Common Data Project
2017 Procedural Guidebook
Improving the Quality and Comparability of State Educational Data in New England
The New England Secondary School Consortium
Common Data Project 2017 Procedural Guidebook

The procedures outlined within this document were developed by Research in Action, Inc. under contract with the Great Schools Partnership. This document’s primary purpose is to record the process used to collect, review, and publish data submitted by the five member states of the New England Secondary School Consortium.

The Common Data Project 2017 Procedural Guidebook by Great Schools Partnership is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-sa/4.0/deed.en_US.

For questions related to the Common Data Project 2017 Procedural Guidebook:

**Duke Albanese**  
Senior Policy Advisor, Great Schools Partnership  
dalbanese@greatschoolspartnership.org

**Dr. Lauren Leigh Hinthorne**  
Director of Research and Evaluation, Great Schools Partnership  
lhinthorne@greatschoolspartnership.org

**Dr. J.P. Beaudoin**  
CEO, Research in Action, Inc.  
jbeaudoin@riagroup2013.com

**General Inquiries**  
Great Schools Partnership  
482 Congress Street, Suite 500  
Portland, Maine 04101  
207.773.0505
# TABLE OF CONTENTS

NESSC Common Data Project Team Representatives .......................................................... 3  
LIST OF ABBREVIATIONS ................................................................................................. 5  
SECTION I: GOAL, KEY TASKS, AND SELECTED METRICS  
  1.0 Background .............................................................................................................. 6  
  1.1 Goal .......................................................................................................................... 8  
  1.2 Key Tasks ................................................................................................................ 8  
  1.3 Selected Metrics ...................................................................................................... 9  
SECTION II: DATA COLLECTION, BUSINESS RULES, AND QUALITY CONTROLS  
  2.0 Overview .................................................................................................................. 11  
  2.1 Data Collection ....................................................................................................... 11  
  2.2 Business Rules ....................................................................................................... 14  
  2.3 Timelines ................................................................................................................ 21  
  2.4 Quality Controls .................................................................................................... 21  
SECTION III: ANNUAL REPORT  
  3.0 Overview ................................................................................................................ 25  
  3.1 Content .................................................................................................................... 25  
APPENDIX A: QUALITY-CONTROL CHECKLIST ............................................................... 27  
APPENDIX B: PROCEDURAL STEPS ............................................................................... 30
NESSC COMMON DATA PROJECT TEAM REPRESENTATIVES

Connecticut
Ajit Gopalakrishnan | Bureau Chief of Data Collection, Research and Evaluation
Charles Martie | Bureau of Data Collection, Research and Evaluation

Connecticut Higher Education
Jan Kiehne | Policy and Research, Manager of P20Win, Board of Regents for Higher Education

Maine
Rick Bergeron | EDFacts Coordinator
Charlotte Ellis | Education Data Manager
Lance Gilman | Trainer, Statewide Longitudinal Data System

Maine Higher Education
Amy Johnson | Assistant Director, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine

New Hampshire
Sallie Fellows | Systems Development Specialist VI, Office of the Deputy Commissioner
Erik Klardie | Systems Development Specialist, Office of Technology Management

New Hampshire Higher Education
Beth Doiron | Director of DOE and College Access Programs, Community College System of New Hampshire
Janet Fiderio | Program Specialist for Research and Studies, Division of Higher Education, Office of the Director
Heidi Hedegard | Research and Data Manager, University System of New Hampshire, Research and Planning

Rhode Island
Ken Gu | Data and Analysis
Margaret Votta | Research Specialist, Data Analysis and Research

Rhode Island Higher Education
Janet Durfee-Hildago | Director of PK-20 Affairs, Academic and Student Affairs, RI Board of Governors for Higher Education
Rhode Island and NESSC Connecting Organization
Michael Grady | Deputy Director, Annenberg Institute for School Reform, Brown University

Vermont
Glenn Bailey | Education Analysis and Data Management Director
Heather Bouchey | Deputy Secretary of Education
Rachel Stanger | Business Analyst, Department of Education

Nellie Mae Education Foundation
Eve Goldberg | Director of Research
Stephanie Lerner | Senior Associate for Strategic Learning and Evaluation System
Charlie Toulmin | Director of Policy

New England Board of Higher Education
Stafford Peat | Senior Consultant

NESSC Consultant
John P. Beaudoin | CEO, Research in Action, Inc.

Great Schools Partnership
Duke Albanese | Senior Policy Advisor
Lauren Leigh Hinthorne | Director of Research and Evaluation
Mark Kostin | Associate Director
David Ruff | Executive Director
Purpose Statement

The purpose of the Common Data Project 2017 Procedural Guidebook is to provide participating state agencies with a clearly articulated record of the agreed-upon business rules, decision logic, and quality controls used in the execution of the New England Secondary School Consortium’s Common Data Project. The guide is intended to facilitate understanding, compliance, ease of use, and professional development across the participating member states. The guidebook will also serve to help education leaders, stakeholders, and the general public understand the technical details associated with the Common Data Project.

List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGR</td>
<td>Adjusted Cohort Graduation Rate</td>
</tr>
<tr>
<td>AHSFC</td>
<td>Adjusted High School Freshmen Cohort</td>
</tr>
<tr>
<td>CRI</td>
<td>College Readiness Indicator</td>
</tr>
<tr>
<td>ED</td>
<td>Economically Disadvantaged</td>
</tr>
<tr>
<td>EDEN</td>
<td>Education Data Exchange Network</td>
</tr>
<tr>
<td>EL</td>
<td>English Learners</td>
</tr>
<tr>
<td>ESEA</td>
<td>Elementary and Secondary Education Act</td>
</tr>
<tr>
<td>ESSA</td>
<td>Every Student Succeeds Act (P.L. 114-95)</td>
</tr>
<tr>
<td>FCFC</td>
<td>First-time College Freshmen Cohort</td>
</tr>
<tr>
<td>FERPA</td>
<td>Family Education Rights and Privacy Act</td>
</tr>
<tr>
<td>F/R</td>
<td>Free or Reduced-Priced Lunch</td>
</tr>
<tr>
<td>FTP</td>
<td>File Transfer Protocol</td>
</tr>
<tr>
<td>GED</td>
<td>General Educational Development</td>
</tr>
<tr>
<td>GSP</td>
<td>Great Schools Partnership</td>
</tr>
<tr>
<td>HSGC</td>
<td>High School Graduation Cohort</td>
</tr>
<tr>
<td>IDEA</td>
<td>Individuals with Disabilities Education Act</td>
</tr>
<tr>
<td>IEP</td>
<td>Individualized Education Plan</td>
</tr>
<tr>
<td>IHE</td>
<td>Institutions of Higher Education</td>
</tr>
<tr>
<td>LEA</td>
<td>Local Education Agency</td>
</tr>
<tr>
<td>LEP</td>
<td>Limited English Proficiency</td>
</tr>
<tr>
<td>NCES</td>
<td>National Center for Educational Statistics</td>
</tr>
<tr>
<td>NESSC</td>
<td>New England Secondary School Consortium</td>
</tr>
<tr>
<td>NGA</td>
<td>National Governors Association</td>
</tr>
<tr>
<td>NLT</td>
<td>No Later Than</td>
</tr>
<tr>
<td>NSC</td>
<td>National Student Clearinghouse</td>
</tr>
<tr>
<td>PII</td>
<td>Personally Identifiable Information</td>
</tr>
<tr>
<td>SEA</td>
<td>State Education Agency</td>
</tr>
<tr>
<td>SPC</td>
<td>Statistical Process Controls</td>
</tr>
<tr>
<td>SpEd</td>
<td>Special Education</td>
</tr>
<tr>
<td>SWD</td>
<td>Students with Disabilities</td>
</tr>
<tr>
<td>UMDI</td>
<td>University of Massachusetts Donahue Institute</td>
</tr>
</tbody>
</table>
SECTION I
GOALS, KEY TASKS, AND SELECTED METRICS

1.0 Background

The New England Secondary Schools Consortium (NESSC) is a five-state partnership that works to promote forward-thinking innovations in the design and delivery of secondary education throughout the New England region. The NESSC vision—which was created and endorsed by education officials and state leaders from Connecticut, Maine, New Hampshire, Rhode Island, and Vermont—seeks to ensure that every adolescent graduates from a new generation of high-performing, internationally competitive high schools prepared for success in the colleges, careers, and communities of our interconnected global society.

The NESSC was established in the fall of 2008 with funding from the Nellie Mae Education Foundation and the Bill and Melinda Gates Foundation. The NESSC has established performance goals to be achieved in each of the five states by 2016:

1. Increase graduation rates across the five states.
2. Decrease annual dropout rates across the five states.
3. Increase the percentage of students enrolling in two- and four-year college degree programs or pursuing industry certified accredited postsecondary certificates.
4. Increase the percentage of students who graduate from high school college-ready.

To track and measure progress in relation to its stated goals, the NESSC brought together data experts from each state to form its Data Team. The initial charge of the team was to discuss data collection across the states, identify current methods used to analyze data, and specify how states could report common indicators of student success related to the NESSC’s four goals. One key area explored after the adoption of the charter was how member states were defining college readiness. Since college readiness is such a complex and important metric to capture, the Data Team recommended that the NESSC use multiple measures to create a "college-readiness index."

The Data Team collaborated with the Annenberg Institute for School Reform at Brown University and the Center for Education Policy, Applied Research, and Evaluation at the University of Southern Maine. The team agreed on a working definition of college readiness for the purposes of creating a college-readiness index based upon multiple measures. The following formula was an initial metric of a successful college student:

Completion of 24 credit hours of college coursework and a GPA of 2.5 or enrollment in a third semester of college (two- or four-year programs)

However, the college readiness indicator development was suspended until sufficient funding could be secured.

In 2011, the Data Team identified and hired a Data Coordinator, Research in Action, Inc. (RIA). Drawing on materials from previously published technical reports, meeting notes, and RIA’s corporate experience, the Data Coordinator established standardized guidelines for state data submission. The University of Massachusetts' Donahue Institute (UMDI) developed data templates that were used by each state to submit data for each performance indicator. Finally, RIA modified
its data-auditing procedures for use with the NESSC’s procedures and data. The Data Coordinator and staff checked the data for consistency and accuracy, flagged data discrepancies using an internal quality-control procedure, and coordinated with state education agency (SEA) representatives to revise and update any inaccuracies. After the data-verification procedures were completed, RIA transmitted the data to UMDI. UMDI received the data from the states via RIA and reported on each NESSC indicator. The data submitted were then compiled and published in the Annual Evaluation and Phase III Technical Report.

In this guidebook, key indicators were compared with statistics from the prior two years to measure progress toward the initiative’s desired outcomes. UMDI staff also attended Data Team meetings and debriefed with the team’s facilitator from the Great Schools Partnership (GSP) and consultants from RIA. To verify the reported information, UMDI provided an initial draft of the report tables to all team members for feedback and revisions. Once the corrections were implemented, UMDI published the final report and presented its findings to the Data Team.

In 2012, UMDI completed its role as external evaluator. Given this change, the Data Team began to streamline the procedures used to collect and report on its performance goals. The data-collection template, the procedures used to establish data comparability, and consistent reporting methods were incorporated into the formal business procedures outlined in this document.

In 2013, the Data Team continued to implement and report data associated with the graduation-rate and dropout-rate indicators. The participating states also began examining postsecondary enrollment and completion indicators. All states agreed to a common point in time (early February) to request data from the National Student Clearinghouse (NSC)—a necessary quality-assurance measure because the NSC continuously updates its databases. After seeking guidance from NSC staff, the Data Team established a request window of 15 days from February 1 to February 15. The work increased data comparability across the member states, but quality concerns necessitated a preliminary reporting in the spring 2013, with states requesting time to double check the results. The Data Team used an end-user-verification control approach (the Annual Report), which the states created, reviewed, and approved prior to publication. The Team observed and corrected several minor errors within the established review and correction window.

In 2014, the Data Team conducted several additional refinements of the data submitted over the past years to ensure the trend statistics reflected publicly released information. Exceptions in earlier years, such as in 2009 when one SEA estimated dropout rates, were reexamined and annotated in the Annual Report. Further, the Data Coordinator clarified and validated the three baseline cohorts used to establish the denominators among the indicators. Specifically, the high school freshmen cohort was used as the denominator for both the graduation and dropout indicators. For college enrollment, the high school graduate cohort was used as the denominator. This cohort included all students graduating with a standard diploma in four or more years. Thus, students who graduated with a standard diploma in five, six, or seven years are members of the high school graduate cohort. The final cohort—the denominator of the persistence and completion indicators—is the number of first-time freshmen enrolled in college education.

In 2015, the primary focus of the Data Team was to fully explore, discuss, and refine the procedural steps used for each of the five key performance indicators. The team delineated how the three cohorts establish the denominators for the applicable indicators. Details such as timeframes, and student characteristics were discussed and codified in the business rules. Finally, the Data Team established macro-level procedures documented in Appendix B of this document.
In 2016, the Data Team focused on clarifying the rules around the college-completion metric and then reporting the measure for the first time in the Annual Report. College completion rates use a multi-year window to determine the numerator (those individuals that earn a two or four-year degree). State representatives shared concerns regarding the possibility of students being double counted (i.e., an individual completes an associate degree, matriculates into a 4-year degree program, and then completes that degree). It was determined that these possibilities exist but are “low incident” events. Future data meetings will reexamine the aforementioned phenomenon and determine what technical approach(es) can be developed to audit the college completion data. Also in 2016, the Data Team refined the Annual Report to include additional disaggregated data. Particularly, the inclusion of gender and the extended, six-year high school graduation rate.

1.1 Goal

The Data Team works to promote data comparability for each performance indicator used by the NESSC member states. This goal is partially achieved by implementing standardized procedures that eliminate unwanted variance resulting from the misinterpretation of agreed-upon business rules and computational errors introduced during aggregation. The team also uses the Data Coordinator as a quality control and support mechanism for the NESSC member states. Each year, the Data Team reviews and revises this guidebook to reflect evolving needs and requirements, refine common business rules and procedures, and improve data quality, consistency, and comparability.

1.2 Key Tasks

In collaboration with the Great Schools Partnership and the Data Coordinator, the Data Team agreed to implement the following procedural tasks, which are organized into four phases:

1. **PHASE I (PLANNING):** All parties (a) identify procedures from the prior year that need improvement, and (b) establish milestones for data collection, quality review, and report production. This phase is completed by December.

2. **PHASE II (PRE-EXECUTION):** The Data Coordinator (a) amends the procedural documents, (b) establishes state-centric timelines, (c) develops coordination and communication guidelines, and (d) promulgates data collection tools and techniques. The Data Team then (a) reviews the procedural guidelines, (b) reports any inconsistencies, (c) establishes internal timelines, and (d) identifies data coordinators in each state. This phase is completed by February.

3. **PHASE III (EXECUTION):** The Data Coordinator (a) receives updated Data Templates, (b) implements quality controls, (c) monitors timelines, (d) identifies data issues, (e) provides corrective suggestions, (f) finalizes data elements, and (g) reports progress to GSP and others. During this phase, SEA representatives are (a) populating the Data Templates, (b) reporting any known data anomalies, (c) seeking clarification on business rules, (d) monitoring internal timelines, (e) requesting technical assistance, and (f) correcting any erroneous data. This phase is completed by June.

4. **PHASE IV (REPORTING):** The Common Data Project begins public reporting of data that have been reviewed, finalized, and placed into the reporting tool, which allows end users to view each available metric. The Data Coordinator (a) populates the reporting tool, (b) conducts internal quality controls on data charts and tables, and (c) amends report narratives to match the displayed data. All parties (a) review the data displays, and (b) provide feedback.
for a draft report. Once completed, the SEAs release public reports on their websites. This phase is completed by August.

1.3 Selected Metrics
The NESSC has established four performance goals to be achieved in each of the five states: (1) increase high school graduation rates, (2) decrease dropout rates, (3) increase the percentage of students enrolling in two- and four-year college programs or pursuing industry-certified and accredited postsecondary certificates, and (4) increase the percentage of students who graduate from high school prepared for college. The Data Team, in conjunction with external third parties, created five performance indicators based on the agreed-upon metrics described in this document. The common metrics, in conjunction with a standardized set of business procedures and rules, allow the reported data on each indicator to be comparable among NESSC states. To our knowledge, only the federal government, via the National Center for Educational Statistics (NCES), has attempted to provide the public with comparable metrics on key educational initiatives.

1.3.1 Graduation Rate [Status: Operational] [Baseline Year: 2009]
Graduation rates have been computed using the formula articulated in 34 C.F.R. §200.19. The rate relies on the identification and tracking of a four-year graduation cohort. All states in the Consortium currently report the federal graduation rate. The following formula is used for calculating the graduation rate:

\[
\frac{\text{(# of Graduates with a Standard Diploma)}}{\text{(Adjusted High School Freshmen Cohort)}}
\]

1.3.2 Dropout Rate [Status: Operational] [Baseline Year: 2009]
The NESSC dropout data are closely linked to the data used in calculating the adjusted cohort graduation rate (ACGR). Data Team members recognize that, as the graduation rate and dropout rate have often been reported using disparate methods, a clearer relationship between these measures would be helpful. The National Governors Association (NGA) offered guidance on the dropout rate by recommending that dropouts be counted as those students who have not completed high school and are no longer enrolled in high school. This rate is calculated as a cohort formula using the same adjusted freshmen cohort used for the graduation rate. The following formula is used for calculating dropout rate:

\[
\text{Dropouts} = \text{(Adjusted High School Freshmen Cohort)} - (\text{Graduates} + \text{Students Still Enrolled} + \text{Other Completers})
\]

\[
\text{Dropout Rate} = \frac{\text{Dropouts}}{\text{Adjusted High School Freshmen Cohort}}
\]

1.3.3 College-Enrollment Rate [Status: Operational] [Baseline Year: 2009]
The rationale for collecting college enrollment data is to determine the percentage of students who go on to further education after completing high school. All five NESSC states use data collected by the National Student Clearinghouse (NSC), and NSC reports are run during a common reporting window to reduce variance associated with ongoing updating of the national NSC database. The annual report selects only college enrollments (immediate) by October 15 of the subsequent year. The following formula is used for calculating college enrollment:

\[
\text{College-Enrollment Rate} = \frac{\text{# Adjusted High School Freshmen Cohort} - (\text{Graduates} + \text{Students Still Enrolled} + \text{Other Completers})}{\text{Adjusted High School Freshmen Cohort}}
\]
(\# \text{of Students Enrolled in College for the First Time}) \div (\# \text{of High School Graduate Cohort})

1.3.4 College-Persistence Rate [Status: Operational] [Baseline Year: 2011]

The final business rule states: “The number of first-time college freshmen (by cohort) that remain enrolled in a college program in the third semester after initial enrollment.” The first-time college freshmen cohort (FCFC) is defined as those high school graduates [who graduated 5 years prior] earning a standard diploma that enroll in college for the first time. The annual report combines both 2-year and 4-year college students that maintain their enrollment.

(\# \text{of Students Enrolled in 3\textsuperscript{rd} Semester}) \div (\# \text{of First-Time College Freshmen Cohort})

1.3.5 College-Completion Rate [Status: Operational] [Baseline Year: 2011]

College completion is determined by the percentage of the first-time college freshmen cohort who attend two- or four-year institutions of higher education (IHEs) and earn a college diploma. The data reported by this indicator does not reflect all students starting and completing their college education “on time.” For that reason, the college-completion rate will be computed over a six-year period. All NESSC states use data collected by the National Student Clearinghouse (NSC). The following formula is used for calculating college completion in four-year programs (the same formula is used for two-year programs):

(\# \text{of Students Completing College within 6 Years}) \div (\# \text{of First-Time College Freshmen Cohort})
SECTION II
DATA COLLECTION, BUSINESS RULES, AND QUALITY CONTROLS

2.0 Overview

This section describes the five key performance indicators for which data are being collected and reported, along with the quality controls used to ensure the comparability of the data. The production of statistical information based upon identified performance indicators requires a well-defined set of business rules that describe what the indicator is intending to measure and the metric by which results are produced. Business rules are further augmented by data definitions, which operationalize and codify the data-collection processes. Agreed-upon operational definitions articulate how to process raw data into reported statistics. The business rules reported within this section define the parameters and data necessary for NESSC to meet its objectives.

Most states use a combination of statistical process controls (SPC), internal audit procedures, and/or end-user-verification opportunities within their quality-assurance framework. These processes help to ensure that reported data and statistics are valid representations of actual performance, rather than errors. The Data Team’s overarching goal of comparable data across states can only be actualized by the prevention of unwanted errors from entering the early stages of the reporting cycle. Each member state has, within their student-information systems, internal processes to detect and correct irregularities, such as duplicate records, missing data fields, illogical data, and multiple memberships. Support to local districts—such as developing data-acquisition calendars, training IT and school staff, and improving communication with local officials—are typical approaches used by states to promote data quality.

Each NESSC member state has agreed to adhere to the guidelines and business rules outlined in this guidebook. The role of the Data Coordinator is to ensure the aggregated data submitted in the Data Template are both credible and comparable—i.e., that the data points were derived through the correct interpretation of the NESSC business rules. All member states data are reviewed on the same quality criteria using the Data Coordinator’s revised internal audit procedures.

2.1 Data Collection

The Data Team established its original data collection procedures with UMDI at the beginning of 2009. A straightforward method was developed by which member states aggregated data from within their student-information systems, along with data from the NSC, and reported those data within a customized Excel spreadsheet. Once populated, the SEAs sent the spreadsheet to the UMDI for use in developing the annual NESSC report.

Beginning in 2013, the data-collection spreadsheet was streamlined to reduce the time burdens on team members and eliminate unreported data (i.e., data not directly linked to the five performance areas). These changes reduced the number of Data Elements to seventeen, but the number of variables per element increased slightly to seventeen. This increase was a result of the team’s decision to report the Asian/Pacific Islander student subgroup in two distinct categories, which is consistent with federal reporting requirements. Furthermore, minor changes to the nomenclature within the Data Template were applied to the 2013 version. In 2014, detailed cohort data associated with the denominators used for the five different indicators were added to the data templates to improve comparability among the member states.

All Data Elements will be collected and reported for each of the following student subgroups:
2.1.1 Data Element: Number of Students Graduating in Four Years
The number of students graduating from high school with a standard diploma in four years or less.

2.1.2 Data Element: Percentage of Students Graduating in Four Years
The percentage of students graduating from high school with a standard diploma in four years or less.

2.1.3 Data Element: Number of Students Graduating in Five Years
The number of students graduating from high school with a standard diploma in five years or less, adjusted for transfers in and out all five years.

2.1.4 Data Element: Percentage of Students Graduating in Five Years
The percentage of students graduating from high school with a standard diploma in five years or less, adjusted for transfers in and out all five years.

2.1.5 Data Element: Number of Students Graduating in Six Years
The number of students graduating from high school with a standard diploma in six years or less, adjusted for transfers in and out all six years.

2.1.6 Data Element: Percentage of Students Graduating in Six Years
The percentage of students graduating from high school with a standard diploma in six years or less, adjusted for transfers in and out all six years.

2.1.7 Data Element: Number of High School Dropouts
The number of students exiting high school prior to earning a standard diploma, including students exiting to enroll in a GED program.
2.1.8 Data Element: Percentage of High School Dropouts
The percentage of students exiting high school prior to earning a standard diploma, including students exiting to enroll in a GED program.

2.1.9 Data Element: Percentage of Students Enrolling Early in Postsecondary Education
The number of high school students that earn a standard diploma before the end of their fourth year in high school who enroll in college.

2.1.10 Data Element: Number of Students Enrolled in Two-Year Programs [Immediate]
The number of high school graduates earning a standard diploma and enrolling in a two-year college program in the fall semester (NLT October 15) immediately following graduation.

2.1.11 Data Element: Number of Students Enrolled in Four-Year Programs [Immediate]
The number of high school graduates earning a standard diploma and enrolling in a four-year college program in the fall semester (NLT October 15) immediately following graduation.

2.1.12 Data Element: Number of Students Enrolled in Two-Year Programs [Delayed]
The number of high school graduates earning a standard diploma and enrolling in a two-year college program after October 15 but prior to August 15 (10 months later) of the second summer following graduation.

2.1.13 Data Element: Number of Students Enrolled in Four-Year Programs [Delayed]
The number of high school graduates earning a standard diploma and enrolling in a four-year college program after October 15 but prior to August 15 (10 months later) of the second summer following graduation.

2.1.14 Data Element: Number of Students Persisting in Two-Year Programs
The number of first-time college freshmen (by cohort) enrolled in a two-year college program in the third semester after initial enrollment. Meaning, for a given cohort of college freshmen, the number of students who are still enrolled in a college program in the third semester.

2.1.15 Data Element: Number of Students Persisting in Four-Year Programs
The number of first-time college freshmen (by cohort) enrolled in a four-year college program in the third semester after initial enrollment. Meaning, for a given cohort of college freshmen, the number of students who are still enrolled in a college program in the third semester.

2.1.16 Data Element: Number of Students Completing Two-Year Programs
The number of first-time college freshmen (by cohort) that earn a diploma/certification by completing a two-year college program within three years.

2.1.17 Data Element: Number of Students Completing Four-Year Programs
The number of college freshmen (by cohort) that earn a diploma/certification by completing a four-year college program within six years.

2.1.18 Data Element: Adjusted High School Freshmen Cohort (AHSFC)
The unduplicated number of students enrolled for the first-time in high school (grade nine) anytime during the academic year adjusted for transfers in and out (new enrollments/exiting enrollment).
2.1.19 Data Element: High School Graduation Cohort (HSGC)

The unduplicated number of students that graduate with a standard diploma (as defined by each state) in the identified year regardless of their freshmen cohort. Meaning, the HSGC contains high school graduates that earned a standard diploma from zero (0) to five (5) years ago from a public high school in the state.

2.1.20 Data Element: First-Time College Freshmen Cohort (FCFC)

The unduplicated number of students enrolled (must be after graduation date) for the first time in college by the fall enrollment window (October 15) that earned a standard diploma from zero (0) to five (5) years ago from a public high school in the state.

2.2 Business Rules

The business rules are further augmented by data definitions, which operationalize and codify the data-collection processes. The National Center for Educational Statistics (NCES) publishes data definitions that are used by state education agencies (SEAs) to report on federal performance indicators. Many of these data definitions are found in the National Data Model used to collect and store federally mandated data via the Education Data Exchange Network (EDEN) and EDFacts.

The Data Team uses data definitions consistent with federal reporting, except when noted within this document. Additionally, some definitions are unique to the NESSC given the focus of the performance indicators. For example, graduation rates are reported using the most recent federal reporting formats and data definitions; however, a “six-year” rate required a new data definition. The Data Team has created seventeen data variables to display aggregated performance data by gender, ethnicity, race, income (free or reduced lunch eligibility status), language (English learners), and special education (students with disabilities).

2.2.1 Graduation Rate

In addition to the common four-year graduation rate, the NESSC decided to report five- and six-year graduation rates. The Data Team decided against “freezing” the number of students in a graduating cohort (the denominator in the equation). This means that as graduates (adjusted for transfers in and out) are added in the fifth and sixth years of the cohort, graduation rates will rise. For the purpose of baseline data, the adjusted cohorts in the fifth and sixth years will be applicable once the baseline cohort (2009) reaches the five-year mark. No exemptions will be included for English learners or students with disabilities.

The graduation rate is calculated using a four-year adjusted cohort graduation rate (ACGR), defined as the number of students who graduate in four years with a regular high school diploma divided by the number of students who form the adjusted cohort for that graduating class. For those high schools that start after ninth grade, the cohort is calculated based on the earliest high school grade.

- The term “adjusted cohort” means the students who enter ninth grade (or the earliest high school grade) and any students who transfer into the cohort in grades nine through twelve minus any students removed from the cohort.
- The term “students who transfer into the cohort” means the students who enroll after the beginning of the entering cohort’s first year in high school, up to and including grade twelve.
Transfers into the cohort and out of the cohort used in the ACGR are tracked using entry and exit coding found within an SEA’s student-information systems, such as the examples below:

<table>
<thead>
<tr>
<th>Definition</th>
<th>Counts as a Transfer-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>New to education system</td>
<td>YES</td>
</tr>
<tr>
<td>Continuous in same school with no interruption</td>
<td>NO</td>
</tr>
<tr>
<td>Grade reassignment within same school</td>
<td>NO</td>
</tr>
<tr>
<td>Transfer from a public school within same district</td>
<td>NO</td>
</tr>
<tr>
<td>Transfer from a non-district site</td>
<td>YES</td>
</tr>
<tr>
<td>Transfer from a public school in a different district</td>
<td>YES</td>
</tr>
<tr>
<td>Transfer from a different state/country</td>
<td>YES</td>
</tr>
<tr>
<td>Transfer from a non-public school</td>
<td>YES</td>
</tr>
<tr>
<td>Transfer from home-based education</td>
<td>YES</td>
</tr>
<tr>
<td>Transfer from a GED/HISET program</td>
<td>YES</td>
</tr>
<tr>
<td>Transfer from a vocational program</td>
<td>YES</td>
</tr>
<tr>
<td>Transfer from state facility</td>
<td>YES</td>
</tr>
<tr>
<td>Reentry after dropping out from same district</td>
<td>NO</td>
</tr>
<tr>
<td>Reentry after dropping out from different district</td>
<td>YES</td>
</tr>
<tr>
<td>Reentry after dropping out from different state/country</td>
<td>YES</td>
</tr>
<tr>
<td>Reentry after expulsion from same district</td>
<td>NO</td>
</tr>
<tr>
<td>Reentry after expulsion from different district</td>
<td>YES</td>
</tr>
<tr>
<td>Reentry after expulsion from different state/country</td>
<td>YES</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer to public school in the same district</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to public school in different district</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to public school in a different state</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to private, non-religious school, same district</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to private, non-religious, different district</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to private, non-religious, out-of-state</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to private, religious school within district</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to private, religious, different district</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to private, religious, different state</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to school outside of the country</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to an institution</td>
<td>TO</td>
</tr>
<tr>
<td>Transfer to a charter school</td>
<td>TO</td>
</tr>
<tr>
<td>Event Description</td>
<td>Code</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Transfer to home schooling</td>
<td>TO</td>
</tr>
<tr>
<td>Matriculation to another school</td>
<td>TO</td>
</tr>
<tr>
<td>Graduated with regular, advanced diploma</td>
<td>GR1</td>
</tr>
<tr>
<td>Completed school with other credentials</td>
<td>GR2</td>
</tr>
<tr>
<td>Death</td>
<td>TO</td>
</tr>
<tr>
<td>Illness</td>
<td>DO</td>
</tr>
<tr>
<td>Expulsion</td>
<td>DO</td>
</tr>
<tr>
<td>Reached maximum age for services</td>
<td>DO</td>
</tr>
<tr>
<td>Discontinued schooling</td>
<td>DO</td>
</tr>
<tr>
<td>Transfer to GED/HISET program</td>
<td>DO</td>
</tr>
<tr>
<td>Transfer to a college education</td>
<td>TO</td>
</tr>
<tr>
<td>Moved, not known to be continuing</td>
<td>DO</td>
</tr>
<tr>
<td>Reason unknown</td>
<td>DO</td>
</tr>
<tr>
<td>Close of year</td>
<td>TO/DO (Summer)</td>
</tr>
<tr>
<td>Other</td>
<td>DO</td>
</tr>
</tbody>
</table>

To remove a student from the cohort, a school or local education agency (LEA) must confirm in writing that the student transferred out, emigrated to another country, or died. A student who is retained in a grade level, enrolls in a GED program, or leaves school for any other reason may not be counted as having transferred out and must, therefore, remain in the adjusted cohorts—for the purpose of calculating the graduation rate.

- The term “students who graduate in four years” means students who earn a regular high school diploma at the conclusion of their fourth year, before the conclusion of their fourth year, or during a summer session immediately following their fourth year.
- The term “regular high school diploma” means the standard high school diploma that is awarded to students in the state and that is fully aligned with the state’s academic content standards or a higher diploma, which does not include a GED credential, certificate of attendance, or any alternative award.

An “extended-year adjusted cohort graduation rate” is defined as the number of students who graduate in four years or more with a regular high school diploma divided by the number of students who form the adjusted cohort for the four-year adjusted cohort graduation rate—provided that the adjustments account for any students who transfer into the cohort by the end of the given year of graduation minus the number of students who transfer out, emigrate to another country, or die by the end of that year.

- Students are aggregated into the <Language–EL> and <SpEd–SWD> variables if a student has received services at any time during high school.
- Students are aggregated into the Race variable <Multiracial> based on state-developed definitions.

### 2.2.2 Dropout Rate

A student is considered a dropout if any one of the following occurs: (1) the student is over 16 years of age, withdraws from school, and does not enroll in any other school; (2) the student
withdraws, and the school does not know where the student has gone; (3) the student withdraws and enrolls in a GED program; or (4) the student has not officially withdrawn, and the school does not know where the student has gone.

The term “dropout” is used to describe both the event of leaving school before completing high school and the status of an individual who is not in school and who is not a high school completer. High school completers include both regular graduates of school programs and those completing high school through equivalency programs such as the GED. Transferring from a public school to a private school, for example, is not regarded as a dropout event.

A student who drops out of school may later return and graduate, but is called a “dropout” at the time he or she leaves school. Measures to describe these frequently complicated behaviors include the event dropout rate (or the closely related school-persistence rate), the status dropout rate, and the high school completion rate. A clear distinction was made between students who complete a high school program that requires students to meet state standards and those who receive a general educational development (GED) diploma. Since a variety of alternative high school diplomas exist in the region, the Data Team decided:

- Only programs that required students to meet state standards would be allowed to count for the graduation and dropout rates.
- GED completers are counted as dropouts, since they do not complete a program that requires students to meet state standards.
- The adjusted freshmen cohort would serve as the denominator.

The following dropout reasons are typically found within student-information systems used by SEAs (yet the actual coding varies among states):

<table>
<thead>
<tr>
<th>REASON</th>
<th>DESCRIPTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>Left school because of problems in academics</td>
</tr>
<tr>
<td>Behavior</td>
<td>Left school because of problems in behavior</td>
</tr>
<tr>
<td>Dislike experience</td>
<td>Left school because of dislike of experience</td>
</tr>
<tr>
<td>Economic</td>
<td>Left school because of economic reason</td>
</tr>
<tr>
<td>Employment</td>
<td>Left school to seek employment</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Left school because lack of appropriate curriculum</td>
</tr>
<tr>
<td>Childcare</td>
<td>Left school because of childcare</td>
</tr>
<tr>
<td>Transportation</td>
<td>Left school because of transportation</td>
</tr>
<tr>
<td>Language</td>
<td>Left school because of language</td>
</tr>
<tr>
<td>Marriage</td>
<td>Left school because of marriage</td>
</tr>
<tr>
<td>Military</td>
<td>Left school because of military</td>
</tr>
<tr>
<td>Needed at home</td>
<td>Left school because needed at home</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>Left school because of pregnancy</td>
</tr>
<tr>
<td>Religion</td>
<td>Left school because of religion</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>Left school because of substance abuse</td>
</tr>
</tbody>
</table>
2.2.3 College Enrollment

The Data Team considered whether the denominator for the college enrollment rate should be the number of high school graduates or the number in the freshmen (high school) cohort, since the measure seeks to report the effect of high school transformation over the course of a student’s high school career. The Team determined that the denominator would be based on the number of high school graduates earning a regular (i.e., standard) diploma. The Team further delineated two enrollment (numerator) conditions: (1) immediately upon graduating from high school or (2) delayed up to sixteen months from high school graduation.

The team has, on many occasions, discussed the validity of data related to college enrollment if decision rules beyond “any instance” of enrollment are not in place. That is, “any instance” could include students enrolled at any time and enrolled for less than one day. In March 2011, the Data Team agreed to the “any instance” criteria, as most states received these data from the National Student Clearinghouse (NSC) and are therefore subject to NSC’s data-reporting guidelines.

- The NCS identifies students as part of the “Immediate Enrollment” subgroup (Immediate) when the student enrolled in a two- or four-year college institution with an enrollment status of full-time, half-time, or less-than-half-time in the fall semester immediately following graduation. The fall semester immediately following graduation is defined as any term that begins before October 15 of the graduation year and ends after October 15 of the graduation year. Therefore, the student must be enrolled by October 15 and for at least ten days.

- The NCS identifies students as part of the “At a Later Date” subgroup (Delayed) when the student enrolled in a two- or four-year college institution with an enrollment status of full-time, half-time or less-than-half-time between October 16 of the fall immediately following graduation and August 15 of the second summer following high school graduation. This period includes the fall and spring academic terms in the year following graduation, as well as terms ending in the subsequent academic year (including all semesters, quarters, trimesters, and periodic collegiate terms within the two-year window). Therefore, the student must be enrolled by August 15, two academic years after high school graduation, and be enrolled for at least ten days.

*NOTE:* The NSC guidelines presented here differ from criteria specified by the Data Team on March 22, 2011. The “Immediate Enrollment” metric has an added caveat of at least ten days. The “At a Later Date” enrollment metric extends the enrollment period from a sixteen-month window to two academic years following graduation.

2.2.4 College Persistence

The Data Team initially organized the persistence indicator into two-year and four-year college programs. For two-year college institutions, the college freshmen cohort was evaluated to determine if they (the students) maintained their enrollment in the third semester. Subsequently, for four-year college institutions, the cohort was evaluated to determine if they continued their enrollment into the fifth semester. After several meetings in which the persistence data for both groups were evaluated, it was determined a common metric (third semester) would be the most applicable, and the following business rule was adopted:

The number of college freshmen (by cohort) enrolled [by October 15] in a college program in the third semester [by October 15 of the subsequent year] after initial enrollment.
2.2.5 College Completion

The Data Team was concerned about accurately representing students in the college completion rate. One concern was based on the group of students who delayed (or deferred) entering college. If the calculation for college completion was predicated on students going directly from high school to college, this population would be misrepresented as “unmatriculated” rather than simply starting school later. For this reason, the decision was made to establish a first-time college freshman cohort (FCFC) each fall. Students would belong in the cohort of the year in which they started their college education. For example, a student who graduated in 2009 but did not start college until fall of 2011 would be assigned to the 2011 college cohort. At its winter 2015 meeting, the Data Team decided on reporting the two-year and four-year college completion rates together in the Annual Report. The reporting method would determine the number (unduplicated) of two-year and four-year college graduates within a six-year window given the number of FCFC in the applicable baseline year.

2.2.6 College Readiness Index (CRI)

The Data Team organized its College Readiness Indicators (CRI) into four dimensions: (1) performance, (2) preparatory, (3) behavioral, and (4) attitudinal. Potential indicators were screened and vetted by the team based upon the indicator’s degree of objectivity, research foundation, comparability, and data availability.

After considerable deliberation, the following CRIs were approved for testing: (1) SAT/ACT participation rates, (2) completion of Algebra II, (3) course completion and scores in dual enrollment/early college, Advanced Placement, and International Baccalaureate courses/programs, (4) SAT/PSAT/ACT scores, (5) state assessment results, (6) high school GPA, (7) attendance rates in high school, (8) completion of FAFSA, and (9) completion of four years of mathematics.

2.2.7 Student Categories

The Data Team referenced the requirements within federal statutes (see Section 1111, Elementary and Secondary Education Act as amended by the Every Student Succeeds Act.) in developing the student categories for which data would be collected, aggregated, and reported. The team selected six student data categories:

1. GENDER
2. ETHNICITY
3. RACE
4. INCOME
5. LANGUAGE
6. SPECIAL EDUCATION

2.2.7.1 Gender

1. Defined as a student’s reported gender as either MALE or FEMALE.
2. Missing data are reported within the variable <Gender ALL> on the Data Template.
2.2.7.2 Ethnicity
1. **HISPANIC OR LATINO**: A student of Cuban, Mexican, Puerto Rican, South American, Central American, or other Spanish culture or origin, regardless of race.
2. **NON-HISPANIC**: A student ethnicity other than HISPANIC OR LATINO.

2.2.7.3 Race
1. **WHITE**: Students having origins in any of the original peoples of Europe, the Middle East, or North Africa.
2. **BLACK** (African American): Students having origins in any of the black racial groups of Africa.
3. **NATIVE AMERICAN** (American Indian or Alaska Native): Students having origins in any of the original peoples of North America and South America (including Central America) who maintain cultural identification through tribal affiliation or community attachment.
4. **ASIAN**: Students having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian Subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
5. **NATIVE HAWAIIAN/PACIFIC ISLANDER**: Students having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
6. **MULTIRACIAL**: Students with a biracial or mixed-race heritage. The category also encompasses students with generationally distant genetic admixtures of more than one race in their DNA. NESSC states will report multiracial students as their data systems evolve to include this category. The following describes a member state’s reporting preference:
   - Vermont (VT) will include multiracial students in the race categories in which they self-identify (i.e., some students may be counted in more than one category). Vermont has agreed to aggregate these students and report them as part of the multiracial category at their discretion.

2.2.7.4 Income: Economically Disadvantaged (ED)
1. **ELIGIBLE** F/R: Students eligible at any time to receive free or reduced-priced school meals.
2. **NOT ELIGIBLE** F/R: Students not eligible at any time to receive free or reduced-priced school meals.

2.2.7.5 Language: English Learner (EL) (formerly known as Limited English Proficient (LEP) in NCLB).
1. **EL**: Students who meet each SEA’s EL-enrollment criteria. All EL students participate in statewide assessments and are required to take language-proficiency assessments. Students are counted as ELs if (a) they are determined by states to be “non-English proficient” (NEP), (b) if they are eligible for EL services but parents have withdrawn them from EL services, or (c) if they are identified as “fully English proficient” (FEP) but are within the two-year transition period. Students are identified as EL if they received or were eligible to receive services at any time during their secondary school years. The following describes a member-state reporting preference:
Vermont identifies students as EL/LEP if they received services at any time between ninth and twelfth grades (the state does not include “monitoring”).

2.2.7.6 Special Education (SpEd)

1. **SPECIAL EDUCATION**: Students with individual education plans (IEPs) under the Individuals with Disabilities Education Act (IDEA). Students with significant cognitive disabilities participating in statewide alternate assessments are also included. Students are identified as SpEd or students with disabilities (SWD) if they received or were eligible to receive services at any time during their secondary school years.

2.3 Timelines

As a management tool for producing its annual report, the Data Team has developed a cross-state timeline. Each fall, the team reviews the upcoming calendar, starting with the desired publication date for the annual report, and then identifies and agrees upon common milestone dates and deadlines.

1. Data submission timelines and process discussed, modified, and tentatively adopted by NESSC Team: **December 14, 2016**

2. Data tables revised as necessary by Research in Action, Inc. and sent to SEA Data Teams; preliminary posting on NESSC site of the NESSC Procedural Guidebook: **January 23, 2017**

3. Data request window–National Student Clearinghouse: **February 6–24, 2017**

4. Finalization of the NESSC Procedural Guidebook; data submission process reviewed and modified, if necessary, at NESSC Data Team Meeting: **March 15, 2017**


6. Data review and refinements completed by Research in Action in collaboration with each SEA: **June 30, 2017**

7. Draft of 2016 NESSC Annual Data Report distributed to Data Team for review: **July 17, 2017**

8. Written response to 2016 NESSC Annual Data Report draft due to the Great Schools Partnership: **July 24, 2017**

9. Great Schools Partnership Publishes and Distributes to the Nellie Mae Education Foundation and to NESSC the 2017 Annual Data Report and the 2017 NESSC Procedural Guidebook: **August 14, 2017**

2.4 Quality Controls

Quality-control practices are critical to producing comparable and credible data across selected performance indicators. Quality approaches in most states constitute a combination of externally reported data, internal-review procedures (i.e., field specifications and error reports), and data-verification techniques. These processes allow agency officials to assert that their performance statistics are valid representations of events within the state, and the judicious application of control measures is one approach within an overall quality-assurance framework. Control procedures are used to evaluate data elements during the collection and production cycle and mitigate unwanted variance and error. Without such control procedures, valid inferences about
performance cannot be made for the given year. The controls must be sensitive enough to detect slight changes in the performance indicators, while also discerning actual change from natural variability and non-systematic error.

All state data contain some anomalies—some are valid, while others do not represent actual facts. Several critical areas, such as primary and secondary “keys” used to link multiple years of data for a student, require differing levels of error detection and controls. State and local officials have limited time and human resources to investigate each and every data point in their information systems. However, some data elements require more effort than others because of their overall influence on the final result. Accounting for every student within a state is a complex task made more difficult by diverse programs, student mobility, changing policies, political demands, and secondary/external data sources (e.g., the National Student Clearinghouse).

In examining the collection and production procedures necessary to report on each NESSC performance indicator, the first step is for the SEA to implement its own internal controls. These controls are used to identify and reduce unwanted error, thus improving data quality. In addition to these internal controls, the NESSC Data Team has developed a series of external and cross-state checks for quality. Each member state provides data in accordance with the guidelines and business rules agreed upon by the Data Team, and each Data Template is reviewed using the same quality-control criteria. Three quality-assurance techniques are implemented to ensure that the reported information is both accurate and comparable.

- **Business-Rule Fidelity:** A qualitative approach developed to define the parameters and conditions necessary to satisfy the NESSC objectives, while also promoting transparency and improved comparability.
- **Data-Quality Checklist:** A standardized, qualitative procedure used to audit the data for comprehensiveness by ensuring each metric is responded to correctly.
- **Statistical Process Control (SPC):** A quantitative procedure that requires multi-wave data to test hypotheses associated with the likelihood that the observed data point represents actual performance.

**NOTE:** The data submitted by each state agency will be handled in accordance with regulations outlined in the Family Education Rights and Privacy Act (FERPA). PII data are not transmitted under any conditions.
2.4.1 Common Workflow

Data quality is improved when a common workflow is implemented by independent production sequences. This occurs when data inputs are acquired at agreed timeframes, standardized procedures are implemented, internal quality controls are operational, outputs are evaluated externally, and a common reporting template is applied to all statistical outputs. The below figure demonstrates the macro-level workflow used for this project:

![Workflow Diagram]

2.4.2 External Procedures

The Data Team and Coordinator follow a set of standard operating procedures to ensure “raw data” are validated and manipulated in such a manner that score inferences from one year to the next are supported. This is conducted, in part, through the implementation of the following control procedures:

1. Compile the business rules and document the quality-control techniques implemented by the NESSC Data Team. Review the business rules and quality-control process with the team and provide clarification as required.

2. Obtain Data Template from the Data Team representative submitted via secured internet transmission.

3. Apply the Quality-Control Checklist (Appendix A) to each data template by documenting the state’s name on the template. Screen the data submitted and annotate on the checklist to
identify any missing data based on the elements and subgroups identified in the provided template.

4. Compare all prior years’ N-counts in the template submitted with the current year’s N-counts in the original template provided. Identify and notate in the quality-control checklist any changes made to prior year N-counts.

5. Identify possible anomalies in N-counts by summing subgroup N-counts and ensuring the subgroup total equals the full student population. Annotate in the quality-control checklist any N-count anomalies identified in totaling subgroup N-counts.

6. Apply a 10% (+/-) threshold and/or 95% confidence interval to a weighted, multi-year average and compare the resultant to the current year.

7. Annotate in the quality-control checklist any N-count (subgroup) that falls outside of the 10% (+/-) threshold and/or 95% confidence interval as a possible “red flag.”

8. Finalize the state’s quality-control checklist. Send an email with the completed quality-control checklist to the respective SEA for investigation. Each SEA representative will investigate and resubmit data/responses based on the identified anomalies.

9. Review and validate the resubmitted data based on the anomalies identified (quality-control checklist).

10. Migrate the finalized data into the reporting tool.
SECTION III
ANNUAL REPORT

3.0 Overview

The Data Team conducts post-hoc analyses on the targeted performance indicators using both current and past data. These descriptive statistics are used to examine different aspects of the educational systems across the five member states. Expanding on the early work of UMDI, the Data Team created a purposeful analytical framework that will be applied each year to examine how the current year’s data compare with data from previous years. Overall, performance indicators for each state are examined and represented graphically. Multiyear results are used for comparative purposes and to provide a context for the current year’s results. Trend data are provided graphically for five indicators, and other data are reported using comparative tables.

The Common Data Project Annual Report uses a data analytic framework based upon a “question” and “answer” structure. In this framework, a major question is presented for each of the five sections: (1) graduation rates, (2) dropout rates, (3) college enrollment rates, (4) college persistence rates, and (5) college completion rates. After the question is presented, the current year’s data are displayed for all NESSC states. The “answers” are reflected in the “major findings” listed below the figure. These narrative statements assist in the accurate interpretation of the displayed data. The findings address the data range for the given year, the overall median rate and the SEA rate at the low and high end of the distribution. Finally, a statement is made that reflects how the SEAs performance compares to the long-term goal established at the beginning of this project.

The Common Data Project Annual Report provides other additional data that demonstrate the SEAs trend for a particular indicator. Information about the relative performance of three subpopulations of students is also provided. They include (1) economically disadvantaged students, (2) English learners, and (3) students with disabilities. In addition, data are disaggregated by student gender. The aforementioned subpopulations are those articulated in the Elementary and Secondary Education Act (ESEA) of 1965 for accountability and reporting. All NESSC members report on these subpopulations in several reporting structures, including federal and state mandated reports. The following is the table of contents used in the Annual Report.

3.1 Content

ABOUT THE COMMON DATA PROJECT
EXECUTIVE SUMMARY
SECTION I: GRADUATION RATES
  1.0 Cross-State Comparison
  1.1 Eight-Year Trend
  1.2 Economically Disadvantaged Students
  1.3 English Learners
  1.4 Students with Disabilities
  1.5 Gender
  1.6 Extended Rate: Cross-State Comparison
1.7 Extended Rate: Four-Year Trend
1.8 Extended Rate: Economically Disadvantaged Students
1.9 Extended Rate: English Learners
1.10 Extended Rate: Students with Disabilities
1.11 Extended Rate: Gender

SECTION II: DROPOUT RATES
2.0 Cross-State Comparison
2.1 Eight-Year Trend
2.2 Economically Disadvantaged Students
2.3 English Learners
2.4 Students with Disabilities
2.5 Gender

SECTION III: COLLEGE-ENROLLMENT RATES
3.0 Cross-State Comparison
3.1 Six-Year Trend
3.2 Economically Disadvantaged Students
3.3 English Learners
3.4 Students with Disabilities
3.5 Gender

SECTION IV: COLLEGE-PERSISTENCE RATES
4.0 Cross-State Comparison
4.1 Five-Year Trend
4.2 Economically Disadvantaged Students
4.3 English Learners
4.4 Students with Disabilities
4.5 Gender

SECTION V: COLLEGE-COMPLETION RATES
5.0 Cross-State Comparison
5.1 Economically Disadvantaged Students
5.2 English Learners
5.3 Students with Disabilities
5.4 Gender
## APPENDIX A

### QUALITY-CONTROL CHECKLIST

#### KPI #1. Graduation Rate

<table>
<thead>
<tr>
<th>WBS</th>
<th>Measure</th>
<th>Completion Status</th>
<th>Quality Status</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Four-Year Rate: Graduates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Fifth-Year Rate: Graduates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Six-Year Rate: Graduates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Demographics: Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Demographics: Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>Demographics: Income (ED)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.7</td>
<td>Demographics: Language (EL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>Demographics: Special Education (SpEd/SWD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.9</td>
<td>Baseline-AHSFC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### KPI #2. Dropout Rate

<table>
<thead>
<tr>
<th>WBS</th>
<th>Measure</th>
<th>Completion Status</th>
<th>Quality Status</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>High School Dropouts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Demographics: Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Demographics: Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Demographics: Income (ED)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Demographics: Language (EL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>Demographics: Special Education (SpEd/SWD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.7</td>
<td>Baseline-AHSFC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### KPI #3. College-Enrollment Rate

<table>
<thead>
<tr>
<th>WBS</th>
<th>MEASURE</th>
<th>COMPLETION STATUS</th>
<th>QUALITY STATUS</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Early Enrollment in College (On-Time Graduates Only)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Enrolled in a Two-Year Program/College (Immediately)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Enrolled in a Four-Year Program/College (Immediately)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Enrolled in a Two-Year Program/College (Delayed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>Enrolled in a Four-Year Program/College (Delayed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>Demographics: Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.7</td>
<td>Demographics: Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.8</td>
<td>Demographics: Income (ED)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.9</td>
<td>Demographics: Language (EL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.10</td>
<td>Demographics: Special Education (SpEd/SWD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.11</td>
<td>Baseline-HSGC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### KPI #4. College-Persistence Rate

<table>
<thead>
<tr>
<th>WBS</th>
<th>MEASURE</th>
<th>COMPLETION STATUS</th>
<th>QUALITY STATUS</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Students Persistent [3rd semester enrolled]-Two-Year Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Students Persistent [3rd semester enrolled]-Four-Year Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>Demographics: Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Demographics: Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>Demographics: Income (ED)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6</td>
<td>Demographics: Language (EL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.7</td>
<td>Demographics: Special Education (SpEd/SWD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.8</td>
<td>Baseline-FCFC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## KPI #5. College-Completion Rate

<table>
<thead>
<tr>
<th>WBS</th>
<th>Measure</th>
<th>Completion Status</th>
<th>Quality Status</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Completion of Two-Year Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Completion of Four-Year Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>Demographics: Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.4</td>
<td>Demographics: Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>Demographics: Income (ED)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.6</td>
<td>Demographics: Language (EL/LEP)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.7</td>
<td>Demographics: Special Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SpEd/SWD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.8</td>
<td>Baseline- FCFC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B
PROCEDURAL STEPS

The primary purpose of the below section is to articulate the sequence of steps (not-state-centric) used in the production of data points published in the Annual Report. They are provided as a frame of reference for both NESSC member states and quasi-technical audiences.

Graduation Rate

STEP 1. Establish the adjusted high school freshmen cohort (AHSFC) articulated in Section 2.1.18.

STEP 2. Determine the number of students composing the denominator for the beginning graduation window (i.e., baseline year).

STEP 3. Remove students from the AHSFC given different “transfer-out” codes throughout the high school window (e.g., 4-years).

STEP 4. Add students to the AHSFC given different “transfer-in” codes throughout the high school window.

STEP 5. Given the adjusted AHSFC (denominator), determine the number of students (numerator) earning a standard diploma.

STEP 6. Aggregate data given the different reporting categories enumerated in Section 2.2.7.

 Dropout Rate

STEP 1. Establish the adjusted high school freshmen cohort (AHSFC) articulated in Section 2.1.18.

STEP 2. Determine the number of students composing the denominator for the beginning graduation window (i.e., baseline year).

STEP 3. Remove students from the AHSFC given different “transfer-out” codes throughout the high school window.

STEP 4. Add students to the AHSFC given different “transfer-in” codes throughout the high school window.

STEP 5. Given the adjusted AHSFC (denominator), create the numerator by removing all students earning a standard diploma, alternative diploma, still enrolled, and other completers.

STEP 6. Evaluate the numerator created from STEP 5 with prior year’s enrollment status codes to identity (and remove) any students not previously identified in the enrollment tables as dropouts. Determine if these students should be categorized as dropouts (e.g., exit status = “other” or “unknown”).

STEP 7. Aggregate data given the different reporting categories enumerated in Section 2.2.7.
College-Enrollment Rate

STEP 1. Establish the adjusted high school graduation cohort (HSGC) articulated in Section 2.1.19.

STEP 2. Determine the number of students composing the denominator for the beginning college enrollment window (i.e., baseline year).

STEP 3. Add students to the HSGC that complete high school during the summer.

STEP 4. Given the adjusted HSGC (denominator), determine the number of students (numerator) enrolled by October 15 of the subsequent year into a college institution of higher education.

STEP 5. Aggregate data given the different reporting categories enumerated in Section 2.2.7.

College-Persistence Rate

STEP 1. Establish the first-time college freshmen cohort (FCFC) articulated in Section 2.1.20.

STEP 2. Determine the number of students composing the denominator for the beginning college enrollment window (i.e., baseline year).

STEP 3. Add students to the FCFC that did not matriculate from high school to college immediately “late college freshmen” by October 15 of the given year.

STEP 4. Given the adjusted FCFC (denominator), determine the number of students (numerator) that remain enrolled by October 15 of the subsequent year in a college institution of higher education.

STEP 5. Aggregate data given the different reporting categories enumerated in Section 2.2.7.

College-Completion Rate

STEP 1. Given the first-time college freshmen cohort (FCFC) articulated in Section 2.1.20.

STEP 2. Determine the number of students composing the denominator for the beginning college enrollment window (i.e., baseline year).

STEP 3. Add students to the FCFC that did not matriculate from high school to college immediately “late freshmen” by October 15 of the given year.

STEP 4. Given the adjusted FCFC (denominator), determine the number of students (numerator) that completed a two-year program within three years from initial enrollment.

STEP 5. Given the adjusted FCFC (denominator), determine the number of students (numerator) that completed a four-year program within six years from initial enrollment.

STEP 6. Aggregate data given the different reporting categories enumerated in Section 2.2.7.
Recognizing the critical importance of high-quality data to effective school improvement, the five state education agencies from Connecticut, Maine, New Hampshire, Rhode Island, and Vermont have been collecting, calculating, and reporting graduation rates, dropout rates, and postsecondary enrollment, persistence, and success rates using consistent procedures and methodologies developed by a regional team of data specialists from the five departments of education. To our knowledge, the New England Secondary School Consortium’s Data Project is the first initiative of its kind in the United States.

To promote more accurate and reliable data comparability across the member states, the Data Project develops and implements standardized procedures designed to eliminate unwanted variance that may result from divergent data systems, the misinterpretation of agreed-upon rules, or computational errors. The Data Project has also created a series of quality-control mechanisms that further improve the reliability and comparability of state-reported data.

FMI: newenglandssc.org/resources/common-data-project/