



STUDENT ASSESSMENTS
AND ASSOCIATED GROWTH MODELS FOR
TEACHER AND PRINCIPAL EVALUATION

FORM C

PUBLICLY AVAILABLE SERVICES SUMMARY

This form will be posted on the New York State Education Department's Web site and distributed through other means for all applications that are approved in conjunction with this RFQ to allow districts and BOCES to understand proposed offerings in advance of directly contacting Assessment Providers regarding potential further procurements.

Assessment Provider Information	
Name of Assessment Provider:	NCS Pearson, Inc. (Pearson)
Assessment Provider Contact Information:	Dr. Chris Hammill, National Sales Manager, Classroom Assessments Chris.hammill@pearson.com (813) 825-5484
Name of Assessment:	aimsweb™Plus
Nature of Assessment:	<input type="checkbox"/> ASSESSMENT FOR USE WITH STUDENT LEARNING OBJECTIVES WITH A TARGET SETTING MODEL; OR <input checked="" type="checkbox"/> SUPPLEMENTAL ASSESSMENT WITH AN ASSOCIATED GROWTH MODEL: <input type="checkbox"/> GAIN SCORE MODEL <input type="checkbox"/> GROWTH-TO-PROFICIENCY MODEL <input checked="" type="checkbox"/> STUDENT GROWTH PERCENTILES <input type="checkbox"/> PROJECTION MODELS <input type="checkbox"/> VALUE-ADDED MODELS <input type="checkbox"/> Other:
What are the grade(s) for which the assessment can be used to generate a 0-20 APPR score?	K-8
What are the subject area(s) for which the assessment can be used to generate a 0-20 APPR score?	Reading, Math
What are the technology requirements associated with the assessment?	aimswebPlus is web-based and requires no network or computer-based installation. See the appendix for minimum system requirements and prerequisite items for general use.
Is the assessment available, either for free or through purchase, to other districts or BOCES in New York State?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No

Please provide an overview of the assessment for districts and BOCES. Please include:

- **A description of the assessment;**
- **A description of how the assessment is administered;**
- **A description of how scores are reported (include links to sample reports as appropriate);**
- **A description of how the Assessment Provider supports implementation of the assessment, including any technical assistance. (3 pages max)**

aimswebPlus® is an assessment, reporting, and data-organization system designed to support screening, progress monitoring, and Response to Intervention (RTI). It provides two types of nationally normed assessment instruments to support universal screening and progress monitoring in reading, language arts, and mathematics.

To establish benchmark student performance, aimswebPlus uses both untimed, standards-based measures and timed assessments built on the strong foundation of curriculum-based measurement (CBM) practices. More than 30 years of scientific research shows that using CBM for frequent assessment of basic skills is not only time efficient but also accurately and reliably reflects student progress. Educators can use CBM as part of the assessment of foundational reading and mathematics skills during universal screening. For young students, new CBM measures are offered to further assess early literacy (phonics and phonological awareness) and early numeracy (number sense) skills.

For most students, a battery comprising multiple brief measures is used for universal screening. The CBM measures—validated to represent critical growth indicators of student achievement—take 1–4 minutes to administer. The standards-based measures are designed to measure essential knowledge and skills as efficiently as possible. As a result, in a single class period teachers can obtain comprehensive and accurate information about student and classroom performance in reading and mathematics. Additionally, the multi-measure battery provides composite scores and student and classroom profiles of strengths and weaknesses to tailor instruction to the needs of all students.

Because CBM measures are quick to administer and simple to score, they can be given frequently to provide teachers with continuous student progress data. Results are charted for timely, data-based evaluations. For progress monitoring, aimswebPlus provides 10 or 20 forms of each measure (by grade).

Through universal screening and benchmarking, aimswebPlus identifies and groups students according to risk. Student performance is reported three times per year relative to established cut scores and national or local norms. Progress monitoring enables more frequent assessment to demonstrate growth toward individualized goals and to document response to instructional changes. This scalable solution is cost effective, flexible, and sustainable.

Selected progress-monitoring and screening measures are combined into a composite that is ideal for educator effectiveness systems because it offers a highly valid yet time-effective score.

The aimswebPlus measures for Kindergarten and Grade 1 are individually administered. At grades 2 through 8, all measures are self-administered online in a

group format, except Oral Reading Fluency (grades 2-3), which is individually administered.

Examiners can use digital record forms to administer and score the individually-administered aimswebPlus measures online. Scores are automatically captured, calculated, and uploaded to the aimswebPlus data system. This data capture technology enables on-the-fly administration and scoring for oral response assessments. As the student reads the test and gives oral responses, the administrator simply clicks or taps the student's errors onscreen and the system will score the assessment and upload the results. Reports are available right away.

Digital record forms can be used on personal computers (PC or Mac) or on almost any web-enabled device with a supported browser, including desktop/laptop (PC and Mac), netbook, and tablet (iPad).

If manual options are preferred, the individually-administered aimswebPlus measures can be administered by paper and pencil instead of the digital record form, and results entered into the system. As scores are entered and saved, reports become available immediately through the data system.

The individually-administered assessments are available as PDFs, are easily accessed, and can be viewed and printed within the user interface.

New York educators and students will benefit from multiple features that make aimswebPlus well suited for inclusion as part of an educator effectiveness evaluation system, including the following:

- Its measures are administered at the beginning and end of the year (as well as in the middle of the year) for benchmarking and screening, so aimswebPlus provides empirical growth information spanning the widest possible time interval.
- aimswebPlus has a large national database that provides strong research support for the analysis of growth.
- The measures are time-efficient to administer and score: the progress-monitoring measures take only a few minutes, and the screening measures are relatively brief compared with other screening tests and are self-administered at Grade 2 and above.
- Each measure has equivalent forms in fall, winter, and spring, so growth can be assessed through raw-score change across time.
- aimswebPlus incorporates a rate of improvement (ROI) metric, which is the amount of raw-score growth divided by the number of weeks—that is, the average raw-score increase per week.
- Finally, aimswebPlus has Student Growth Percentiles (SGP) that indicate how a student's ROI compares with the ROIs of students in a national sample who are in the same grade and who started the year at a similar level of performance.

Providing Technical Support. Responsive support from Pearson is included as part of an aimswebPlus subscription (all users). Customers contact support by email - aimswsupport@pearson.com, or by phone - 866-313-6194. When you call this

number, Monday through Friday, you can select one of the following groups for support:

- Technical Support (7 a.m.–6 p.m.)
- Sales (8 a.m.–5 p.m.)
- Training (8 a.m.–5 p.m.)
- Order/Billing inquiries (8 a.m.–5 p.m.)

All time are Central time.

Online resources are available to all users through aimswebPlus accounts.

Additional support is available through our training and consulting services.

aimswebPlus training and consulting services—including onsite, web-based, and other forms of consultation—are organized to provide top-quality ongoing training, coaching, and capacity building. Training materials including user guides are available for all users by download from within the aimswebPlus interface.

Please provide an overview of the student-level growth model or target setting model for SLOs for districts and BOCES, along with how student-level growth scores are aggregated to the create teacher-level scores, and how those teacher-level scores are converted to New York State’s 0-20 metric.

The foundation of the **aimswebPlus** approach to educator effectiveness evaluation is the Student Growth Percentile (SGP). This indicator describes the rate of growth of an individual student relative to the rates of growth shown by same-grade students with similar initial scores in a large, representative national norm sample. Students’ SGPs are aggregated and converted to an Educator Growth Percentile (EGP), which is then converted to a score on the New York State 0-20 metric.

We recommend a minimum of 10 students per educator, each with a minimum of one semester of instruction from that teacher, for calculation of an educator effectiveness rating. A teacher may receive a rating for ELA, for mathematics, or for the combination of the two.

The procedure for converting scores on **aimswebPlus** composites or measures into Student Growth Percentiles and, then, into an Educator Growth Percentile is as follows.

Calculating Student Growth Percentiles

aimswebPlus calculates a rate of improvement (ROI) for each student on each composite or measure by dividing the raw-score change between two benchmark administrations by the actual number of calendar weeks between those administrations. Thus, the ROI is the student’s average amount of raw-score growth per week.

Each student’s ROI is converted to an SGP, which is the percentage of students in a large, representative national norm sample whose ROI is lower than a particular value. For example, if on Oral Reading Fluency a student has a Fall-Spring ROI of 1.05 and an SGP of 35, we know that this student’s ROI is greater than the ROIs of approximately 35 percent of the students in the national norm sample. In other words, this student’s rate of improvement from fall to spring was slower than the national average for his or her peers.

(It is important to note that the **aimswebPlus** SGP is not related to the student growth percentile growth model. Instead, **aimswebPlus** uses a gain score model in which the student takes parallel forms of a test at the beginning and end of the school year—or semester—and the increase in raw score is interpreted normatively.)

There is a separate SGP norm sample for each grade and, within grade, for each of five levels of initial performance (fall benchmark score for fall-winter and fall-spring SGP norms, and winter benchmark score for winter-spring SGP norms). The five levels are percentile ranges of 1-10, 11-25, 26-75, 76-90, and 91-99. Therefore, a student's SGP indicates how that student's rate of growth compares with the growth rates of other students in the same grade who started the year (or semester) at about the same level of performance.

Differentiating the SGP norms by initial level provides a more fair comparison, because rates of improvement tend to differ for students who are relatively high performing or low performing initially. There is a general tendency for ROIs to be relatively low for students who are initially at the lowest level (bottom 10 percent) or the highest level (top 10 percent). Between those ranges, average ROIs tend to be higher, but decline as initial score level increases. The causes of these patterns are not known, but it is plausible that regression to the mean and ceiling effects contribute to the lower ROIs for students with higher initial levels, and that the relatively slow growth of those students with the lowest initial scores reflects factors that contributed to their low initial status.

aimswebPlus SGPs range from 5 to 95 in increments of 10. An SGP of 5 represents the range from the 1st to the 10th percentile; an SGP of 15 includes the 11th to 20th percentiles, and so on. SGPs are reported in increments of 10 because growth measures are difference scores and, as such, are less precise than individual scores. Therefore, a less fine-grained percentile scale is appropriate.

Calculating Educator Growth Percentiles

The average SGP of a teacher's students is a good indicator of educator effectiveness. If a teacher were average in effectiveness, the teacher's students would have a range of SGPs centered near 45 or 55. That is, the teacher's average student would have improved at about the typical rate for students in the national norm sample who started the year at a similar level of performance. This would be true regardless of whether the students as a group were average, high performing, or low performing at the beginning of the year. Students of a highly effective teacher would tend to have higher SGPs, and students of a less-effective teacher would have lower SGPs.

The average SGP of a teacher's students is calculated using a mathematical procedure (z transformation) appropriate for percentiles. This average SGP is then converted to an Educator Growth Percentile (EGP) using norms based on a national sample of teachers for that subject and grade. That is, the EGP indicates the percentage of teachers whose average SGPs were below that of this teacher. EGPs range from 1 to 99. Finally, EGPs are converted to scores on the New York State 0-20 (HEDI) metric using the following lookup table. This conversion system is aligned with the percentage of teachers in each category reported in *2015-16 Growth Model for Educator Evaluation: Technical Report* (AIR, 2016). In the national norm sample of teachers, 8% were in the Highly Effective range, 76% Effective, 10% Developing, and 6% Ineffective.

	Highly Effective			Effective			Developing		Ineffective												
HEDI score	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EGP	98-99	96-97	93-95	68-92	42-67	17-41	12-16	7-11	5.6-6	5.1-5.5	4.6-5	4.1-4.5	3.7-4	3.4-3.6	3.1-3.3	2.6-3	2.1-2.5	1.6-2	1.1-1.5	.6-1	0-.5

Educator effectiveness ratings for principals are found by averaging the HEDI scores of all teachers contributing to the principal's rating, and rounding to the nearest whole number (round .5 up).

New York State Next Generation Assessment Priorities

Please provide detail on how the proposed supplemental assessment I or assessment to be used with SLOs addresses each of the Next Generation Assessment Priorities below.

Characteristics of Good ELA and Math Assessments (only applicable to ELA and math assessments):

The aimswebPlus measures recommended for educator effectiveness evaluation are the measures or combinations of measures that are considered to provide the optimal combination of validity, sensitivity, and time efficiency.

Reading: The recommended aimswebPlus measures or composites are the following:

- **Kindergarten.** The composite of Letter Naming Fluency, Letter Word Sound Fluency, and Phoneme Segmentation is recommended to measure winter-spring growth. For fall-spring growth, Letter Naming Fluency may be used on its own; Letter Word Sound Fluency and Phoneme Segmentation are not part of the standard fall battery because they are difficult for many entering kindergarteners.
- **Grade 1.** Oral Reading Fluency (fall-spring)
- **Grades 2 and 3.** The composite of Oral Reading Fluency, Vocabulary, and Reading Comprehension (fall-spring).
- **Grades 4-8.** The composite of Silent Reading Fluency, Vocabulary, and Reading Comprehension (fall-spring).

The aimswebPlus reading measures for kindergarten do not involve reading text. Letter Naming Fluency assesses automaticity of letter recognition, which is important for the later steps in learning to read. Letter Word Sound Fluency is a new measure with two sections. The first section consists of saying the sounds of letters. In the second section, the student says the sounds of three-letter (CVC) words: first the sound of the initial consonant, then the sound of the vowel-consonant combination, and finally the sound of the entire word. Thus, Letter Word Sound Fluency measures both automaticity of letter-sound production and facility with combining letter sounds. Phoneme Segmentation has been revised, and is no longer a speeded measure (although it is brief); it assesses the student's recognition of the sounds that make up

a spoken word.

Oral Reading Fluency at grade 1 is a new version in which the first 60 words of each passage are highly-decodable words or high-frequency sight words, thus providing appropriate content for students in the fall who may not be ready to read text that is at the end-of-grade level. By providing greater differentiation among students in the fall, this version provides stronger growth measurement from fall to spring.

At grades 2–8, Oral Reading Fluency involves reading two narrative passages for one minute each. These passages were written using the Fry grade-based guidelines for number of syllables and sentences per 100 words. They also were evaluated using a number of readability and complexity measures: Lexile, Fry, Flesch, Powers, Spache, and SMOG. Correlations between the indicators and the grade levels at which the passages are used range from .92 to .97, indicating that the passages are appropriate for their grade levels,

At grades 4–8, Silent Reading Fluency involves reading three narrative passages each of which is presented in segments of about 40-50 words each, with a question following each segment. The passages were written to grade level using the Reading Maturity Metric that takes multiple text features into account including vocabulary level, sentence length, and complexity. The score is the rate of reading the segments with comprehension, which is a growth-sensitive measure of reading proficiency.

Two untimed standards-based measures are given at grades 2 to 8. Reading Comprehension presents students with 6 short reading passages, each accompanied by 4-6 comprehension questions. The reading passages are a mix of literary and informational text and were leveled using the Pearson Reading Maturity Metric that takes multiple text features into account including vocabulary level, sentence length, and complexity. The questions range from literal/recall to higher order thinking skills. The Vocabulary measure requires the student to select the correct synonym for a target word. The target is presented with minimal context so that the student must know the meaning of the word in order to answer correctly.

Math: The recommended measures are the following:

- **Kindergarten.** The composite of Number Naming Fluency, Quantity Total Fluency, and Concepts & Applications.
- **Grade 1.** The composite of Number Comparison Fluency—Pairs, Math Facts Fluency—1 Digit, and Concepts & Applications.
- **Grades 2-8.** The composite of Number Comparison Fluency—Triads, Mental Computation Fluency, and Concepts & Applications.

At kindergarten, Number Naming Fluency assesses automaticity in recognizing numerals from 0 to 20, an important foundation for the next steps in learning mathematics. Quantity Total Fluency measures the ability to enumerate a set of up to ten objects, which is related to number sense. Concepts & Applications at K-1 is a free-response task in which the examiner says a question (about a picture) and the student says the answer; it is an untimed, standards-based measure.

At grade 1, Number Comparison Fluency—Pairs measures automaticity in deciding which of two numbers is greater, an aspect of number sense. Math Facts Fluency—1 Digit assesses automaticity of mentally solving addition and subtraction problems using the numbers 0 through 10.

At grades 2 through 8, Number Comparison Fluency—Triads shows a pair of numbers and asks the student to indicate which one a third number is closer to. This is a measure of number sense. Mental Computation Fluency presents one-step and two-step problems that require mental computation of a math expression. Concepts & Applications is similar to the K-1 version except that it uses multiple-choice items.

<p>Assessments Woven Tightly Into the Curriculum:</p>	<p>aimswebPlus uses a combination of brief curriculum-based measures that focus on automaticity, and untimed standards-based measures that assess a range of reading and math skills. All of the measures are designed for easy integration with classroom instruction. They assess basic skills such as letter naming, math computation, and oral reading fluency.</p> <p>Although the aimswebPlus measures provide information that is useful to teachers, for the purposes of APPR, they must be administered by someone other than the classroom teacher.</p>
<p>Performance Assessment:</p>	<p>All the aimswebPlus reading measures recommended for use in educator effectiveness evaluation at kindergarten and grade 1 are performance based, in that the student generates a response: saying the names of letters, saying the sounds of letters and letter combinations, saying the phonemes that make up a word, or reading a passage aloud.</p> <p>The reading measures recommended for grades 2 and 3 include one performance measure (Oral Reading Fluency) and two multiple-choice measures (Reading Comprehension and Vocabulary). At grades 4–8, where Silent Reading Fluency replaces ORF, all of the recommended measures are multiple choice.</p> <p>Three of the five aimswebPlus math measures recommended for kindergarten and grade 1 are performance based: Number Naming Fluency, Quantity Total Fluency, and Math Facts Fluency—1 Digit. One measure (Concepts & Applications) includes a mix of performance and multiple-response items, and one (Number Comparison Fluency—Pairs) is multiple choice.</p> <p>Two of the three math measures recommended for grades 2–8 (Number Comparison Fluency—Triads and Mental Computation Fluency) are multiple choice, and the third (Concepts & Applications) has a mix of free-response and multiple-choice items.</p>
<p>Efficient Time-Saving Assessments:</p>	<p>aimswebPlus measures are extremely time-efficient; most measures take only one to four minutes to administer. Administration times by measure are included in the Introductory Guide (included with this response); see pp. 13, 18, 23, 26.</p>

<p>Technology:</p>	<p>aimswebPlus measures can be scored immediately, either by the examiner or entirely by computer. The individually administered measures are supported by a digital record form in which the examiner enters item responses on a computer and receives the score when the administration is finished. The measures that use online self-administration are scored immediately.</p>
<p>Degree to which the growth model must differentiate across New York State's four levels of teacher effectiveness (only applicable to supplemental assessments):</p>	<p>As described above, the Educator Growth Percentile converts to all four levels of teacher effectiveness on the New York State scale.</p>



**STUDENT ASSESSMENTS FOR
TEACHER AND PRINCIPAL EVALUATION**

FORM G

**ATTESTATION OF TECHNICAL CRITERIA – SUPPLEMENTAL ASSESSMENTS
WITH CORRESPONDING GROWTH MODELS**

Please read each of the items below and check the corresponding box to ensure the fulfillment of the technical criteria outlined in the Technical Application on “FORM B-2”.

PLEASE SUBMIT ONE “FORM G” FOR EACH APPLICANT. CO-APPLICANTS SHOULD SUBMIT SEPARATE FORMS.

COMPLETE THIS SECTION:

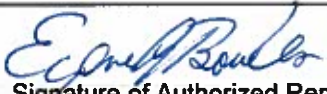
2.2(A) Narrative Overview of Proposed Supplemental Assessment and Associated Growth Model	
This application contains a short overview of the assessment being proposed, including the intended purpose of the assessment, and how the assessment is administered.	<input checked="" type="checkbox"/>
For supplemental assessments, this application contains a description of the growth model and how it is used in conjunction with the assessment.	<input checked="" type="checkbox"/> <input type="checkbox"/> N/A
For K-2 assessments, this application contains evidence that the proposed assessment is consistent with this RFQ’s requirement that the assessment not be a “Traditional Standardized Assessment” as defined above in the section “Definitions of Key Terms Used in this RFQ.”	<input checked="" type="checkbox"/> <input type="checkbox"/> N/A
2.2(B) Evidence of Capability	
This application provides an overview of services provided by the Assessment Provider, including a description of the range of support / technical assistance that the Assessment Provider would provide to an LEA if selected by an LEA for this service.	<input checked="" type="checkbox"/>
This application contains information as to whether the Applicant or Assessment Provider has been denied approval as a provider of assessment services in another state(s) and the reason(s) for such denial. If denied within New York State, the location and reason are indicated.	<input checked="" type="checkbox"/> <input type="checkbox"/> N/A
2.2(C): Evidence of Copyright Owner/Assessment Representative History of Assessment Development	
This application contains evidence that the Copyright Owner/Assessment Representative has a history of developing assessments of student learning (achievement or growth) for the purpose of making defensible judgments about educator effectiveness.	<input checked="" type="checkbox"/> <input type="checkbox"/> N/A

<p>2.2(D)-i: Technical Documentation Related to Assessment and Student Growth Score Properties: RELIABILITY <i>Both “minimum” and “desired” qualifications are listed. For the purposes of this RFQ, applications will only be rated against the “minimum” qualifications; however, NYSED’s aspirational “desired” qualifications are also listed to identify possible future requirements for assessments and associated growth models.</i></p>	
<p>For supplemental assessments used in conjunction with growth models: This application contains evidence of the <i>minimum</i> criteria for reliability:</p> <ul style="list-style-type: none"> • Student test scores have adequate levels of reliability (e.g., coefficient alpha > 0.75). <p>This application contains evidence of the <i>desired</i> criteria for reliability:</p> <ul style="list-style-type: none"> • Standard errors provided for students growth scores. • Student growth classifications have adequate decision consistency. • Teacher effectiveness classifications demonstrate adequate consistency. <p><i>Examples include agreement statistics (e.g., kappa coefficients) based on simulation studies.</i></p>	<p>Check all that apply:</p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>2.2(D)-ii: Technical Documentation Related to Assessment and Student Growth Score Properties: VALIDITY – ALIGNMENT <i>Both “minimum” and “desired” qualifications are listed. For the purposes of this RFQ, applications will only be rated against the “minimum” qualifications; however, NYSED’s aspirational “desired” qualifications are also listed to identify possible future requirements for assessments and associated growth models.</i></p>	
<p>For supplemental assessments used in conjunction with growth models: This application contains evidence of the <i>minimum</i> criteria for alignment validity:</p> <ul style="list-style-type: none"> • Evidence that test content is sufficiently aligned with New York State Learning Standards and covers a range of measurable standards. Documentation that demonstrates that: <ul style="list-style-type: none"> (a) at least 80% of the test measures content aligned with NYS learning standards, (b) no more than 20% of test content is aligned with other learning standards or objectives, and (c) a range of content from the NYS learning standards is measured <p><i>Note: Other relevant standards can be proposed if NYS Learning Standards do not apply to subject area.</i></p> <p>This application contains evidence of the <i>desired</i> criteria for alignment validity:</p> <ul style="list-style-type: none"> • 100% alignment between NYS Learning Standards and assessment. 	<p>Check all that apply:</p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>2.2(D)-iii: Technical Documentation Related to Assessment and Student Growth Score Properties: VALIDITY – RELATIONS TO OTHER VARIABLES <i>Both “minimum” and “desired” qualifications are listed. For the purposes of this RFQ, applications will only be rated against the “minimum” qualifications; however, NYSED’s aspirational “desired” qualifications are also listed to identify possible future requirements for assessments and associated growth models.</i></p>	
<p>For supplemental assessments used in conjunction with growth models: This application contains evidence of the <i>minimum</i> criteria for validity in relation to other variables:</p> <ul style="list-style-type: none"> • Evidence students’ growth scores are correlated with other measures of student progress (e.g., $r > .5$ with measures such as the number of objectives mastered by a student over the course of the year, teachers’ ratings of 	<p>Check all that apply:</p>

<p>students' progress, or scores from other assessments).</p> <p>This application contains evidence of the <i>desired</i> criteria for validity in relation to other variables:</p> <ul style="list-style-type: none"> Evidence teacher effectiveness ratings are positively correlated (e.g., $r > .5$) with other measures of teaching effectiveness. 	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>2.2(D)-iv: Technical Documentation Related to Assessment and Student Growth Score Properties: VALIDITY – INTERNAL STRUCTURE <i>Both "minimum" and "desired" qualifications are listed. For the purposes of this RFQ, applications will only be rated against the "minimum" qualifications; however, NYSED's aspirational "desired" qualifications are also listed to identify possible future requirements for assessments and associated growth models.</i></p>	
<p>For supplemental assessments used in conjunction with growth models: This application contains evidence of the <i>minimum</i> criteria for validity of internal structure:</p> <ul style="list-style-type: none"> Scale properties appropriate for growth model used (*see notes*). Total scores and subscores on student assessments should be supported by dimensionality analyses (e.g., IRT residual analyses, factor analyses). <p>This application contains evidence of the <i>desired</i> criteria for validity of internal structure:</p> <ul style="list-style-type: none"> Evidence students' scores are on an interval scale. <p><i>*Notes: If gain score model is used, evidence is needed that students' pretest and posttest scores are on the same scale. If student growth percentile model used, justification for the number of years included in the model should be provided. If growth-to-proficiency, projection, or value-added models are used, evidence is needed that the model explains a significant amount of variability in student achievement. Also, models should demonstrate robustness to missing data.</i></p>	<p>Check all that apply:</p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>2.2(D)-v: Technical Documentation Related to Assessment and Student Growth Score Properties: UTILITY AND COMPREHENSIBILITY <i>Both "minimum" and "desired" qualifications are listed. For the purposes of this RFQ, applications will only be rated against the "minimum" qualifications; however, NYSED's aspirational "desired" qualifications are also listed to identify possible future requirements for assessments and associated growth models.</i></p>	
<p>For supplemental assessments used in conjunction with growth models: This application contains evidence of the <i>minimum</i> criteria for utility and comprehensibility:</p> <ul style="list-style-type: none"> Technical documentation that describes how student growth and educator effectiveness are calculated. <p>This application contains evidence of the <i>desired</i> criteria for utility and comprehensibility:</p> <ul style="list-style-type: none"> Student growth reports support instructional improvement. Resources and supporting materials available to the field. 	<p>Check all that apply:</p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>
<p>2.2(E)-i: Technical Documentation Related to Aggregating Student-Level Growth Scores to Teacher-Level Scores: CREATION OF TEACHER LEVEL SCORES</p>	
<p>For supplemental assessments used in conjunction with growth models: This application includes a narrative description of how student-level scores are aggregated to create a single teacher-level score for each teacher.</p>	<p><input checked="" type="checkbox"/> <input type="checkbox"/> N/A</p>

2.2(E)-ii: Technical Documentation Related to Aggregating Student-Level Growth Scores to Teacher-Level Scores: EXCLUSION RULES	
<p>This application includes a description of any exclusion rules that remove students associated with a given teacher from the teacher’s teacher-level score (either through a growth model or in conjunction with an SLO).</p>	<p><input type="checkbox"/> <input checked="" type="checkbox"/> N/A</p>
2.2(F): Technical Documentation Related to Converting Teacher-Level Growth Score to New York State’s 0-20 APPR Scale	
<p>This application includes a crosswalk that maps scores on the assessment’s aggregated teacher-level growth score to the required New York State teacher and principal evaluation metric, which ranges from 0-20.</p> <p>This application includes procedures for converting teacher-level growth scores to the 0-20 APPR scale comply with the New York Standards for each evaluation rating category, which are based on the following definitions.</p> <p>For supplemental assessments used in conjunction with growth models: This application includes an explanation of the assignment of HEDI rating categories based on the following ranges:</p> <ul style="list-style-type: none"> • <u>Highly Effective</u>: results are well-above State average* for similar students • <u>Effective</u>: results meet State average* for similar students • <u>Developing</u>: results are below State average* for similar students • <u>Ineffective</u>: Results are well-below State average* for similar students 	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> N/A</p>
2.2(G)-i: Technical Documentation Related to Fairness: TEST TAKERS	
<p>Consistent with the new Testing Standards (2014), there is an increased focus in the industry on fairness of assessments and their uses. Please provide evidence of fairness for both the proposed assessment and, if applicable, the proposed growth model.</p>	
<p>This application includes evidence that the proposed assessments are fair to all test takers (e.g., Differential Item Functioning [DIF] / bias information, fairness evaluation / sensitivity review plan.)</p>	<p><input checked="" type="checkbox"/></p>
2.2(G)-ii: Technical Documentation Related to Fairness: TEACHER GROWTH SCORES	
<p>This application includes evidence of fairness of the proposed aggregated teacher growth scores (e.g., lack of correlation between aggregated teacher growth scores and student demographics).</p> <p>The evidence of fairness of the proposed aggregated teacher growth scores includes an explanation of how the growth model incorporates (a) prior academic history, (b) poverty, (c) students with disabilities, and (d) English language learners.</p>	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> N/A</p>

To be completed by the Copyright Owner/Assessment Representative of the assessment being proposed and, where necessary, the co-applicant LEA:

<p>NCS Pearson, Inc.</p> <p>1. Name of Organization (PLEASE PRINT/TYPE)</p>	 <p>4. Signature of Authorized Representative (PLEASE USE BLUE INK)</p>
<p>Eugene G. Bowles</p> <p>2. Name of Authorized Representative (PLEASE PRINT/TYPE)</p>	<p>5. Date Signed 10/19/17</p>
<p>VP of Global Product Development for Clinical Assessment, a division of NCS Pearson, Inc.</p> <p>3. Title of Authorized Representative (PLEASE PRINT/TYPE)</p>	

<p>1. Name of LEA (PLEASE PRINT/TYPE)</p>	<p>4. Signature of School Representative (PLEASE USE BLUE INK)</p>
<p>2. School Representative's Name (PLEASE PRINT/TYPE)</p>	<p>5. Date Signed</p>
<p>3. Title of School Representative (PLEASE PRINT/TYPE)</p>	