendices follow:

Appendix A: Rubrics
Please attach as Appendix A all rubrics that will be used to evaluate students' work on this performance task. Make sure you indicate which student product(s) and activities will be scored by the rubric. Rubrics adapted to student-friendly language should be included in the student instructions section. However, they should align with teacher-use rubrics included here.
You may use a general or task-specific rubric to score the work. However, if using a general rubric (applied to multiple tasks for your content area and grade level), you should annotate the rubric(s) to make clear which standards and competencies are aligned with each scoring dimension as well as the "look-fors" in the student work tied to the specific dimensions and levels of the rubric. The annotations also serve to highlight for the implementing teachers the thinking of the task development team and what a teacher should be looking for when assessing student work.

Appendix B: Student task instructions
Please include the task as it will be presented to the students. This includes all student instructions used in the administration of this performance task. The rubrics that have been adapted to student-friendly language should also be included in this appendix. Please also include any supplemental materials that are presented to students (or descriptions for non-paper materials).

Appendix C: Teacher instructions
This appendix will include all directions that the teacher needs to use in the administration of all aspects of the performance task. Keep in mind that teachers, other than the original author(s) will need these directions in order to administer the task. Include hyperlinks for online resources. Additionally, the teacher directions should include:

1. A description of a potential unit of instruction (curricular unit) that would serve as a foundation for the performance task. This includes lesson sequences and activities as well as formative assessment suggestions.
2. A clear list of materials, including the technology required to complete the task.
3. A very specific description of the intended scaffolding allowed and specific limits of such scaffolding.
4. A description of the accommodations for students with disabilities and English learners.
5. The list of references (full references!) that you used to create the task and that are needed to support the task administration and use.

APPENDIX D: PRINCIPLED ASSESSMENT DESIGN BRIEF

Principled Assessment Design for the Performance Assessment of Competency Education (PACE)
Scott Marion and Erika Landl
September 23, 2017

Introduction and Rationale

How should we design performance-based assessments to support learning, instructional, and accountability purposes? The performance assessments used to evaluate student learning of key competencies in PACE are well-suited to using a principled approach to design such as Evidence Centered Design (ECD; Mislevy, 1994, 1996) or following the assessment triangle as articulated in *Knowing What Students Know* (Pellegrino, Chudowsky, and Glaser, 2001). Principled design is an attempt to move from inefficient "one-off" designs to more replicable task designs and templates. It is also an effort to *design for validity* by requiring that evidence supporting each task be articulated throughout the design process, rather than post-hoc. Principled assessment design requires task developers to consider the following set of questions:

➢ What claims do we want to be able to make about what students know and can do?
➢ What knowledge and skills comprise the learning target(s) we are intending to measure?
➢ What evidence is necessary to demonstrate that a student has mastered those knowledge and skills?
➢ What type of task will serve to elicit that evidence?
➢ What characteristics/features will make a task harder or easier?
➢ What characteristics/features will make a task more or less complex?

These questions are usually thought of implicitly, if at all, in task design, but current work using principled assessment design such as with the Advanced Placement program and with the consortium assessments (i.e., PARCC, Smarter Balanced, and NCSC) has demonstrated the practical and theoretical advantages of answering such questions explicitly.

Importantly, principled assessment design intends to ensure that assessments are based on research-based models of learning. Bob Mislevy, the originator of Evidence Centered Design, once famously noted "It is only a slight exaggeration to describe the test theory that dominates educational measurement today as the application of 20th century statistics to 19th century psychology (Mislevy, 1993, p. 19)." Adherence to outdated, naïve, and/or implicit notions of learning is an impediment to the design of performance assessments of deeper learning as well as to the usefulness of such assessments for improving learning and instruction. Principled assessment design is an attempt to ensure that assessments are built on modern theories of learning to provide a more robust framework for the design, interpretation and validation of assessment results.

Too often assessments are designed by superficially matching test questions and tasks to individual standards or competencies (e.g., using surface features such as common language), or by developing items that have no evidentiary basis. This leaves us wanting in how to meaningfully interpret the results. We want information about the degree to which students are developing and demonstrating competence in a domain, but unless an assessment is purposefully

designed to provide such information, assessment results will likely not be especially useful for informing instruction and learning.

Principled Assessment Design

Bob Mislevy and his colleagues (e.g., 2003, 2006) proposed Evidence Centered Design as a test design and interpretation framework for better evaluating and supporting inferences derived from test scores. In 2001, the National Research Council (NRC) published *Knowing What Students Know*: *The Science and Design of Educational Assessment* (Pellegrino, Chudowsky, & Glaser, 2001), which synthesized a tremendous body of learning and measurement research and set an ambitious direction for the development of more valid assessments. *Knowing What Students Know* (KWSK) built off of Mislevy's (1996) notion of assessment as a process of reasoning from evidence and previous NRC work synthesizing research on human learning (Bransford, Brown, and Cocking, 2000). The authors of *Knowing What Students Know* used the heuristic of an "assessment triangle" to illustrate the relationship among learning models (cognition), assessment methods (observation), and inferences from assessment scores (interpretation). We provide a little detail here because it serves as an important background to understanding ECD.

Cognition refers to the empirically-based theories and beliefs about how humans represent information and develop competence in a particular academic domain (Pellegrino et al., 2001). These theories of "learning and knowing" help explain varying levels of performance in a particular domain, and therefore, are necessary for the design and interpretation of assessments. The observation vertex of the triangle refers to "a set of specifications for assessment tasks that will elicit illuminating responses from students" (Pellegrino et al., 2001 p. 42). The design of items or tasks is based upon the belief that those particular assessment events will allow students to demonstrate their understanding of the domain, in a manner consistent with the specified theory of learning. The interpretation component in this diagram includes all of the methods and analytic tools (e.g., psychometric and statistical models) used to make sense of and reason from the assessment observations (Pellegrino et al., 2001).
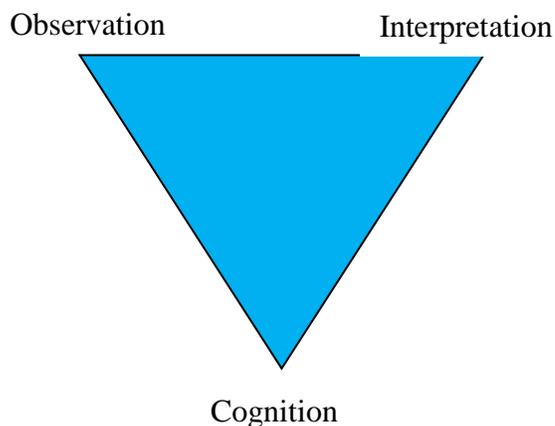
Observation   Interpretation

Cognition

Figure 1. The Assessment Triangle (from NRC, 2001, p. 39)

Evidence Centered Design

The Assessment Triangle was based on Misley's original work in principled assessment design and we while the assessment triangle is often an easier-to-understand heuristic than ECD, we

have found that the foundational elements of ECD provide an understandable and powerful framework for helping educators design high quality performance tasks. In its simplest formulation, the core of the ECD framework has 3 components: a student model, an evidence model, and a task model. The student model describes the construct or learning outcome(s) that is the intended focus of assessment. The evidence model, which links the task and student models, describes the evidence necessary to evaluate the student model and the manner in which that evidence should evaluated to determine whether students mastered the intended knowledge and skills. Finally, the task model describes the characteristics of tasks (e.g., work products/demonstrations) that will produce the desired evidence and the variable features that can influence task difficulty and cognitive complexity.

The Student Model
The student model is analogous to the cognition vertex in the assessment triangle but focuses on the construct-specific claims that we intend to make and support based on the learning demonstrated through the assessment results. In defining the student model, assessment designers are asked to specify exactly what they want students to know and how well they want them to know it. This requires an unpacking of the construct—i.e., what we intend to measure-- by clearly articulating the range of knowledge, skills and abilities necessary to support the claims of interest. The construct is not just a content standard or even set of content standards or competencies. Rather, the construct refers to a hypothesized attribute such as reading comprehension or scientific inquiry that is based on a theoretical understanding of how various knowledge, skills, and dispositions come together to make meaning. The student model also takes into account how learners progress in their mastery of this construct along a continuum from fragile to deeper understanding.

Evidence Model
The evidence model calls for assessment designers to describe the range of **evidence** that would convince users that the student has demonstrated the knowledge and skills at the level of proficiency described in the student model. The evidence model also calls for the explication of the ways in which this evidence would be quantified (e.g., scored) and how the results will be analyzed to most validly support interpretations related to the student model. For example, if the student model focused on the construct of argumentative writing, an evidence model might include such expectations as high-quality performance on a series of diverse pieces of argumentative essays on a range of topics along with the rules by which these observations and other pieces of evidence would be scored and analyzed. Ultimately, assessment designers need to ask, "what will we accept as evidence that the student has mastered the knowledge and skills that define the student model (construct)?"
The evidence model is almost always bypassed in task design in the rush to create items and tasks. In order to avoid a tail wagging the dog phenomenon, specifying the desired evidence *a priori* will help ensure that the focus is on the construct and not simply on the assessment tasks. Taking the necessary time up front to clearly articulate the student and evidence models will facilitate the design of the assessment task(s) much more smoothly than starting with the idea for a task before the intended measurement target and evidence needed to evaluate student achievement have been fully specified. These steps also contribute to task revision because once the task has been piloted, the samples of student work can be compared to the already existing evidence model to see what gaps might exist in the evidence necessary to evaluate student

competency. Lastly, development of the rubric can draw explicitly from the student and evidence models instead of trying to figure out what the assessment task actually measures after it has been developed. Each of these steps contribute to the validity of the assessment as the intended interpretation and use of the assessment results remains central to the design of the task at every step of the way.

Task Model
Once the evidence model is specified, we can then turn our attention to task design. Notice that we do not start with the tasks and try to retrofit the learning goal. The task model requires designers to outline the characteristics and features of the tasks that students will perform to demonstrate and communicate their knowledge. Task designers should ask themselves:

- What types of scenarios/problems would elicit the student evidence defined in the student model?
- What characteristics of an assessment task are necessary to measure the student model at a deep level?

The relationship among the different elements of the ECD framework supporting task development is represented in Figure 2.
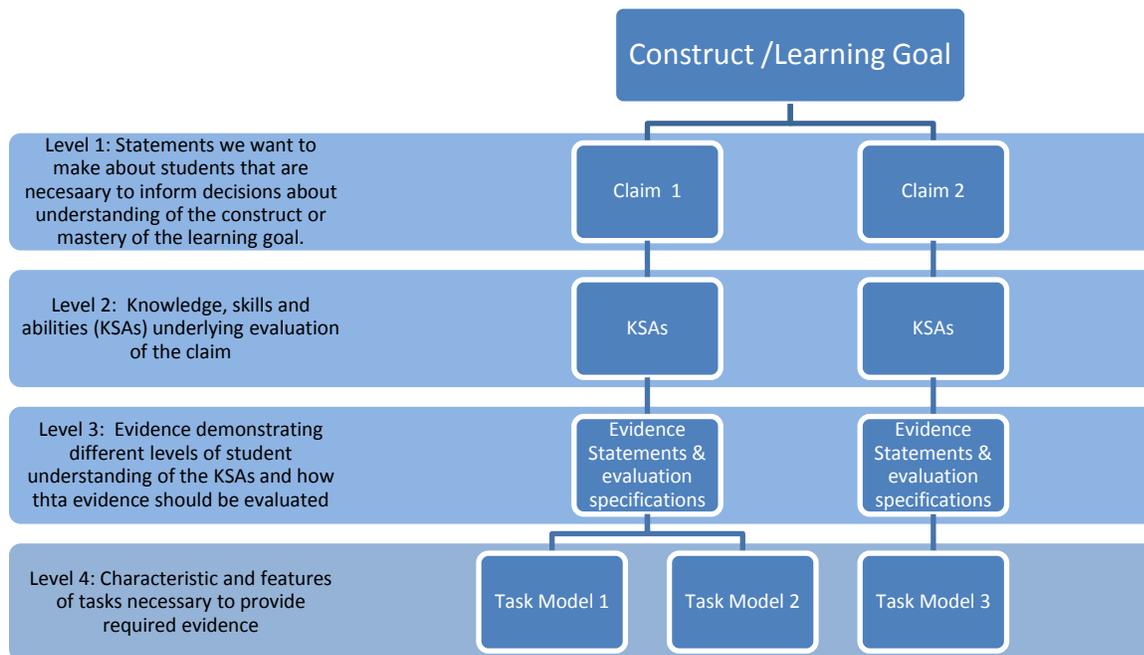
Figure 2. Elements of ECD Framework Supporting Task Template Design

An Example
The following example from the Advanced Placement program (Huff & Plake, 2010) helps to highlight the type of information that is necessary to specify the student model for a given assessment. Note that the enduring understanding represents the major claim the designers would like to have evidence to support, in this case that students demonstrate an understanding that "chemical reactions are represented by a balanced chemical reaction that identifies the ratios with which reactants react and products form." As shown in Figure 3, the big idea and enduring understanding provide grounding in the major ideas of the domain, but the supporting understandings help provide the level of detail necessary to support evidence and task

conceptualizations. Within the AP process, content requirements defined within the "supporting understandings" were combined with the core skills in the domain (see Figure 4) to articulate finer-grained claims that were ultimately the focus of item and task development (see Hendrickson, Huff, & Luecht, 2010).

Big Idea: Changes in matter involve the rearrangement and/or reorganization of atoms and/or the transfer of electrons.

Enduring Understanding: Chemical reactions are represented by a balanced chemical reaction that identifies the ratios with which reactants react and products form.

Supporting Understandings:

A.1. A chemical change may be represented by a molecular, ionic, or net ionic equation.

A.2. Quantitative information can be derived from stoichiometric calculations which utilize the mole ratios from the balanced equations. (Possible examples: the role of stoichiometry in the real world applications is important to note so that it does not seem to be simply an exercise done only by chemists; and the concept of fuel-air ratios in combustion engines, for example, is able to provide context for this form of calculation.)

A.3. Solid solutions, particularly of semiconductors, provide important, non- stoichiometric compounds. These materials have useful applications in electronic technology and provide an important extension of the concept of stoichiometry beyond the whole number mole-ratio concept.

Figure 3. From Huff & Plake (2010). An example content outline in chemistry for one big idea.

TABLE 2
Sample Skills and Skill Definitions from Science

1. **Evaluate scientific questions**
   1A. Justification that question is in scope of investigation and domain
   1B. Evaluation and criteria for the evaluation appropriate to the question
   1C. Specification of causal mechanism(s) that is related to the question
   1D. Validity of the claim that the focus of the question is related to its purpose

2. **Apply mathematical routines to quantities that describe natural phenomena**
   2A. Appropriateness of application of mathematical routine in new context
   2B. Appropriateness of selected mathematical routine
   2C. Correctness of mapping of variables and relationships to natural phenomena
   2D. Correctness of application of mathematical routine
   2E. Correctness of results of mathematical routine
   2F. Reasonableness of solution given the context
   2G. Description of the dynamic relationships in the natural phenomena
   2H. Prediction of the dynamic relationships in the natural phenomena
   2I. Precision of values consistent with context

3. **Connect concepts in and across domain(s) to generalize or extrapolate in and/or across enduring understandings and/or big ideas.**
   3A. Articulation of content-specific relationships between concepts or phenomena
   3B. Prediction of how a change in one phenomenon might effect another
   3C. Comparison of salient features of phenomena that are related
   3D. Appropriateness of connection across concepts
   3E. Appropriateness of connection of a concept among contexts

Figure 4. From Huff & Plake (2010). Defining knowledge and skills related to the big idea.

The Task Template

The point of all of this discussion is to support the creation of task templates that can be used for efficient and replicable task design. In the case of PACE, we use a task design template to ensure that performance tasks are designed to best represent the intended learning targets. Under ECD, each task template is aligned to a specific claim, KSA and task model, and is intended to be general enough to allow for the generation of multiple tasks. A template provides a guide for how to generate and score tasks, but also specifies which variables can be changed while still providing information that informs the claim and KSAs targeted for assessment. The task template is not the same as a test blueprint. A test blueprint is generally thought of as a table with the claims of interest on one side and the depth of knowledge on the other and then in the fields of the table there is the number of items or the points that will be dedicated to each intersection. A task template has more specificity and information than is generally seen in a test blueprint. There is more discussion on what the items might look like and how they might combine to address the student model. Components that may be included in a task template include the following:

- the focal knowledge, skills and abilities to be assessed by the task;
- a general description of what students will be asked to do;
- a list of features that may be varied during task development to influence task difficulty or complexity (e.g., item content, format, supporting information);
- a description of the manner in which the task will be presented (e.g., The task will have 2 parts. In part 1 the student calculates a solution to a presented problem, in Part 2 he/she provides a rationale for procedure used.);
- a description of the intended product/evidence resulting from the task; and
- a list of the specific elements in the response that are target of evaluation and how they should be scored (e.g., a general scoring rubric).

Universal Design for Learning

The use of principled assessment design has tremendous advantages for the design of assessments, including the types of curriculum-embedded performance tasks used in PACE and similar projects. But what about students with disabilities, English learners, or others struggling to access the content in expected ways?

Universal Design for Learning (UDL) is an educational framework, originally drawn from architectural design principles, based on research in the learning sciences that guides the development of flexible learning environments that can accommodate individual learning differences. The UDL framework, first defined by David H. Rose and the Center for Applied Special Technology (CAST) in the 1990s, calls for creating curriculum from the outset that provides:

- *Multiple means of representation* to give learners various ways of acquiring information and knowledge,
- *Multiple means of expression* to provide learners alternatives for demonstrating what they know, and
- *Multiple means of engagement* to tap into learners' interests, challenge them appropriately, and motivate them to learn

UDL has been applied to assessment design increasingly over the past 15 years or so. In fact, when asked about the relationship of UDL to principled assessment design, Mislevy responded:

> *UDL prompts you to target learning goals; you identify what we call the "focal knowledge, skills, and abilities" or "focal KSAs," that you want your students to develop. When applying UDL to assessment, you are evaluating these focal KSAs in order to determine if students are making progress in those capabilities. UDL also encourages us to carefully consider all of the knowledge, skills, or abilities that might tangentially be involved in assessing the focal ones. These "non-focal KSAs" might prevent students from accurately being able to demonstrate what they know and what they can do. For example, students with a visual impairment might do poorly on a science assessment not because they do not know the content but because they are unable to see the material. Other students may do poorly on a specific item simply because they were not given some construct-irrelevant information that they would need to know in order to interact with the task. In both of these examples, non-focal KSAs interfere with students' learning and performance on tests, and lead to invalid assessment. UDL pushes us to think about the ways in which we can support students' non-focal KSAs so that we can target and address the actual learning goals (p.7).*

This applies to our work of performance assessment design throughout the design and implementation stages. By clearly specifying our student model we are explicitly listing the focal KSAs associated with what we intend to measure. Designing tasks to elicit evidence related to the focal KSAs, and not related to other irrelevant or interfering content, automatically accounts for principles of Universal Design for Learning into assessment development. Instead of trying to "fix" or accommodate tasks after the fact, UDL directs us to intentionally design tasks for the widest range of student needs possible. For example, we should avoid:

- Measuring student skills that are outside the intended construct (e.g., facility with scissors in a performance task requiring some degree of cutting and pasting)
- Using extraneous words that potential distract students from the main learning target of the task
- Using idioms or culturally-specific language
- Crowding text and/or graphics too closely on the page
- Using graphics that require certain levels of visual acuity to understand

Summary

This is a working document. We will develop and share grade- and subject-specific examples in coming months and we will be updating the PACE task template to better fit the principled assessment design processes outlined here. While some of the steps outlined in this document may appear more cumbersome compared to just designing a task, we argue that following the actions outlined in this document will lead to significantly higher quality tasks than those developed in a more ad-hoc manner. Importantly, a principled design process will improve the validity, efficiency, and replicability of our task design efforts.

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APPENDIX E: GRADE 3 ELA ALDS, PACE TO SBAC MAP

Achievement Level 3- PACE		Achievement Level 3- SBAC
Fluently and accurately reads grade level appropriate texts at a **moderate to high level of complexity** to do the following:	Reading Targets 1-7	The student who just enters Level 3 should be able to: • Use explicit details and information from texts of moderate complexity to support answers or basic inferences. • Identify or summarize central ideas, key events, or sequence of events presented in texts of moderate complexity. • Determine intended meaning of words through context, relationships, structure, or resources in texts of moderate complexity. • Interpret and explain inferences and author's message and distinguish point of view in texts of moderate complexity. • Specify and compare or contrast relationships across texts of moderate complexity. • Demonstrate knowledge of text structures or text features to obtain, interpret, explain, or connect information in texts of moderate complexity. • Interpret use of language by distinguishing literal from non-literal meanings of words or phrases used in context in texts of moderate complexity.
Identify and summarize or explain the central idea or author's message using explicit and implicit key details as text evidence.		
Compare and contrast relationships between events, ideas, or concepts within and across two texts.		
Explain literary elements, text structure, and text features by comparing and contrasting texts and/or making connections.		
Identify and explain information delivered orally or visually (e.g., maps, photographs, pictures) and connect to textual information.		
Determine literal and non-literal meanings of words in context, including general academic and domain-specific words and phrases and apply them in writing.		
	Reading Targets 8-14	The student who just enters Level 3 should be able to: • Use details and information from texts of moderate complexity to support answers or inferences. • Identify or summarize central ideas/key events or procedures or details that support them in texts of moderate complexity. • Determine intended meanings of words, including words with multiple meanings, based on context, word relationships, word structure, or use of resources in texts of moderate complexity. • Use supporting evidence to interpret and explain how information is presented across texts of moderate complexity. • Specify, integrate, and compare information within and across texts of moderate complexity. • Demonstrate knowledge of text structures or text features to obtain, interpret, explain, and connect information in texts of moderate complexity. • Interpret use of language by distinguishing literal from non-literal meanings of words and phrases used in context in texts of moderate complexity.

Achievement Level 3- PACE
Compose full compositions with grade-appropriate techniques, transitions, structure, organization, details, concluding statement, audience, purpose, and text features for narrative, informational, and opinion writing using the elements of the writing process and publishing with technology.
Conduct short research projects to answer a question or investigate a topic or concept and locate information from data, print, or non-print resources; select and use sufficient accurate text evidence for research and writing.
Use of grade-appropriate conventions of standard English grammar, usage, capitalization, punctuation and spelling when writing in all genres; errors may occur, but overall meaning is clear.

	Achievement Level 3- SBAC
Writing Targets 1-10	The student who just enters Level 3 should be able to: • Write or revise one paragraph, demonstrating narrative techniques, chronology, appropriate transitional strategies for coherence, or author's craft appropriate to purpose. • Write full compositions, demonstrating narrative techniques: chronology, transitional strategies for coherence, or author's craft with minimal demonstration of purpose. • Write or revise one or more informational/explanatory paragraphs, demonstrating ability to organize ideas by stating focus, including transitional strategies for coherence, supporting details, or a conclusion. • Use text features in information texts to enhance meaning without support. • Write or revise one or more paragraphs, demonstrating ability to state an opinion about a topic or source, set a context, organize ideas using linking words, develop supporting reasons, or provide an appropriate conclusion. • Write full opinion pieces, demonstrating ability to state opinions about topics or sources, attend to purpose and audience, organize ideas by stating a context and focus, include structures and transitional strategies for coherence, develop supporting reasons, and provide a conclusion. • Without support, use grade-level vocabulary appropriate to the purpose and audience when revising and composing text. • Apply or edit grade-appropriate grammar, usage, and mechanics to clarify a message and edit narrative, informational, and opinion texts. • Without support, use tools of technology to produce texts.
Listening Target 4	The student who just enters Level 3 should be able to: • Interpret and use information delivered orally or audio-visually without support.
Research Targets 1, 2, and 4	The student who just enters Level 3 should be able to: • Conduct short, limited research projects to answer a question or to investigate a topic or concept. • Locate information to support central ideas and key details; select information from data or print and non-print text sources without support. • Generate opinions with evidence to support the opinion based on prior knowledge and information collected.

APPENDIX F: 2016-2017 LEA REPORT CARDS FOR INITIALLY IMPLEMENTING DISTRICTS

Amherst

| District Report Card 2017-18 | | | | |

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	35	3,876		
Kindergarten	108	11,415		
Readiness	0	58		
Grade 1	138	12,678	23	16
Grade 2	116	12,495	19	16
Grade 3	132	12,978	22	17
Grade 4	143	13,436	24	18
Grade 5	136	13,659	0	18
Grade 6	142	13,753	0	16
Grade 7	174	13,811	0	17
Grade 8	185	14,134	0	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	1309	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[More Details]

Teacher Quality

School Staff

	District	State
Teachers	90	13,492
Instructional Support	48	6,637
Librarians	2	305
Specialists	30	2,697
Admin Support	9	1,137
All Other Support	24	2,897

[More Details]

[More Details]

State and Federal Accountability

NH Accountability Information: Elementary and Middle - Performance Indicator Report
High School - Performance Indicator Report
[NH Performance Based Accountability System]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	134	65		
	Mathematics	132	75		
4	Reading	122	63		
	Mathematics	123	60		
5	Reading	125	74		
	Mathematics	126	60		

6	Reading	136	71		
	Mathematics	136	58		
7	Reading	167	78		
	Mathematics	168	66		
8	Reading	161	79		
	Mathematics	161	75		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Bethlehem

District Report Card 2017-18

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	12	3,876		
Kindergarten	28	11,415		
Readiness	0	58		
Grade 1	17	12,678	11	16
Grade 2	16	12,495	11	16
Grade 3	13	12,978	13	17
Grade 4	26	13,436	13	18

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 5	16	13,659	16	18
Grade 6	29	13,753	14	16
Grade 7	0	13,811	0	17
Grade 8	0	14,134	0	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	157	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	20	13,492
Instructional Support	9	6,637
Librarians	1	305
Specialists	2	2,697
Admin Support	2	1,137
All Other Support	0	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	24	58		
	Mathematics	24	71		
4	Reading	13	54		
	Mathematics	13	46		
5	Reading	30	63		
	Mathematics	30	67		
6	Reading	22	59		
	Mathematics	22	64		

N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Concord

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this

PreSchool	83	3,876		
Kindergarten	276	11,415		
Readiness	0	58		
Grade 1	308	12,678	19	16
Grade 2	293	12,495	20	16
Grade 3	308	12,978	21	17
Grade 4	326	13,436	20	18
Grade 5	333	13,659	21	18
Grade 6	336	13,753	0	16
Grade 7	312	13,811	0	17
Grade 8	323	14,134	0	17
Grade 9	451	14,838		
Grade 10	404	14,374		
Grade 11	425	13,585		
Grade 12	368	13,235		
Total Enrollment	4546	178,328		

year.

[More Details]

Teacher Quality

[More Details]

School Staff

	District	State
Teachers	309	13,492
Instructional Support	180	6,637
Librarians	7	305
Specialists	68	2,697
Admin Support	24	1,137
All Other Support	105	2,897

[More Details]

NH Accountability Information:	Elementary and Middle - Performance Indicator Report High School - Performance Indicator Report [NH Performance Based Accountability System]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	322	53		
	Mathematics	325	47		
4	Reading	319	63		
	Mathematics	322	52		
5	Reading	300	67		
	Mathematics	301	60		
6	Reading	299	48		
	Mathematics	303	55		
7	Reading	311	50		
	Mathematics	314	52		
8	Reading	341	56		
	Mathematics	343	48		
11	Reading	317	66		
	Mathematics	317	40		

NECAP and NH Alternative Assessment Science Results 2017-18

Epping

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	36	3,876		
Kindergarten	78	11,415		
Readiness	0	58		
Grade 1	65	12,678	16	16
Grade 2	84	12,495	17	16
Grade 3	69	12,978	17	17
Grade 4	70	13,436	18	18
Grade 5	81	13,659	20	18
Grade 6	73	13,753	0	16
Grade 7	74	13,811	0	17
Grade 8	72	14,134	0	17
Grade 9	80	14,838		
Grade 10	70	14,374		
Grade 11	71	13,585		
Grade 12	58	13,235		
Total	981	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Enrollment				

Teacher Quality
[More Details]

School Staff

	District	State
Teachers	81	13,492
Instructional Support	42	6,637
Librarians	2	305
Specialists	14	2,697
Admin Support	10	1,137
All Other Support	23	2,897

[More Details]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	67	57		
	Mathematics	67	87		
4	Reading	80	57		

		Mathematics	80	38	
5		Reading	72	50	
		Mathematics	72	56	
6		Reading	77	52	
		Mathematics	77	60	
7		Reading	70	46	
		Mathematics	72	64	
8		Reading	78	62	
		Mathematics	74	39	
11		Reading	56	55	
		Mathematics	56	36	

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Haverhill Cooperative

District Report Card 2017-18

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	41	3,876		
Kindergarten	58	11,415		
Readiness	0	58		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 1	58	12,678	14	16
Grade 2	43	12,495	22	16
Grade 3	50	12,978	25	17
Grade 4	45	13,436	15	18
Grade 5	53	13,659	18	18
Grade 6	45	13,753	15	16
Grade 7	53	13,811	18	17
Grade 8	49	14,134	16	17
Grade 9	55	14,838		
Grade 10	45	14,374		
Grade 11	43	13,585		
Grade 12	57	13,235		
Total Enrollment	695	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	67	13,492
Instructional Support	31	6,637
Librarians	2	305
Specialists	6	2,697
Admin Support	7	1,137
All Other Support	10	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information:	**Elementary and Middle - Performance Indicator Report**
	High School - Performance Indicator Report
	[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	45	42		
	Mathematics	45	44		
4	Reading	52	56		
	Mathematics	52	38		
5	Reading	39	56		
	Mathematics	41	29		
6	Reading	53	58		
	Mathematics	53	32		
7	Reading	50	56		
	Mathematics	51	27		
8	Reading	51	49		
	Mathematics	50	42		
11	Reading	50	50		
	Mathematics	50	38		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Laconia

District Report Card 2017-18

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	77	3,876		
Kindergarten	134	11,415		
Readiness	0	58		
Grade 1	141	12,678	18	16
Grade 2	160	12,495	20	16
Grade 3	147	12,978	18	17
Grade 4	163	13,436	20	18
Grade 5	160	13,659	20	18
Grade 6	139	13,753	0	16
Grade 7	131	13,811	0	17
Grade 8	146	14,134	0	17
Grade 9	135	14,838		
Grade 10	133	14,374		
Grade 11	129	13,585		
Grade 12	150	13,235		
Total Enrollment	1945	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[More Details]

Teacher Quality

School Staff

	District	State

[More Details]			
Teachers		164	13,492
Instructional Support		66	6,637
Librarians		5	305
Specialists		35	2,697
Admin Support		12	1,137
All Other Support		37	2,897

[More Details]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	152	26		
	Mathematics	152	26		
4	Reading	160	31		
	Mathematics	160	19		
5	Reading	136	42		
	Mathematics	134	31		
6	Reading	121	39		

		Mathematics	121	26		
7		Reading	131	42		
		Mathematics	132	33		
8		Reading	125	42		
		Mathematics	127	31		
11		Reading	135	59		
		Mathematics	135	38		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Monroe

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	6	3,876		
Kindergarten	5	11,415		
Readiness	0	58		
Grade 1	8	12,678	8	16
Grade 2	12	12,495	12	16
Grade 3	6	12,978	0	17
Grade 4	6	13,436	0	18

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 5	7	13,659	0	18
Grade 6	11	13,753	0	16
Grade 7	11	13,811	11	17
Grade 8	13	14,134	13	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	85	178,328		

Teacher Quality

[More Details]

School Staff

	District	State
Teachers	10	13,492
Instructional Support	6	6,637
Librarians	1	305
Specialists	2	2,697
Admin Support	1	1,137
All Other Support	2	2,897

[More Details]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends

		N is the number of students participating. % is the percent of students scoring proficient or above. ***Click on a grade to show the achievement trend for that grade.*** *Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015*				

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	6			
	Mathematics	6			
4	Reading	5			
	Mathematics	5			
5	Reading	10			
	Mathematics	10			
6	Reading				
	Mathematics				
7	Reading	13	46		
	Mathematics	13	38		
8	Reading	6			
	Mathematics	6			
11	Reading				
	Mathematics				

NECAP and NH Alternative Assessment Science Results 2017-18
Student Assessment * indicates total number of test takers is 10 or less. Blank indicates no science assessment test administered.

Newport

District Report Card 2017-18

Enrollment

Grade(s)	October 1 Enrollment		Average Class Size	
	District	State	District	State
PreSchool	35	3,876		
Kindergarten	51	11,415		
Readiness	0	58		
Grade 1	78	12,678	20	16
Grade 2	67	12,495	17	16
Grade 3	66	12,978	16	17
Grade 4	84	13,436	21	18
Grade 5	66	13,659	22	18
Grade 6	67	13,753	0	16
Grade 7	60	13,811	0	17
Grade 8	70	14,134	0	17
Grade 9	94	14,838		
Grade 10	83	14,374		
Grade 11	85	13,585		
Grade 12	88	13,235		
Total Enrollment	994	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[More Details]

Teacher Quality

[More Details]

School Staff

	District	State
Teachers	87	13,492

Instructional Support	40	6,637
Librarians	2	305
Specialists	30	2,697
Admin Support	7	1,137
All Other Support	19	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**
3	Reading	82	24		
	Mathematics	82	30		
4	Reading	58	19		
	Mathematics	57	11		
5	Reading	58	31		
	Mathematics	58	17		
6	Reading	66	26		
	Mathematics	64	23		

7	Reading	65	48		
	Mathematics	65	32		
8	Reading	88	28		
	Mathematics	87	22		
11	Reading	54	50		
	Mathematics	54	22		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Pittsfield

District Report Card 2017-18

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	17	3,876		
Kindergarten	46	11,415		
Readiness	0	58		
Grade 1	50	12,678	18	16
Grade 2	41	12,495	19	16
Grade 3	56	12,978	18	17
Grade 4	28	13,436	16	18
Grade 5	42	13,659	21	18

Grade 6	51	13,753	26	16
Grade 7	36	13,811	0	17
Grade 8	41	14,134	0	17
Grade 9	68	14,838		
Grade 10	37	14,374		
Grade 11	30	13,585		
Grade 12	30	13,235		
Total Enrollment	573	178,328		

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	56	13,492
Instructional Support	32	6,637
Librarians	2	305
Specialists	10	2,697
Admin Support	7	1,137
All Other Support	8	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	30	30		
	Mathematics	30	43		
4	Reading	40	38		
	Mathematics	40	48		
5	Reading	47	51		
	Mathematics	47	38		
6	Reading	40	68		
	Mathematics	41	61		
7	Reading	34	56		
	Mathematics	25	56		
8	Reading	36	50		
	Mathematics	34	24		
11	Reading	26	58		
	Mathematics	26	19		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Plymouth

District Report Card 2017-18

Enrollment				
	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	28	3,876		
Kindergarten	30	11,415		
Readiness	0	58		
Grade 1	44	12,678	15	16
Grade 2	39	12,495	13	16
Grade 3	42	12,978	14	17
Grade 4	47	13,436	16	18
Grade 5	43	13,659	14	18
Grade 6	61	13,753	20	16
Grade 7	41	13,811	14	17
Grade 8	44	14,134	15	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total Enrollment	419	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[More Details]

Teacher Quality

[More Details]

School Staff		
	District	**State**
Teachers	42	13,492
Instructional Support	24	6,637
Librarians	1	305
Specialists	5	2,697

| Admin Support | 3 | 1,137 |
| All Other Support | 3 | 2,897 |

[**More Details**]

State and Federal Accountability

| NH Accountability Information: | **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**] |

Student Achievement Trends

N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	42	60		
	Mathematics	42	45		
4	Reading	38	47		
	Mathematics	38	55		
5	Reading	50	56		
	Mathematics	50	28		
6	Reading	37	43		
	Mathematics	37	41		
7	Reading	43	77		
	Mathematics	43	56		
8	Reading	46	63		

	Mathematics	46	52		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment * indicates total number of test takers is 10 or less. Blank indicates no science assessment test administered.

Rochester

District Report Card 2017-18

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	60	3,876		
Kindergarten	285	11,415		
Readiness	0	58		
Grade 1	312	12,678	18	16
Grade 2	283	12,495	18	16
Grade 3	324	12,978	19	17
Grade 4	288	13,436	19	18
Grade 5	315	13,659	20	18
Grade 6	326	13,753	0	16
Grade 7	305	13,811	0	17
Grade 8	286	14,134	0	17
Grade 9	371	14,838		
Grade 10	373	14,374		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 11	383	13,585	
Grade 12	313	13,235	
Total Enrollment	4224	178,328	

Teacher Quality
[More Details]

School Staff		
	District	**State**
Teachers	341	13,492
Instructional Support	154	6,637
Librarians	4	305
Specialists	88	2,697
Admin Support	27	1,137
All Other Support	68	2,897

[More Details]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	**Content Area**	**2016-2017**		**2017-2018**	
		N	**%**	**N**	**%**
3	Reading	269	40		

		Mathematics	268	75		
4		Reading	299	56		
		Mathematics	298	43		
5		Reading	328	60		
		Mathematics	328	77		
6		Reading	284	49		
		Mathematics	283	37		
7		Reading	260	31		
		Mathematics	260	49		
8		Reading	294	46		
		Mathematics	294	32		
11		Reading	289	53		
		Mathematics	289	30		

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Sanborn

District Report Card 2017-18				

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this

PreSchool	47	3,876		
Kindergarten	93	11,415		
Readiness	0	58		
Grade 1	102	12,678	15	16
Grade 2	78	12,495	16	16
Grade 3	102	12,978	17	17
Grade 4	101	13,436	17	18
Grade 5	99	13,659	16	18
Grade 6	111	13,753	0	16
Grade 7	95	13,811	0	17
Grade 8	129	14,134	0	17
Grade 9	167	14,838		
Grade 10	174	14,374		
Grade 11	154	13,585		
Grade 12	141	13,235		
Total Enrollment	1593	178,328		

year.

[**More Details**]

Teacher Quality

[**More Details**]

School Staff

	District	State
Teachers	153	13,492
Instructional Support	68	6,637
Librarians	4	305
Specialists	23	2,697
Admin Support	11	1,137
All Other Support	25	2,897

[**More Details**]

NH Accountability Information:	Elementary and Middle - Performance Indicator Report High School - Performance Indicator Report [NH Performance Based Accountability System]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	100	61		
	Mathematics	100	53		
4	Reading	102	52		
	Mathematics	102	57		
5	Reading	112	57		
	Mathematics	112	56		
6	Reading	96	64		
	Mathematics	96	66		
7	Reading	134	35		
	Mathematics	135	67		
8	Reading	131	69		
	Mathematics	131	53		
11	Reading	139	53		
	Mathematics	139	37		

NECAP and NH Alternative Assessment Science Results 2017-18

Seacoast Charter School

<table>
<tr><td colspan="9" align="center">**District Report Card 2017-18**</td></tr>
</table>

	Enrollment					School Safety		

Enrollment

	October 1 Enrollment		Average Class Size	
Grade(s)	District	State	District	State
PreSchool	0	3,876		
Kindergarten	38	11,415		
Readiness	0	58		
Grade 1	36	12,678	0	16
Grade 2	30	12,495	0	16
Grade 3	32	12,978	0	17
Grade 4	32	13,436	0	18
Grade 5	34	13,659	0	18
Grade 6	32	13,753	0	16
Grade 7	36	13,811	0	17
Grade 8	30	14,134	0	17
Grade 9	0	14,838		
Grade 10	0	14,374		
Grade 11	0	13,585		
Grade 12	0	13,235		
Total	300	178,328		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Enrollment				

Teacher Quality	School Staff
[More Details]	[More Details]

State and Federal Accountability

NH Accountability Information:	**Elementary and Middle - Performance Indicator Report** **High School - Performance Indicator Report** [**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	%	N	%
3	Reading	25	64		
	Mathematics	24	42		
4	Reading	36	61		
	Mathematics	36	53		
5	Reading	29	45		
	Mathematics	29	48		
6	Reading	31	52		
	Mathematics	31	65		
7	Reading	21	62		
	Mathematics	22	64		

| 8 | Reading | 22 | 82 | | |
| | Mathematics | 22 | 59 | | |

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

Souhegan Cooperative

District Report Card 2017-18

Enrollment

| Grade(s) | October 1 Enrollment | | Average Class Size | |
	District	State	District	State
PreSchool	0	3,876		
Kindergarten	0	11,415		
Readiness	0	58		
Grade 1	0	12,678	0	16
Grade 2	0	12,495	0	16
Grade 3	0	12,978	0	17
Grade 4	0	13,436	0	18
Grade 5	0	13,659	0	18
Grade 6	0	13,753	0	16
Grade 7	0	13,811	0	17
Grade 8	0	14,134	0	17
Grade 9	178	14,838		

School Safety

School safety data is not yet available for this year

Attendance/Four-Year Graduation Rate

Attendance/Four-Year Graduation Rate data is not yet available for this year.

[**More Details**]

Grade 10	194	14,374	
Grade 11	182	13,585	
Grade 12	233	13,235	
Total Enrollment	787	178,328	

Teacher Quality
[**More Details**]

School Staff		
	District	**State**
Teachers	73	13,492
Instructional Support	17	6,637
Librarians	1	305
Specialists	14	2,697
Admin Support	7	1,137
All Other Support	21	2,897

[**More Details**]

State and Federal Accountability

NH Accountability Information: **Elementary and Middle - Performance Indicator Report**
High School - Performance Indicator Report
[**NH Performance Based Accountability System**]

Student Achievement Trends
N is the number of students participating.
% is the percent of students scoring proficient or above.
Click on a grade to show the achievement trend for that grade.
Note: Grade 11 results are from the new SAT assessment tests and not comparable to 2014-2015

Grade	Content Area	2016-2017		2017-2018	
		N	**%**	**N**	**%**

| 11 | Reading | 230 | 82 | | |
| | Mathematics | 230 | 54 | | |

NECAP and NH Alternative Assessment Science Results 2017-18

Student Assessment
* indicates total number of test takers is 10 or less.
Blank indicates no science assessment test administered.

APPENDIX G: PACE AND STATEWIDE ACADEMIC ASSESSMENT REPORTS

NH DOE Guidance to PACE Schools – Access to Parent Reports

PerformancePLUS offers PACE schools a single place to print both PACE and SBAC reports. Although these reports are not identical to the AIR reports, they contain similar information.

We 'shared' a series of reports (1 per grade) with each superintendent. These shared reports allow you to print out student reports. You can share these reports with your principals, so that they can run and print the reports (see more information below).

Following are directions:
1. Access PerformancePLUS and Choose the Report Option
2. Run the report (share with your principals or other users)
3. Save the results as a PDF and print for distribution

Please contact the Department with questions.

1. Access PerformancePLUS and Choose the Report Option

2. Run the report

2b. You can also share the report with other users, by clicking the 'Gear' icon. Once you click the icon, a Save/Share option will be displayed. Choose the "Share" option and then find a user.

3. Finally, after running the report, choose the "PDF" option to create (and then print) the PDF.

Example of a PACE Individual Summative Student Report
(student name and SASID redacted)

Individual Student Report

How did my student perform in **Mathematics** in the 2016-17 school year?

Test: Grade 3 End of Year Math Competency Scores 16-17
Year: 2016-17
Name:

This report provides information about your child's performance in mathematics as part of your district's participation in the Performance Assessment of Competency Education (PACE) Pilot program. New Hampshire PACE Annual Determination describes your child's achievement of the New Hampshire state model competencies and local district competencies in mathematics. These competencies are aligned to the New Hampshire College and Career Ready Standards, and define learning expectations for what students should know and be able to do at each grade level. The PACE Annual Determination is based on a body of evidence collected throughout the school year, including classroom assessments and performance tasks given at your child's school as part of the regular curriculum.

Please note, the annual determination is based on the results of an innovative assessment system. Therefore, the NH DOE is in the early stages of gathering validity evidence to support the use of these reported scores for school accountability purposes. For more information about the student work related to the New Hampshire competencies that contributes to your child's annual determination, please contact your local building principal. The New Hampshire PACE Annual Determination is only one indicator of your child's performance. These results should be used along with other information, such as teacher reports and observations, when making educational decisions. For more information about the New Hampshire PACE Pilot, please visit: http://education.nh.gov/assessment-systems/.

Student Test Performance

Name	SASID	Achievement Level
	i	**Level 3**

Overall Level: Mathematics

	Level 4	Level 4: The student has exceeded the achievement standard and demonstrates advanced progress toward mastery of the knowledge and skills in mathematics needed for likely success in future coursework.
achieved Level 3	Level 3	Level 3: The student has met the achievement standard and demonstrates progress toward mastery of the knowledge and skills in mathematics needed for likely success in future coursework.
	Level 2	Level 2: The student has nearly met the achievement standard and may require further development to demonstrate the knowledge and skills in mathematics needed for likely success in future coursework.
	Level 1	Level 1: The student has not met the achievement standard and needs substantial improvement to demonstrate the knowledge and skills in mathematics needed for likely success in future coursework.

APPENDIX H: SUMMARY OF RESEARCH STUDY

Effects of New Hampshire's Innovative Assessment and Accountability System on Student Achievement Outcomes After 3 Years (2014-2017)
by Carla Evans

Carla Evans, a recent Ph.D. graduate from the University of New Hampshire, investigated the effects of New Hampshire's PACE pilot on grade 8 and 11 student achievement outcomes in ELA and math from the first three years of the pilot (2014-15, 2015-16, and 2016-17). The research study built upon her dissertation research that focused on only grade 8 and the first two years. The research study summarized below is currently under review with a major journal in the field and will be available for distribution once published.

The purpose of the study was to examine the effects of NH's PACE pilot on student achievement outcomes in math and ELA. The study is de-limited to Grade 8 and 11 because students in NH's PACE pilot only take a state-level achievement test once per grade span: grade 3 ELA, grade 4 math, and grades 8 and 11 ELA and math. There is no prior achievement data available for grade 3 ELA or grade 4 math, which is why those grades were not examined. There were three research questions:

Research Question 1: What is the average treatment effect of the PACE pilot on Grade 8 and 11 student achievement in mathematics and English language arts when comparing students with similar probabilities of being selected into the pilot?

Research Question 2: To what extent does the number of years a district has implemented the PACE pilot affect student achievement outcomes?

Research Question 3: To what extent do effects vary for certain subgroups of students?

In order to examine these three research questions, it was first important to establish equivalent treatment and comparison groups at baseline in order to address the likely selection bias inherent in the PACE group. Districts self-selected into the PACE pilot and there are pre-existing differences between PACE and non-PACE districts that are likely related to both selection and student outcomes. These pre-existing differences potentially bias effect estimates and threaten the internal validity of the study. Therefore, inverse propensity score weighting was used to create roughly equivalent groups at baseline based on observable district characteristics of the students in the PACE and non-PACE groups. Since students are nested within schools, multilevel modeling was then used with the inverse propensity score weights to examine the effects of treatment on Grade 8 and 11 student achievement outcomes in math and ELA. Interactions between treatment and student-level characteristics were also examined to investigate whether effects varied for different subgroups of students.

Findings suggest that PACE students in Grades 8 and 11 perform slightly better on the state math and ELA achievement tests in comparison to demographically-similar students. Lower achieving students tended to exhibit small positive differential effects whereas male students tended to

exhibit small negative differential effects. There were inconclusive findings related to special education and free-and-reduced price lunch students. Results of this study may also provide assurance to the U.S. Department of Education that the use of local assessment data for accountability purposes provides all students with an equitable opportunity to learn the content standards and does not harm subgroups of students who are generally considered more at risk in terms of educational disparities. Other implications for research, policy, and practice are discussed in the conclusion of the study that will be available once published.

APPENDIX I: PACE COMMON TASK HIGH-QUALITY ASSESSMENT REVIEW TOOL

Assessment Profile
Items Submitted – check all that is submitted and <u>fully</u> completed: ☐ **NH PACE Performance Task Template**   ☐ **Appendix A: Scoring Rubric**   ☐ **Appendix B: Student Performance Tasks:** what the student is required to do and produce (prompt, directions, materials, checklists, etc.)?   ☐ **Appendix C: Teacher Instructions:** materials needed, time required for administration, procedure   ☐ **Resources: Actual Texts or links to texts, videos, data charts, etc.**
Appendix B: Student Task Instructions   ☐ **Fully** describes all student expectations.   ☐ **Partially** describes student expectations.   ☐ **Minimally** describes student expectations.
Appendix C: Teacher Instructions   ☐ **Fully** describes all aspects of the administration of the task including pre-requisite learning, lessons for scaffolding, what the students will do independently. These directions follow the guidance outlined in the document entitled "Guidelines for Independent Student Work Products for NH PACE Assessments: Implications for instructional scaffolding."   ☐ **Partially** describes the aspects of the administration of the task including pre-requisite learning, lessons for scaffolding, what the students will do independently. These directions partially follow the guidance outlined in the document entitled "Guidelines for Independent Student Work Products for NH PACE Assessments: Implications for instructional scaffolding."   ☐ **Minimally** describes aspects of the administration of the task including pre-requisite learning, lessons for scaffolding, what the students will do independently. These directions minimally follow the guidance outlined in the document entitled "Guidelines for Independent Student Work Products for NH PACE Assessments: Implications for instructional scaffolding."

Part 1: Alignment
A high quality summative assessment should be … Aligned

To what extent do you see a content match between the big ideas, enduring understandings, and standards?

☐ **Full/Close match** – all or most aspects of the task address or exceed the expectations and relevant skills and knowledge described in the Student Model.

☐ **Partial match** – Some aspects of the task address or partially address the expectations and skills and knowledge described in the Student Model.

☐ **Minimal/No match** – Few or no aspects of the task match some relevant skills and knowledge described in the Student Model.

The content expectations evaluated by the performance assessment are aligned to the expectations of the competencies/state standard(s):

☐ Yes
☐ Partial/Unclear
☐ No

Are the expectations of the task as cognitively challenging as the content expectations? In other words, the student performance task elicits sufficient evidence for judging the level of student understanding related to the competencies and standards identified. Use the definitions below to select your rating:

☐ **More rigor** – most items or the tasks reviewed are at a higher DOK level than the range indicated for the competencies/state standard(s)

☐ **Similar rigor** – most items or the task reviewed are similar to the DOK range indicated for the competencies/ state standard(s)

☐ **Less rigor** – most items or the task reviewed are lower than the DOK range indicated for the competencies/state standard(s)

Performance Task Description:

☐ **Fully** describes the context, the anticipated activities, products and/or presentations, resources, texts, and materials needed, and what students are expected to demonstrate.

☐ **Partially** describes the context, the anticipated activities, products and/or presentations, resources, texts, and materials needed, and what students are expected to demonstrate.

☐ **Minimally** describes the context, the anticipated activities, products and/or presentations, resources, texts, and materials needed, and what students are expected to demonstrate.

To what extent is scaffolding provided?

☐ **No scaffolding** is provided for aspects of the task that are being scored with the rubric

☐ **Low level of scaffolding** is provided for aspects of the task that are being scored with the rubric

☐ **Some scaffolding** is provided for aspects of the task that are being scored with the rubric

☐ **High level of scaffolding** (teaching, modeling, think-alouds, conferences, and/or organizers) is provided for aspects of the task that are being scored with the rubric

---

Comments/Suggestions for Improving Alignment (if any)

Relevant evidence to justify ratings:

Part 3: Evidence and Rubric
A high quality assessment should be … Scored using Clear Guidelines and Criteria

The appropriate PACE Rubric is used for the assessment:
☐ **Yes**
☐ **No**

Is there an additional rubric (or rubric dimensions) used to score the assessment:
☐ **Yes** If yes, is the rubric aligned to the components of the assessment task it is intended to score:
☐ **Fully aligned**
☐ **Partially aligned**
☐ **Not aligned**
☐ **No**

Is the expected range of performance coherently described across performance levels?
☐ **Yes**
☐**Partial**
☐ **No**

Is it clear which aspects of the task the rubrics will be used to evaluate?
☐ **Yes**
☐**Partial/Unclear**
☐ **No**

Based on your review of the rubric would the scoring rubric most likely lead different raters to arrive at the same score for a given response?
☐ **Yes**
☐**Partial/Unclear**
☐ **No**

Comments/Suggestions for Improvement for the Rubric (if any)
Relevant evidence to justify ratings:

Student Task Instructions
Part 4: Fair and Unbiased **A high quality performance assessment should be…Fair and Unbiased** (the areas below should be discussed relative to the needs of ELLs, gifted and talented students, and students with disabilities)

To what extent are the tasks visually clear and uncluttered (e.g., appropriate white space and/or lines for student responses, graphics and/or illustrations are clear and support the test content, the font size seems appropriate for the students)?

☐ **Formatting is visually clear and uncluttered**

☐ **Formatting is somewhat confusing or distracting**

☐ **Formatting is unclear, cluttered, and inappropriate for students**

Are the directions and questions presented in as straightforward a way as possible for a range of learners?

☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

Is the vocabulary and context(s) presented by the task free from cultural or other unintended bias?

☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

Comments/Suggestions for Improvement for Fair and Unbiased (if any)
Relevant evidence to justify ratings:

Resources
Part 5: Appropriateness of Text/Visual Resources   **A high quality performance assessment should be…include appropriate reading and visual materials**   This section may not apply. It will only be completed if reading or visual materials were included.

The texts and visual resources support the topic and prompt:

☐ **Yes**

☐ **Partial/Unclear**

☐ **No**

☐ **N/A**

The texts have characteristics relative to grade-level expectations of a:

☐ **Simple Text**

☐ **Somewhat Complex Texts**

☐ **Complex Texts**

☐ **Very Complex Texts**

☐ **N/A**

Note: Refer to the *Text Complexity Rubric for Literary Texts or Informational Texts*

The amount of texts and visual resources are:

☐ **Appropriate for the grade level and the time allotted for the task**

☐ **Appropriate for the grade level, but may exceed the time allotted for the task**

☐ **Burdensome for the grade level and the time allotted for the task**

☐ **No texts and/or resources are included**

☐ **N/A**

Comments/Suggestions for Improvement for Appropriateness of Text/Visual Resources (if any)
Relevant evidence to justify ratings:

Recommendation for this assessment:

☐ **No changes needed**

☐ **Minor changes recommended**

☐ **Substantial changes needed, please address and resubmit**

Discussion:

APPENDIX J: WITHIN-DISTRICT CALIBRATION PROTOCOL

New Hampshire PACE

Step 1: Identification of Anchor Papers

This step is designed to help make the rubrics "real" by identifying student papers that can serve as anchors for scoring the PACE Common Task in each subject/grade this year and in subsequent years. In fact, developing a robust set of anchor papers for tasks will allow PACE Common Tasks to be administered asynchronously and still serve as PACE Common Tasks. This is one suggested process to identify anchor papers for the PACE Common Tasks, however, districts may utilize other methods and/or share anchor papers with other districts as well.

Process:
- Content or grade-level teams within each district select approximately 10-20 student work samples (if possible) from the PACE Common Task that represent the range of possible scores and that generally represent the distribution of student scores. This process can be initiated by having each teacher select a handful of papers representing the distribution in their class and making enough copies for the other members of their group. Papers should have no score marks or student names on them.
- The teachers review each of the student papers together and place them into one of four score piles (4, 3, 2, or 1), discussing how they are judging the overall quality of student work against the rubric and trying to identify and agree upon prototypical (anchor) papers at each score point (4, 3, 2, & 1). If possible, it is helpful to have more than one anchor paper for each score point, to give scorers an idea of the range of possible responses for each score.
- As anchor papers are agreed upon, teachers should feel encouraged to annotate the student work with comments as to why the paper was chosen. These notes can help capture the discussion around the papers for teachers who were not involved in this process, but who will be using them to help score.
- Recognizing that most of the rubrics contain multiple dimensions, it would be ideal to have anchor papers identified for each score point for each dimension. This might not require unique papers for each point because certain papers might serve as anchors for multiple dimensions.

Products:

- Each teacher who will be participating in the scoring process should receive copies of the chosen anchor papers for the tasks he/she will be scoring.

Notes:
- We anticipate that a 2-3 hour meeting will be needed to identify anchor papers.
- Please work with your building and district administration to coordinate this effort.

<u>Step 2: Individual Teacher Scoring</u>

This step is the major work of scoring the operational papers for competency determinations and other classroom and school uses of the scores.

Process:
- Teachers read the Principles of Scoring Work one-page handout (next page). This can be done individually or together during meeting time.
- Together with the Principles of Scoring Work, teachers should use the anchor papers to match student work to score points by rubric dimension. The anchor papers can be used to help decide between adjacent score points. For example, teachers can ask themselves, "Does this work look more like the anchor paper for score 2 or score 3 for this rubric dimension?" This step will help ensure that teachers' scores are consistent within districts.
- Each teacher scores his/her student responses to the PACE Common Task.

Notes:
- If one district administers the PACE Common Task earlier than the others, we recommend that they share the anchor papers that they used with the remaining districts. However, these papers will not eliminate the need for Step 1, but rather become a starting point for teacher discussion as they are looking at student work from their respective districts. Should the teachers decide to adopt the same or some of the same anchor papers, that is all the better.

Principles of Scoring Student Work

1. Know the rubric. It is your "Constitution." Granted, that means it is sometimes hard to interpret, but every score must be an attempt to apply the rubric's language and meaning.

2. Trust evidence, not intuition. Intuition is a powerful force, but it is also highly subjective (or specific to an individual). Calibration with other scorers requires us to base our judgments on the evidence that everyone can see, not on what a particular person feels or thinks the student might know even if he/she hasn't shown it.

3. Match evidence to language in the rubric and to the anchor papers. A safe rule of thumb: If you circle something on the rubric, be sure you can circle its justification(s) in the student essay itself. Further, it is important that you try to make sure that the score you give to the particular paper has the features that closely match one or more of the anchor papers for that score point.

4. Weigh evidence carefully; base judgments on the preponderance of evidence. Within each scoring dimension, the score must be based on the overall performance as evidenced throughout the essay. Therefore, the score is not based on the student's best or worst moment; rather, the score reflects what is generally true about the student's overall performance within each of the analytic scoring dimensions.

5. Know your biases; leave them at the door. The trick is not to rid yourself of bias; that's impossible. But you do need to recognize what your biases are, and be mindful of how they can trigger first impressions that can color all judgments that follow. The violation of a cherished grammar rule, for example, must not blind you to all other grammatical aspects the student handled correctly.

6. Focus on what the student does, not on what the student does not do. Scorers who attend to what is in the essay, rather than what is not or what is missing, tend to score more accurately. That shouldn't surprise us: It is easier to agree on what is than on what could be. A score is always based on what is.

7. Isolate your judgment: One bad element does not equal a bad paper. Problems in essays often affect the overall reading experience. But an analytic rubric is not designed to assess the overall reading experience. Rather, it is isolating variables, distinguishing between relative strengths and weaknesses. Certain essays will require that you invest more cognitive work into their scoring. Be sure not to be overly punitive in scoring those essays, and be mindful that a student's poor performance in one scoring dimension does not cloud your judgment on the scoring of other, unrelated dimensions.

8. Resist seduction: One good element does not equal a good paper. It also works the other way. You read an insightful and fluidly written introduction, and after that the writer can do no wrong. (This is known as the "halo effect.") One exceptional insight does not cancel out the many vague points the student does not develop. Correct punctuation or good syntax in one paragraph does not cancel out errors in other paragraphs. Beautiful syntax does not equate to deep content understanding.

9. Recognize direct copy or plagiarism. Be sure to distinguish between the use of quotes in support of the student's ideas and what may be intentional copying of the author's words.

10. Stick to the rubric. Don't measure what is not being measured. Handwriting or choice of font, for example, is not criteria on the rubric.

Adapted from a tool developed for the Literacy Design Collaborative by Measured Progress and the Stanford Center for Assessment, Learning, and Equity.

APPENDIX K: HUMRRO EVALUATION EXCERPT

Executive Summary of Evaluation

HumRRO conducted several data collection activities over the course of the evaluation. These included interviews with nine PACE District Leads; visits to schools in eight PACE districts to conduct interviews or focus groups with administrators, teachers, parents, and students, as well as classroom observations; observation of cross-district meetings including task development sessions and scoring and calibration sessions; participation in monthly PACE Leads Meetings; and review and analysis of scoring and calibration data. In addition, we administered a teacher survey to all teachers in Tier 1[35] districts, in part to help determine the generalizability of our findings from the teacher focus groups.

Buy-in

One of the most challenging requirements for the success of any educational intervention is securing buy-in from the major participants and leadership of classrooms, schools, and districts. PACE addresses this challenge in several ways. First, educators are in charge of nearly all aspects of the program. Teachers decide what is assessed, how it is assessed, and how the tasks are scored. By placing the responsibility for creating the tasks on the primary users of the assessment data, PACE gives teachers more say in how their students will be assessed than in more traditional testing systems.

The second way PACE gains buy-in is by emphasizing the integrated nature of the assessments. Unlike end-of-year comprehensive statewide assessments, which sample from the past year's curriculum, PACE is targeted to the learning that is occurring at the time of administration. Since there is no specific testing window for PACE, and since the tasks are targeted to one broad curricular topic, teachers can administer the tasks when it makes the most sense. There is no need for intensive review during the weeks leading up to the testing window and no post-test slump between the end of the testing window and the end of the school year.

PACE tasks require deep knowledge on the part of students. There is no chance of getting an answer correct by guessing. Students actually perform the tasks on which they are assessed, rather than answer questions about those tasks.

Collaboration

Participating districts reported a high degree of collaboration. First, educators from all Tier 1 districts meet regularly throughout the year. They participate in task development sessions, professional development, scoring sessions, standard-setting, and other meetings.

Districts also interact through the "LibGuide" system. This system is a repository for "all things PACE." It is a web-based repository for PACE tasks, rubrics, and shared resources. Teachers who implement common tasks early share their lessons and provide tips for smoother implementation among their colleagues. The teachers share book lists that are suitable for use in

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[35]PACE Tier 1 districts refers to those districts that are fully implementing the PACE innovative assessment system. This term is no longer used.

English language arts tasks. They share equipment lists for science labs, including locally available inexpensive options for commonly needed equipment.

Over the course of the evaluation period, PACE implemented three key new collaboration measures:

- Naming an overall curriculum coordinator to assist with PACE task development activities.
- Naming of multiple Content Leads (about 30 total) for each grade level and content area combination. These teachers were identified as leaders in PACE and were recommended by peers and ultimately selected by the PACE District Leads to help coordinate subject/grade-specific activities.
- The third new innovation is the "buddy district." Districts are now paired with other districts to promote collaboration. Districts with Content Leads are often paired with districts that do not have them. Newer PACE districts are typically paired with experienced districts.

These new collaboration initiatives help PACE cope with expansion. As the program expands, these efforts become increasingly necessary to maintain the requisite levels of participation and ownership among PACE educators.

Teaching & Learning
Teachers across districts expressed that PACE has had a positive impact on increasing the depth of knowledge at which they teach and gives them real-time feedback that they can use to make "on-the-spot" adjustments to their instruction to better meet the needs of their students.

Unlike most large-scale assessment systems, which are focused on the estimation of student and/or school performance, PACE is also intended to influence instructional practices. PACE leadership is not overly concerned about teachers "teaching to the test." PACE, ideally, supports "testing to what is taught."

PACE also represents a shift for students. Typically, students learn content prior to the tests and then demonstrate their learning through their performance on the tests. PACE certainly has similar aspects, but because of the integrated nature of the assessments, students learn while testing as well. PACE tasks often require multiple classes to complete and might involve several steps (e.g., reading a novel, discussing the characters and their motivations, then writing a response to a prompt related to the novel). Because of the integrated nature of PACE, testing and learning are not entirely separate components of a student's day.

Context
While there are several contextual factors influencing the quality of PACE implementation worth mentioning, the largest stems from implementing PACE at the district level. Districts vary in their capacity, student populations, and in the expertise and experience of their staff members. Early adopters of competency-based education had a significant advantage in implementing PACE. They already had a collection of locally developed tasks from which to start and were

familiar with the design of competency-based rubrics. In many cases, their students had largely become accustomed to the kinds of tasks PACE requires.

District size plays an important role in PACE implementation as well. Smaller districts typically have only one teacher per grade/subject. In some cases, there may be only one teacher per grade; in elementary school this teacher is responsible for ELA, mathematics, and science tasks. This means that all of the work associated with developing and administering the local tasks is concentrated among very few people. Smaller districts often have to solicit help from outside the district to conduct double scoring.

Larger districts have more support staff and typically have same-grade/subject teachers who can work as teams within districts, or even within the same school. This does not always mean that the teachers in larger districts have less work, however. The more students in a school who take a PACE assessment, the larger the effort required for scoring. A very small district might only have 10 students who complete a task. A larger district could have a few hundred students completing a task.

PACE was implemented, in part, to reduce perceived negative consequences associated with large-scale, end-of-year standardized testing. PACE was designed to stave off reductions in the depth of learning of students, to promote critical thinking, and to integrate curriculum, instruction, and assessment into a cohesive system of education.

But PACE requires a tremendous amount of work on the part of teachers. While most teachers were very supportive of PACE, it was not uncommon for them to comment on the time and effort required to implement the program, including development of tasks and rubrics as well as task administration and scoring. Survey results indicate that approximately one fourth of respondents did not think that the time and effort required by the PACE initiative was worth the benefits.

Recommendations
Our evaluation found that PACE is currently functioning largely as intended. The recommendations included here call for additional monitoring or minor improvements to current processes. As the system expands, more substantial changes may become necessary, but this evaluation does not indicate a need for major modifications at this time.

Recommendation 1: Monitor and Support District Engagement
PACE should regularly gauge local leadership support and target interventions when district leaders voice concerns or reduce their district's involvement with the program. PACE has done this for one district by helping support a PACE coordinator within the district with experienced consultants. As the program expands, these checks and interventions should become more routinized to ensure that all districts maintain adequate support for the educators implementing the program.

Recommendation 2: Evaluate Effectiveness of Collaboration Methods
PACE should evaluate the effectiveness of the new collaboration methods. While task development meetings with teachers from all Tier 1 districts were becoming unwieldy, one of the

attributes teachers reported as positive was having direct input into the program. Findings from the survey indicate that those teachers who had not participated in cross-district collaborations tended to have less favorable ratings of PACE. If the new collaboration methods reduce opportunities for cross-district collaborations, then teachers may perceive less personal value in PACE. Regular monitoring and adjustments can help safeguard against this potential issue.

Recommendation 3: Consider Additional Training/Supports for Teachers Not Directly Involved in Common Task Development
As the percentage of PACE participants directly involved in future common task development decreases (either through including a smaller number of teachers in a meeting or by expanding into additional districts), the professional development and training stemming from those activities may need to be supplemented with additional training.

Recommendation 4: Infuse Equity and Accommodations Training into PACE Activities
Include training on scaffolding and accommodations as part of the regular schedule of PACE activities. Despite quality documentation and training, teachers continued to report uncertainty regarding equity issues, especially for accommodating students with disabilities (SWD). Scaffolding should be available to all students, including SWD, and is currently built into task development activities.

Recommendation 5: Investigate the Impact of Reading/Writing Requirements on Accessibility
Investigate the impact of the reading and writing demands of the PACE tasks on accessibility and student performance. If, for instance, we are interested in knowing whether students understand and can perform computations associated with a mathematics concept, including a long reading passage to set up the task might interfere with a student demonstrating her math abilities. We recommend examining score patterns among the PACE tasks, course grades, and performance on comparison measures (e.g., Smarter Balanced) for students with and without disabilities as one way to investigate whether the reading and writing requirements may be impacting students' scores.

Recommendation 6: Routinize Timely Reviews of Local Performance Tasks
Evaluate the quality of the locally developed performance tasks and rubrics. As the pool of locally developed tasks expands, it is important to ensure that the tasks and rubrics are of sufficient quality to be used to generate student scores and annual determinations. Teachers report that their skill level in developing these tasks improves with each year of PACE participation, so it stands to reason that the validity and reliability of students' scores should improve with time.

Recommendation 7: Plan for Future Research on the Impact of PACE on Teaching and Learning
The positive impacts of PACE on teaching and learning should continue to be externally verified beyond this evaluation. This may be part of a future research agenda when it becomes possible to evaluate the predictive strength of PACE results on college and career performance. In the interim, it may be possible to compare PACE versus non-PACE student performance on Smarter Balanced assessments, college entrance exams, or other measures.

Recommendation 8: Evaluate the Benefit of Time in Program on Outcomes
As the system expands, it may be possible to investigate the benefits of time in the program on instructional practice and student learning. It would not be surprising if there was a direct correlation between years in the program and benefits, both perceived and realized, on assessment practice and student learning. We would not expect this correlation to be perfect, however. Contextual factors such as district size, fidelity of implementation, and the effectiveness of district or school teams could certainly impact the effects of time in the program.

Recommendation 9: Consider Systematically Recycling Tasks
After the operational year, common tasks may still be used in place of, or in addition to, local tasks. PACE should consider some method of systematically repeating tasks across years as another check on the consistency of scoring. If tasks were repeated, previously scored "check sets" of student work from the prior year could be included in the current year. Score consistency across years could then be checked in a more systematic way.

Recommendation 10: Begin Tracking Performance from Year to Year
The PACE system has the potential for variability across years. Comparing performance across years will allow PACE to see where there are large changes in the proportions of students at each achievement level in any district and to investigate potential reasons for those changes. Early reports to USED comparing student performance on PACE with performance on Smarter Balanced within and across years, as well as the data analyses completed for this evaluation, should be repeated annually. This will allow for continuous monitoring and by investigating anomalous results, PACE may be better able to identify potential threats to reliability and validity.

End Goal: Students are College and Career Ready

Graduating students who are college and career ready is the ultimate goal of PACE. While we have found considerable evidence supporting the interim goals of PACE, it is still too early to evaluate college and career readiness. Once PACE has matured sufficiently and there are students who experienced both the PACE program and at least one year of college or career, we recommend that PACE support an ongoing research agenda to investigate claims under this ultimate goal.

The PACE Story

PACE has lofty ambitions. Ideally, PACE will lead to an integrated competency based education system that is unbound by time in class, age, location where learning takes place, and other artificial methods of categorizing students. Instead, the system would focus on a core set of competencies and move students to the next phase of their education irrespective of when, where, or how the student achieves those competencies. The system will incorporate a large number of ways for students to demonstrate the competencies, and demonstration will take place in an on-demand way, where students can choose to complete a performance event (not necessarily limited to the current task format) when they are ready, rather than on a school calendar. Instruction would be more individualized and targeted toward the next competency the student needs to master. Such a system would represent a dramatic shift from the traditional system of schooling.

PACE, as it is implemented currently, has taken steps toward this ideal. The PACE districts have begun identifying important competencies and they have designed performance tasks to measure those competencies. They have begun to build a bank of high-quality performance tasks that can be drawn on throughout a student's academic preparation. They have moved toward a more integrated system of curriculum, instruction, and assessment. Assessment is being woven into all aspects of teaching and learning, and the consideration of assessment when planning curricular sequence and planning lessons have increased among teachers since joining PACE. Students, even those who don't like PACE, describe the tasks as complex and difficult, but as strong measures of their knowledge, skills, and abilities.

But there is still a long road ahead if PACE is to realize all of its bold goals. First, PACE has to prove to be sustainable. The program is relatively new and a few highly-motivated districts have been instrumental in implementing the system. As new districts join PACE, there will be challenges. Getting new staff members oriented to such a complex new way of educating students takes considerable time and effort. If the experienced teachers train the new ones, they will need time to do so.

The sustainability of PACE will rely on demonstrating that the benefits of PACE continue to outweigh the challenges. For this to happen, PACE will require continuous feedback and improvement as the system expands.

In addition to sustainability, PACE must also prove that it is scalable. New districts are joining PACE, but NH DOE recognizes the considerable challenges involved in scaling PACE statewide as it is currently conceived. PACE is currently adopted at the district level.

In New Hampshire, PACE began with a few highly motivated districts and is expanding carefully. This model seems to be effective for a system like PACE, and if the system is transported outside New Hampshire, other states may want to adopt a similar implementation plan.

New Hampshire Responses to Evaluation Recommendations

The PACE leadership team has been working to address the recommendations offered by HumRRO in their very useful evaluation report. The following list highlights some of the programmatic improvements that have been made in response to the report's findings and recommendations.
- ✓ Provided communications training to a cohort of Teacher Leaders within districts to better transmit PACE knowledge to all teachers.
- ✓ Procured an online intranet (Libguide) for all PACE teachers to share key documents and resources.
- ✓ Expanded high quality performance assessment development training for schools and districts working towards full implementation.
- ✓ Developed a set of common resources for assessment literacy.

- ✓ All content leads have been trained on the use of Universal Design for Learning (UDL) and the use of accommodations and/or other supports are listed on the task templates. Additionally, the project assessment leaders have provided additional training tools on the use of UDL to support increased fairness and accessibility.
- ✓ Implementation of assessment map review with aligned assessment audit to evaluate quality of local assessments. NH DOE will provide feedback to districts related to their assessment systems and targeted supports for those districts in need of additional guidance.
- ✓ Initiated contract with Stanford University to review local performance assessments.
- ✓ Commissioned research studies that longitudinal track district performance on standardized assessments. Using propensity score matching, this research allows us to evaluate the potential influence of time in PACE on student outcomes.
- ✓ We have been working with the PACE Content Leads to develop plans for task recycling in the coming years to leverage and improve upon the strong work that has been completed in first few years of PACE implementation.
- ✓ We will continue adding to the PACE common task bank each year in order to grow the number of tasks available for local use. Such tasks will include the rubrics, teacher materials, and annotate samples of student work. The highest quality tasks will be reserved from the main task bank for potential reuse as operational tasks or inclusion in local assessment systems.

Frank Edelblut

Commissioner of Education

Tel. 603-271-3144

STATE OF NEW HAMPSHIRE

DEPARTMENT OF EDUCATION

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Concord, N.H. 03301-3860

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APPLICATION FOR THE NEW AUTHORITIES UNDER THE INNOVATIVE ASSESSMENT DEMONSTRATION AUTHORITY:

PART 4

OTHER ATTACHMENTS

INDIVIDUAL RESUMES FOR PROJECT DIRECTORS AND KEY PERSONNEL

New Hampshire Department of Education

Mariane Gfroerer
Julie Couch
Sandie MacDonald

SUPPLEMENTAL JOB DESCRIPTION

Classification: Education Consultant II Mariane Gfroerer   **Function Code:** 3951-056

Position Title: Education Consultant – Performance Assessments   **Date Established:** 8-15-88

Position Number: 13211   **Date of Last Amendment:** 01-26-18

SCOPE OF WORK: To implement program objectives designed to support the Performance Assessment for Competency Education (PACE) waiver provided by the U.S. Department of Education and its requirements for participating school districts in New Hampshire. To provide assistance to schools and assessment coordinators; interpret and report assessment data; monitor compliance with state and federal regulations; and support the New Hampshire State Assessment System (NH SAS).

ACCOUNTABILITIES:

- Evaluates and monitors the administration of PACE assessments in accordance with state, federal, and waiver requirements; assists participating schools and districts with PACE assessment administration; monitors and reports participation and program compliance.

- Develops and coordinates communication of PACE waiver information to state policymakers, local school administrators, classroom teachers, families and the general public.

- Organizes, in collaboration with Department content staff, training sessions and workshops to provide PACE related assessment information and direction to educators.

- Advises school administrators and content leads and provides PACE assessment information to NH schools, districts, and families regarding access to and accommodations for assessments and supports for all special student populations.

- Coordinates trend analysis reports, data, and information releases for PACE accountability results; promotes assessment literacy and understanding; and provides up-to-date information about the relevance of PACE assessments to the New Hampshire Assessment System.

- Analyzes and interprets federal and state legislation and regulations for the purpose of implementing PACE assessments and program supports to ensure compliance with state and federal policies and regulations.

- Creates, designs and develops materials to assist with quality assurance activities; ensures that all professional, clerical, scheduling, webpage, communication and financial record-keeping functions are completed as required, including technical assistance to the state and local education agencies and other audiences as they relate to the Department's PACE waiver.

- Serves as the Department's liaison to NH School Counselors and NH School Phycologists.

MINIMUM QUALIFICATIONS:
Education: Master's degree from a recognized college or university with a major study in Education.

Experience: Seven years' experience in the field of education, five years of which must be relevant experience in assessment implementation in K-12.

License/Certification: Eligibility for NH educational certification.

DISCLAIMER STATEMENT:
The supplemental job description lists typical examples of work and is not intended to include every job duty and responsibility specific to a position. An employee may be required to perform other related duties not listed on the supplemental job description provided that such duties are characteristic of that classification.

SIGNATURES:

The above is an accurate reflection of the duties of my position.

_____   _____
Employee's Signature   Date Reviewed

The above job description accurately measures this employee's job duties.

Supervisor's Title & Position #:   Administrator II, #41550

_____   _____
Supervisor's Signature   Date Reviewed

Bureau Administrator's Title & Position #:   Administrator IV, #13290

_____   _____
Bureau Administrator's Signature   Date Reviewed

Division Director's Title & Position #:   Division Director, #9U309

_____   _____
Director's Signature   Date Reviewed

Department Approval Title & Position #:   Human Resources Administrator
                                                                                  Position #13105

_____   _____
Department Approval   Date Approved

_____   _____
Division of Personnel   Date Approved

SUPPLEMENTAL JOB DESCRIPTION

Classification: Administrator IV   Julie Couch   **Function Code:** 0072-056

Position Title: Administrator, Bureau of Instructional Support   **Date Established:** 8-15-88

Position Number: 13290   **Date of Last Amendment:** 12/11/17

SCOPE OF WORK: To administer the Bureau of Instructional Support's objectives by authorizing and directing the statewide implementation of academic standards and competencies, statewide assessment and accountability laws, policies and programs, and Title I and school improvement efforts.

ACCOUNTABILITIES:

- Authorizes, administers and develops plans for the implementation of NH's academic standards and competencies, the statewide assessment program, and the Title I and school improvement program by establishing long range goals, objectives, and strategies through a process involving educators, business leaders, elected officials and community members.

- Oversees and manages the operation and activities of staff in the Bureau of Instructional Support to accomplish priorities of the Department of Education.

- Monitors state and national programs of educational assessment and academic improvement efforts and recommends policy and research opportunities for efficient and effective allocation of Department resources.

- Controls and monitors the administration of contracts and appropriate financial reports for the programs assigned to the Bureau of Instructional Support, and develops state guidance, technical advisories and other documents necessary to support state and federal laws and regulations.

- Develops strategies to assist schools and districts in the use of data to evaluate the effectiveness of educational programs, the development and implementation of local education improvement and assessment plans, and the planning and implementation of related professional development activities.

- Monitors and analyzes office operations for efficiency and effectiveness and for proper allocation of state and federal resources; prepares and provides periodic reports with detailed analyses and implements necessary fiscal and programmatic changes. Formulates and implements program budgets, including authorizing improvements in budget administration and fiscal operations.

- Provides public testimony, when necessary, regarding academic standards and competencies, statewide assessments, and school improvement.

- Ensures that subordinate employees receive a timely performance appraisal at least once per year; approves annual increment for subordinate employees who achieve satisfactory work performance.

- Manages and supervises other professionals in developing and implementing programmatic and fiscal policies and procedures.

- Authorizes he development of public information and projected data for budget preparations for hose programs located in the Bureau of Instructional Support.

MINIMUM QUALIFICATIONS:

Education: Master's degree from a recognized college or university with major study in education.

Experience: Eight years' experience in education, five years of which must have been in a management level position involving administrative or supervisory duties concerned with assessment and accountability program administration, program planning and evaluation.

<div align="center">OR</div>

Education: Bachelor's degree from a recognized college or university with major study in education.

Experience: Nine years' experience in education, five years of which must have been in a management level position involving administrative or supervisory duties concerned with assessment and accountability program administration, program planning and evaluation.

SPECIAL REQUIREMENTS:
None

DISCLAIMER STATEMENT: The supplemental job description lists typical examples of work and is not intended to include every job duty and responsibility specific to a position. An employee may be required to perform other related duties not listed on the supplemental job description provided that such duties are characteristic of that classification.

Classification:	Administrator IV Sandie MacDonald	**Function Code:**	0072-056
Position Title:	Administrator IV	**Date Established:**	07/01/07
Position Number:	43257	**Date of Last Amendment:**	11/17/17

SCOPE OF WORK: To administer agency objectives by authorizing and directing the Bureau of Educational Statistics by implementing policy and procedures related to student level data collection and reporting system, state and federal reporting, internal and external data requests, data functions including data collection and data validation policy, and procedures related to programs such as State and Federal Accountability Adequacy Aid, Charter School Aid, and other state aid to school districts.

ACCOUNTABILITIES:

o   Authorizes the development of policies and procedures for the long-term administration of information and systems management and for the collection and reporting of high quality student level and school level data.

o   Oversees the identification and implementation of department wide business rules for accountability, data validation, audits, and proper integration of data into the data warehouse. Manages and facilitates department-wide collaboration with data management activities.

o   Oversees the calculation, review, and payment of state Education Trust fund money, including Adequacy (approximately $1B annually).

o   Recommends intra-agency policies changes and/or legislative changes to ensure effective use of education data.

o   Develops and establishes standards and maintains proper documentation and quality assurance for data security, privacy protection and data access.

o   Presents and testifies before the legislative committees as requested by the Commissioner.

o   Creates and implements a process to receive internal and external requests for data and manage access to (or the distribution of) this data.

o   Conducts training and provides guidance to Department stakeholders, including agency staff, outside agencies, members of the legislature, and local education agency (LEA) affiliates.

o   Coordinates the Department data requests by all internal department staff and outside entities including other state agencies, federal offices, the Legislative Budget Assistant (LBA), school districts and members of the general public, and prepares and administers corrective action plans associated with audit findings. Develops and oversees the procedures to share educational data with stakeholders (e.g. educators, legislators, citizens) and helps ensure accuracy and effective use of this data.

o   Monitors efficiency, effectiveness and accountability improvements necessary in the administration of data collection, management, analysis and reporting, and oversees compliance measures and internal controls necessary to ensure accountability of the Department's data.

o   Develops staffing plans and resource needs for the Bureau of Educational Statistics and Office of School Finance to accomplish organizational objectives. Provides budget input to the Division Director and CFO.

o   Applies for grants where applicable to acquire funding for initiatives aligned with the objectives of the Department.

- o Supervises the Bureau of Educational Statistics and Office of School Finance team. Ensures that subordinate employees receive a timely performance appraisal at least once per year; approves annual increment for subordinate employees who achieve satisfactory work performance.

MINIMUM QUALIFICATIONS:
Education: Master's degree from a accredited college or university with major study in education, business administration or data management.

Experience: Eight years' experience in business administration, education administration or data management, five years of which must have been in a management level position involving administrative or supervisory duties concerned with program administration, program planning and evaluation, business management or related management experience.

OR

Education: Bachelor's degree from a recognized college or university with major study in education, business administration, or data management.

Experience: Nine years' experience in business administration, education administration or data management, five years of which must have been in a management level position involving administrative or supervisory duties concerned with program administration, program planning and evaluation, business management or related management experience.

DISCLAIMER STATEMENT: The supplemental job description lists typical examples of work and is not intended to include every job duty and responsibility specific to a position. An employee may be required to perform other related duties not listed on the supplemental job description provided that such duties are characteristic of that classification.

The National Center for the Improvement of Educational Assessment

Scott Marion
Jeri Thompson
Susan Lyons
Carla Evans

Vita
SCOTT F. MARION
President

The National Center for the Improvement of Educational Assessment, Inc.

Scott F. Marion is the President of the non-profit The National Center for the Improvement of Educational Assessment, Inc. Previously, he served as the Vice President of the Center since 2005 and as a senior associate from 2003-2005. The mission of the Center is to help states and districts foster higher student achievement through improved practices in educational assessment and accountability. The Center does this by:

- Providing customized support to states and districts in designing, implementing, and improving fair, effective, and legally defensible assessment and accountability programs. The Center's staff provides the full range of support, including technical analyses, policy support, documentation and communication, and training from designing an accountability system to meet a legislative mandate through designing effective programs in support of low-performing schools.

- Coordinating Technical Advisory Committees that help ensure a state's evolving assessment and accountability programs receive the best on-going technical advice possible, focused on the specific issues and decision-making needs of the individual state or district.

- Developing and disseminating practical standards for assessment and accountability programs that include specific information about what states and districts should do *today* to have technically sound programs.

As President, Dr. Marion consults with numerous states on such issues as optimal design of assessment and accountability systems, creating or documenting legally defensible approaches to accountability and educator evaluation, gathering validation evidence for accountability programs, and designing comprehensive assessment systems to serve both instructional and accountability purposes. In addition to his management role at the Center for Assessment, Dr. Marion assists in active leadership in the Center's efforts to develop practical professional standards through the Center's annual lecture series and as a regular contributor to professional publications and the annual conferences of AERA, NCME, and CCSSO.

As Wyoming's assessment director (1999-2003), Dr. Marion managed the K-12 testing program, the Wyoming Comprehensive Assessment System, overseeing the state's Uniform Reporting System, and generally overseeing all assessment-related activities at the Wyoming Department of Education. Wyoming's innovative high school competency assessment system—The Body of Evidence System—was the most ambitious project of his administration. Scott Marion worked through the entire cycle of development of the assessment system from initial design through incorporation into legislation, administrative rule, and into actual implementation. From 1997 Dr. Marion worked with department of education staff and educators in the field, the state board of education, advisory panels, and the governor's and legislative offices to design Wyoming's first statewide, standards-based assessment system.

Dr. Marion earned his Ph.D. at the University of Colorado at Boulder under mentorship of Professors Lorrie Shepard and Robert Linn. Dr. Marion started his career as a field biologist prior to earning his Master's of Science in Science and Environmental Education from the University of Maine.

Education

Ph.D. May 2004. University of Colorado, Boulder, CO. Research and evaluation methodology. Specialization--Educational Assessment. Dissertation Advisor: Lorrie Shepard. Dissertation title: Psychometric Concerns When Measuring Advanced Knowledge.

Master of Science. May 1992. University of Maine, Orono, Maine. Science and Environmental Education G.P.A. 4.0 Thesis Advisor: Theodore Coladarci. Thesis title: *Gender differences in science course-taking patterns among college undergraduates: Indicators of a hidden curriculum in science education?*

Maine State Certification. August 1986. University of Maine, Orono, Maine.

Bachelor of Science. May 1979. State University of New York, College of Environmental Science and Forestry, Syracuse, NY. September 1975-May 1979. Majored in zoology and forest biology, graduated cum laude (G.P.A. 3.1).

Professional History

Wyoming Department of Education. Cheyenne, WY.

Director of Assessment and Accountability. November 1999-January 2003. Responsible for managing the state's K-12 testing program, Wyoming Comprehensive Assessment System, overseeing the state's Uniform Reporting System, and, generally, overseeing all assessment-related activities at the Wyoming Department of Education, including assessment issues related to district accreditation and student graduation requirements. Managed two budgets in excess of three million dollars per year, supervised three staff members, several external consultants, and a testing contractor.

School of Education, University of Colorado at Boulder. Campus Box 249, Boulder, CO.

Research Assistant, August 1993-September 1994; August 1995-May, 1997. I worked as a research associate of a variety of assessment related research projects funded by the Center for Research on Student Standards and Testing (CRESST). Supervisor: Dr. Lorrie Shepard

Evaluation Internship, September 1994 - August 1995. As part of a two-person internship team, I served as a co-principal investigator for an evaluation of the National Science Foundation-funded Mathematicians and Education Reform (MER) Forum supported by the American Educational Research Association's Grants Program and NSF. Supervisor: Dr. Ernest House.

College of Education, University of Maine, Orono, ME.

Part-time Faculty Member. 1991-1993. Responsibilities include teaching the following graduate and undergraduate courses: EDS 520--Educational Measurement; ESC 525--Planning the Environmental Curriculum; and EDB 221--Introduction to Educational Psychology.

Center for Research and Evaluation, College of Education. University of Maine, Orono, ME.

Research Associate, September 1988-July 1993. Responsibilities included conducting curriculum and program evaluations for school systems and other agencies, managing the Center's data bases and archives, writing grants and funding proposals, writing research and technical reports, and providing research design and statistical consulting services for University faculty and graduate students.

Selected Publications

Marion, S.F. (2018). The opportunities and challenges of a systems approach to assessment. *Educational Measurement: Issues and Practice, 37, 1,*

Marion, S.F., Vander Els, J. & Leather, P. (2017). Reciprocal accountability for transformative change: New Hampshire's performance assessment of competency education (PACE). *VUE: Voices in Urban Education*, 46, 20-25.

Marion, S.F., Lyons, S., & Pace, L. (2017). Evaluating and Continuously Improving an Innovative Assessment and Accountability System. www.innovativeassessments.org.

Gagnon, D.J., Hall, E. & Marion, S.F. (2017). Teacher evaluation and local control in the United States: An investigation into the degree of local control afforded to districts in defining evaluation procedures for teachers in non-tested subjects and grades. *Assessment in Education: Principles, Policy & Practice, 24, 4, 489-505.*

Marion, S.F., Pace, L., Williams, M., & Lyons, S. (2016). Project Narrative: Creating a State Vision to Support the Design and Implementation of An Innovative Assessment and Accountability System. www.innovativeassessments.org

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Graue, E., Marion, S.F., & Nelson, M. (2016, Spring). Eye on her research: Assessment in a learning culture. *Education Views, pp 6-8*. School of Education, University of Colorado, Boulder.

Rothman, R. & Marion, S.F. (2016). The next generation of state assessment and accountability. *Kappan, 97, 8, 34-37.*

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Chattergoon, R. & Marion, S.F. (2016). Not as easy as it sounds: Designing a balanced assessment system. *The State Education Standard, 16, 1*, 6-9

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Domaleski, C., Gong, B., Hess, K., Marion, S., Curl, C., Peltzman, A. (2015). Assessment to support competency-based pathways. Washington, DC: Achieve. www.Achieve.org and www.nciea.org

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Diaz-Bilello, E.B., Patelis, T., Marion, S.F., Hall, E., Betebenner, D. & Gong, B. (2014). Are the *Standards for Educational and Psychological Testing* Relevant to State and Local Assessment Programs? *Educational Measurement: Issues and Practice, 33, 4*, 16–18

Marion, S.F., DePascale, C., Domaleski, C., Gong, B., & Diaz-Bilello, E. (2012, May). Considerations for analyzing educators' contributions to student learning in non-tested subjects and grades with a focus on Student Learning Objectives. **www.nciea.org.**

Marion, S.F. & Buckley, K. (2011). Approaches and considerations for incorporating student performance results from "Non-Tested" grades and subjects into educator effectiveness determinations. www.nciea.org.

Marion, S.F. (2010). Constructing a validity argument for alternate assessments based on modified achievement standards. In Perie, M. *Alternate Assessments Based on Modified Achievement Standards*. Baltimore, MD: Brooks Publishing.

Li, Y., Marion, S.F., Perie, M. & Gong, B. (2010) An approach for evaluating the technical quality of interim assessments. *Peabody Journal of Education, 85, 2*, 163-185

Perie, M., Marion, S.F., & Gong, B. (2009). Moving towards a comprehensive assessment system: A framework for considering interim assessments. *Educational Measurement: Issues and Practice, 28, 3*, 5-13.

Marion, S.F. (2009). Some key considerations for test evaluators and developers. In Schafer, W. and Lissitz, R. (eds.) *Alternate assessments based on alternate achievement standards: Policy, practice, and potential* (pp. 357-360).

Marion, S. F. & Perie, M. (2009). Validity arguments for alternate assessments. In Schafer, W. and Lissitz, R. (eds.) *Alternate assessments based on alternate achievement standards: Policy, practice, and potential* (pp. 115-127). Baltimore, MD: Brooks Publishing.

Marion, S.F. & Gong, B. (2007). Assessing college readiness: A continuation of Kirst. *NCME Newsletter, 15, 2*, 5-7.

Dunn, J. & Marion, S. F. (2006). NCLB Growth: What are we learning as reauthorization approaches? *NCME Newsletter, 14, 4*, 3-4.

Marion, S. F. & Pellegrino, J. W. (2006). A validity framework for evaluating the technical quality of alternate assessments. *Educational Measurement: Issues and Practice, 25, 4,* 47-57.

Dunn, J., Gong, B. & Marion, S. F. (2006). NCLB science assessments: A unique opportunity. *Measurement: Interdisciplinary Research and Perspectives, 4, 4*, 242-246.

Gong, B. & Marion, S. F. (2006). Dealing with flexibility in assessments for students with significant cognitive disabilities. Minneapolis, MN: University of Minnesota, National Center for Educational Outcomes Synthesis Report No. 60. http://education.umn.edu/nceo/OnlinePubs/Synthesis60.html.

Picus, L. O., Marion, S.F. Calvo, N., Glenn, W. J. (2005). Understanding the relationship between student achievement and the quality of educational facilities: Evidence from Wyoming. *Peabody Journal of Education, 80, 3*, 2005

Marion, S. F., White, C, Carlson, D., Erpenbach, W. J., Rabinowitz, S., Sheinker, J. (2002) Making valid and reliable decisions in the determination of adequate yearly progress: A Paper in the Series: *Implementing The State Accountability System Requirements Under The No Child Left Behind Act Of 2001*. Washington, D.C.: Council of Chief State Schools Officers.

Shepard, L. A., Smith, M. L., & Marion, S. F. (1998). On the success of failure: A rejoinder to Alexander. *Psychology in the Schools, 35,* 404-406.

Shepard, L. A., Smith, M. L., & Marion, S. F. (1996). Failed evidence on grade retention. *Psychology in the Schools, 33,* 251-261.

Borko, H. Mayfield, V. Marion, S. F., Flexer, R., & Cumbo, K. (1997) Teachers' developing ideas and practices about mathematics performance assessment: Successes, stumbling blocks, and implications for professional development. *Teacher and Teacher Education, 13,* 259-278.

Eisenhart, M., Finkel, E., & Marion, S. F. (1996). Creating the conditions for scientific literacy: A re-examination. *American Educational Research Journal, 33,* 261-296.

Shepard, L. A. Flexer, R. J., Hiebert, E. H., Marion, S. F., Mayfield, V., & Weston, T. J. (1996). Effects of introducing classroom performance assessments on student learning. *Educational Measurement: Issues and Practice, 15, 3,* 7-18..

Shepard, L. A., Smith, M. L., & Marion, S. F. (1996). Failed evidence on grade retention. *Psychology in the Schools, 33, 3.*

Maddaus, J. & Marion, S. F. (1995). Do standardized test scores influence parental choice of high school? *Journal of Research in Rural Education, 11, 2,* 75-83.

National Research Council/National Academy of Science Publications

(Participated as an active committee member and report contributor to the following NRC reports.)

National Research Council. (2014). *Developing Assessments for the Next Generation Science Standards.* Committee on Developing Assessments of Science Proficiency in K-12. Board on Testing and Assessment and Board on Science Education, James W. Pellegrino, Mark R. Wilson, Judith A. Koenig, and Alexandra S. Beatty, *Editors.* Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

Braun, H., Chudowsky, N., & Koenig, J. A. (2010). *Getting value out of value-added: Report of a workshop.* Washington, DC: National Academies Press.

National Research Council. (2010). *State assessment systems: Exploring best practices and innovations: Summary of two workshops.* Alexandra Beatty, Rapporteur; Committee on Best Practices for State Assessment Systems. National Research Council. Board on Testing and Assessment. Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

Honors, Awards, Scholarships and Fellowships

The Spencer Foundation. Spencer Dissertation Fellowship for Research Related to Education. 1998-1999.

The Spencer Foundation & American Educational Research Association. Travel Fellowship Award. 1996-1997.

American Educational Research Association & National Science Foundation. Evaluation Internship Award. 1994-1995.

American Educational Research Association, National Science Foundation, & National Center for Educational Statistics. Selected to participate in the AERA Statistics Institute. April 8-10, 1994.

University of Colorado. University Fellowship awarded by the Graduate School to fund the first year of Ph.D. studies. 1993-1994.

New York State Regents Scholarship. 1975-1979.

National Honor Society. 1974-1975.

JERALDINE R. THOMPSON
Senior Associate

Dr. Jeri Thompson is a Senior Associate with the National Center for the Improvement of Educational Assessment, Inc. (NCIEA). In that capacity, Dr. Thompson works with states and other educational agencies to design and implement effective assessment systems aligned to the state standards. Dr. Thompson combines her knowledge of educational systems with curriculum, instruction, and assessments to provide states and districts with guidance and support for both assessment and accountability purposes. Her current projects include working with the Pennsylvania Department of Education (PDE) to help PA state educators understand their new assessment item, Text-Dependent Analysis, through leading professional development and by developing a variety of tools and instructional resources; working with states and districts on their educator evaluation system with a focus on Student Learning Objectives; providing leadership in designing effective comprehensive assessment systems, including guidance on the development of performance assessments and rubrics, and facilitating deep understanding of cognitive rigor, scoring and analyzing student work, and deepening understanding of assessment and data literacy. In addition, Dr. Thompson has provided guidance and professional development on a variety of assessment topics and issues, including writing and establishing state Grade Level and Grade Span Expectations in the content areas of science and social studies.

Prior to joining the Center for Assessment, Dr. Thompson spent 20 years in public education as a teacher, Reading Specialist, Principal, Director of Curriculum and Instruction, and Director of Academics at school districts in Maryland and Rhode Island. These experiences have enabled her to understand the practical implications of her work while maintaining fidelity for guiding research and best practices. Her content expertise in reading has led to her involvement in analyzing documents for national assessment consortiums. Dr. Thompson has been an adjunct undergraduate and graduate instructor at colleges in Maryland and Rhode Island, and has authored articles on state readiness conditions for ESSA, assessment quality, and curriculum and instruction. Dr. Thompson received her doctorate in Educational Leadership, two master's degrees in School Administration and Reading, and her an undergraduate degree in Communication Disorders.

Education

Certification in Educational Measurement, May 2016. University of Chicago, Illinois

Doctoral Degree, May 2003, Educational Leadership, NOVA Southeastern University
North Miami Beach, Florida.

Master of Science, May 1999. School Administration, McDaniel College (formerly Western Maryland College), Westminster, Maryland.

Master of Science, May 1996, Reading Specialist, McDaniel College (formerly Western Maryland College); Westminster, Maryland

Elementary Education Certification, May 1992, McDaniel College (formerly Western Maryland College); Westminster, Maryland

Bachelor of Science, May, 1981, Communication Disorders (speech pathology & audiology); Radford University; Radford, Virginia

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Professional Experience

Senior Associate. 2011-present. The National Center for the Improvement of Educational Assessment, Inc.
- Provide guidance, training, and research on the new item type (Text-Dependent Analysis) for Pennsylvania Department of Education's state test (PSSA)
- Provide guidance on the planning, developing, and implementing Student Learning Objectives, including SLO tools, processes, assessment materials, and professional development
- Provide guidance to state departments of education and districts on the development of assessments and assessment systems
- Provide professional development and on-going support on analyzing assessments for content validity and appropriate rigor
- Provide professional development on understanding the CCSS and text complexity

Independent Consultant, 2005-2010
> **Project Manager, Extended Learning Time: Component of the School Improvement Grant; Pittsburgh Public Schools; Pittsburgh, PA**
> - Design and detail work plan for the implementation of extended learning time at identified low performing high schools. Provide school-by-school schedule of offerings and options, including timing of offerings, day s of the week, and relationship with activities and other out-of-school time activities. Identify staffing needs at each school and monitor the hiring of staff positions, including certification and position profiles. Establish student enrollment and accountability systems including attendance, grades, and credits. Revise and monitor budgets for each school including executing necessary purchases and payroll changes. Aligning the extended learning time program with state standards and district curriculum.

Curriculum and Assessment Consultant, Windsor Southeast Supervisory Union, VT, Mrs. Madelyn Burke
- Provide professional development and on-going support on the use of formative and summative assessments, rubrics, and the analysis of student work.
- Developed K-12 ELA curriculum, common assessments, and rubrics

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WestEd's NAEP-SAT ELA Alignment Study, March 8-12, 2010. Served as an ELA content expert. Examined assessment questions on NAEP and SAT to identify alignment to standards and cross-standards.

Manchester Bidwell Corporation, Mr. Bill Strickland
- Created a concept paper for the Pittsburgh Oliver Program.
- Developed curriculum for the arts and vocational programs

Educational Research, The National Center for the Improvement of Educational ssessment, Dr. Karin Hess, Dr. Scott Marion
- Developed common science and social studies assessments for New York City Public Schools. Facilitated the teachers in developing assessments aligned to the Common Core State Standards and the New York Standards, along with ensuring cognitive rigor through the analysis of Webb's Depth of Knowledge.
- Assisted in organizing, analyzing, and summarizing **Learning Progressions in Science for NAAC**. Facilitated the expert science panel in prioritizing the bigger ideas within the science standards and research necessary for all students to learn and be able to demonstrate understanding of at the elementary, middle, and high school level, as well as at grade spans within these levels. Anticipate facilitating work with master teachers in August to identify aligned curriculum topics and grade-appropriate materials, design curricular units for selected topics, modify texts, materials and instructional activities to ensure access by students with severe cognitive disabilities.
- Assisting in providing technical and professional development to support **Park County Schools, Wyoming, for Assessment Development/Refinement and Implementation.** This work involves meeting with administration to identify and review relevant district and school background information, including curriculum documents, current and draft assessments, and district-related initiatives. Professional development activities will be developed based on their current programs and practices. Assisting in the design of workshop materials, facilitating a 5-day summer institute with school staff.
- Assisting in providing technical and professional development to support **New York City Public Schools, NY, for Assessment Development/Refinement and Implementation**. This work involves meeting with administration to identify and review relevant district and school background information, including curriculum documents, current and draft assessments, and district-related initiatives. Professional development activities will be developed based on their current programs and practices. Assisting in the design of workshop materials, facilitating a 2-day summer institute with school staff.
- Assisted in organizing, analyzing, and summarizing data collected and recorded by teachers on **Learning Progressions in ELA and Mathematics for Hawaii Department of Education**. Teacher identified grade level benchmarks were

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analyzed against research to ensure appropriateness. This work also involved observing teachers in their classrooms to collect information on use of instructional strategies to support struggling learners, and consequently all learners.

- Analyzed **Maryland's Fine Arts Assessment Limits** (music, theatre, dance, and visual arts) for alignment to the English language Arts Voluntary State Curriculum Standards. This alignment included identifying the ELA standards, summarizing the responses from individuals regarding each assessment limit, and analyzing the findings.

Teaching Experience

Times Squared Academy
Providence, RI

2005-June 2010   **Director of Academics (K-12)**
Duties: Academic and Instructional Program

- Develop long- and short-range instructional plans, goals, and objectives through a systematic process.
- Develop new programs or educational models to meet federal and state guidelines and/or for creating successful innovations.
- Evaluate the instructional program and makes recommendations to the Education Committee for desirable change.
- Supervise and assist in the development of grants.
- Instruct and guide the instructional deans on monitoring the implementing all instructional aspects and guidelines of the state standards and Academy curriculum.
- Provide direction and approval for the implementation of extra-curricular programs and co-curricular activities.
- Direct the K-12 schedule to meeting the academic and instructional needs based on current finances and/or instructional changes.

Curriculum Development

- Research and provide leadership for the development of grade level and content area curriculum to be aligned with state and national standards, grade span and grade level expectations, and AAAS's Project 2061.
- Work to ensure curricular alignment in all grade levels and content areas.
- Provide leadership in the establishment of on-going assessments in all content areas and monitors the results.
- Apply research and data to improve the content, sequence, and outcomes of the teaching/learning process.

- Evaluate and select instructional materials to meet student learning needs, including the use of technology in the teaching-learning process.
- Authorize the use of or the deletion of learning materials for school programs.
- Maintain a listing of recommended and approved texts and other teaching materials.
- Monitor the results of state assessments.

Supervision
- Assist with the recruitment and selection of administrative staff.
- Evaluate all academic staff, which may include non-tenured teachers and tenured teachers in the elementary and secondary divisions.
- Employ effective management practices that promote collegiality, teamwork, and collaborative decision-making among staff members.
- Provide effective two-way communication channel with staff, senior leadership and with the Board of Directors.
- Ensure that administrative personnel contribute to the attainment of the Academy's mission, goals and objectives.

Professional Development
- Develop and deliver or provide guidance for effective staff development activities that address the curriculum guidelines, program evaluation outcomes, and input from teachers, instructional deans, and specialists.
- Evaluate staff development activities.
- Function as a liaison to RIDE to ensure that academic programs and curriculum is aligned with state mandates and shares information obtained with varied constituents.

Instructional Budget
- Compute budgets and cost estimates for academic needs and practice responsible fiscal control over assigned academic program budgets.

Policy, Procedures, and Data
- Assist in the development of policies and administrative regulations required by the Academy.
- Attend appropriate Board Committee meetings and prepare expected reports on the status of programs and services.
- Prepare regular reports needed for compliance with state regulations and national accreditation.
- Direct the preparation and revision of job descriptions, the classification of positions, and a recommended for competitive salary structures providing cost analysis of salary and wage adjustments for the budgeting process.

2003 – 2005   Principal & K-12 Director of Curriculum & Instruction

Duties: Establish a charter elementary school as a cohesive feeder school to the existing middle and high charter school.

- Begin the creation of elementary curriculum in all content areas to match Project 2061 Science Literacy Benchmarks and state and national standards and to provide professional development for teachers in developing cohesive units of study.
- Develop school-based assessments matching the established curriculum and to provide professional development for teachers in the use of these assessments.
- Assist with the analysis of the K-12 state assessments in English Language Arts and math and determine the needs of the school in order to ensure gains in student achievement.
- Monitor the academic progress of students as they move from Kindergarten to grade 12, with a particular emphasis in reading and writing, in meeting standards and determining appropriate literacy interventions for struggling students.
- Provide professional development for K-12 staff in current best practices in literacy.
- Maintain high standards of student behavior and discipline.
- Hire, supervise, and evaluate all assigned professional and support staff.

Major Accomplishments:
- Assisted with the hiring of teaching personnel, administrative staff, reading specialist, and Title I assistants.
- Established curriculum committees to examine standards and performance expectations in all content areas in the elementary grades.
- Created a standards-based report card for students in grades Kindergarten through fifth grade.
- Identified and purchased narrative and expository leveled texts for the purposes of teaching guided reading, genre studies, author studies, and integration with science, social studies, and math.
- Created a quarterly literacy assessment plan for all elementary students in order to monitor student achievement. These assessments incorporated student knowledge of print-sound code, reading comprehension, purposes for writing, and language use and conventions in writing.
- Collaboratively identified the curriculum indicators for the social studies content area in all elementary grades through a backward-mapping process in order to create a cohesive curriculum.
- Created integrated performance-based assessments for each unit of study within the social studies and writing content areas.
- Began articulation meetings with the middle school teachers in order to analyze the identified curriculum expectations.

- Provided planned, purposeful, and on-going professional development in the area of literacy for both elementary and secondary staff. Established both an elementary and secondary literacy newsletter which reinforced and enhanced the tenets of the professional development.
- Established an elementary after-school and summer school program for students struggling in reading, writing, and/or math.

Newport Public Schools
Newport, Rhode Island 02840

2002-2003   Carey Elementary School, Principal
Duties; To effectively manage all aspects of an elementary school to ensure a positive educational experience for students and optimum working conditions for staff.

Major Accomplishments:
- Planned and facilitated school-based professional development in research-based literacy practices including understanding the before/during/after reading process, guided reading, reading comprehension strategies, and integrated content reading instruction.
- Planned and facilitated grade level professional development for the district teachers with the Elementary Literacy Coordinator on literacy topics:
    - Understanding New Reference Standards
    - Principles of Learning: Academic Rigor, Clear Expectations, & Accountable Talk
    - Informal/Formal Assessments
    - Comprehensive Literacy Program
    - Literacy Centers
    - Differentiated Instruction through Guided Reading & Literature Circles
    - Co-organizer of the first K-12 Summer Literacy Institute for the district. Planned, facilitated, and conducted keynote addresses and various sessions on literacy in conjunction with other team members.
- Established a schedule and protocols for examining student work and assessment data, and for monitoring student progress.
- Established an after-school reading program for struggling readers in the intermediate grades.

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Frederick County Public Schools
Frederick, Maryland 21701
(All position changes for FCPS are determined through Central Office)

2000-2002   Monocacy Elementary School, Principal
Duties: To provide instructional leadership for the school community. To develop a vision for fundamental school change and communicate it to all staff, parents, and students.

Major Accomplishments:
- Introduced a protocol for examining student work and teacher practice to determine quality work:
  - Understand the learning outcomes
  - Determining reliability scoring
  - Examining student responses
  - Determining teaching points
  - Determining flexible grouping needs
- Implemented and facilitated a Leadership Team to ensure that school goals are aligned with the state and county goals to include:
  - Established the use of technology for reading-writing connection and content area thinking process & presentations
  - Implementation of before/during/after reading strategies
  - Creating performance assessments and developing scoring tools for integrated performance assessments.
  - Use of assessments to drive instruction
  - Coordinated and facilitated the change of the school's traditional kindergarten and first grade schedule to include a guided reading/literacy lab schedule.
  - Established and implemented an English Language Learners (ELL) magnet program and in Title I program.

1999-2000 Walkersville Elementary School, Assistant Principal

1997-1999 Hillcrest Elementary School, Assistant Principal

1989-1997 North Frederick Elementary School
     1996-1997   Fifth Grade Teacher
     1994-1996   Fourth Grade Teacher
     1992-1994   Third Grade Teacher
     1989-1992   Pre-K Teacher

Professional Affiliations

- Member of *Association for Supervision and Curriculum Development* (ASCD)
- Member of *American Education Research Association* (AERA)

Publications

- **Thompson, J.,** Lyons, S., Marion, S.F., Pace, L., & Williams, M., (2016). *Evaluating Assessment Quality for Innovative Assessment and Accountability Systems*.
- **Thompson, J.,** (2016). *Supporting Educators and Students Through Implementation of an Innovative Assessment and Accountability System.*
- **Thompson, J.,** (2013). *Using Baseline Data and Information to Set SLO Targets*.
- Mecca, S. and **Thompson, J.,** (2009). *A not so astonishing hypothesis: US slippage in math-science pre-college education*.
- Mecca, S. and **Thompson, J.,** (2006). *Complexity, Challenge, and Creation in Curriculum Design*.

Presentations

- Marion, S., Lyons, S., & **Thompson, J.** (2016, June). *First in the nation: New Hampshire's leading edge assessment and school accountability pilot*. Symposium presented at CCSSO's National Conference on Student Assessment, Philadelphia, PA.
- **Thompson, J.,** Simaska, D., & Lyons, S. (2016, June). *Text Dependent Analysis: Building teacher capacity to instruct for a new item type*. Symposium presented at
- **Thompson, J.,** Hall, E. Simaska, D. (2014, June). *Establishing a Measure of Text-Based Analysis*
- *Pennsylvania Literacy Council: Text Dependent Analysis – Implications for Instruction, Assessment, and Curriculum* (2015)
- *NEERO: New Hampshire PACE (Performance Assessment of Competency Education): Review of Assessment Quality* (2016)

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SUSAN LYONS
Curriculum Vitae

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EDUCATION

University of Kansas, Lawrence, KS

Ph.D. Educational Psychology & Research   May 2015
  Track: Research, Evaluation, Measurement & Statistics
  Dissertation: *Effect of summer learning loss on aggregate estimates of student growth*

M.S.Ed. Educational Psychology & Research   June 2013

Boston University, Boston, MA

B.A. Mathematics & Math Education*, Cum Laude*   May 2010

HONORS & APPOINTMENTS

TranformingEducation National Technical Advisory Board   2016-Present
KU School of Education Merit Scholarship   2013-2015
Mary Oyster O'Guin Memorial Scholarship   2013-2015
Kingsbury Center Data Award   2014
KU Graduate Studies Summer Research Fellowship   2014

PROFESSIONAL EXPERIENCE

Center for Assessment, Dover, NH   2014 – Present
Associate

Provide technical expertise and support related to the design and implementation of assessment and accountability systems. Notable projects include the New Hampshire Performance Assessment for Competency Education (PACE) project where I lead much of the design and analysis to support the technical quality of the innovative assessment system—including working with educators to build performance assessment capacity. Additionally, I am working to support states as they transition their assessment and accountability systems under the Every Student Succeeds Act through work with the Georgia Educator Effectiveness and Accountability Technical Advisory Committee, the New Hampshire Accountability Task Force, and partnerships with organizations such as the Hewlett Foundation, Council for Chief State School Officers, and KnowledgeWorks.

Boston College, Chestnut Hill, MA   2015 – 2017
Part-time Faculty

Design and taught graduate-level statistics courses for beginning through advanced doctoral students in the Lynch School of Education. Statistical theory is emphasized along with computer software applications. Served as the supervisor for graduate teaching assistants.

Center for Research on Learning, Lawrence, KS   2012 – 2014
Graduate Research Assistant

Position funded by IES award entitled: *An Adaptive Testing System for Diagnosing Sources of Mathematics Difficulties*. Under the supervision of Drs. John Poggio and Susan Embretson, I worked with a team at Georgia Institute of Technology to carry out key functions associated with the grant.

Center for Educational Testing and Evaluation, Lawrence, KS   2011 – 2012
Graduate Research Assistant
> Member of the team responsible for development, quality assurance, alignment, and timely release of all Kansas summative state assessments, including alternate and accommodated forms.

Colegio Menor, Cumbaya, Ecuador   2010 – 2011
Seventh Grade Math Teacher
> Taught four classes with a total of 79 seventh graders. Engaged with students in project-based learning. Maintained open and effective communication with Spanish-speaking parents about student learning and progress.

PUBLICATIONS

Buckley, K., & **Lyons, S**. (*in development*). Teacher and leader perceptions of student learning objectives.

Dadey, N., **Lyons, S.,** & DePascale, C. (2018). Score comparability across computerized assessment delivery devices. *Applied Measurement in Education, 31*(1), 30-50.

Lyons, S., & Evans, C. (2017*).* Evaluating comparability in the scoring of performance assessments for accountability purposes. *Voices in Urban Education, 46.*

Lyons, S., & Qiu, Y. (2017). Voices from the field: Performance assessments in state accountability as discussed at CCSSO's National Conference on Student Assessment. *Voices in Urban Education.*

Evans, C., & **Lyons, S.** (2017). Comparability in innovative assessment systems for state accountability. *Educational Measurement: Issues and Practice, 36*(3), 24-34.

Lyons, S., & Dadey, N. (2017). *Considering English language proficiency within systems of accountability under the Every Student Succeeds Act*. National Center for the Improvement of Educational Assessment: Dover, NH.

Marion, S., & **Lyons, S.** (2016). *In Search of Unicorns: Conceptualizing and validating the "Fifth Indicator" in ESSA accountability systems.* National Center for the Improvement of Educational Assessment: Dover, NH.

Lyons, S. & Marion, S. F. (2016). *Comparability options for states applying for the Innovative Assessment and Accountability Demonstration Authority: Comments submitted to the United States Department of Education regarding proposed ESSA regulations.* National Center for the Improvement of Educational Assessment: Dover, NH.

Marion, S. M., **Lyons, S.**, D'Brot, J. (2016). *Developing a theory of action to support high quality accountability system design.* National Center for the Improvement of Educational Assessment: Dover, NH.

Lyons, S., Marion, S.F., Pace, L., & Williams, M. (2016). *Addressing accountability issues including comparability in the design and implementation of an innovative assessment and accountability system.* www.innnovativeassessments.org

Thompson, J., **Lyons, S.**, Marion, S. F., & Pace, L. (2016). *Supporting educators and students through implementation of an innovative assessment and accountability system.* www.innovativeassessments.org

Thompson, J., **Lyons, S.**, Marion, S.F., Pace, L., & Williams, M. (2016). *Ensuring and evaluating assessment quality for innovative assessment and accountability systems.* www.innnovativeassessments.org

Marion, S.F., Pace, L., Williams, M., & **Lyons, S.** (2016). *Project narrative: Creating a state vision to support the design and implementation of an innovative assessment and accountability system.* www.innovativeassessments.org

Lyons, S., & Hall, E. (2016). *The role of the Standards for Educational and Psychological Testing in establishing a methodology to support the evaluation of assessment quality.* National Center for the Improvement of Educational Assessment: Dover, NH.

Hall, E. & **Lyons, S.** (2016). *A guide to evaluating college- and career-ready assessments: Focus on test characteristics – Evaluation methodology.* National Center for the Improvement of Educational Assessment: Dover, NH.

Hall, E. & **Lyons, S.** (2016). *A guide to evaluating college- and career-ready assessments: Focus on test characteristics – Criteria evaluation framework*. National Center for the Improvement of Educational Assessment: Dover, NH.

Whetstone, P., **Gillmor, S.**, & Schuster, J. (2015). Effects of a metacognitive social skills intervention in a rural setting with at-risk adolescents. *Rural Special Education Quarterly*, *34*(2).

Gillmor, S., Poggio, J., & Embretson, S. (2015). Effects of reducing cognitive load of mathematics test items on student performance. *Numeracy, 8*(1), 4.

Gillmor, S., & Rabinowicz, S. (2013). Understanding geometry and measurement through service-learning. *Mathematics Teaching in the Middle School*, *19*(1), 55-58.

Seider, S., Rabinowicz, S., & **Gillmor, S.** (2012). Differential outcomes for American college students engaged in community service learning involving youth and adults. *Journal of Experiential Education*, *35*(3), 447-463.

Seider, S., **Gillmor, S.**, & Rabinowicz, S. (2012). The impact of community service learning upon the expected political voice of participating college students. *Journal of Adolescent Research, 27*(1), 44-77.

Seider, S., Rabinowicz, S., & **Gillmor. S.** (2011). The impact of philosophy and theology service-learning experiences upon the public service motivation of participating college students. *Journal of Higher Education*, *82*(5), 597-628.

Seider, S., **Gillmor, S.**, & Rabinowicz, S. (2011). The impact of community service learning upon the worldviews of business majors vs. non-business majors at an American university. *Journal of Business Ethics*, *98*(3), 458-504.

Seider, S., Gillmor**, S.**, & Rabinowicz, S. (2010). Complicating college students' conception of the American Dream through community service learning. *Michigan Journal of Community Service Learning*, *17*(1), 5-19.

Seider, S., Rabinowicz, S., & **Gillmor, S**. (2010). Community service learning and conceptions of poverty among American college students. *Analyses of Social Issues & Public Policy*, *10* (1) 215-236.

Seider, S., **Gillmor, S.**, Leavitt, J., & Rabinowicz, S. (2009). Puzzling over community service and reflection. *Journal of College & Character*, 10 (7), 1-8.

INVITED PRESENTATIONS

D'Brot, J., & **Lyons, S.** (2017, May). *Identification and exit criteria for CSI and TSI schools.* Presentation as part of CCSSO's Learning from Our Peers: Webinar Mini-Series.

Lyons, S., & Buckley, K. (2017, April). *Re-imagining school accountability under ESSA: Opportunities and challenges for evaluating school quality and student success.* Pre-conference professional development and training course, hosted by AERA Division H, provided at the annual conference of the American Educational Research Association, San Antonio, TX.

Pompa, D., & **Lyons, S.** (2017, March). *Strategic opportunities for including English learners in ESSA state accountability plans.* Webinar hosted by the National Center on Immigrant Integration Policy of the Migration Policy Institute.

Lyons, S. (2017, February). *Incorporating English language proficiency into systems of accountability.* Paper presented at the Convening on Accountability and English Learners hosted by the Latino Policy Forum, Chicago, IL.

Lyons, S., & Patelis, T. (2016, October). *Keeping a watchful eye on new assessment models.* Presentation at the High Quality Assessment Project meeting on Improving Partnerships to Support High Quality Assessments, New Orleans, LA.

Lyons, S. (2016, October). *Developing a theory of action for an innovative assessment system.* Presentation at the Innovative Assessment Convening hosted by Remake Learning, Pittsburg, PA.

Marion, S., & **Lyons, S.** (2016, July). *Comparability by design in the innovative assessment and accountability pilot.* Paper presented at CCSSO's Innovative Assessment and Accountability Technical Assistance Meeting, Denver, CO.

Lyons, S., & Anderson, J. (2016, June). *Flexibility and comparability within a system.* Workshop presented at CCSSO's ESSA Accountability Systems Technical Assistance Meeting, Tempe, AZ.

Marion, S., & **Lyons, S.** (2016, May). *What's in an item?* Presentation for the Education Writers' Association National Seminar, Boston, MA.

CONFERENCE PRESENTATIONS

Lyons, S. (2017, June). *Formative evaluation of New Hampshire's Performance Assessment of Competency Education (PACE).* Paper presented as part of a symposium at CCSSO's National Conference on Student Assessment, Austin, TX.

Lyons, S., & Marion, S. (2017, June). *Comparability options for states applying for the Innovative Assessment and Accountability Demonstration Authority.* Symposium presented at CCSSO's National Conference on Student Assessment, Austin, TX.

Lyons, S. (2017, April). *Considerations for maintaining equity within an Innovative Assessment and Accountability Demonstration Authority.* Paper presented as part of a symposium entitled "Flexible K-12 Assessments Afforded by ESSA: Psychometric Possibilities and Case Studies" at the annual meeting of the National Council on Measurement in Education, San Antonio, TX.

Lyons, S. (2017, April). *Teacher and leader perceptions of student learning objectives: A case study of implementation in one state.* Paper presented as part of a symposium entitled "Student Learning Objectives and the Challenge of Campbell's Law" at the annual meeting of the National Council on Measurement in Education, San Antonio, TX.

Lyons, S., & Evans, C. (2017, April). *Application of generalizability theory to classroom assessments in a school accountability context.* Paper presented at the annual meeting of the National Council on Measurement in Education, San Antonio, TX.

Lyons, S., & Hall, E. (2016, September). *Evaluating assessment quality: Transitioning from summative to interim.* Presentation at the 18th Annual Reidy Interactive Lecture Series, Portsmouth, NH.

Marion, S., **Lyons, S.**, & Thompson, J. (2016, June). *First in the nation: New Hampshire's leading edge assessment and school accountability pilot*. Symposium presented at CCSSO's National Conference on Student Assessment, Philadelphia, PA.

Thompson, J., Simaska, D., & **Lyons, S.** (2016, June). *Text Dependent Analysis: Building teacher capacity to instruct for a new item type*. Symposium presented at CCSSO's National Conference on Student Assessment, Philadelphia, PA.

Lyons, S. (2016, April). *Investigating the technical quality of reported scores.* Paper presented as part of symposium entitled "Beyond the Bubble Test: A Progress Report on Year One of New Hampshire's Performance Assessment of Competency Education Pilot Accountability Project" at the annual meeting of the New England Educational Research Organization, Portsmouth, NH.

Lyons, S., Hall, E., & Patelis, T. (2016, April). *Using the standards to support assessment quality evaluation.* Paper presented at the annual meeting of the National Council on Measurement in Education, Washington, D.C.

Evans, C., & **Lyons, S.** (2016, April). Comparability in balanced assessment systems for state accountability. Paper presented as part of symposium entitled "Advances in Balanced Assessment Systems: Conceptual framework, informational analysis, application to accountability" at the annual meeting of the National Council on Measurement in Education, Washington, D.C.

Buckley, K., & **Lyons, S**. (2016, April). *Teacher and leader perceptions of and engagement with student learning objectives in one state.* Paper presented at the annual conference of the American Educational Research Association, Washington, D.C.

Lyons, S., & Buckley, K. (2015, October). *Perceptions of student learning objectives: Lessons learned from data meeting observations.* Paper presented at the annual conference of the Northeastern Educational Research Association, Trumbull, CT.

Evans, C., & **Lyons, S.** (2015, September). *Quality control across political boundaries.* Presentation at the 17th Annual Reidy Interactive Lecture Series, Boston, MA.

Patelis, T., Gong, B., Hall, E. & **Gillmor, S**. (2015, June). *Evaluating the quality of assessments.* Symposium presented at CCSSO's National Conference on Student Assessment, San Diego, CA.

Gillmor, S., Betebenner, D., & Marion, S. (2015, April). *The effect of summer learning loss on annual estimates of* student *growth for teacher evaluation.* Paper presented at the annual meeting of the New England Educational Research Organization, Portsmouth, NH.

Hall, E., **Gillmor, S.**, Gong, B., Hess, K., Marion, S., & Patelis, T. (2015, April). *Assessment quality related to college and career readiness assessments.* Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, IL.

Poggio, J., **Gillmor, S.**, Sipahi, R., & Jiang, Z. (2015, April). *An error analysis examining international assessments and resulting country equivalence.* Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, IL.

Gillmor, S., & Skorupski, W. (2014, April). *Comparing the estimates of teacher effects using VAMs and SGPs*. Paper presented at the Cognition and Assessment Special Interest Group Business Meeting, Philadelphia, PA.

Gillmor, S., Poggio, J., & Embretson, S. (2014, April). *Effects of reducing the cognitive load of mathematics items on student performance.* Paper presented at the annual conference of the American Educational Research Association, Philadelphia, PA.

Gillmor, S., Poggio, J., Longabach, T. & Papanastasiou, E. (2014, April). *A new threat to validity: An examination of cultural discrepancies in omission rates on international assessments.* Paper presented at the annual conference of the American Educational Research Association, Philadelphia, PA.

McJunkin, L., Poggio, J., & **Gillmor, S.** (2014, April) *Construct validity and fairness of technology-enhanced items for visually-impaired students.* Paper presented at the annual meeting of the National Council on Measurement in Education, Philadelphia, PA.

Gillmor, S., & Carter, K. (2013, October). *Improving the usability of the concerns-based adoption model: Validation of a revised diagnostic tool for measuring levels of use.* Paper presented at the annual conference of the American Evaluation Association, Washington, DC.

Poggio, J., **Gillmor, S.**, & Poggio, A. (2013, April). *A formative assessment tutorial model in mathematics.* Paper presented at the annual meeting of the National Council for Measurement in Education, San Francisco, CA.

Rabinowicz, S., & **Gillmor, S.** (2013, March). *Understanding geometry and measurement through service-learning.* Paper presented at the annual National Service-Learning Conference, Denver, CO.

Carter, K., & **Gillmor, S.** (2013, March). *The influence of achievement on specific reading indicators on achievement in overall math and specific math indicators.* Poster presented at the University of Kansas' Annual Capitol Graduate Research Summit, Lawrence, KS.

Whetstone, P., **Gillmor, S.** & Schuster, J. (2013, February). *Social skills change student behavior.* Paper presented at the annual conference for the Learning Disabilities Association of America, San Antonio, TX.

Seider, S., **Gillmor, S.**, & Rabinowicz, S. (2010, June). *Differential outcomes for American college students engaged in community service learning involving youth and adults.* Paper presented at The Future of Community Engagement in Higher Education conference, Boston, MA.

PROFESSIONAL AFFILIATIONS

American Educational Research Association—*Division D: Measurement and Research Methodology*
National Council for Measurement in Education
New England Educational Research Organization
Northeastern Educational Research Association

Carla M. Evans

31 Mount Vernon Street, Dover, NH 03820
Phone: 978-473-1482 • E-Mail: cevans@nciea.org

EDUCATION

University of New Hampshire *Durham, NH*	Ph.D. in Assessment, Evaluation & Policy **Dissertation co-chairs**: Suzanne Graham and Todd DeMitchell **Dissertation title:** Can Schools Be Reformed by Reforming Assessment?: Effects of an Innovative Assessment and Accountability System on 8th Grade Student Achievement Outcomes (2014-2016)
Gordon-Conwell Theological Seminary *S. Hamilton, MA*	Master of Divinity (2000-2003), *Magna cum laude*
Gordon College *Wenham, MA*	Bachelor of Science in Elementary Education & Biblical Studies (1996-2000), *Summa cum laude*, *A. J. Gordon Scholar*

WORK EXPERIENCE

2018-present	Postdoctoral fellow with the National Center for the Improvement of Educational Assessment (Center for Assessment)
2015-2018	Consultant with the National Center for the Improvement of Educational Assessment (Center for Assessment)
2000-2009	Fourth and sixth grade classroom teacher and resource room director

PEER-REVIEWED PUBLICATIONS

Lyons, S. & **Evans, C. M.** (2017). Evaluating comparability in the scoring of performance assessments for accountability purposes. *Voices in Urban Education*, 47. http://vue.annenberginstitute.org/issues/47/ evaluating-comparability-scoring-performance-assessments-accountability-purposes

DeMitchell, T. A., **Evans, C. M**., & Graham, S. (2017). Guns, grizzlies, and fences: Security responses in our schools. *Education Law Reporter, 344*(1), 1-17.

Evans, C. M. (2017). The predictive validity and impact of CAEP Standard 3.2: Results from one master's-level teacher preparation program. *Journal of Teacher Education.* First published online http://dx.doi.org/10.1177/0022487117702577

Evans, C. M. & Lyons, S. (2017). Comparability in balanced assessment systems for state accountability. *Educational Measurement: Issues and Practice.* First published online http://dx.doi.org/10.1111/emip.12152

Evans, C. M. & Caines, J. (2016). Value-added assessment of U.S. teacher preparation programs: A critical evaluation. *Assessment in Education: Principles, Policy, & Practice*, 1–21. http://doi.org/10.1080/0969594X.2016.1255180

Reagan, E. M., Schram, T., McCurdy, K., Chang, T., & **Evans, C. M.** (2016). Politics of policy: Assessing the implementation, impact, and evolution of the Performance Assessment for California Teachers (PACT) and edTPA. *Educational Policy Analysis Archives*, *24* (13). http://dx.doi.org/10.14507/epaa.v24.2176

Evans, C. M. (2015). The missing framework: A case for utilizing ethics to evaluate the fairness of educator evaluation systems [Commentary]. *Teachers College Record.* Retrieved from http://www.tcrecord.org

UNDER REVIEW OR IN PREPARATION PUBLICATIONS

Evans, C. M. (under review). Effects of New Hampshire's innovative assessment and accountability system on student achievement outcomes after 3 years.

Evans, C. M., Graham, S., & Lefebvre, M. (under review). Examining the validity and reliability of a principal survey designed to measure competency-based education in K-12 schools.

Evans, C. M., Graham, S., & Lefebvre, M. (under review). Exploring K-12 competency-based education implementation in the Northeast states.

Evans, C. M. & DeMitchell, T. A. (in preparation). Northeast principal perceptions of the barriers, resources, and supports needed to implement K-12 competency-based education.

Evans, C. M. & Lyons, S. (in preparation). Examining the validity and reliability of using local assessment data to produce annual determinations of student proficiency in an innovative assessment and accountability system.

Graham, S., **Evans, C. M**., Fornauf, B., & Erickson, J. (in preparation). Methodological challenges in estimating effects of educational interventions for students with disabilities.

Solomon, H. S., Graham, S. E., **Evans, C. M**., & Chang, T. (in preparation). Self-efficacy, achievement goals, and emotions in high school: Examining the role of the self in motivation for math.

BOOK CHAPTERS

Evans, C. M., Caines, J. & Thompson, W. C. (2016). First, do no harm?: A framework for ethical decision-making in teacher evaluation. In K. K. Hewitt & A. Amrein-Beardsley (Eds.), *Student growth measures in policy and practice: Intended and unintended consequences of high-stakes teacher evaluations* (pp. 169-188). New York, NY: Palgrave Macmillan.

BOOK REVIEWS

DeMitchell, T. A. & **Evans, C. M.** (2016, November 3). Book review of Mark A. Paige's book, Building a Better Teacher: Understanding Value-Added Models in the Law of Teacher Evaluations. *Education Law Reporter, 334*, 660-667.

NON PEER-REVIEWED PUBLICATIONS

Evans, C. M. & Setari, A. P. (2015). *New Hampshire Performance Assessment of Competency Education (PACE) Policy Brief: Feedback from New Hampshire school districts that implemented PACE in 2014-2015.* Dover, NH: National Center for the Improvement of Educational Assessment.

CONFERENCE PRESENTATIONS

Evans, C. M., French, D., & Marland, J. (accepted). *Innovative Assessment and Accountability Systems that Support Continuous Improvement under ESSA: Practical Considerations and Early Research.* Symposia proposal submitted to the National Conference on Student Assessment 2018 annual meeting, San Diego, CA.

Evans, C. M., Graham, S., & Lefebvre, M. (accepted). *Investigating the implementation of K-12 competency-based education in the Northeast states.* Paper proposal submitted to the New England Educational Research Organization 2018 annual meeting, Portsmouth, NH.

Evans, C. M. (accepted). *The effects of an innovative assessment and accountability system on grade 8 student achievement outcomes (2014-2017).* Paper proposal submitted to the American Educational Research Association 2018 annual meeting, New York, NY.

Graham, S., **Evans, C. M.**, Fornauf, B., & Erickson, J. (accepted). *Methodological challenges in estimating effects of educational interventions for students with disabilities.* Paper proposal submitted to the American Educational Research Association 2018 annual meeting, New York, NY.

Evans, C. M. (2017). *Effects of NH's Performance Assessment of Competency Education innovative assessment and accountability system on student achievement (2014-2016).* Paper proposal submitted to the Northeastern Educational Research Association 2017 annual meeting, Trumbull, CT.

Evans, C. M., Solomon, H., Graham, S., & Chang, T. (2017). *Factor structure of a 3 x 2 student achievement goal orientation inventory in math.* Paper proposal submitted to the European Association for Research on Learning and Instruction 2017 biennial conference, Finland.

Evans, C. M. & Lyons, S. (2017). *Application of Generalizability Theory to Classroom Assessments in a School Accountability Context.* Paper presented to the National Council on Measurement in Education 2017 annual meeting, San Antonio, TX.

Solomon, H., Graham, S., **Evans, C. M**., & Chang, T. (2017). *Do self-efficacy and achievement goals (3 x 2 model) predict pride and shame in mathematics?* Paper presented to the American Educational Research Association 2017 annual meeting, San Antonio, TX.

Evans, C. M. (2017). *Effects of New Hampshire's Performance Assessment of Competency Education (PACE) Pilot on 8th Grade Math Student Achievement Outcomes (2014-2016).* Paper presented to the New England Educational Research Organization, Portsmouth, NH.

Evans, C. M. (2016). *Investigating the Commitment, Collaboration, and Capacity of District Leadership and Personnel: Report on Year 1 of the NH PACE Pilot Project.* Paper presented at the annual meeting of the New England Educational Research Organization, Portsmouth, NH.

Evans, C. M., Lyons, S. & Marion, S. F. (2016). *Comparability in balanced assessment systems for state accountability.* Paper presented at the annual meeting of the National Council on Measurement in Education, Washington, DC.

Marion, S. F. & **Evans, C. M**. (2016). *Assessment and accountability challenges associated with competency and personalized learning systems.* Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.

Evans, C. M. & Lyons, S. (2015). *Quality control across political boundaries.* Invited presentation for the annual Reidy Interactive Lecture Series, Boston, MA.

Evans, C. M. (2015). *Value-added assessment of U.S. teacher preparation programs: A critical evaluation.* Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT.

Evans, C. M. (2015). *Predictive validity and impact of implementing CAEP standard 3.2: Results from one master's-level teacher preparation program.* Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT.

Evans, C. M. (2015). *Examining policies and reform agendas in teacher education: Historical analysis of the discourses and arguments surrounding performance assessments.* Paper presented at the annual meeting of the New England Educational Research Organization, Portsmouth, NH.

Reagan, E., Schram, T., McCurdy, K., Chang, T., & **Evans, C. M.** (2015). *Politics of policy: Assessing the evolution, implementation, and impact of the PACT and edTPA.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL and the annual meeting of the New England Educational Research Organization, Portsmouth, NH.

Evans, C. M., Caines, J., Thompson, W. C. (2014). *Utilizing social justice theories to evaluate the social consequences of teacher evaluations methodologies.* Paper presented at the annual meeting of the New England Philosophy of Education Society, New Britain, CT.

UNIVERSITY- & SCHOOL-BASED TEACHING EXPERIENCES

Fall 2017	Invited Guest Lecturer for EDUC 973 Policy, Politics, and Planning in Education
Spring & Fall 2016	Instructor EDUC 700/800: Educational Structure and Change • Overall instructor rating = 5.0 out of 5.0 (N=~50)(Ed. Dept. Mean=4.66)
Fall 2016	Invited Guest Lecturer for EDUC 885: Introduction to Assessment
Fall 2015	Invited Guest Lecturer for EDUC 881: Introduction to Statistics

UNIVERSITY-BASED RESEARCH EXPERIENCES

Fall 2014 – 2017	**Graduate Research Assistant** University of New Hampshire (Durham, NH)

HONORS & AWARDS

- Awarded AERA Division H Outstanding Dissertation Award 2018
- Awarded a UNH Dissertation Year Fellowship (2017-2018)
- Nominated and Selected to Participate in the David L. Clark National Graduate Student Research Seminar in Educational Administration and Policy (2017)
- Nominated for UNH Graduate Student Research Award (2016-2017)
- Outstanding Graduate Student Paper awarded by the UNH Education Department (2015)—$500
- Ola E. Haaland Endowment Fund in Education Grant (2015)—$500
- UNH Education Department Small Project Grant for Students (2014, 2017, 2018)—$500/year
- UNH John & H. Irene Peters Professorship Fund Grants (2014-2018)—$800/year
- UNH Education Department Professional Development Fund Grants (2014-2018)—$400/year
- UNH Graduate School Travel Grants (2014-2018)—$400/year

SERVICE TO THE PROFESSION

- Invited blog article on EdPrepMatters related to JTE article
- Invited research presentation to the NH State Board of Education (April 2017)
- Ad hoc reviewer for *The Journal of Teacher Education* and *Educational Measurement: Issues and Practice*
- Invited discussant at the 2016-2018 NEERO annual conferences
- Volunteer reviewer for AERA, NERA, and NEERO conferences (2014-present)
- Founded and facilitated the UNH Education Department PhD Student Seminar (2017-2018)
- Co-planned and facilitated the Educational Research and Practice Lecture Series in the UNH Education Department (2015-2018)
- Organized the keynote panel for the New England Educational Research Organization (NEERO) 2016 Annual Conference along with several colleagues

PROFESSIONAL ASSOCIATIONS

- American Educational Research Association (AERA)
- National Council on Measurement in Education (NCME)
- Northeastern Educational Research Association (NERA)
- New England Educational Research Organization (NEERO)

New Hampshire Learning Initiative

Ellen Hume-Howard

Ellen Hume-Howard

23 New Boston Road, Kingston New Hampshire 03848
603-642-6241
ehumehoward@comcast.net

Professional Profile

- Hold a Certificate of Advanced Graduate Study in Educational Administration, Master's Degree in Education, and Bachelor's Degree in English
- Certified in the State of New Hampshire as a Secondary English teacher and as a Curriculum Administrator

Education

Certificate of Advanced Graduate Study
Educational Administration
Rivier College, 2010

M.S. Education
Curriculum, Instruction, and Assessment
Antioch New England Graduate School , 2000

Bachelor of Arts in English
University of New Hampshire, 1984

Honors

NH School Administrator's Outstanding Service Award 2012

Certifications

New Hampshire, English Education. 1987

New Hampshire, Curriculum Administrator, 2009

Employment

Professional Development in Education

- **Executive Director New Hampshire Learning Initiative, August 2017 to present**
- Director of Curriculum, Sanborn Regional School District, **July 2006 to June 2017**
- ELA Lead for the NHDOE PACE Project 2014 to present
- Director of Curriculum for the NHDOE PACE Project **2016 to present**
- Adjunct Professor, Education Department, Rivier College **2012 to present**
- Curriculum Coordinator K-8, Sanborn Regional School District , **July 2003 to 2006**
- Assessment Coordinator, Sanborn Regional School District **2000- to present**
- English Teacher, Sanborn Regional Middle School , **July 1985-2003**

Professional Experiences

Executive Director

- Perform all functions of executive director; to support and align innovative practices in New Hampshire schools.
- Supervise the Task Development for the NH PACE Project.
- Continue to nurture and expand the capacity of NHLI to support and initiative innovative practices in education, create bridges with stakeholders in education, and to be an educational leader in the state.

Curriculum Director

Certified as a Curriculum Administrator:

- Created district curriculum framework and developed multiple curriculum documents with teachers and teams for guiding planning and assessment. Developed and implemented District-wide Spring Writing Prompt and analysis of student writing. Supervised the Title I, Title IIA, and the Title V grants in the district.
- Created and designed the district's competency-based learning documents; competencies, standard; to reflect the aligned work of teachers and national standards.
- Designed the district's assessment schedule and data analysis protocols.
- Planned and monitored professional development for all district professionals. Conducted workshops to address district initiatives and identified areas of need for teaching teams and individual teachers. Designed and facilitated professional development workshops in: Critical Friends, Education By Design(Critical Skills), Professional Learning Communities, Understanding By Design, Root Cause Analysis, Differentiated Instruction, Formative and Summative Assessment, Performance Assessment, Writing Analysis, 6+ Writing Traits, Constructed Response Writing, Writing in Science, Interdisciplinary Units, Rubric Development, Pinnacle Gradebook Curriculum and Instruction, Competency-Based learning, Standards-based Grading and Reporting, Relearn and Enrich Instructional Blocks, NWEA Measures of Academic Progress. Wrote and managed grants that supported district initiatives.

Sanborn District Lead for the NHDOE PACE Project, 2014- present

Coordinated the NHPACE project for the Sanborn Regional School District. Developed district PACE communication plan, district task development support, and supervised local assessment.

NH PACE Curriculum Director, 2016- present

Coordinated and designed the NH PACE Task Development schedule and process. Supported teachers in the design process. Created tools for managing task development.

English Teacher

Certified in Secondary (5-12) English Education:

Planned and instructed eighth grade English course using a wide variety of teaching resources and motivational strategies to engage students in active learning. Planned units of study using Understanding By Design.

Professional Affiliations

New England League of Middle Schools
ASCD
New Hampshire School Administrators Association

Demonstrated Success

Michael Schwartz
Karen Matso

MICHAEL SCHWARTZ
161 WALLIS ROAD, RYE NH 03870
CELL: (603) 548-8898
EMAIL: MIKE.SCHWARTZ@DEMONSTRATEDSUCCESS.COM

Education

University of New Hampshire, Durham, NH
PhD Education - Leadership and Policy, 2014

Harvard University, Cambridge, MA
Masters in Public Administration, 2000

Georgia Institute of Technology, Atlanta, GA
Bachelors in Computer Science, 1989

Professional Background

Demonstrated Success, Rye, NH (2015-present)
Community & School Partners, Rye, NH (2002-present)
New Hampshire Department of Education, Concord, NH
- Lead development of Educator Evaluation System and related Processes
- Support of PACE (Performance Assessment of Competency Education) Initiative
    - Lead efforts for data collection and exchange
    - Provided school support
- Providing support and guidance for SLDS grant.
    - Provide oversight for grant outcomes.
    - Developed Learning Paths (on-line courses) as part of professional development offerings.
    - Help lead effort to implement NH Networks – an on-line social network.
- Leading i.4.see initiative – Initiative for School Empowerment and Excellence
    - Co-directing effort to implement data driven decision system to help district and school educators use data to inform instruction.
    - Leading effort to implement state-wide effort to collect student level data
    - Solution includes high degree of data validation and verification
    - Solution includes components from data definition and collection to data use and analysis
    - Co-directing effort to build education research group of NH state-wide researchers.
    - Working with legislators and DOE cabinet to create support and integrate within agency
    - Assisting efforts to expand P-12 student level collection to include early childhood and postsecondary institutions.
- Providing guidance in recruitment and licensing of educators

- Assisting with development of new Education Information System including NCLB requirements, as well as, teacher and course information.

Massachusetts Department of Education, Malden, MA (200-2002)
Consultant
- Lead role reviewing and implementing Certification Regulations
    - Organized and performed regulation reviews.
    - Led proposal effort and secured multi-million dollar grant for on-line educator certification and recruitment system.
    - Directed efforts of a $2.6 million system to recruit and certify educators as well as approve educator preparation programs. This program received the national NASCIO award for Government to Citizen programs.
- Led efforts to promote educator programs and recruit prospective educators.
    - Led efforts to leverage technology to attract, recruit and retain the best educators in Massachusetts.
    - Improved program application process to select best and brightest prospective educators into select programs.
    - Recruited prospective educators from universities across the country and promoted alternative certification programs.
- Led efforts to uncover marketing mechanisms to recruit educators.
    - Compiled program brochure to market state incentive and support programs for educators.
    - Leveraged internet to reach out to prospective and current educators.

Accenture, Atlanta, GA and Boston, MA (1989-2000)
Strategy and Technology Consultant
- Defined management and development procedures for internal operations.
    - Helped develop new implementation methodology and led team to rollout new methodology as part of a global deployment reaching 8,000 people and directing $1.5 billion in revenue.
    - Worked with executives across Europe, Asia-Pacific and South America to implement new methodology.
    - Developed corporate policies and incentives to assist in the acquisition of the new methods.
    - Lead manager of team implementing continuous improvement study to improve policies and procedures.
    - Recommendations directed the work of 60,000 employees on client engagements in 45 countries.
- Managed and led team efforts in a variety of environments.
    - Managed teams of more than 30, aligning team efforts for common vision.
    - Throughout many management efforts, maintained a continuous focus on quality improvements.
    - Emphasized team dynamics: encouraged sharing of knowledge, focused on both individual and team goals, and developed mentoring program to accelerate skill development.
    - Nominated for Mentor of the Year and received award for Recruiter of the Year.
- Led many strategy and technology change programs.

- o Worked with senior managers from Fortune 100 clients providing expertise to series of strategy and technology development initiatives (clients included Delta Air Lines, International Paper, Georgia Pacific, Holiday Inn…)
- o Project recovery: brought into fledgling technology development effort to guide a critical business implementation.
- o Programs included such activities as managing teams of more than 30, delivering complex technology implementation, leading change management activities and delivering processing changes providing over $5 million in benefits.

IBM Advanced Education Systems, Atlanta, GA (1986-1988)
Education Technology Representative
- Worked on team marketing educational and literacy products. Developed customer relationship management system. Products were early generation of interactive video used for a variety of training environments from physician education to inmate literacy programs.

Other Related Experience
- Member and Chairperson, Rye School Board
- Leadership for New Hampshire
- Rye Education Foundation – Board Member / Grants Committee
- Software Development – All aspects of development from design to programming; from database development to training

KAREN MATSO
31 GOOSEPOINT, KITTERY POINT ME 03905
CELL: (207) 752-2432
KAREN.MATSO@DEMONSTRATEDSUCCESS.COM

Education

University of Southern Maine, Portland Maine
　　Certification Advanced Studies Educational Leadership

MS. Ed., Bank Street College. New York, NY. Special Ed. Concentration, 1997

MSW., Columbia University, New York, NY, 1997

Teaching Credential, California State University, Dominguez Hills; 1993
　　Licensed to teach in the States of N.H. and ME

BA., Colgate University, Hamilton, NY. English Major, Peace Studies Minor, 1991

Professional Background

Professional Development Director, Demonstrated Success (2014-present)
- Develop and deliver professional development workshops
- Train teams to use data tools
- Facilitate strategic planning sessions
- Provided support & training for PACE (Performance Assessment of Competency Ed.)

Data Collection and Data Use Trainer

New Hampshire Department of Education, Concord, NH (2009-2014)
- Train educators in assessment tools
- Facilitate data and strategic planning meetings
- Train teams in PLC and RTI best practices

Educational Consultant

Southeastern Regional, Educational Service Center (SERESC), Bedford NH (2012-2014)
- Develop and analyze Needs Assessment Surveys
- Present to teams on Common Core Transition
- Facilitate school-based teamwork on Common Core
- Develop Common Core transition plans with administrative teams

Public Consulting Group (PCG), Connecticut (2014)
- Deliver full-day Literacy Common Core Workshops

RTI Coordinator (2010-2012)
- Facilitate grade level PLC's
- Analyze district wide data
- Develop protocols for RTI all levels
- Facilitate RTI leadership teams

Adolescent Literacy Specialist (2005-2009)
Kittery Schools, Kittery, ME
- Trained staff in methods to integrate literacy instruction into content areas
- Trained staff to access and interpret student data
- Conducted school-wide assessment of reading and writing skills
- Provided 1-1 and small group instruction to Middle and High School students

Private Consultant (2004-2005)
Exeter Speech Language and Education Associates, Exeter, NH
- Conducted formal and informal literacy assessments for students, ages 8-17
- Provided diagnostic instruction in reading and writing skills
- Provided instruction in reasoning and meta-cognition

Homeschool Ed-Venture, Kittery, ME
- Researched market and networked to build clientele
- Developed and distributed marketing materials
- Designed and taught yearlong curriculum for High School students
- Designed and taught short literacy courses to students ages 11-17

Special Education Teacher (1996-2001)

Mast Way School, Lee, NH

Barrington Elementary School, Barrington, NH

Mary McDowell Center for Learning, Brooklyn, NY

Regular Education Teacher (1991-1993)

Compton Unified School District, Compton, CA
- Taught bilingual third grade in East Los Angeles.

Social Work Experience

Big Sisters, New York, NY (1995-1996)
- Provided individual and group therapy in school setting.

The Legal Aid Society, Brooklyn, NYn(1994-1995)
- Provided case management and therapeutic services for adolescents and children involved in delinquency and neglect cases.

Specialized Skills

Orton Gillingham and Lindamood Bell Literacy Interventions
Pearson Inform Student Assessment System
Performance Plus Student Assessment System
Excel
Grant Writing

HONORS

Teach For America, Los Angeles, CA.

LETTERS OF COMMITMENT AND SUPPORT FROM COLLABORATING LEAS

Amherst
Bethlehem
Concord
Epping
Haverhill Cooperative
Laconia
Monroe
Newport
Pittsfield
Plymouth
Rochester
Sanborn
Seacoast Charter School
Souhegan Cooperative
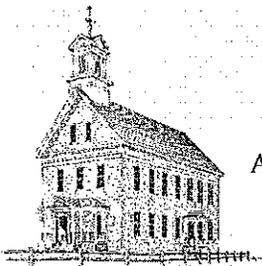
PETER H. WARBURTON
Superintendent of Schools

CHRISTINE M. LANDWEHRLE
Director of Curriculum & Professional Development

ADAM STEEL
Associate Superintendent

MARGARET A. BEAUCHAMP
Director of Special Services

March 23, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 39, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last 4 years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.
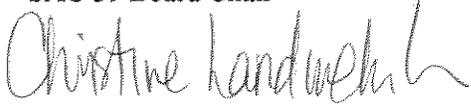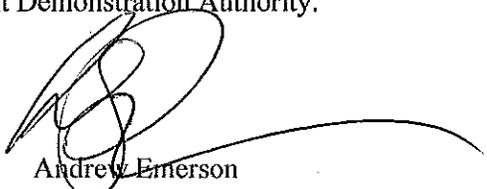
Sincerely,

Peter Warburton
Superintendent

Amy Facey
SAU 39 Board Chair

Andrew Emerson
PPC Chair

Adam Steel
Associate Superintendent

Christine Landwehrle
Director of Curriculum & PD

NH PACE Section 1204 Application: Part 4 Other Attachments

Pierre L. Couture
Superintendent
p.couture@sau35.org

Kristin Franklin
Business Manager
k.franklin@sau35.org

...where excellence links living and learning

(603) 444-3925/3001   260 Cottage Street , Suite C ♦ Littleton, New Hampshire ♦ 03561   FAX (603) 444-6299

March 25, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 35, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last 2 years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.

Equal Opportunity Employer

Sincerely,

Pierre Couture _(signature)_   Superintendent _____

Shelli Roberts _(signature)_   Principal, Bethlehem Elem. School

Terri L. Forsten, *Superintendent*

38 Liberty Street
Concord NH 03301-2934

www.sau8.org
Tel 603.225.0811
Fax 603.226.2187

CONCORD
SCHOOL DISTRICT

Donna E. Palley
Assistant Superintendent

Robert Belmont
Director, Student Services

Jack Dunn
Business Administrator

Larry Prince
Director, Human Resources

Matt Cashman
Director, Facilities & Planning

March 28, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos,

On behalf of the Concord School District, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last 3 years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and using those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful information that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our District leaders strongly support our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.
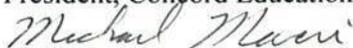
Sincerely,

Terri Forsten
Superintendent

Jennifer Patterson
President, Concord School Board

Michael Macri
President, Concord Education Association

NH PACE Section 1204 Application: Part 4 Other Attachments

School Administrative Unit 14
213 Main Street
Epping, NH 03042

Phone (603) 679-8003
Fax (603) 679-1237
Website www.sau14.org

March 25, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 14, we are writing in support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last five years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been positive. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards competency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons we support the on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.

Sincerely,
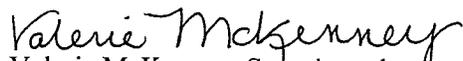
Valerie McKenney, Superintendent
SAU #14, Epping, NH
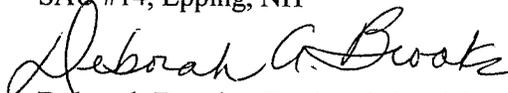
Deborah Brooks, Epping School Board Vice Chair
SAU #14, Epping, NH

March 26, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 23, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last year. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority. We agree that our local education agency will comply with all the requirements of section 1204 if the Every Student Succeeds Act while we participate in the PACE system during the period of the demonstration authority.

Sincerely,

Full Name _Laurie Melanson_   Title _Superintendent_

Full Name _DONALD B. BAGLEY SR_   Title _BOARD CHAIR_

Full Name _Patricia Parsons_   Title _Principal, Warren Village_

Full Name _Teri Woyman_   Title _PTO president_

NH PACE Section 1204 Application: Part 4 Other Attachments

School Administrative Unit # 23

Bath ◊ Benton ◊ Haverhill Cooperative
Piermont ◊ Warren

Laurie Melanson   Nancy Schloss
Superintendent   Director of Special Education

March 26, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU #23, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last 3 years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership team strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority. We agree that our local education agency will comply with all the requirements of section1204 of the *Every Student Succeeds Act* while we participate in the PACE system during the period of the demonstration authority.

Sincerely,

Laurie Melanson
Superintendent of SAU #23

2975 Dartmouth College Hwy.   Suite # 1   No. Haverhill, NH 03774
Tel: 603-787-2113   Fax: 603-787-2118
Email: sau23@sau23.org

LACONIA SCHOOL DISTRICT
School Administrative Unit Thirty

"Ensuring success with every student, every day, in every way"

Brendan F. Minnihan, Superintendent of Schools
Amy N. Hinds, Assistant Superintendent of Schools   **Christine Blouin, Business Administrator**

March 28, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 30, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE Innovative Assessment Program that operated under a waiver from federal statutory requirements related to state annual achievement testing for the 2017-2018 school year at the elementary level. The middle and high are presently PACE Tier II and will become PACE Tier I for the 2019-2020. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.
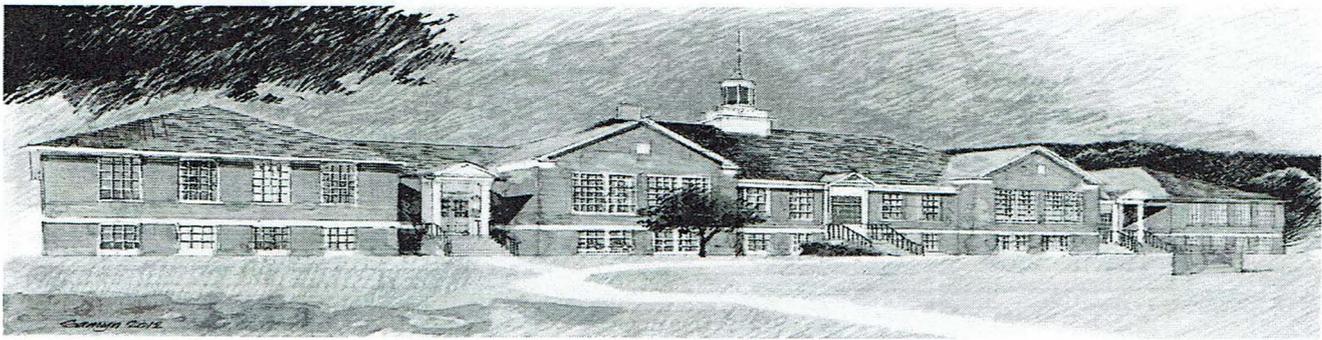
Sincerely,

MALCOLM MURRAY

Malcolm Murray

Full Name _____   Title _____
                                         SCHOOL BOARD CHAIR

Brendan Minnihan

Full Name _____   Title _____
                                         superintendent

Monroe Consolidated School
Monroe School District
School Administrative Unit 77

March 25, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 77, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last 5 years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.
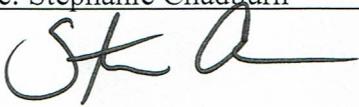
Sincerely,

Full Name: Susan Hodgdon   Title: Superintendent

Susan E. Hodgdon

Full Name: Robert Martin   Title: School Board Chair

Full Name: Stephanie Chadburn   Title: Monroe Education Association President

Full Name: Belinda Smith   Title: PTF President

Newport School District

March 25, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 43, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last year. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our ongoing work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.

Sincerely,

Signature of Superintendent

Full Name

Cynthia Gallagher, Ed. D.
Superintendent

Teresa Taylor
Financial Administrator

Equal Opportunity Employer/Equal Educational Opportunities

SCHOOL ADMINISTRATIVE UNIT #51

23 Oneida Street, Unit 1
Pittsfield, New Hampshire 03263
Phone: (603) 435-5526 • Fax (603) 435-5331

John J. Freeman, Ph.D.
Superintendent of Schools

Pittsfield School District
Strong Community•Strong Schools

March 29, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
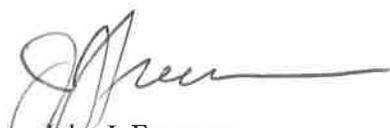New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU #51, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the *Every Student Succeeds Act*. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last three years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive, and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information.

For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.

Sincerely,

John J. Freeman
Superintendent of Schools
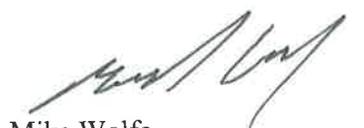
Mike Wolfe
Chair, Pittsfield School Board

March 25, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of Plymouth School District in SAU 48, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. We have seen firsthand how PACE, an innovative assessment system, supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last year. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals, strategic planning, and our vision for a graduate.

Plymouth has been involved in PACE training for three years. The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, Plymouth Education Association, and Parent Teacher Association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.

Sincerely,

Mark Halloran
Superintendent of Schools, SAU 48

Edna Miller
Co-President of Plymouth Education Association

Anna Aprilliano
President of Student Council

Brandon Pike
President of Parent Teacher Association

Educating children to become caring, capable citizens and lifelong learners in a global community.

City of Rochester School Department

Mr. Michael Hopkins
Superintendent of Schools
e-mail: hopkins.m@rochesterschools.com

Mr. Kyle M. Repucci
Assistant Superintendent of Schools
e-mail: repucci.k@rochesterschools.com

Ms. Linda Casey
Business Administrator
e-mail: casey.l@rochesterschools.com

Mrs. Christiane Allison
Director of Student Services
e-mail: allison.c@rochesterschools.com

Office of the Superintendent
150 Wakefield Street
Suite #8
Rochester, NH 03867-1348
(603) 332-3678
FAX: (603) 335-7367

March 25, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of SAU 54, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last 4 years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.

Sincerely,

Michael L. Hopkins   Superintendent

Paul Lynch   School Board Chair

Thomas J Ambrose, C.A.S.

Superintendent
of Schools

Michele Croteau, C.M.A.

Business
Administrator

Michael Turmelle, M.A.

Curriculum
Director

Jodi Gutterman

Student Services
Director

Robert Ficker

Technology
Director

Steven Riley

Facilities
Director

Phone Numbers

Central Office
(603) 642-3688

Fax
(603) 642-7885

Website
www.sau17.org

*Serving the Towns of
Kingston and Newton*

Equal Opportunity
Employer – Equal
Educational
Opportunities

Secretary Betsy DeVos

U.S. Department of Education

Office of Elementary and Secondary Education

Innovative Assessment Demonstration Authority

New Hampshire PACE Application

March 26, 2018

Dear Secretary DeVos:

On behalf of the Sanborn Regional School District, SAU 17, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our SAU has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last four years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our SAU's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our SAU leadership, school board, teachers association, and parent association strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority.

Sincerely,

Thomas J. Ambrose, Superintendent of Schools

Peter Broderick, School Board Chair

Evan Czyzowski, President Sanborn Regional Education Association

Parent Organization, DJ Bakie School

Parent Organization, Memorial School

Parent Organization, SRMS

Parent Organization, SRHS

The mission of the Sanborn Regional School District is to work in partnership with the community to educate all learners in a safe environment. Together we are committed to providing these individuals with opportunities to develop the skills necessary to become responsible citizens who are capable of pursuing knowledge independently and making well-informed decisions.

![seacoast charter school — EDUCATION THROUGH ARTS INTEGRATION]

171 Watson Road
Dover, NH 03820

March 25, 2018

Secretary Betsy DeVos
U.S. Department of Education
Office of Elementary and Secondary Education
Innovative Assessment Demonstration Authority
New Hampshire PACE Application

Dear Secretary DeVos:

On behalf of the Seacoast Charter School, we are writing in full support of New Hampshire's Performance Assessment of Competency Education (PACE) application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. PACE is an innovative assessment system that supports deeper learning for students and powerful organizational change for schools and districts.

Our School has implemented the PACE pilot that operated under a waiver from federal statutory requirements related to state annual achievement testing for the last 4 years. The PACE system has built our local capacity around designing curriculum-embedded, high-quality performance assessments and utilizing those assessments to both assess and promote student achievement. The PACE system also supports more personalized, competency-based education models, which aligns with our Seacoast Charter School's long-term goals and strategic planning.

The feedback we have received from our teachers after participating in the professional development has been overwhelmingly positive and we have witnessed first-hand the benefits of such an innovative system on student engagement and motivation. We believe that the use of high-quality performance assessments fosters the deep application of knowledge and high-order thinking skills. Moreover, the specific and meaningful data that teachers and students receive throughout the year on student progress towards proficiency enables teaching and learning to be adjusted in real-time. This timely information promotes the formative and summative uses of the assessment information. For these reasons, our administration, board of trustees, and entire instructional staff strongly supports our on-going work in the PACE project and NH's application to participate in the Innovative Assessment Demonstration Authority. We agree that our local education agency will comply with all the requirements of section 1204 of the *Every Student Succeeds Act* while we participate in the PACE system during the period of the demonstration authority.

Sincerely,
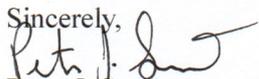
Peter J. Sweet
Head of School

LETTERS OF SUPPORT FROM TECHNICAL AND PROFESSIONAL LEARNING EXPERTS

March 29, 2018

The Honorable Betsy DeVos, Secretary of Education
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202

Dear Secretary DeVos:

I am writing to indicate the full support of the National Center for the Improvement of Educational Assessment (Center for Assessment) for New Hampshire's application to participate in the Innovative Assessment Demonstration Authority under Section 1204 of the Every Student Succeeds Act. New Hampshire is proposing to continue its highly successful Performance Assessment of Competency Education (PACE) initiative. The Center for Assessment has been a key technical partner since the inception of PACE in 2014-2015. This innovative assessment system supports deeper learning for students and powerful curricular and organizational change for schools and districts.

The Center for Assessment is committed to continuing to support New Hampshire's vision for innovative assessment and will provide expertise, technical capacity, and guidance to the New Hampshire Department of Education related to at least the following activities:

- Overall assessment system design and programmatic data collection,
- Task development, scoring and calibration,
- Creation of summative determinations, establishing comparability, and evaluating reliability and validity, and
- Leading key professional learning opportunities and expertise building for participating educators and leaders to help schools effectively implement innovative assessments.

The Center for Assessment has a long history of helping states and school districts design and implement a multitude of assessment and accountability reforms, especially assessment systems designed to promote deeper learning on behalf of students. We are excited about New Hampshire's efforts to dramatically improve student learning and we stand ready to support the state address the technical requirements of the Innovative Assessment Demonstration Authority.

Sincerely,

Scott F. Marion, Ph.D.
Executive Director

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Ellen Hume-Howard, Executive Director
New Hampshire Learning Initiative
One Liberty Lane East, Hampton NH 03842

NH Department of Education
101 Pleasant Street
Concord, NH 03301
Commissioner Frank Edelblut

March 27, 2018

Dear Commissioner

New Hampshire Learning Initiative (NHLI) commits to continuing to seek foundational funding
to support the NH PACE Project, including funds that support the professional development
needs of the districts. NHLI is prepared to support the PACE project in 2018-19 through the
Hewlett grant at $350,000. Additionally, NHLI will be seeking additional grant funds for
$100,000 to help the PACE efforts.

Sincerely,

Ellen Hume-Howard
Executive Director
New Hampshire Learning Initiative