

An Introduction to the Adjusted Cohort Graduation Rate Calculation in New Jersey

Background

In 2005, the National Governors Association (NGA) introduced the 4-year adjusted cohort graduation rate calculation in an effort to move all states towards using a common calculation. The Adjusted Cohort formula has been deemed more accurate than other calculations in its ability to track student movement over time. In 2008, the federal government adopted NGA's formula and mandated that states calculate cohort rates beginning with 2011 graduates. The adoption of a common national standard in calculating graduation rates ensures that student movement in and out of districts is tracked over time and results in a graduation rate that accounts for all students more accurately and consistently than in the past.

The New Jersey Department of Education (NJDOE) introduced the adjusted cohort graduation rate calculation in 2011 to determine rates for schools and districts. Through NJ SMART, the state's longitudinal student data warehouse, adjusted cohort graduation rate calculations are used to derive the graduation rates of students across the state. Graduation rates are published annually in the New Jersey School Performance Reports and ESSA Accountability Profiles.

Beginning in the 2020-2021 school year, the NJDOE was required to make changes to the methodology used to calculate the adjusted cohort graduation rate for federal reporting and accountability purposes. The United States Department of Education (USED) determined that the NJDOE must only include students who receive a diploma that is fully aligned with the state's standards, meaning they have met the state's graduation assessment requirements, course requirements, and local attendance requirements. This means that students with Individualized Education Programs (IEPs) who utilize a modification or exemption for some or all requirements may not be counted as graduates in the calculation of the adjusted cohort graduation rate used for federal reporting and accountability purposes.

It is important to note that this is only a change to how graduation rates are calculated for federal reporting. It does not affect requirements to earn a diploma or the type of diploma that the state awards to students with disabilities.

As a result of these changes, the NJDOE began calculating two versions of the adjusted cohort graduation rate starting with 2021 graduation rates. A "federal version" aligns with ESSA requirements and [USED guidance](#) and is used for federal reporting and ESSA school accountability. A "state version" will continue to use the same methodology as previously used and will reflect all students who receive a state-endorsed diploma.

Starting in the 2020-2021 school year, students with disabilities who did not meet the state course requirements and/or the attendance requirements for graduation because of an exemption or modification to their IEP were not included in the graduates count (the numerator) when calculating the

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“federal version” of the adjusted cohort graduation rate. Starting in the 2021-2022 school year, in addition to the students who did not meet the state course or attendance requirements, students with disabilities who did not meet the state graduation assessment requirements by demonstrating proficiency on one of the required graduation assessment requirements or through the portfolio appeals process but instead met alternate requirements in their IEPs will not be included in the graduates count (the numerator) when calculating the “federal version” of the adjusted cohort graduation rate. The students who are not included as graduates because graduation requirements were not met will still be included in the denominator of the “federal version” of the calculation.

Districts identify students who did not meet the state course requirements and/or the attendance requirements for graduation due to an exemption or modification to their IEP using the NJ SMART SID Management IEP Graduation Course Requirement and IEP Graduation Attendance fields, respectively. Districts identify students who do not meet the state graduation assessment requirement but instead met alternate requirements in their IEPs using the NJ SMART SID Management ELA and Math Graduation Pathway Indicators.

Adjusted Cohort Graduation Rate Calculation

The 4-year adjusted cohort graduation rate calculation divides the number of students who graduated in 4 years or less by the number of first-time ninth graders who entered the cohort four years earlier. As noted above, the students considered “graduates” will differ depending on whether calculating the “federal version” or the “state version” of the graduation rate.

In equation form, the rate calculates:

$$\frac{\text{4-Year Cohort Graduates in Year X}}{[\text{First-Time 9}^{\text{th}} \text{ Graders in Year X-4}] + [\text{Transfers In}] - [\text{Verified Transfers Out}] - [\text{Excluded From Cohort}]}$$

The 5-year adjusted cohort formula divides the number of students who graduate in 5 years or less by the number of first-time ninth graders who entered the cohort five years earlier. The numerator includes students who graduated both in 4-years and 5-years.

The 6-year adjusted cohort formula divides the number of students who graduate in 6 years or less by the number of first-time ninth graders who entered the cohort six years earlier. The numerator includes students who graduated in 4-years, 5-years, and 6-years.

In the “state version” of the calculation, the graduates (numerator) includes any students who have graduated with a state-endorsed diploma.

In the “federal version” of the calculation for 2021-2022, the graduates (numerator) includes any students who have graduated with a state-endorsed diploma, and who met the state course requirements, state attendance requirements and state assessment requirements for graduation. Students with disabilities who did not meet the state course, local attendance, or state graduation

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assessment requirements because of modifications or exemptions in their IEPs will not be included as graduates in the “federal version” of the calculation, but they will remain in the denominator.

Graduation Cohorts

Under the adjusted cohort methodology, each incoming 9th Grader in New Jersey is assigned to a graduation cohort based on the expectation that each will graduate in 4-years. For example, if a student entered ninth grade in Fall 2018, then they would be assigned to the 2022 Cohort. Once a student is assigned a cohort year, they remain in that same cohort regardless of when they actually graduate. In other words, cohorts are assigned once and are not changed if a student becomes “off-track.”

While students are actively enrolled in high school, their status is tracked to determine whether they are on-track or off-track to achieving graduation in four years. Students’ grade levels determine their progress towards graduation. For example, if a student in Cohort 2022 is in eleventh grade during the Fall of 2020, they would be considered “on-track”. However, if a student from the 2022 cohort is enrolled in tenth grade during the Fall of 2020, then they would be considered “off-track” since they would be at risk of not graduating within four years.

When a student exits or enters a district, it may affect the district’s cohort size, resulting in an *adjusted cohort*. For example, if a Cohort 2022 student transfers from District A to District B, then District B’s cohort count is increased by one student and District A’s cohort count is decreased by one student. However, if that student dropped out of District A before being successfully transferred to another district, then District A would be responsible for that student and their cohort count would not be adjusted. Rules determining “district ownership” of individual students have not changed and are documented in NJDOE regulations.

Cohort Statuses

There are nine possible cohort statuses for any given high school student within NJ SMART. Five of these possible statuses refer to inactive students (i.e., students who have exited the school district and have not transferred to another New Jersey public school district) and four statuses refer to active students (i.e., students who are currently enrolled in a New Jersey school). The cohort status options differ slightly depending on whether the state or federal version of the calculation is used.

The Cohort status for individual students is updated through the mandatory submission of SID Management in NJ SMART, which provides supplemental information for those same students, including grade level and socioeconomic indicators. At the beginning and end of each school year, LEAs submit this data to NJ SMART. The quality of the data submitted in these collections impacts the accuracy of students’ cohort statuses. Table 1 lists the possible cohort statuses for both active and inactive students in a given cohort year.

Note that the “Graduated” cohort status is calculated differently depending on whether the state or federal version of the calculation is used. The “Graduated (State Calculation Only)” status is for students who can only be included in the “Graduated” status in the state version of the calculation, i.e. students with disabilities who did not meet the state course requirements, the attendance requirements, or the state assessment requirements for graduation because of a modification or exemption in their IEPs. This

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status only appears when viewing the federal version of the calculation because in the state version these students would be included in the “Graduated” status. All other cohort status categories are the same in both the state and federal versions of the calculation.

Table 1: Cohort Statuses in NJ SMART

Cohort Status	Calculation Type	Submission for Updates	Enrollment Status	Description
Graduated	State Version	SID Management	Inactive	Students who have been exited with a School Exit Withdrawal Code of ‘L’ (Graduated).
Graduated	Federal Version	SID Management	Inactive	Students who have been exited with a School Exit Withdrawal Code of ‘L’ (Graduated) and who did not utilize a modification or exemption from meeting any of the state graduation requirements.
Graduated (State Calculation Only)	State Version	SID Management	Inactive	Students who have been exited with a School Exit Withdrawal Code of ‘L’ (Graduated) but utilized a modification or exemption from meeting either the state course, local attendance, or state graduation assessment requirements.
On-Track Continuing	State and Federal Version	SID Management	Active	Submitted Grade Level suggests that a student is on-track to graduate by their assigned cohort year.

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Cohort Status	Calculation Type	Submission for Updates	Enrollment Status	Description
Off-Track Continuing	State and Federal Version	SID Management	Active	Submitted Grade Level suggests that a student is still attending school but is at least one year behind their assigned cohort year.
Active Student - Status Unknown	State and Federal Version	SID Management	Active	Students who have not been currently submitted to SID Management, but were already assigned a cohort year and were recently reported as on-track or off-track continuing; therefore, it could not be determined whether the student is on- or off-track.
Transfer In	State and Federal Version	SID Management	Active	Students who were exited with a valid School Exit Withdrawal Code and have been successfully uploaded by another NJ SMART submitting district. These students will not yet have an 'On-Track Continuing' or 'Off-track Continuing' status until they are submitted to SID Management and their current Grade Level is compared

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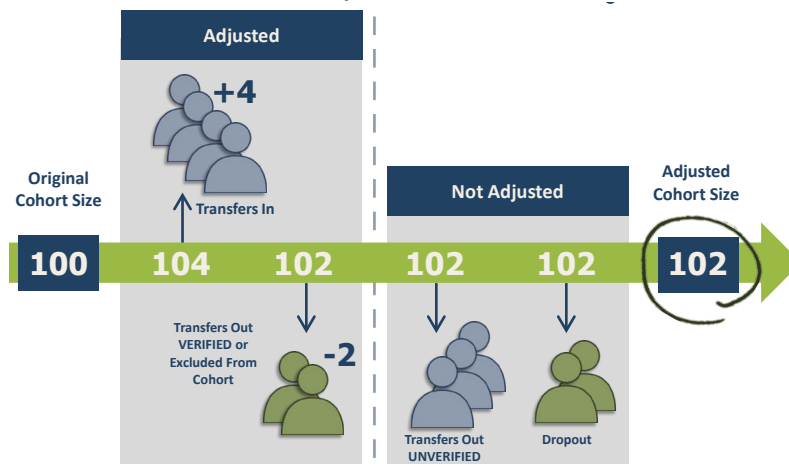
Cohort Status	Calculation Type	Submission for Updates	Enrollment Status	Description
				to their assigned cohort year.
Transfer Out – Unverified*	State and Federal Version	SID Management	Inactive	Students who were exited with a transfer-out School Exit Withdrawal Code but have not yet been uploaded by another NJ SMART submitting district.
Dropout	State and Federal Version	SID Management	Inactive	Students who were exited with a dropout School Exit Withdrawal Code and not uploaded by another NJ SMART submitting district.
Excluded From Cohort	State and Federal Version	SID Management	Inactive	Students who are excluded from the adjusted cohort under special circumstances, including death of a student and transfer out of state/country.

*Note: Transfer Out – Verified is not an official cohort status for a student, because once a transfer has been verified, that student officially exits the initial district and appears as a “Transfer In” at the new district.

As students transfer enrollment into and out of respective districts, the cohort count of each district is continually adjusted. Since the graduation rate is calculated by dividing the number of graduates by adjusted cohort count, this movement will affect a given district’s graduation rate. Chart 1 illustrates how the different cohort statuses affect cohort count.

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Chart 1: How is Cohort Size Adjusted Over Time?



High School Graduation Cohort Status Profile

NJ SMART’s District Reports feature, which grants school districts the ability to view their graduation data from multiple points of analysis, empowers districts to track the status of students and their cohorts throughout their high school tenure. Using this tool, districts can identify emerging trends and effective interventions based on the student-level data that they submit through required and optional NJ SMART data submissions.

Data from NJ SMART profiles will serve as graduation data for the state. The High School Graduation Cohort Status Profile is available on the District Reports tab in the NJ SMART portal for LEA use. It is highly encouraged that superintendents, business administrators, curriculum coordinators, principals, and other critical education staff familiarize themselves with these profiles. Trainings on these and other profiles are offered on a continual basis and the NJ SMART Help Desk is available each day to provide any necessary guidance for district users. Beyond serving as a data warehouse, the NJ SMART system is a critical and useful educational tool for educators, school administrators, and school districts.

The Cohort Status Profile summarizes student counts in the nine cohort statuses for schools within a given district. In addition, the profiles disaggregate each cohort status by various student group indicators, such as Gender, Lunch Status, and Special Education Status. From the Profile, districts have the ability to drill down to look at individual student lists in each of these categories. For example, a district could drill down to view a list of all of their female graduates, or a list of all of their 11th grade dropouts. From the student list, districts can drill down further to view an individual student’s enrollment record, which displays key demographic data, enrollment history, and many other valuable pieces of information for any given student.

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In addition to identifying trends across different indicators, districts can utilize this profile to investigate their student data. Also, districts are able to access information on students who have exited their district through NJ SMART. Districts can drill down to identify students who have transferred to another NJ district, but who never enrolled in the new district. These students would fall into the Transfer Out – Unverified cohort status and the previous district would still be accountable for these students, even though they are no longer attending the district. District personnel responsible for tracking transfer documentation can use this list as a basis for tracking down these students, verifying documentation of transfers, and communicating with the intended transfer district.

Official vs. Unofficial Profiles

The High School Graduation Cohort Status Profile allows districts to view their submitted student data using either Official Snapshots (data they reported to the NJDOE) or Unofficial Data (Local Data Mart, which is for district use/view only).

In viewing a given Cohort over the course of a year, districts have three options for the Official Profile, which will display students' cohort statuses at the time of that snapshot: October 15th, August 3rd, and August 31st.

Graduation rates will be calculated using the August 31st Official High School Graduation SID Management Snapshot. August 31st marks the NJDOE's official end to a given school year for graduation rate calculation purposes. This end-of-summer deadline allows for the inclusion of summer graduates. The August 31st SID Snapshot is unique to the Graduation Profile and is displayed only in graduation-related district profiles. It captures student movement in and out of districts during the summer months. This snapshot is used to calculate high school graduation rates for the state, and is, therefore, only applicable to viewing graduating cohorts. For example, the August 31, 2022 snapshot will be available solely for viewing Cohort 2022, 2021, and 2020 students.

Official snapshot profiles reflect student data at a specific point in time. This data is reported to the NJDOE. In addition to snapshot profiles, districts have the option of running Local Data Mart (LDM) profiles that allow them to review and analyze current data in the portal. This data is for district's individual use only and is not reported to the state. The LDM is intended to be a tool that allows districts real-time access to critical data and analysis tools. Districts that regularly use LDM functionality typically perform better in managing year-end submissions and find greater benefits from the NJ SMART system.

Viewing the Cohort Status Profile with LDM data is particularly useful to districts in examining their graduating cohort's status in the time between the August 3rd SID Management Snapshot and the

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official August 31st Graduation Snapshot. In order to run this LDM profile, districts must have uploaded SID Management.

Official State Snapshot Reports

- Periods of time when all LEAS must submit official student data for state and federal reporting purposes.
- Official snapshots include: October 14th, August 3rd, and August 31st
- Snapshots include the most recent official SID Management data.
- To view official state data from these periods in District Reports, choose “Official State Snapshot Report”.

Local Data Mart Reports

- Periods of time between official snapshots when LEAs can update student records and run district reports with refreshed data.
- LDM data is pulled from real-time SID Management data via a nightly refresh.

Calculation Type

As noted earlier in this document, the NJDOE calculates both a “federal version” and a “state version” of the adjusted cohort graduation rate. When using the High School Graduation Cohort Status Profile reports in NJ SMART, there is an option to select the calculation type.

Districts should review both versions of the adjusted cohort graduation rate and note the differences. The differences between the two calculations are based on which students are included in the Graduated category. In the “state version”, students who have earned a state-endorsed diploma, but who did not meet the state course, state assessment and/or local attendance requirements because of a modification or exemption in their IEPs are included in the numerator and denominator. In the “federal version” of the graduation rate calculation, these students, noted in the High School Graduation Cohort Status Profile under the column “Graduated (State Calculation Only)”, will be included in the denominator, but not in the numerator. This may result in a “federal version” of the graduation rate that is lower than the “state version” of the graduation rate.

At the time of this August 31st Snapshot, students with any cohort status besides ‘Graduated’ or ‘Excluded from Cohort’ will count as non-graduates in the rate calculation.

Federal Version:

$$\frac{\text{Graduated}}{\text{Adjusted Cohort Count}} = \frac{\text{Graduated}}{\text{Graduated} + \text{Graduated (State Calculation Only)} + \text{Transfer Out Unverified} + \text{On Track*} + \text{Off Track} + \text{Status Unknown}}$$

State Version:

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*Note: Districts may see On-Track Continuing students in their August 31st Snapshot. This would represent students who were in twelfth grade in 2021-2022 but had not graduated by August 31st, 2022.

Student Group Data

In most NJ SMART District Reports, districts view their most recent data for students – either reported (Snapshots) or recently refreshed (LDM). The High School Graduation Cohort Status Profile is unique in that the student group variables are not based on the most recent, but instead they are based either on “Entering Values” or “Overall Values”.

Entering Values refer to the student group values that districts assigned to students when they entered their 4-year graduation cohort. The student groups that are based on Entering Values are gender and race/ethnicity. For example, for most Cohort 2022 students, student group data for race/ethnicity will reflect the 2018-2019 values that districts assigned to these students in relevant NJ SMART submissions when the students were in grade 9. The values assigned for these variables will be unaffected by later submissions once this initial (or, entering) value has been assigned.

Starting with the 2021 cohort, the NJDOE will begin reporting on Overall Values for other student groups, based on updated guidance from USED. The Overall Value reflects if a student was identified in that student group at any time since they entered the graduation cohort. The student groups that will be based on Overall Value are:

- Economically Disadvantaged Students (“Lunch Status”);
- Students with Disabilities (“Special Education Status”);
- English Learners (“Limited English Proficiency”);
- Migrant students;
- Homeless students;
- Students in Foster Care; and
- Military-Connected students.

For example, if a student was eligible for free or reduced lunch in the 10th grade, the student’s Overall Economically Disadvantaged Status would be “Y”, even if the student was not eligible for free or reduced lunch in 9th, 11th, or 12th grade.

Table 3: Entering and Overall Values for Student Group Data in Graduation Profiles

Student Group Variable	Submission for Updates	Source
Entering Gender	SID Management	Derived from the snapshot when the Cohort Year was first assigned.
Entering Race/Ethnicity	SID Management	Derived from the snapshot when the Cohort Year was first assigned.

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Student Group Variable	Submission for Updates	Source
Overall Economically Disadvantaged (Lunch Status)	SID Management	Derived from the snapshot data during student's tenure in the Graduation Cohort.
Overall Special Education	Special Education Submission	Derived from the snapshot data during student's tenure in the Graduation Cohort.
Overall ELL Status	SID Management	Derived from the snapshot data during student's tenure in the Graduation Cohort.
Overall Migrant Status	SID Management	Derived from the snapshot data during student's tenure in the Graduation Cohort.
Overall Homeless	SID Management	Derived from the snapshot data during student's tenure in the Graduation Cohort.
Overall Military-connected	SID Management	Derived from the snapshot data during student's tenure in the Graduation Cohort.
Overall Foster	N/A	Derived from data provided by the Department of Children and Family (DCF).

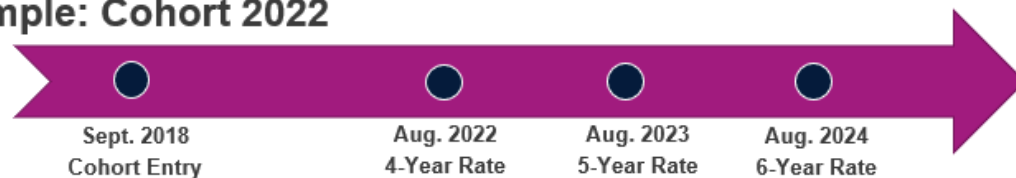
5-Year & 6-Year Graduation Rate Profiles

Since 2012, the NJ SMART High School Graduation Cohort Status Profile has been displaying 5-year graduation rates for graduation cohorts in addition to 4-year rates. Students will remain in their same 4-year adjusted cohorts, and the profile will show cohort status after five years from the cohort entry point. For example, most Cohort **2022** students entered their cohort in September of **2018** when they were in ninth grade. Their 4-year graduation rate will be calculated through the August 31, **2022** Official Snapshot. Districts will later be able to view that cohort's 5-year graduation rate using the August 31, **2023** Official Snapshot, in order to see all of their Cohort **2022** students who graduated in 4 years plus students who graduated (or changed cohort status) in their fifth year.

Chart 2: Illustration of 4-, 5-, and 6-Year Graduation Rates

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Example: Cohort 2022



Example: Cohort 2021



Example: Cohort 2020



Introduced in 2021, the NJ SMART High School Graduation Cohort Status Profile displays the 6-year graduation rates for graduation cohorts. The 6-year graduation rates follow the same rules as the 5-year rates but reflect cohort status after six years.

Graduation Appeals Process

LEAs can appeal specific graduation data in the NJ SMART High School Graduation Status Profile through requests made during NJ SMART’s Graduation Appeals Process. The NJDOE considers each request and makes all rulings on appeals.

An example of a potential appeals scenario would be if District A exited a student from NJ SMART as a transfer, knowing that they would be transferring and enrolled in District B, but District B did not upload the student to NJ SMART in a timely fashion. In all appeals scenarios related to conflicts with other districts, LEAs must first make a reasonable attempt to resolve the situation through inter-district communication. Districts must document these outreach attempts. If communication fails, then District A can appeal that student’s status as a “non-graduate” in their district through the NJ SMART Appeals Process.

In order to submit an appeal request, LEAs must submit all relevant information through an online Appeals Form, available in the Reporting tab of the NJ SMART portal. After the DOE has evaluated the appeal request, the district will be notified of the decision. Communication attempts regarding transfer conflicts should be documented in the appeal request in order for the request to be considered. Please refer to the [High School Graduation Appeals User Guide](#) for further details.

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Reporting of Graduation Data

After appeals have been applied, the NJDOE will use the final school, district, and state level graduation rates for both state and federal reporting and accountability. The “federal version” of the 4-year, 5-year, and 6-year graduation rates, as reflected in the High School Graduation Cohort Status Profile will be submitted to USED and used in national comparisons of high school graduation rates. To view the version of the High School Graduation Cohort Status Profile that will be used for federal reporting and accountability purposes, use the following parameters:

1. **August 31st Snapshot**, amended by any district appeal decisions made by the NJDOE
2. **Accountable Perspective**, showing graduation rates for schools/districts of the students that they are *accountable* for, which may not always correspond to the students *attending* their schools, per outlined regulations
3. **Federal calculation**, for **2021-2022**, this version of the calculation will not include students **who did not meet the state graduation requirements because of an exemption or modification to their IEP** in the graduated count of the graduation rate calculation.

In addition to overall school and district graduation rates, the NJDOE will also publicly report graduation rates by the following student groups:

- Gender;
- Race/Ethnicity;
- Economically Disadvantaged Students (“Lunch Status”);
- Students with Disabilities (“Special Education Status”);
- English Learners (“Limited English Proficiency”);
- Migrant students;
- Homeless students;
- Students in Foster Care; and
- Military-Connected students.

Other variables appear in the Cohort Status Profile, like Time in District and Attendance, but these breakdowns by Cohort Status are not currently reported publicly by the NJDOE.

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Training & Resources

NJ SMART hosts a series of web-based trainings throughout the summer and fall to instruct school district personnel on the new graduation rate and on how to utilize the High School Graduation Cohort Status Profile. It is highly recommended that superintendents, business administrators, and other relevant district personnel begin to familiarize themselves with the adjusted cohort formula and this NJ SMART reporting tool. Scheduled live training and on demand eLearning videos are posted on the eLearning Videos & Webinars section of the [NJ SMART Resources & Trainings](#). In addition, numerous resources are available in the Documents for Downloads section, including the training PowerPoint presentation, FAQs, [User Guide to the High School Graduation Cohort Status Profile](#), and [High School Graduation Appeals User Guide](#) that describes the components found in the profile and how to drill-down to student-level data.

The [NJDOE's Graduation webpage](#) has additional information including a link to [USED's ESSA graduation guidance](#), links to New Jersey's graduation [course requirements](#) and [assessment requirements](#), and a short guide to [Understanding Adjusted Cohort Graduation Rates](#). In addition, please visit the [National Governors Association \(NGA\)](#) website for more information on the development of the adjusted cohort formula and the motivation behind moving towards a common calculation.

Finally, for further information on NJ SMART and available resources, please visit [NJ SMART Resources & Trainings](#). Questions regarding NJ SMART functions and data submissions should be directed to the NJ SMART Help Desk by calling (800) 254-0295 or njsmart@pcgus.com.