Future Ready PA Index
Technical Appendix

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pennsylvania
DEPARTMENT OF EDUCATION

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OVERVIEW OF THE FUTURE READY PA INDEX DASHBOARD

The Future Ready PA Index is a comprehensive, public-facing school progress report that moves beyond a single, summative score to increase transparency around school and student group performance. A wide range of meaningful, evidence-based indicators, both academic and nonacademic is included.

The Future Ready PA Index is designed to provide clarity around specific indicators, including a subset of indicators that will be used in federal accountability determinations under Pennsylvania's newly approved ESSA Consolidated State Plan.

Each Future Ready PA Index indicator was selected based on extensive feedback from education stakeholders from across the commonwealth, along with careful evaluation of the practices and systems that tie to continuous school improvement.

The Future Ready PA Index will be reported annually, beginning Fall 2018.

The Future Ready PA Index indicators are divided into three main categories, as listed below.

1. State Assessment Measures:
   - Percent Proficient or Advanced on PSSA/PASA/Keystone Exam (English Language Arts/Literature*, Mathematics/Algebra I* , and Science/Biology)
   - Meeting Annual Growth Expectations (PVAAS) (English Language Arts/Literature*, Mathematics/Algebra I*, and Science/Biology)
   - Percent Advanced on PSSA/PASA/Keystone Exam (English Language Arts/Literature, Mathematics/Algebra I, and Science/Biology)
2. On-Track Measures:
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   - Chronic Absenteeism (Regular Attendance)* (NEW Indicator)
   - Early Indicators of Success: Grade 3 Reading/Grade 7 Mathematics (NEW Indicator)
3. College and Career Measures:
   - High School Graduation Rate*
   - Career Standards Benchmark* (NEW Indicator)
   - Industry Based Learning, including Industry Standards-Based Competency Assessments, High Value Industry Recognized Credentials, or Work Based Learning Experiences) (NEW Indicator)
   - Rigorous Courses of Study, including Advanced Placement (AP)/International Baccalaureate (IB)/College Course Offerings, or CTE Career Pathways

- Post-Secondary Transition to School, Military, or Work (NEW Indicator)

*Indicators required for ESSA accountability (annual meaningful differentiation) and identification of schools in need of improvement. For these indicators, PDE will utilize two years of data to ensure the strongest possible evidence for school improvement designations.

Statewide Assessment Measures

Statewide Assessment Measures include:

- **Percent Proficient or Advanced on PSSA/PASA/Keystone Exam** (**English Language Arts/Literature**, **Mathematics/Algebra I**, and Science/Biology)
- **Meeting Annual Growth Expectations (PVAAS)** (**English Language Arts/Literature, Mathematics/Algebra I,** and Science/Biology)
- Percent Advanced on PSSA/PASA//Keystone Exam (English Language Arts/Literature, Mathematics/Algebra I, and Science/Biology)

Indicators listed in bold above will be utilized in federal accountability determinations.

Percent Proficient or Advanced on PSSA/PASA/Keystone Exam (English Language Arts/Literature, Mathematics/Algebra I, and Science/Biology)

This performance measure represents the percentage of all students, enrolled for a full academic year, scoring Proficient or Advanced on the:

- Pennsylvania System of School Assessment (PSSA) in grades 3 through 8;
- Keystone end of course exams (for federal accountability, Pennsylvania reports students' best score to date by 11th grade); and
- Pennsylvania Alternate System of Assessment (PASA) in grades 3 through 8 and 11.

Beginning in 2017-18, federally required provisions for assessment participation may influence proficiency calculations. It is important to note that there will be no change in how proficiency rates are calculated for schools that exceed 95 percent participation; in these cases, proficiency will be calculated based on the performance of tested students only. However, where participation rates fall below

95 percent, each subsequent non-tested student must be designated as non-proficient.

Data sources:
Statewide Assessment Measures uses test results attributed to schools based on DRC grade level accountability results. This will include the performance adjusted file for participation.

Future Ready Statewide Baseline Data:
2-year average derived from 2015-16 and 2016-17 results

Formula (based on the higher of the following):

$$\frac{\text{\# of students listed in the denominator who achieved proficient or advanced on the statewide assessment}}{95\% \text{ of students enrolled in the school on the last day of the respective testing window}}$$

or

$$\frac{\text{\# of students listed in the denominator who achieved proficient or advanced on the statewide assessment}}{\text{\# of test takers among students enrolled in the school on the last day of the respective testing window}}$$

Display Notes:
Once proficiency rates are calculated, performance will be displayed in the context of two targets as required by the state's ESSA Plan:

I. Statewide Interim Target – Under ESSA, every state was required to set long-term goals for student achievement. Pennsylvania's goal is to reduce, by half, the statewide percentage of non-proficient students on state assessments by the end of the 2029-30 school year. This timeline will allow academic planning and programming to support a cohort of students across the full span of their public education experience, from kindergarten through 12th grade. Statewide Interim Targets represent the annual gain required to close these gaps.

II. Individual School Improvement Target – Every school will be assigned an Individual School Target for English Language Arts, Mathematics, and Science, derived from the same calculation as the statewide goal – the

difference between expected 2029-30 school year performance and current performance, divided by the 13 years in between.

The proficiency rates and scoring of the measures will be displayed for the All Student Group as well as the ten student groups.

Meeting Annual Growth Expectations (PVAAS)
(English Language Arts/Literature Mathematics/Algebra I, and Science/Biology)

The Pennsylvania Value-Added Assessment System (PVAAS) is a statistical analysis of Pennsylvania state assessment data and provides Pennsylvania districts and schools with growth data to add to achievement data. This lens of measuring student learning provides educators with valuable information to ensure they are meeting the academic needs of their students. Growth of groups of students is an indicator of the academic performance of a school.

PVAAS answers two basic questions about the performance of a school:

1. Did each group of students make growth in ELA (Grades 4-8), math (Grades 4-8), and science (Grades 4 and 8)?
2. Did each group of students make growth in the Keystone content areas (Algebra I, Literature, and Biology)?

The PVAAS Academic Growth Score presents the school's impact on the change in academic achievement levels of groups of students from year-to-year in each of the state assessed content areas.

Data sources:
Value-added is a statistical analysis used to measure a district or school's influence on the academic growth rates of groups of students from year-to-year. Conceptually and as a simple explanation, a value-added "score" is calculated in the following manner:

- Growth equals Current Achievement (or current results) compared to all Prior Achievement (or prior results); with achievement being measured by quality assessments such as the PSSA and Keystone exams

- The methodology used in Pennsylvania for value-added assessment is based on the EVAAS methodology. More simple models for value-added assessment (unlike SAS EVAAS) may yield results that may be confounded by measurement error and exclude students who have missing data in their assessment history. (Measurement error is related to the tests not the value-added measure.)

- The methodology used by PVAAS is called Education Value-Added Assessment System (EVAAS). Pennsylvania's implementation of EVAAS is called the Pennsylvania Value-Added Assessment System (PVAAS). The EVAAS methodology has been published since 1998 and has been

nationally peer reviewed. Following a pilot from 2002-2005, PVAAS has been implemented statewide in Pennsylvania since 2006.

Details on PVAAS analyses are available at:

https://pvaas.sas.com/support/PVAAS-Technical-Documentation.pdf

Future Ready Statewide Baseline Data:
Baseline Data Not Available

Formula:
The PVAAS Growth Index will be converted to a 50-100-point scale for each of the following state assessed content areas for ALL students and each applicable subgroup (N > 20):

- English Language Arts: PSSA English Language Arts and Keystone Literature
- Math: PSSA Math and Keystone Algebra I
- Science: PSSA Science and Keystone Biology

The calculation of this Indicator is the same as past years, except for a change in the N count to 20 students. For more information on the PVAAS indicator, visit the PVAAS website.

Display Notes: The PVAAS Academic Growth scaled scores and scoring of the measures will be displayed for the All Student Group as well as the ten student groups. Year over year performance, depicted by upward and downward arrows are not available in the first year of the Index.

Percent Advanced on PSSA/PASA/Keystone Exam (English Language Arts/Literature Mathematics/Algebra I, and Science/Biology)

Beyond proficiency calculations, it is important to recognize advanced levels of academic achievement. While not a federal accountability indicator, the Future Ready PA Index will report the percentage of all students scoring Advanced on a state assessment.

This performance measure represents the percentage of all students, enrolled for a full academic year, scoring Advanced on the:

- Pennsylvania System of School Assessment (PSSA) in grades 3 through 8;

- Keystone end of course exams (for federal accountability, Pennsylvania reports students' best score to date by 11th grade); and
- Pennsylvania Alternate System of Assessment (PASA) in grades 3 through 8 and 11.

Data sources:
Statewide Assessment Measures uses test results attributed to schools based on DRC grade level accountability results. This will include the performance adjusted file for participation.

Future Ready Statewide Baseline Data*:*
Informational Indicator- Baseline Data Not Needed

Formula (based on the higher of the following):

$$\frac{\text{\# of students listed in the denominator who achieved advanced on the statewide assessment}}{95\% \text{ of students enrolled in the school on the last day of the respective testing window}}$$

or

$$\frac{\text{\# of students listed in the denominator who achieved advanced on the statewide assessment}}{\text{\# of test takers among students enrolled in the school on the last day of the respective testing window}}$$

Display Notes:
Once proficiency rates are calculated, performance will be displayed. This is an informational indicator, and no scoring will be attached to it.

On-Track Measures

- **English Language Proficiency** (NEW Indicator)
- **Regular Attendance (Chronic Absenteeism)** (NEW Indicator)
- Grade 3 Reading/Grade 7 Mathematics Early Indicators of Success (NEW Indicator)

Indicators listed in bold above will be utilized in federal accountability determinations.

English Language Growth and Attainment

This indicator provides a view of English learner growth toward, and on-time attainment of, English language proficiency as measured by the ACCESS for ELLs. English learners are expected to attain proficiency in English within a time line not to exceed a six-year span; however, this time line can be less depending on initial proficiency level. Performance on this indicator will be calculated and depicted for all schools that meet the minimum student group size of 20 eligible English learners.

Data sources:
English Language Proficiency is based on ACCESS assessment results and attributed based on the March snapshot.

Statewide Long-Term and Interim Targets: Like academic achievement and graduation rate, the ESSA requires states to set long-term and interim targets for English learner proficiency. The State baseline was calculated using 2 years of data: 2015-16 (adjusted for new cut points on WIDA's ACCESS for ELLs assessment) and 2016-17. Pennsylvania's long-term 2030 goal is to reduce, by half, the statewide percentage of English Learners that do not meet their attainment goal each year. Statewide Interim Targets represent the annual gain—across all public schools -required to close these gaps for the All-student group and for each student group.

Individual School Improvement Target: Every school will be assigned an Individual School Target for English Language Proficiency rate, based on the overall state goals set for 2030 and each school's individual baseline ELP rate. After assigning the 2030 goal for each school, yearly individual school interim progress targets were established by dividing the difference between the baseline and the long-term target by the number of remaining years.

Steps to establish and calculate English language proficiency for students and schools:

Step 1: Setting individual student growth targets:
The expectation is that schools meet increasing targets for students making adequate growth toward, and on-time attainment of, English language proficiency.

- ACCESS for ELLs composite scaled scores and composite proficiency levels are used in the calculations
- For all ELs enrolled in the Commonwealth in 2015-2016, school year 2015-16 data was used as the first year to set individual growth and attainment targets
- For students in their baseline year (first year in PA schools), determine attainment target year and attainment target composite scale score. For students past their baseline year, determine interim growth target. In both cases, targets are calculated based on the following table:

Growth Target					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
>4.9 (attained)					
4.0 – 4.9	SS from year 1 subtracted from AT SS divided by 2	SS for 5.0 in the grade of attainment for the EL two years from baseline			
3.0 – 3.9	SS from year 1 subtracted from AT SS divided by 3	SS from year 1 subtracted from AT SS divided by 2	SS for 5.0 in the grade of attainment for the EL three years fr om baseline		
2.0 – 2.9	SS from year 1 subtracted from AT SS divided by 4	SS from year 1 subtracted from AT SS divided by 3	SS from year 1 subtracted from AT SS divided by 2	SS for 5.0 in the grade of attainment for the EL four years from baseline	
1.0 – 1.9	SS from year 1 subtracted from AT SS divided by 5	SS from year 1 subtracted from AT SS divided by 4	SS from year 1 subtracted from AT SS divided by 3	SS from year 1 subtracted from AT SS divided by 2	SS for 5.0 in the grade of attainment for the EL five years from baseline

SS= Scaled Score   AT= Attainment Target

- Individual targets are based on the amount of growth made, and the remaining growth required, to attain proficiency by the target year.
- Individual targets are reset each year.
- Students in their baseline year do not have growth targets and are not included in school calculations.

Step 2: Establishing Statewide 2030 goal and yearly interim targets:
Pennsylvania set the annual statewide goals by identifying the difference between the statewide baseline performance in 2016-2017 and half of the difference between it and 100 percent and then dividing that difference by the number of remaining years between the baseline and 2030. The long-term 2030 goal for local education agencies (LEAs) is the same as the state, but each LEA has its own interim target increases determined by their 2016-2017 baseline. To derive a baseline, the school must have at least 20 full academic year EL students within two of the years used for the baseline calculations.

Step 3: Calculating school performance for EL targets:
PIMS ACCESS for EL's assessment results will be the data source for this indicator.

The process for scoring students in each school is as follows:

- First year baseline students are not included in the calculation.
- Identify students who were enrolled for a full academic year and met their growth target or their target attainment level on or ahead of time. These students will count as 1 in the numerator of the calculation. Students do not count after they exceeded their targeted attainment year.
- Identify those students who did not make their growth target, or did not attain. These students will count as 0 in the numerator.

Future Ready Statewide Baseline Data:
Growth from 2015-16 to 2016-17

Formula:

Number of EL students, enrolled for a full academic year, who met their interim growth target or met their attainment level on or ahead of time.

Number of students who are enrolled for a full academic year and have ACCESS scores from the current and previous school years.

Display Notes:
Performance will be displayed on the Future Ready PA Index to reflect the percentage of students who met their interim growth target or attainment. The English Learner Proficiency Indicator will be measured based on meeting the Statewide Interim Target or the individual school improvement target.

Chronic Absenteeism (Regular Attendance)

Rates of chronic absenteeism will be reported as "Regular Attendance" on the Future Ready PA Index, and will be calculated at the building level, as well as for any group of 20 or more students in a building.

Chronic absenteeism will be calculated based on the number of students who have missed more than 10 percent of school days across the academic year. Students enrolled for fewer than   0 days of school will be excluded from that school's calculation, as there has not been sufficient opportunity for the school to apply intervention strategies.

Consistent with practice in past years, any type of absence is counted – both excused and unexcused absences. Suspensions from school count, as well as excused absences for approved family-sponsored educational trips. Superintendents and CEOs may wish to review attendance policies to affirm current practices of managing extended leaves of absence for approved educational trips.

Data sources:
Chronic Absenteeism (Regular Attendance) uses enrollment and attendance data reported in the Student Calendar Fact template. Students are attributed to a school within the LEA by the location field in the Student template.

Chronic Absenteeism (Regular Attendance) calculations will be derived from existing data collections through PIMS; no new PIMS submissions are required.

Future Ready Statewide Baseline Data:
2016-17

Formula:

$$\frac{\text{Number of students enrolled for 90 or more school days and present}}{\text{Number of students enrolled for 90 or more school days}}$$
90 percent or more of school days

Display Notes:
The Chronic Absenteeism (Regular Attendance) indicator will be measured based on norm-referenced performance standards. Evaluating regular attendance for all public schools during the 2016-17 school year will set performance standards. Performance at the 75th percentile (schools with regular attendance rates that exceed those reported by 75 percent of public schools statewide) will serve as the 2030 statewide goal.

Early Indicators of Success: Grade 3 Reading/Grade 7 Mathematics

This on-track measure reflects research on the relationship between student knowledge and skills in these grades and content areas and future academic success. It is important to note that this indicator does not require additional testing on the part of schools; rather, it is intended to validate, through appropriate public reporting, existing measures, already in place and in use, that can broaden conceptions of student achievement beyond statewide assessment systems.

Data sources:

LEAs will have the option to report data from locally identified assessment systems for Grade 3 Reading/Grade 7 Mathematics Early Indicators of Success. In identifying an assessment system for this measure, LEAs must take basic steps to evaluate the quality and sufficiency of evidence to support the use of the assessment and interpretation of its results. In addition, to ensure comparability and fairness, all students in the grades 3 and 7 cohorts across the LEA must participate in the same assessment.

To further assist LEAs, please review the information shared in the following linked document: Guidance for Evaluating Locally Selected Measures for Use in the Future Ready PA Index for Grade 3 Reading and Grade 7 Mathematics.

Regardless of whether a locally selected assessment is reported for these indicators, all public schools must continue to administer PSSA assessments in English Language Arts and Math in grades 3-8, consistent with ESSA requirements. These PSSA scores and associated growth measures will also be reported via the Future Ready PA Index.

LEAs choosing to use a locally selected assessment are responsible for reporting and uploading individual student data into PIMS to report on-track performance in Grade 3 Reading and/or Grade 7 Mathematics. Data for this requirement will come from the Student Local Assessment Subtest, Row 19 (LEA On/Off Track Indicator), and the Accountability snapshots from the Student and School Enrollment templates.

Locally selected assessments must provide for accessibility features or accommodations that allow it to be used by a minimum of 95 percent of the students in each school. Superintendents/Chief School Administrators will verify the quality of the locally selected assessment and the accuracy of data reported by signing the assurances included with the Accuracy Certification Statement provided during PIMS reporting.

Schools not choosing to use a local assessment will default to PSSA reporting.

Future Ready Statewide Baseline Data:
Informational Indicator- Baseline Data Not Needed

Formula:

$$\frac{\text{Number of Students Who Attain Proficiency on the Assessment}}{\text{Total Number of Full Academic Year Students in Grade 3 or Grade 7}}$$

Display Notes:
PDE will report Grade 3 Reading and Grade 7 Mathematics for all public schools and for any student group of 20 or more students in a building. Results will be reported as a percentage of students who attain proficiency on the assessment. This is an informational indicator, and no scoring will be attached to it.

College and Career Measures

- **Career Standards Benchmark (**NEW Indicator)
- **High School Graduation Rate**
- Industry Based Learning, including Industry Standards-Based Competency Assessments, High Value Industry Recognized Credentials, or Work Based Learning Experiences) (NEW Indicator)
- Rigorous Courses of Study, including Advanced Placement (AP)/International Baccalaureate (IB)/College Course Offerings, or CTE Career Pathways
- Post-Secondary Transition to School, Military, or Work (NEW Indicator)

Indicators listed in bold above will be utilized in federal accountability determinations.

Career Standards Benchmark

Beginning in the 2017-18 school year, PDE will report LEA's calculations of career readiness experiences at the building level, as well as for any student group of 20 or more students, to recognize efforts to ensure that all students have access to career exploration and preparation activities that are standards-aligned and evidence-based.[1] For the 2017-18 school year, school entities will be expected to verify and document that students identified as satisfying career exploration and preparation criteria have submitted at least two pieces of supporting evidence.

[1] Career exploration and preparation activities must be aligned to Pennsylvania State Board of Education- promulgated regulations (22 Pa. Code Chapter 4) establishing the state Academic

Standards for Career Education and Work (CEW standards). The CEW standards address four areas of knowledge: 1. Career Awareness and Preparation (Section 13.1); 2. Career Acquisition (Getting a Job) (Section 13.2); 3. Career Retention and Advancement (Section 13.3); and 4. Entrepreneurship (Section 13.4)

Data sources:
The Student Fact template from PIMS, together with the May 31 student snapshot, will inform calculations provided by LEAs. School entities are responsible for reporting individual student data into PIMS, Field 10, to verify each individual student met the career standard benchmark by the end of grades 5, 8, and 11.

Schools are reminded that during statewide assessment monitoring visits, monitors may request documentation to verify the data reported. Examples of appropriate documentation may include student portfolios and/or graded student artifacts resulting from classroom instruction and records of student data.

PDE has provided a [Guidance Document](#) to assist schools in evidence collection, monitoring, and reporting of career awareness and preparation activities for each grade span. PDE will continue to develop additional resources for access in PDE's Standards Aligned System (SAS) Portal.

For the 2018-19 school year and beyond, school entities must demonstrate that students have met the full continuum of career readiness expectations as defined for each grade span. Specifically, evidence shall be collected in a manner that validates that all four strands of the Career Education and Work standards have been meaningfully addressed. Grade span requirements are as follows:

- By the end of grade 5, the student has produced six or more pieces of evidence accumulated within the 3-5 grade span. In future years, best practice is to produce a minimum of two pieces of evidence in grades 3, 4, and 5.
- By the end of grade 8, the student has produced six additional pieces of evidence beyond the K-5 band evidence. One piece of evidence for the 6-8 grade band must be the student's individualized career plan.
- By the end of grade 11, the student has produced eight additional pieces of evidence beyond the K-5 and 6-8 grade bands of evidence. At least two of these pieces of evidence must demonstrate implementation of the student's individualized career plan.

In future years, recommended best practice is to produce a minimum of two pieces of evidence in each grade within the bands. For instance, students in the grade 3-5 band should have two pieces of evidence in each of grades 3, 4, and 5. Evidence collected in one grade band does not offset requirements for a subsequent grade band.

- Two pieces of evidence are required at each level: K-3, grade 4, and grade 5.
- Two pieces of evidence are *recommended* at the 6-11 grade level.

- Students may exceed the minimum and apply that to the benchmark requirement for the grade band.

The benchmarks are established to meet federal accountability. LEAs report only the students who met the benchmark at each grade band. Meeting the benchmark is measured by accumulating six artifacts at the completion of grade 5; six at the completion of grade 8; and eight at the completion of grade 11, not by the total number of artifacts in the portfolio at the end of any given time. The requirement to meet the benchmark is not cumulative, the evidence collection/portfolio is. A student should accumulate a portfolio of at least 20 pieces of evidence. However, incomplete assignments or discontinuous enrollment are not to be "made-up" retro-actively.

The "minimum two per year" language is included as a guideline for districts to make decisions in the cases of extended absenteeism, transfer, external placement, home or on-line education, or other enrollment issues. An LEA providing instruction to a student is responsible for collecting two pieces of evidence for each full or mostly full year the student receives instruction, and one piece of evidence for any partial year of instruction. Enrollment prior to January 1st constitutes full year enrollment, after January 1st constitutes partial year. If artifacts follow a transfer student to a receiving district, they should be included in the student's portfolio, but students should not complete assignments from earlier grade bands.

Ultimately, the goal is for each student to develop a career portfolio by the end of grade 11 that reflects evidence from all three grade bands. The first class of students able to fully meet the completion goal is the Class of 2026 (students currently in grade 4).

The four Career Education and Work standards (strands) must be addressed at least once in the benchmark pieces of evidence:
- Career Awareness and Preparation
- Career Acquisition
- Career Retention and Advancement
- Entrepreneurship

Future Ready Statewide Baseline Data:
2017-18

Formula:

$$\frac{\text{Number of students submitting required \# of evidence}}{\text{May 31st enrollment of students in each reported grade } 5, 8, 11}$$

Display Notes:
The Career Standards Benchmark indicator will be measured based on norm-referenced performance standards. Performance at the 75th percentile will serve as the 2030 statewide goal.

Disclaimer

The Career Readiness Indicator identifies the percentage of students demonstrating meaningful engagement in career exploration and preparation aligned to the Career Education and Work (CEW) standards. During the first year of implementation, school entities will be expected to demonstrate that students who are identified as meeting criteria have at least two pieces of evidence that year. In future years, the number of pieces of evidence increases in each grade within the bands.

High School Graduation Rate

Graduation Rate is one of two College and Career Ready Measures, along with Career Readiness, that serve as federal accountability indicators.

Graduation rates will be determined based on an adjusted cohort calculation – i.e., the percentage of students who graduate with a high school diploma in four- and five-year cohort groups. A school's four-year cohort will be presented in the context of year-over-year performance and in relation to the statewide average; the five-year cohort will also be reported on Future Ready PA as an informational item.

Data sources:
Cohort Graduation Rate is based on date reported in the Student and School Enrollment templates.

Data used for calculating and reporting the graduation rate is from one year prior to the reported year due to availability of this data.

Future Ready Statewide Baseline Data:
2015-16

Formula:

$$\frac{\text{Attributed number of students graduating with a high school diploma on or before the reporting year}}{\text{Number of students entering 9th grade four (or five, for five – year Adjusted Cohort Graduation Rate) years prior to the reporting year}}$$

Display Notes

4 Year- Cohort Graduation rates will be displayed in the context of two targets, as required by the state's ESSA Plan:

Statewide Interim Target: ESSA requires every state to set long-term goals for student graduation. Pennsylvania's goal is to reduce, by half, the statewide percentage of non-graduating students by the end of the 2029-30 school year. This timeline will allow planning and programming to support a cohort of students across the full span of their public education experience, from kindergarten through 12th grade. Statewide Interim Targets represent the annual gain—across all public schools—required to close these gaps for the All-student group and for each student group as detailed in the State Plan, Appendix B.

Individual School Improvement Target: Every school will be assigned an Individual School Target for graduation rate, based on the overall state goals set for 2030 and each school's individual baseline graduation rate. After assigning the 2030 goal for each school, yearly individual school interim progress targets will be established.

Performance will be displayed on the Future Ready PA Index to reflect the percentage of students who graduated within the 4-year and, separately, the 5-year cohort. Performance will also be reported at the student group level.

Industry-Based Learning Indicator

The Industry-Based Learning Indicator is designed to evaluate how students are engaging in work- and classroom-based activities by 12th grade. Effective the 2017- 18 school year, all LEAs can report in PIMS that a student has met earned an industry credential or completed a work-based learning experience outside the crops of an approved program. As with other data collections, school entities can enter and update student data for this indicator throughout the school year, up until the last collection period (typically June).

Reporting requirements have not changed for students enrolled in PDE-approved Career and Technical Education (CTE) programs. Additional information regarding collection procedures, time lines, and technical instructions for submitting data are available in the PIMS User Manual, Vol. 1.

Data sources:
Table 1 illustrates the three options available to LEAs to meet the Industry-Based Learning Indicator requirements.

Table 1: Meeting the Industry-Based Learning Indicator	
Options	**Description**
Industry Standards-Based Competency Assessments (NOCTI/NIMS)	Percentage of 12th graders who score competent or advanced on Industry Standards-Based Competency Assessments (NOCTI/NIMS).
Industry-Recognized Credential	Percentage of 12th graders with at least one Industry Recognized Credential (See link) for list of Industry Recognized Credentials and the Industry Recognized Credential Resource Guide.)
Work-based Learning Experience	Percentage of 12th graders having completed a work-based learning experience, as outlined in the Cooperative Education Guidelines for Administration or Work-Based Learning Toolkit.

Reporting CTE 12TH Graders

For students enrolled in PDE-approved CTE programs, reporting requirements have not changed. PDE will use existing CTE Domain templates in PIMS to identify 12th graders meeting the Industry-Based Learning Indicator criteria either by scoring competent or advanced on the NOCTI NIMS assessment, earning an industry-recognized credential, or participating in a work-based learning experience.

1. **NOCTI/NIMS Assessment** – Students scoring competent or advanced on the NOCTI/NIMS will be identified by PDE via the Assessment Fact Template in PIMS. The Assessment Fact Template is a PDE-loaded table, as information is pulled from NOCTI/NIMS. (Reminder: LEAs do not need to enter this information into PIMS for CTE students since it is already reported.)

2. **Industry-Recognized Credentials** - This information is entered in Field 7 "Industry Credential Code" of the Student Industry Credential template. It is a 3-digit code, identifying the industry certification and the industry certification provider of the credential that the CTE student earned during the reporting period, as a result of the student's enrollment in the program (CIP CODE) and as reported in Field 5 of the template. (Refer to Appendix Q of the PIMS User Manual (Vol. 2) for a complete list of valid values.)

3. **Work-Based Learning Experiences** – The LEA will identify students with work-based learning using the following fields in the CTE Student Fact template in PIMS:
   - Field 12 - Registered Apprentice Indicator
   - Field 13 - Internship Indicator
   - Field 14 - Cooperative Work Indicator
   - Field 15 - Job Exploration Indicator
   - Field 16 - Agriculture Experience Indicator
   - Field 17 - School-Sponsored Enterprise Indicator
   - Field 22 - Work-Based Experience Indicator as CTE Work-Based Learning

Reporting Non-CTE 12th Graders

LEAs will report students not enrolled in PDE-approved CTE programs as follows:

1. **NOCTI/NIMS Assessment** – Non-CTE 12th graders scoring competent or advanced on the NOCTI/NIMS will be identified by PDE, via the Assessment Fact Template in PIMS. The Assessment Fact Template is a PDE-loaded table, as information is pulled directly from NOCTI/NIMS. The LEA does not enter this information into PIMS.

2. **Industry-Recognized Credential and/or Work-based Learning Experiences –** Non-CTE 12th graders with these experiences reported in grades 7 through 12 will be identified using the following fields in the Student Award Fact Template for Non-CTE Industry-Recognized Credentials and Work-Based Learning Experiences:

   - Field 5 Award Type - Enter one of the following: "ICN" for Industry-Recognized Credential, or "WBL" for Work-Based Learning Experience.
   - Field 4 Award Code - Enter the unique code assigned to identify the subgroup that pertains to the credential or work-based learning experience, as listed below or refer to Appendix AM in the PIMS User Manual, Volume 2.

Future Ready Statewide Baseline Data:
2017-18

Formula:

$$\frac{\text{Sum of the number of 12th graders}^2 \text{ who achieved one or more of the Industry} - \text{Based Learning criteria}}{\text{Number of 12th graders}}$$

Industry-Based Learning criteria:

- Scored competent or advanced on Industry Standards-Based Competency Assessments;
- Earned at least one industry-recognized credential; or
- Completed a work-based learning experience

[2] Note: The numerator reflects a unique count of students—i.e., a 12th grader is counted one time, even if multiple Industry-Based Learning activities are completed.

Display Notes:

In addition to this calculation, the Future Ready PA Index will report on each of the following:

- Percentage of 12th graders in approved CTE programs who score competent or advanced on NOCTI/NIMS assessments

- Percentage of 12th graders in approved CTE program as well as non-CTE 12th graders who earn at least one industry recognized credential

- Percentage of 12th graders who complete a work-based learning experience

For 2017-2018, this indicator was displayed as an informational indicator, and was only be reported as a percentage of students in the cohort who attained the target.

Starting in 2018-2019, Performance Standards have been developed using the 2017-2018 data as a baseline to measure expected school performance levels.

To ensure relevant and meaningful comparisons, state averages will be displayed in the following manner:

- State averages for CTCs
- State averages for non-CTC LEAs

Advanced on Industry-Based Competency Assessments (NIMS and NOCTI)

Beyond proficiency calculations, it is important to recognize advanced levels of academic achievement. The Department will calculate the percentage of 12th graders scoring advanced on Industry Standards Based Competency Assessments. This is the same measure as is included in the Industry-based Learning Standards, but only for those students who scored at an Advanced level.

Data sources:

NOCTI/NIMS data from the Assessment vendor is also used. Credentials/experiences reported by ANY LEA are attributable to the student in the LEA in which he is reported as a 12th grade student.

Future Ready Statewide Baseline Data:

Informational Indicator- Baseline Data Not Needed

Formula:

$$\frac{\text{Number of 12th Graders Scoring Advanced on Industry Standards Based Competency}}{\text{Number of 12th graders}}$$

Display Notes:

Results will be reported as a percentage of students who attain advanced on the assessment.

To ensure relevant and meaningful comparisons, state averages will be displayed in the following manner:

- State averages for CTCs
- State averages for non-CTC LEAs

Rigorous Courses of Study

The Rigorous Courses of Study Indicator represents the percentage of 12th graders who participated in at least one Rigorous Course of Study, defined as Advanced Placement (AP)/International Baccalaureate (IB)/dual credit, during grades 7-12, or were concentrators in a CTE program of study. Core content subject areas included in this collection are as follows:

- Arts
- English Language Arts
- History and Social Sciences
- Math and Computer Science

- Science and Engineering
- World Language and Culture

For students attending a Career and Technical Center (CTC) for a CTE program of study, credit will be provided to both the CTC and the sending local education agency (LEA). Similarly, an LEA that enrolls students in a high school-based CTE program while sending other students to a regional CTC program will be credited for both student groups.

Data sources:
The following templates in PIMS will inform the Rigorous Courses of Study indicator:

- AP/IB/dual credit data is derived from the LEA Course, Student Course Enrollment, and Course Instructor.
- The number of concentrators is derived from the CTE Student Fact template, field: Percentage of Program Complete. Concentrators are students who have completed 50 percent or more in an assigned program of study.
  - For CTCs, credit will be awarded based on Location Code field found in the Student template.
  - For district schools, credit will be awarded based on Location of Residence field found in the Student template

Future Ready Statewide Baseline Data:
2017-18

Formula:

$$\frac{\text{Sum of the number of 12th graders[3] who participated in any one of the Rigorous Courses of Study criteria}}{\text{Number of 12th graders}}$$

Rigorous Course of Study criteria:
- AP or IB coursework
- Concentrated CTE program of study
- Courses eligible to receive college credit through dual enrollment, or other district- sponsored, college-accredited programs graduation

[3] Note: The numerator reflects a unique count of students—i.e., a 12th grader is counted one time, even if multiple Rigorous Courses of Study activities are completed.

Display Notes:

In addition to displaying the overall percentage, each of the following components will also be displayed on the dashboard:

- Percent of 12th graders who participated in Advanced Placement (AP) and/or International Baccalaureate (IB)
- Percent of 12th graders enrolled into a concentrated CTE program of study
    - Number of students enrolled in a concentrated POS provided by a CTC
    - Number of students enrolled in a concentrated POS provided within the LEA
- Percent of 12th graders enrolled in college courses eligible to receive college credit through Dual-enrollment, College in the High School, or another college accredited program in which the student receives course credit toward graduation and is sponsored by the district. (Coded under Dual Enrollment with broader definition)
- Total number of unique AP, IB, and dual credit courses offered by the LEA defined as each school's number of unique AP/IB/Dual Enrollment course offerings in grades 7-12 in:

    - Arts
    - English Language Arts
    - History and Social Sciences
    - Math and Computer Science
    - Science and Engineering
    - World Language and Culture

For 2017-2018, the overall percentage of 12th graders who participated in a Rigorous Course of Study will be displayed as an informational indicator and will only be reported as a percentage of students who attained the targets divided by the total number of students in the cohort. Performance Standards will be developed using the 2017-2018 data as a baseline to measure expected school performance levels for use beginning in 2018-19.

To ensure relevant and meaningful comparisons, state averages will be displayed in the following manner:

- State averages for CTCs
- State averages for non-CTC LEAs

Postsecondary Transition to School, Military, or Work

This indicator reflects the percentage of high school graduates (from two years' prior) who have enrolled in an institution of higher education, enlisted in the military, or entered the workforce within 16 months of receiving a high school diploma. This is a lagging indicator, with all data collections occurring 16 months after graduation.

Data sources:
The graduating cohort data will be gathered from the frozen Graduate/Completer data in PIMS. The first data reported will be based on 2015-16 graduates, who had until October 2017 to enroll in postsecondary education, enlist in the military, or enter the work force. Other sources of information will be collected from:

- National Student Clearinghouse for college and postsecondary enrollment;
- Defense Manpower Data Center database developed for the Service Members Civil Relief Act (SCRA) for military enlistment; and
- Department of Labor and Industries Data Mart for entering the workforce.

Future Ready Statewide Baseline Data:
Informational Indicator- Baseline Data Not Needed

Formula:

$$\frac{\text{Sum of the \# of graduates}[4]\,\text{enrolled in higher education, serving in the military, or entered workforce}}{\text{Total number of graduates/completers for the reporting year}}$$

[4] Note: The numerator reflects a unique count of students—i.e., a graduate is counted one time, even if multiple post-secondary transition activities are completed.

Display Notes:
In addition to the above calculation, the Future Ready PA Index will report on each of the following:

- The percentage calculated from the number of graduates joining the military divided by the total number of graduates.

- The percentage calculated from the number of graduates going onto to postsecondary education divided by the number of graduates.

- The percentage of graduates joining the work force will be the number of graduates from the Labor and Industry data divided by the total number of graduates.

This is an informational indicator; in other words, school performance will be presented as a percentage only and not compared to the performance of other public schools statewide. The Statewide average will be provided.

Disclaimer
The PA Workforce Student Group Breakdown is not available at this time. The Postsecondary Transition to Work measure relies on Pennsylvania government data sources, and therefore will not reflect employment outside the commonwealth, self-employment, or employment in certain family-owned businesses. Accordingly, the measure should be used as a starting point for local discussions and further analysis around career readiness and workforce participation.

Depicting Student Progress and Performance

The Future Ready PA Index uses four different approaches in scoring and depicting student progress and performance.

2030 Goal and Targets (Achievement, English Language Proficiency, and Graduation Rate)

ESSA requires states to set long-term goals for certain indicators. Pennsylvania has aligned federal accountability goals to 2030, resulting in 13 interim targets for the intervening years. The following process is used to establish the 2030 goals and set yearly interim targets:

Step 1: Set the Statewide 2030 Goal – Pennsylvania's goal for each designated indicator is to reduce, by half, the statewide percentage of students not meeting the target (proficiency, language attainment, or graduation) by the end of the 2029-30 school year.
Step 2: Establish Statewide Interim Targets – Statewide interim targets reflect the annual progress required to meet the Statewide 2030 Goal.
Step 3: Assign Individual School Targets – Using the same methodology for Statewide goals, every public school will be assigned individual annual improvement targets based on: 1) the State's 2030 All-Student Goal; 2) school-level baseline data, both all-student and by student group; and 3) the 13 years between baseline and 2030.

For indictors using the 2030 goal and targets approach, school performance will be depicted using one of three color-coded ranges:

- o **BLUE** = Meets or Exceeds All-Student Statewide 2030 Goal
- o **GREEN** = Meets Statewide Interim or School Target
- o **RED** = Does not meet either the Statewide Interim or the School Target

Academic Growth Standard (Academic Growth)

The PVAAS Academic Growth Score presents the school's impact on the year-to-year change in academic performance of groups of students in state-assessed content areas:

- o English Language Arts: PSSA English Language Arts and Keystone Literature
- o Math: PSSA Math and Keystone Algebra I
- o Science: PSSA Science and Keystone Biology

PVAAS Academic Growth Scores will be depicted as follows:

- o **BLUE** = Exceeds the standard demonstrating growth
- o **GREEN** = Meets the standard demonstrating growth
- o **RED** = Does not meet the standard demonstrating growth

Performance Standards (Regular Attendance and Career Standards Benchmark. Beginning in 2018-19, Industry Based Learning and Rigorous Courses of Study)

Performance standards are norm-referenced presentations of school performance. Using one year of data as a baseline, cut scores were set at the 75th and 25th percentiles. Performance at or above the 25th percentile cut score satisfies the minimal performance standard.

For indicators using the performance standard approach, school performance will be depicted as follows:

- o **BLUE** = Exceeds the Performance Standard
- o **GREEN** = Meets the Performance Standard
- o **RED** = Does not meet the Performance Standard

Informational (Percent Advanced on State Assessments, Industry Based Learning, Advanced on Industry Competency Assessment, Rigorous Courses of Study, Postsecondary Transitions to School, Military or Work, and Early Indicators of Success)

Informational indicators will be reported as a percentage of students who attain the target (e.g., course enrollment, advanced level of achievement), divided by the total number of students in the cohort or group. State averages will also be presented for Advanced on State Assessments, Advanced on Industry Competency Assessment, and Postsecondary Transitions to School, Military, or Work.

2030 Goals, Baselines and Targets

The Future Ready PA Index applies the following business rules to determine goals, baselines and targets:

All-Student Group

- Any school whose all-student baseline is above or at the 2030 ALL-STUDENT BASELINE defaults to use the State All-Student Interim Targets. No school specific improvement targets.

- Any school whose all-student baseline is below the 2030 State All-STUDENT BASELINE:

School Improvement Target =

$$\frac{(\text{State's 2030 All} - \text{Student Goal}) - (\text{School's All} - \text{Student Baseline})}{\text{Number of Years Remaining until 2030}}$$

Student Groups

- Any school whose student group baseline is above or at the 2030 ALL-STUDENT BASELINE defaults to use the State All-Student Interim Targets. No school specific improvement targets.

- Any school whose student group baseline is below or at the 2030 State BASELINE for the corresponding group:

School Improvement Target =

$$\frac{\text{State's 2030 Goal for the Corresponding Group} - \text{School's Baseline for Corresponding Group}}{\text{Number of Years Remaining until 2030}}$$

- Any school whose baseline (sub-group) is above the state's 2030 State BASELINE for the corresponding group but below the 2030 All-Student State BASELINE:

Establishing a School's Specific Improvement Target:

School 2030 Goal =
$$\frac{100 - \text{School Student Group Baseline}}{2} + \text{School Student Group Baseline}$$

School Improvement Target =
$$\frac{\text{School 2030 Goal}}{\text{Number of Years Remaining until 2030}}$$

Additional Business Rule: If the Student Group Baseline exceeds the State Baseline for the corresponding student group, then default to use the State All-Student Interim Targets. No school specific improvement targets.

School Baseline Data

Baselines are only set when n-count of 20 is met.

For Assessments, when the n-count is not met, the State All Student targets are used until the school baseline can be calculated.

- High School Graduation Rate (4-Year Cohort): single year, 2015- 2016 School Year

- English Language Proficiency: 2016-2017 School Year with Growth over 2015-2016 School Year

- State Assessment Calculation
    - Numerator: 2016 Students scoring proficient or advanced in subject + 2017 Students scoring proficient or advanced in subject
    - Denominator: 2016 Tested (95% rule applied) + 2017 Tested (95% rule applied)

Data Quality

All data from the Future Ready PA Index originates from PDE's authoritative data sources such as Data Recognition Corporation, Bureau of Curriculum, Assessment, and Instruction, Bureau of Career and Technical Education, Educational Names and Addresses (EdNA), Pennsylvania Information Management System (PIMS), and SAS, Inc.

Future Ready PA Index Data Quality Process

A Future Ready PA Index data quality process has been established to support PDE's objective of providing accurate and useful data to LEAs and the public. This is in addition to the correction windows and data quality assurance in PIMS by LEAs. The process includes a timeline of milestones, communication to LEAs, and several phases of preview/review before the Future Ready PA Index is publicly reported. The Future Ready PA Index data quality process works in conjunction with other PDE data quality efforts.

For more specific information on each of the Future Ready PA Indicators, visit PDE's Future Ready PA Index website.

Questions or comments on the Future Ready PA Index can be sent to ra-edfuturereadypa@pa.gov.