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**StriveTogether**<sup>®</sup>

# Cradle-to-Career Outcomes Data Guides: *High School Graduation*

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Developed in  
partnership with





# High School Graduation

StriveTogether's recommended indicator for high school graduation is based on the federal definition of high school graduation rate: the four-year adjusted cohort graduation rate. This guide provides information on why high school graduation matters, recommended indicators, data sources for indicators, detailed data specifications, how to calculate this outcome, data disaggregation, frequently asked questions, learning resources and data sharing. This guide also recommends data collection strategies, sources and methods for building data practices that can be used to better serve communities.



## Why this outcome matters

### Key takeaways:

- **High school graduation is associated with better academic, health and social outcomes.**
- **High school graduates have higher wages and employment rates than non-graduates, including those with GEDs.**
- **Graduating high school is also associated with social and academic preparation for postsecondary education.**

High school graduates report better outcomes across multiple domains, compared to non-graduates. High school graduation is associated with healthier behaviors and better physical health ([Heckman et al. 2014](#)), including better self-reported health, fewer chronic health conditions and lower likelihood of premature death ([DHHS 2020](#)). High school graduation is also associated

with lower rates of incarceration ([Lochner & Moretti 2004](#)).

Importantly, there are also economic benefits to completing high school. In 2021, the unemployment rate for high school dropouts was 8.3 percent compared to 6.2 percent for high school graduates ([BLS 2021](#)). High school graduates also have higher wages than non-graduates, including those with GEDs ([Heckman et al. 2014](#)). In fact, a high school diploma leads to higher earnings throughout adulthood. High school graduates with no college experience earn a median of \$9,500 more per year than high school dropouts ([BLS 2021](#)).

Not only is high school graduation associated with improved outcomes, but it also represents college preparedness. A high school diploma indicates that a student has the social and academic preparation for postsecondary education ([Urban Institute 2022](#)).

## Recommended indicators

On October 29, 2008, the [U.S. Department of Education](#) finalized rulemaking that established and required a uniformly calculated graduation rate for all states: the four-year adjusted cohort graduation rate (ACGR). In 2015, Every Student Succeeds Act (24 CFR 200.19(b)(1)) required all states to calculate ACGR for all public high schools in the state. ACGRs are calculated at the school level, and then reported up to the district and the state.

The ACGR was recommended by a [National Institute of Statistical Sciences \(NISS\) panel](#) as the best method for calculating graduation rates as it allows for the movement or transfer of students while counting each student only once. The [ACGR](#) is the number of students who graduate in four years with a regular high school diploma divided by the numbers of students who form the adjust-

ed cohort for the graduating class. More explicitly, it is the number of students that graduate in four years divided by the total number of first-time ninth graders for that cohort, plus transfers in and minus transfers out. This measure is considered the most accurate measure available for reporting on-time graduation rates.

In addition to calculating a four-year adjusted cohort graduation rate, a state may seek approval from the Secretary for an “extended-year adjusted cohort graduation rate.” 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 four-year adjusted cohort graduation rate.

## Data sources for indicators

***All states and districts are required to publish a report card with information on spending, student achievement and graduation rates. These report cards provide parents and the public with important information on state, district and school performance and progress ([ESSA](#)). There is not a specific deadline for publishing data, only that states must publish data “annually.”***

### **District data:**

School- and district-level graduation rates are reported on district websites. Districts without websites are permitted to make report cards available in another format.

**Availability:** This data is often available via school district websites with a one-year lag.

### **State data:**

States vary in their collection and reporting approach. Not only may states update their websites on different schedules than they use to report to

the U.S. Department of Education, but they may also publish rates calculated using a different methodology in addition to the required ACGR. For example, some states may only report four-year high school graduation rates while others also report five-year rates. More information on individual state reporting can be found [here](#).

**Availability:** This data is available on each state’s [State Report Card](#) website, including school- and district-level data with about a one-year lag. StriveTogether also maintains a list of state report card sites that can be found [here](#).

## Federal data:

There are multiple sources of federal data, with varying formats, described below. Based on the timeliness of data, we recommend using district- or state-level data sources first since they are timelier, before pursuing federal sources, which often have longer lag times.

### EDFacts

The U.S. Department of Education's [EDFacts](#) initiative collects, analyzes and centralizes data provided by state education agencies (SEAs) on various topics. Raw data documents (in CSV form) from EDFacts contain adjusted cohort graduation rates at the school and local education agency (LEA) or district level. This data has an estimated two-year lag, but this varies by year. For example, the four-year adjusted cohort graduation rates for the 2019-2020 academic year were updated in December of 2022.

### National Center for Education Statistics: Common Core of Data

High school graduation rates are available in the [Common Core of Data](#) (CCD), a census of schools and districts managed by the U.S. Department of Education's National Center for Education Statistics. The CCD includes five main collections and several supplemental ones. Both main and supplemental collections are divided into two data content areas: non-fiscal and fiscal. [ACGR, students who have dropped out and graduates](#) are part of the non-fiscal, supplemental data form and available for download (in Excel sheet form) at the national, state, district and school level with an approximate three-year lag.

### Urban Institute's Education Data Portal

Urban Institute centralizes and compiles school- and district-level ACGRs from EDFacts through the [Education Data Portal](#). Graduation rates are provided by race and special populations. The

graduation rate is reported as a range, with the magnitude of the range decreasing as the number of students reported increases. As noted above, EDFacts data have a two-year lag, and the portal makes the data available the following quarter. For example, the ACGR for the 2019-2020 academic year was made available in December 2022 and became available on the portal in March 2023.

## Note on federal data identifiers

To use federal data sources, it is necessary to use district identifiers (searchable through NCES's Search for Public Districts Tool or Search for Public Schools Tool). School districts are also known as local education agencies (LEAs). Each LEA is assigned a seven-digit ID by the National Center for Education Statistics (NCES) called the NCES LEA identification number. The first two digits make up a unique state ID called the American National Standards Institute state code, which adhere to Federal Information Processing Standards codes, and the last five digits are unique within that state for the LEA. Each school is also assigned a unique ID by the NCES. School IDs are twelve digits. The first seven digits make up the NCES LEA identification number for the LEA the school belongs to, and the remaining five digits are unique to that school within the LEA, but those five digits may not be unique across states.

# Detailed data specifications

## Definitions

### Four-year adjusted cohort graduation rate (ACGR)

The percentage of students in a cohort, adjusted for transfers into and out of the school, district or state, that graduate with a regular high school diploma within four years of entering high school. The four-year adjusted cohort graduation rate is defined in 34 CFR 200.19 (b)(1) 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 must be calculated based on the earliest high school grade.*

The term “adjusted cohort” means the students who enter grade 9 (or the earliest high school grade) and any students who transfer into the cohort in grades 9 through 12 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 in the 12th grade.

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, and does not include a GED credential, certificate of attendance or any alternative award.

### Target population

The target population for this metric includes high school students that are enrolled in your cradle-to-career partnership’s districts. For some, the target population will be all of the high school students in the school district. If, however, your geographic focus is different from the school district, it may be necessary to collect this data at the school level.

## Example

**Formula for calculating the four-year adjusted cohort graduation rate for the cohort entering ninth grade for the first time in in the 2019-2020 academic year, graduating in 2022-2023:**

**Number of cohort members who earned a regular high school diploma by the end of the 2022-2023 academic year**

**Number of first-time ninth graders in fall 2019 (starting cohort) plus students who transferred in, minus students who transferred out, emigrated or died during the 2019-2020, 2020-2021, 2021-2022, and 2022-2023 academic years**

**x 100**



# Data disaggregation

States provide graduation rates for students who graduate in four years or fewer with a regular high school diploma or a state-defined alternate diploma for students with the most significant cognitive disabilities. States also provide the count of students in the four-year graduation cohort and a count of those who have and have not graduated in four years or fewer with a regular high school diploma or state-defined alternate diploma for student with the most significant cognitive disabilities ([EDFacts](#)).

[ESSA requires](#) that all states and districts disaggregate graduation data by demographics at the school, LEA and state levels, unless the number of students in the demographic “is insufficient to yield statistically reliable information or the results would reveal personally identifiable information about a student.” In addition, for privacy reasons

under the Family Educational Rights and Privacy Act (FERPA), some demographics may be too small to report. Both graduation rates and cohort count data are reported in the following demographics, when possible, as required by law:

- Each major racial and ethnic group
- Economically disadvantaged students (Economically Disadvantaged Status)
- Children with disabilities (Disability Status)
- English learners (English Learner Status)
- Children who are experiencing homelessness (Homeless Enrolled Status)
- Children who are in foster care (Foster Care Status)

High school graduation rate is not required by ESSA to be disaggregated by gender, so ACGR by gender data from federal sources are not available ([Leadership Conference Education Fund](#).)



# Frequently asked questions

## How do I calculate a weighted average?

A weighted average helps users gather a more accurate look at a set of data than the normal average alone. A weighted average is the average of a data set that recognizes certain numbers as more important or hold more “weight” than others. To find a weighted average, first you must determine total students or the denominator for each school or district. Then multiply each graduation rate by its “weight” or denominator then add the results. See [here](#) for an example.

## How do we collect graduation rates for multiple schools or multiple districts?

Take the individual graduation rates (either school

or district) and take their average, weighting by the total number of students in each cohort (each individual denominator).

## Is the AFGR a reasonable replacement for the ACGR?

The averaged freshman graduation rate (AFGR) refers to the percentage of first-time ninth-graders in public high schools who graduate with a regular diploma within 4 years ([NCES 2017](#)). The AFGR compares the number of freshman to the number of seniors four years later but does not track individual students over time ([NCES](#)). Although it generally aligns with the ACGR, it is no longer recommended by NCES.





## Learning resources

Federal guidance for states reporting high school graduation rates according to Every Student Succeeds Act:

<https://www2.ed.gov/policy/elsec/leg/essa/essagraterateguidance.pdf>

Trends in High School Dropout and Completion Rates in the United States:

<https://nces.ed.gov/programs/dropout/index.asp>

Comparison of Adjusted Cohort Graduation Rate (ACGR) and averaged freshman graduation rate (AFGR):

<https://www.edweek.org/leadership/u-s-graduation-rate-same-results-different-measures/2014/05>

Factors that influence high school graduation rates:

<https://eric.ed.gov/?id=EJ1104424>

High school graduation as a predictor of upward mobility:

<https://upward-mobility.urban.org/high-school-graduation>

Education Commission of the State — ESSA: Quick Guides on Top Issues:

<https://www.ecs.org/wp-content/uploads/ESSA-Quick-guides-on-top-issues.pdf>



## Data sharing

The StriveTogether [Guide to data sharing](#) provides important information about requesting, storing and working with data. It is important that cradle-to-career partnerships work with local school districts to obtain achievement and assessment participation data. This may involve

entering into a data-sharing agreement with local schools, districts or the state. In some cases, it may be possible to access student-level data for this outcome as part of a request for district- or state-level data. The data sharing guide provides important information for doing that responsibly.

# StriveTogether<sup>®</sup>

StriveTogether is a national movement with a clear purpose: help every child succeed in school and in life from cradle to career, regardless of race, ethnicity, zip code or circumstance. In partnership with nearly 70 communities across the country, StriveTogether provides resources, best practices and processes to give every child every chance for success. The StriveTogether Cradle to Career Network reaches more than 14 million students, including more than 7 million children of color and over 7 million children experiencing poverty. The network spans 29 states and Washington, D.C.

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