



Raise the Age, Lower the Dropout Rate? *Considerations for Policymakers*

Introduction

In the United States, nearly 1.23 million public school students from the class of 2008 failed to graduate with a diploma. That amounts to a loss of 6,829 students from U.S. high schools each day.¹

The decision to drop out of high school has a profound impact on one's future. Most students who drop out have limited job choices and face tenuous economic futures. Compared to their counterparts who graduate from high school, they are more likely to be unemployed and those who are employed are likely to earn less. As a result, many will be without healthcare and dependent upon public assistance. Dropouts can even expect a shorter life span and more instances of certain medical conditions including diabetes and heart disease.² In addition, dropouts are 3.5 times more likely than high school graduates to be arrested in their lifetime.³

It is projected that 91 Massachusetts students dropped out of high school each day during the 2007-08 school year.⁴ Only 81% of students from the class of 2007 graduated on time.⁵ A series of recent

reports by the Center for Labor Market Studies at Northeastern University assesses the income, health, social, civic and fiscal consequences of dropping out of high school in Massachusetts.⁶ Their research revealed the following findings.

- **Dropouts are less likely to have a job and those who do earn less, on average, than high school graduates.**⁷ Over half (55%) of Massachusetts dropouts ages 16 to 64 were employed in 2005 compared with three-quarters (74%) of high school graduates. Dropouts who were employed earned almost \$10,000 less per year, on average, than high school graduates. Over the course of a lifetime, the average dropout earns considerably less and spends longer periods of time (21 years) in poverty than the average high school graduate (11 years).
- **Dropouts are more likely to depend on public assistance.** One-quarter (27%) of Massachusetts dropouts were dependent on cash public assistance of some kind (such as welfare and unemployment benefits), compared with 15% of high school graduates.

1 EPE Research Center. (2008). *National summary school to college: Can state P-16 councils ease the transition? A special supplement to Education Week's DIPLOMAS COUNT 2008*. Retrieved from <http://www.edweek.org/media/ew/dc/2008/40sgb.us.h27.pdf>.

2 Belfield, C. and Levin, H. (2007). *The economic losses from high school dropouts in California*. California Dropout Research Project: Policy Brief One. U.C. Santa Barbara.

3 Alliance for Excellent Education. (September 2007). *Fact sheet: High school dropouts in America*. Retrieved from http://www.all4ed.org/files/GraduationRates_FactSheet.pdf.

4 EPE Research Center. (2008). *Massachusetts school to college: Can state P-16 councils ease the transition? A special supplement to Education Week's DIPLOMAS COUNT 2008*. Retrieved on January 2, 2009 from <http://www.edweek.org/media/ew/dc/2008/40sgb.ma.h27.pdf>.

5 Massachusetts Department of Elementary and Secondary Education. (2008). *Cohort 2007 4-Year Graduation Rates - State Results*. Retrieved from http://www.doe.mass.edu/infoservices/reports/gradrates/07_4yr.html.

6 Center for Labor Market Studies & Boston Private Industry Council. (2008). *Key Findings—Summary of Three Reports on the Social and Fiscal Consequences of the Dropout Crisis*. Retrieved from <http://www.bostonpic.org/resources/key-findings-summary-three-reports-social-and-fiscal-consequences-dropout-crisis>.

7 The term high school graduate refers to people whose highest level of education is graduating with a high school diploma or a GED. It does not include people who have some college education or a college degree.

- **Massachusetts dropouts are less likely to have health insurance than those with more education and are more likely to depend on Medicaid or Medicare for their coverage.** Only 20% of all Massachusetts dropouts had health insurance coverage through an employer. Over half of all Massachusetts dropouts have publicly funded health care through Medicaid or Medicare.
- **Dropouts, especially young men, are more likely to be incarcerated.** Twice as many male dropouts than high school graduates were incarcerated in 2000. Dropouts make up the majority (70%) of jail and prison populations in Massachusetts.
- **Dropouts are less likely to marry and are more likely to become single parents.** Only 43% of male dropouts ages 20 to 64 were married in 2005, compared with 60% of high school graduates. Only 36% of female dropouts ages 20 to 64 were married in 2005, compared with 53% of high school graduates. About three-quarters (77%) of 2005 births to female dropouts were out of wedlock, compared with slightly less than half (47%) of out of wedlock births to women with a high school diploma.
- **Dropouts are less likely to be actively engaged in civic activities, including voting in local and national elections and volunteering for civic organizations.** Only 16% of dropouts ages 21 to 24 voted in the 1996 Presidential Election compared with 43% of high school graduates. Only 10% of dropouts age 25 and older did volunteer work in 2003 compared with 22% of high school graduates.

In addition to the consequences faced by individuals who drop out, the problem affects the rest of society. Over his/her lifetime, the average high school dropout in Massachusetts will impose a net fiscal burden of nearly \$275,000 on state and federal taxpayers. In comparison, the average high school graduate will contribute \$181,500 more in taxes than he/she will receive in cash and other benefits (such as food stamps, healthcare, and childcare and housing subsidies) from the state and federal government.

The gap between the fiscal impacts of high school graduates and high school dropouts is \$456,500.⁸

Statistics on the economic disparity between those who have completed high school and those who have dropped out and the related social implications of this disparity are troubling. Yet, there are signs of hope. Nationally, and at the state level, there is increased attention to what is often referred to as the “dropout crisis.”

Requiring students who have not graduated to stay in school until they are 18 is a strategy that some states are employing in an attempt to reduce the number of students who drop out of high school. The purpose of this policy brief is to provide an overview of this trend, summarize the viewpoints of those in favor of and opposed to this policy, and review research that examines the effectiveness of this policy in reducing the dropout rate and increasing the graduation rate.

Addressing the Dropout Crisis

Over the past several years, various efforts and initiatives have been launched at the local, state and national levels to shine a spotlight on the dropout crisis. In 2004, Boston Mayor Thomas Menino convened the first meeting of the Youth Transitions Task Force and charged it with creating a plan that would help lower the high school dropout rate. The Boston Private Industry Council (PIC) now regularly convenes the Task Force which consists of a broad cross-section of organizations including the Boston Public Schools, community organizations, statewide organizations, city departments and state agencies. Over the last few years, the Youth Transitions Task Force has raised the visibility of the dropout crisis by commissioning research (such as the Northeastern University Center for Labor Market Studies research cited above), making policy recommendations for the city and state, and piloting innovative changes in practice to reduce the number of dropouts and re-engage students once they have left school.

8 McLaughlin, J., Sum, A., Khatiwada I., with Palma, S. (2007). *State and local fiscal consequences of high school dropout problems in Massachusetts*. Center for Labor Market Studies at Northeastern University for the Boston Youth Transition Funder Group: Boston, MA. Retrieved from <http://www.bostonpic.org/resources/state-and-local-fiscal-consequence-high-school-dropout-problems-massachusetts>.

In August 2008, *An Act to Improve Dropout Prevention and Reporting of Graduation Rates* was signed into law. This law established a Graduation and Dropout Prevention and Recovery Commission to survey dropout prevention and recovery programs nationwide and identify best practices, and to evaluate the dropout prevention and recovery programs currently in place throughout the Commonwealth. The Commission was directed to make recommendations on a number of issues (see text box for a summary of these issues), including the issue of requiring students to stay in school until they are 18 years old. Requiring students who have not graduated to stay in school until they are 18 is a strategy that a number of other states are employing in an attempt to reduce dropout rates. This type of legislation is referred to as a change in the compulsory age of attendance.

Since *A Nation at Risk* was released in 1983, an increasing number of lawmakers have attempted to raise the age at which students may leave school.⁹ In 1980, only five states (Ohio, Oklahoma, Oregon, Utah and Washington) had a compulsory school attendance age of 18. Since then, the number has climbed to 19 states and the District of Columbia. Over the last two years, numerous states have considered legislation to increase the compulsory age of attendance but only New Hampshire, South

Dakota, Nevada and New Mexico have passed such legislation. This policy brief provides an overview of the trends in compulsory attendance laws across the United States and is intended to inform current policy discussions focused on raising the compulsory age of attendance from 16 to 18 in Massachusetts.

Purpose and Methods

Massachusetts has a clear interest in developing a comprehensive approach for responding to the dropout crisis. The question that lies before policy-makers and that serves as the central focus of this policy brief is: *Is there empirical evidence to support Massachusetts raising its compulsory school attendance age to 18?*

The brief is organized into five sections:

1. A summary of the current compulsory attendance laws in Massachusetts
2. An overview of the trends in compulsory attendance laws across the country including the age at which students are permitted to drop out (referred to throughout this policy brief as compulsory attendance age), recent legislative actions to raise the compulsory attendance age, exemptions to compulsory attendance requirements and penalties for non-compliance

An Act to Improve Dropout Prevention and Reporting of Graduation Rates¹⁰ Summary

The Graduation and Dropout Prevention and Recovery Commission has been charged with examining and making recommendations on ten issues: (1) setting a goal and timeline for reducing the statewide annual dropout rate; (2) further developing early indicator systems to identify students who are at risk of dropping out; (3) exploring ways to encourage school districts to incorporate internships, work and learning programs into structured learning time to engage all students in relevant and rigorous curriculum; (4) developing a reimbursement mechanism for districts sending students to alternative education programs; (5) exploring the connection between school discipline policies and students' level of engagement or alienation from school; (6) providing financial incentives for districts that are effective in graduating at-risk students and recovering high school dropouts; (7) raising the compulsory attendance age from 16 to 18 years of age; (8) creating a dropout prevention and recovery grant program; (9) examining current school district reporting requirements; (10) establishing a threshold annual dropout rate for each school district such that rates in excess of threshold levels would establish a mandatory requirement on districts to adopt and implement a district-wide action plan to reduce dropout rates and effectively track students.

9 Christie, K. (January 2007). The complexity of compulsory attendance. *Phi Delta Kappan* 341(2).

10 Massachusetts State Legislature. Session Law. Chapter 315 of the Acts of 2008: An Act to Improve Dropout Prevention and Reporting of Graduation Rates. Retrieved from <http://www.mass.gov/legis/laws/seslaw08/sl080315.htm>.

3. Differing viewpoints on raising the compulsory age of attendance
4. A review of research examining the effectiveness of this policy in reducing the dropout rate and increasing the graduation rate
5. Considerations for policymakers

Research for this brief included a review of compulsory attendance laws in the United States, as well as recently passed legislation and a review of recent research and literature on raising the compulsory attendance age.

Compulsory Attendance Laws in Massachusetts

Currently, Massachusetts students must attend school until age 16. Massachusetts law¹¹ states that every child between the minimum and maximum ages established for school attendance by the Board of Elementary and Secondary Education must attend a public day school, or some other day school approved by the school committee; a school established under an experimental school plan; or receive instruction in a manner approved in advance by the superintendent or the school committee.

Massachusetts exempts students from the compulsory attendance requirement if they have a physical or mental condition that makes their attendance not feasible. Exemptions are also made for children who hold work permits. More specifically, Massachusetts exempts youth between 14 and 16 who meet the requirements for the completion of the 6th grade, hold a permit for employment and are regularly employed for at least six hours per day or have written permission from the superintendent of schools to engage in non-wage-earning employment at home. There is also a provision that allows an employment permit to be granted by the superintendent of schools if the superintendent determines that the welfare of the child will be better served through the granting of such permit.

Compulsory Attendance

The term compulsory attendance refers to state legislative mandates for attendance in public schools (or authorized alternatives) by children within certain age ranges for specific periods of time within the year. Components of compulsory attendance laws include admission and exit ages, length of the school year, enrollment requirements, alternatives, waivers and exemptions, enforcement and truancy provisions. While compulsory attendance laws vary by state, almost all states include a clause providing for students to be released from compulsory attendance requirements upon graduation from high school, regardless of age. The focus of this policy brief is on the age at which students may exit school without having graduated.

Parents, or legal guardians, are deemed responsible for students' school attendance (Chapter 76, Section 2). If a student is absent for seven full days or fourteen half days within any period of six months, his/her parent/guardian will, on complaint by a supervisor of attendance, be punished by a fine of not more than twenty dollars.

Massachusetts law (Chapter 76, Section 18) specifies the conditions under which students age 16 or older may legally leave school. The law requires schools to notify the parent/guardian of a student who has not been in attendance for 15 consecutive days. School administrators are required to send a notice within ten days requesting that the student and his/her parent/guardian meet with the school committee or its designated representatives prior to the student permanently leaving school. The purpose of the meeting is to discuss the reasons for the student permanently leaving school and plans for an alternative education program or other placement. Each year, superintendents are required to report to the Department of Elementary and Secondary Education the number of students 16 years of age or older who have permanently left school, the reasons each student left and any alternative education or other placement in which he/she is enrolled.

11 Massachusetts State Legislature. The General Law of Massachusetts Chapter 76: School Attendance, Section 1. Requirements and exceptions. Retrieved from <http://www.mass.gov/legis/laws/mgl/76-1.htm>.

State Trends

Compulsory Attendance Age By State

The compulsory age of attendance varies by state. The compulsory age is 16 in 23 states, 17 in 8 states, and 18 in 19 states and the District of Columbia (see Figure 1). Almost all states include a clause providing for students to be released from compulsory attendance requirements upon graduation from high school, regardless of age.

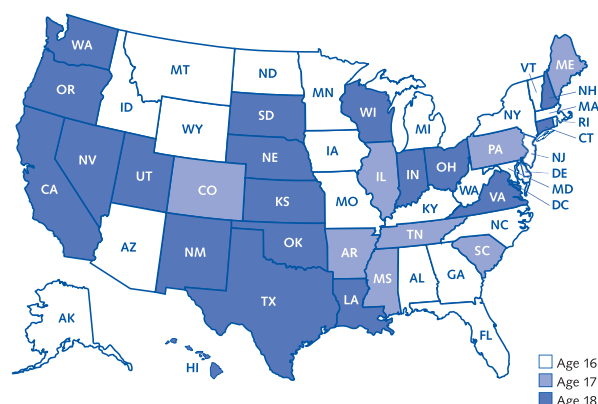
Recent Legislation

Our review of states' legislative actions to raise the compulsory age of attendance revealed that since 2000, seven states (Connecticut, Indiana, Louisiana, New Hampshire, New Mexico, Nevada and South Dakota) increased the age of compulsory attendance to 18 years of age (see Table 1).

Over the last two years, at least ten states, in addition to Massachusetts, introduced legislation to raise the compulsory attendance age from 16 to 18 that was defeated or died in committee (see Table 2).

As part of their compulsory school attendance legislation, states such as New Mexico and New Hampshire are providing supplemental supports and alternative education options to help students stay in school until they graduate. For example, to facilitate each student's successful progression through high

Figure 1. National view: Compulsory school attendance ages



school, New Mexico's compulsory school attendance legislation (Senate Bill 561, 2007 Session) requires each student at the end of grades 8 through 11 to prepare an "interim next-step plan" that outlines his/her coursework for the grades remaining until high school graduation. Each student must also complete a "final next-step plan" during his/her senior year and prior to graduation. The "final next-step plan" is a plan that shows that the student has committed or intends to commit in the near future to a four-year college or university, a two-year college, a trade or vocational program, an internship or apprenticeship, military service or a job. Each plan is signed by the student, the student's parents and the student's guidance counselor, and filed with the school principal.

Table 1. States that increased compulsory school attendance age to 18 since 2000

State	Date of Enactment	Citation
New Hampshire	2007	N.H. REV. STAT. ANN. § 242.1
South Dakota	2007	S.D. CODIFIED LAWS § 13-27-1
Nevada	2007	NEV. REV. STAT. ANN. § 392.040
New Mexico	2007	N.M. STAT. ANN. § 22-8-2; § 22-12-2
Indiana	2006	IND. CODE ANN. § 20-33-2-6
Louisiana	2001	LA. REV. STAT. ANN. § 17:221
Connecticut	2000	CONN. GEN. STAT. § 10-184

Table 2. States that introduced legislation in 2007 and 2008

State	Date of Legislation
Alaska	2007
Arizona	2008
Florida	2008
Iowa	2007
Kentucky	2008
Massachusetts	2007
Michigan	2008
New Jersey	2008
New York	2007
North Dakota	2008
West Virginia	2008

Exemptions from compulsory attendance requirements

Many states, including Massachusetts, allow students to be exempt from the compulsory attendance requirement if they have a physical or mental condition that makes the child's attendance not feasible or if they have arranged for another educational option such as attending a private school. A few states, such as New Hampshire, include independent study, online courses and apprenticeships as acceptable alternative learning arrangements. (See text box for New Hampshire's provision for alternative learning plans.) Provisions for home schooling are provided in a majority of the states. For example, Maine law¹² excuses students from attending public school if they are educated in a home instruction program meeting specific conditions.

Arizona, Vermont and Wyoming exempt students from compulsory attendance requirements upon completion of the 10th grade (compulsory age is 16 in all three states); Montana exempts students upon finishing 8th grade (compulsory age is 16).

About one-third of the states (18), including Massachusetts, allow students to leave school for employment (see Table 3 on page 7). Eight out of the 19 states that have a compulsory age of 18 exempt students as young as 14 for employment if earnings

are necessary to support themselves or their family.

Some states that contain remote areas (including Alabama, Alaska, Louisiana, Nevada, Pennsylvania, Virginia and West Virginia) exempt students who live a certain distance from a school, bus stop or public highway. Other states exempt students with parents' permission, permission of the district court or the local school board, or meeting the requirements for an exit interview.

Penalties for noncompliance

In every state, a student's parents or legal guardians are deemed responsible for school attendance. Several states institute penalties on parents for noncompliance with compulsory attendance laws. Penalties can include fines and jail sentences but these are not usually imposed until administrative measures prove unsuccessful. Thirty-one states impose a monetary fine on parents ranging from \$5 to \$1,000. Thirteen states (including the District of Columbia, Illinois, Maryland, Michigan, New Mexico, Rhode Island and Wyoming) impose incarceration ranging from two days to one year. In some states (such as the District of Columbia, Iowa, New Mexico, Ohio, Tennessee and Washington) community service may be ordered in lieu of a fine or incarceration. California allows participation in par-

New Hampshire: Provisions for Alternative Learning Plans (Chapter 242, Senate Bill 18-FN, 2007 Session)

New Hampshire's compulsory school attendance legislation includes provisions regarding alternative learning plans. According to the legislation, a student 16 years of age or older must obtain a waiver from the superintendent in order to pursue alternative learning plans for obtaining either a high school diploma or its equivalent. The alternative learning plans must include age-appropriate academic rigor and incorporate the student's interests. These plans may include, but are not limited to, independent study, private instruction, performing groups, internships, community service, apprenticeships, and online courses.

The alternative learning plans must be developed in consultation with the student, a school guidance counselor, the school principal and at least one parent or guardian of the student, and submitted to the school district superintendent for approval. If the superintendent does not approve the alternative learning plan, the parent or guardian of the student may appeal the decision to the local school board. Disapproval of the plan by the local school board may be further appealed by the parent or guardian of the student to the state board of education.

¹² Maine Revised Statutes Annotated (MRSA) title 20-A, §5001-A, sub-§3A.(4). Retrieved from <http://www.mainelegislature.org/legis/statutes/20-A/title20-Asec5001-A.html>.

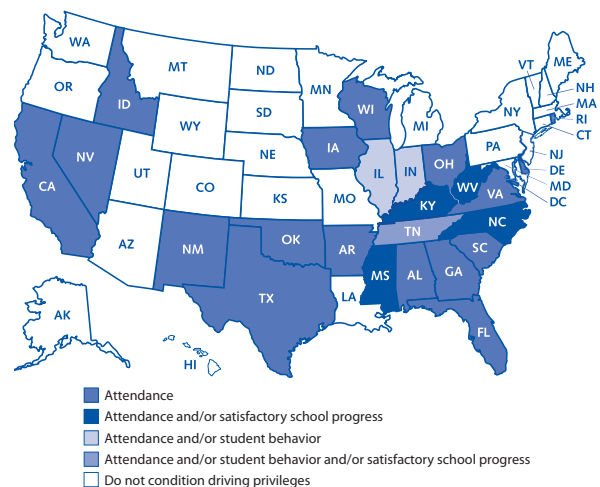
Table 3. States with employment exemptions

State	Compulsory Age	Exemptions
DC	18	17
Hawaii	18	15
Nebraska	18	14, completed 8th grade and earnings necessary to support self/dependents
Nevada	18	14 and earnings necessary to support self/parents
New Mexico	18	17
Ohio	18	14 and earnings necessary to support self/family
Oregon	18	16
Washington	18	16
Colorado	17	
Illinois	17	
Pennsylvania	17	16
South Carolina	17	Completed 8th grade or student has reached age 16 and is determined to be disruptive to the educational program of the school
Alabama	16	
Arizona	16	
Massachusetts	16	14 to 16 and completed 6th grade
Missouri	16	14 to 16
New York	16	
West Virginia	16	Completed 8th grade

ent education and counseling programs in lieu of other penalties.

One method some states are using to penalize students who do not attend school is conditioning their driving privileges on attendance. These policies usually apply to 16- and 17-year-olds because 16 is typically the minimum age for obtaining a driver’s license and 18 is the age of legal adulthood. Twenty-four states (shown in Figure 2) condition youth driving privileges on compliance with school attendance requirements; some states couple it with other indicators such as student behavior (suspensions, expulsions or other safety infractions) and satisfactory school progress.¹³ According to the Education Commission of the States, little research has been completed on the effect these types of laws have on truancy or dropout rates.¹⁴

Figure 2. States that condition youth driving privileges on school attendance



13 Education Commission of the States. (July 2007). *State notes: Sanctions on driving privileges*. Retrieved from <http://www.ecs.org/clearinghouse/60/10/6010.pdf>.

14 Ibid.

Viewpoints

Strong arguments have been made for and against raising the compulsory school attendance age to 18. This section of the policy brief summarizes the main points espoused by those who are in favor and those who oppose this policy.

Our review revealed five main arguments *for* raising the compulsory age to 18.

- **Decrease the number of dropouts:** Most proponents believe that raising the compulsory school attendance age will decrease the number of students who drop out and ultimately increase the number of students who graduate. This argument is based on the possibility that some students may drop out of school specifically because they reach the compulsory age of attendance, and that raising the age will keep those students in school for a longer period of time.
- **Influence educator behavior:** Some proponents believe that educators (school and district staff) may be less likely to “give up on” or “push out” students, particularly those students that are the most challenging to educate, if students must legally stay in school until age 18.
- **Current attendance requirements are outdated:** Some proponents believe that compulsory attendance laws allowing students to drop out at age 16 are outdated. They argue that these laws were enacted when our nation’s economy was largely agrarian and a high school education was not a prerequisite for participating in the mainstream workforce. They believe that compulsory attendance laws should be updated to reflect what is necessary to succeed in today’s economy.
- **Moral obligation:** Other proponents argue that there is a moral obligation to keep students in school by making it illegal for a student to drop out of school before a particular age. Since our nation guarantees and provides substantial resources for a public education through 12th grade, proponents argue that state law should be consistent with this commitment.
- **Send a message:** Some proponents argue that raising the compulsory school age from 16 to 18 sends a strong signal to students, educators, and parents that a state takes its dropout problem seriously.

Our review revealed five main arguments *against* raising the compulsory age to 18.

- **Little or no impact:** Many opponents are skeptical of the policy due to a lack of evidence that increasing the compulsory age to 18 is effective in keeping potential dropouts in school. Some opponents believe that changing the law will not impact dropout rates because there is little or no enforcement of the current truancy laws; they believe the legislation will simply increase the legal dropout age. Others argue that raising the compulsory school age will have little impact since it does not address the issues that cause the dropout problem such as lack of student engagement in school and lack of support for students having academic difficulty.
- **Misplaced attention:** Some opponents argue that rather than requiring students to attend school beyond age 16, policymakers and school administrators should concentrate on ways to make schools places where students want to be and, as a result, voluntarily attend. Opponents believe it is more important to help students complete a path to graduation by expanding existing programs and creating new programs geared toward engaging and supporting students who are at risk for dropping out.
- **Misuse of resources:** Enforcement of compulsory attendance laws is usually the responsibility of local school attendance officers, superintendents, law enforcement officers, and municipal or juvenile courts. Opponents argue that increasing the compulsory age from 16 to 18 will result in an increase in human and financial resources required for enforcement. These opponents argue against allocating resources in order to enforce the law and argue for spending scarce resources on programs shown to be successful in helping students persist and graduate.
- **Violation of parents’ rights:** Some are opposed to the policy because they believe it is the parents’ right to determine when their children are ready to begin and conclude their formal education. These opponents question a state’s right to usurp parents’ authority to make educational decisions for their children.
- **Disruption in the schools:** Some opponents are concerned about the negative consequences associ-

ated with requiring students to be in the classroom who do not want to be there. They argue that these students may become disruptive and impede other students' learning and teachers' ability to effectively do their jobs. They argue that requiring unengaged students to attend school will lead to teachers and principals spending more time and resources disciplining such students for disruptive or violent behavior and truancy.

Evidence of Impact

The primary rationale behind raising the compulsory attendance age to 18 is the belief that it will decrease the number of students who drop out and ultimately increase graduation rates. The purpose of this brief is to shed light on the extent to which compulsory attendance laws achieve these goals by examining empirical evidence. As described below, our review of research revealed little evidence to support the idea that raising the compulsory age to 18 decreases dropout rates and increases graduation rates.

Challenges in gathering evidence

Determining the extent to which raising the compulsory attendance age to 18 has an impact on dropout and graduation rates poses a challenge. States that have recently raised the compulsory attendance age to 18 have typically initiated it as one component in a more comprehensive effort to reduce the number of students who drop out and increase the number of students who graduate. As a result, when a state experiences falling dropout rates and/or rising graduation rates, it is difficult to ascertain the extent to which the increase in compulsory attendance age led to the desired outcome. In our review, we did not find any state-level analyses examining the impact of increasing the compulsory attendance age that sta-

tistically controlled for other factors that affect high school dropout and graduation rates.

Some researchers have reasoned that if a compulsory attendance age of 18 is effective in keeping potential dropouts in school, one might expect the states that require students to stay in school until age 18 to have higher graduation rates and lower dropout rates than states that allow students to leave school at an earlier age. Those who have sought to compare dropout and graduation rates in states with different compulsory attendance age requirements have had difficulty due to variation in how dropout and graduation rates are calculated. In fact, widespread concerns over both the lack of uniformity in calculation methods across the states and the accuracy of state-reported statistics prompted the U.S. Department of Education to propose changes to the regulations governing the methods states can use to calculate graduation rates under the No Child Left Behind Act.¹⁵

In 2005, progress was made in this area when all 50 state governors made a commitment to voluntarily implement a common formula for calculating their state's high school graduation rate by signing the National Governors Association (NGA) Graduation Counts Compact.¹⁶ Early in 2008, NGA reported that most states were preparing to implement the Compact formula at some point over the next three years.¹⁷

In the absence of such standardization, those looking to compare graduation and dropout rates across the states have used the rates reported by the National Center for Education Statistics (NCES). NCES reports two sets of dropout and graduation rates. One set (the event dropout rate and the averaged freshman graduation rate) is designed to track changes in the school system, while the other set (status dropout rate and status completion rate) is designed to study general population issues (see

15 EPE Research Center. (2008). *National summary school to college: Can state P-16 councils ease the transition? A special supplement to Education Week's DIPLOMAS COUNT 2008*. Retrieved from <http://www.edweek.org/media/ew/dc/2008/40sgb.us.h27.pdf>.

16 National Governors Association. (2008). *Implementing Graduation Counts: State progress to date*. Retrieved from <http://www.nga.org/Files/pdf/0807GRADCOUNTS.PDF>.

17 NGA reported that sixteen states were using the Compact formula to calculate their high school graduation rate, five more planned to implement it later in 2008, eight more in 2009, and nine more in 2010. Six states plan to implement the Compact formula in 2011, and one plans to do so in 2012. Five are uncertain about their plans to use the formula.

Appendix A for a summary of each rate). While the event dropout rate and averaged freshman graduation rate facilitate state-to-state comparisons, it is important to note that the averaged freshman graduation rate includes students who have obtained GEDs and is a measure of the extent to which public high schools are graduating students within the expected period of four years. As a result, this may not capture graduates who were previously at risk for dropping out and who may have repeated a grade.

Based on 2004-05 NCES data (the most recent data available), of the ten states with the highest graduation rates, only three states (Nebraska, Wisconsin and Utah) require attendance to the age of 18 (see Table 4). These three states represent 18% of the states that had a compulsory attendance age of 18 in the 2004-05 school year.

Table 4. States with the Highest Graduation Rates

Averaged Freshman Graduation Rates for Public Secondary Schools: 2004-05

State	Compulsory School Age	Graduation Rate
Nebraska	18	87.8
Wisconsin	18	86.7
Iowa	16	86.6
Vermont	16	86.5
North Dakota	16	86.3
Minnesota	16	85.9
New Jersey	16	85.1
Arizona	16	84.7
Utah	18	84.4
Pennsylvania	17	82.5

Source: NCES¹⁸

Of the fourteen states with the lowest dropout rates (based on 2004-05 data—the most recent data available), only five (Kansas, Wisconsin, Indiana,

Virginia, Nebraska) require attendance to the age of 18 (see Table 5). These five states represent 31% of the states that had a compulsory attendance age of 18 in the 2004-05 school year.

Table 5. States with the Lowest Dropout Rates

Event Dropout Rates for Public School Students in Grades 9-12: 2004-05

State	Compulsory School Age	Dropout Rate
North Dakota	16	1.9
Kansas	18	2.1
Iowa	16	2.2
Wisconsin	18	2.4
Indiana	18	2.5
Virginia	18	2.5
Vermont	16	2.6
Nebraska	18	2.7
Tennessee	17	2.7
Alabama	16	2.8
Maine	17	2.8
Mississippi	17	2.8
Pennsylvania	17	2.9
Idaho	16	3.0

Source: NCES¹⁹

If a compulsory attendance age of 18 is effective in keeping potential dropouts in school, one might expect the states that have the compulsory age set at 18 to have higher graduation rates and lower dropout rates than states that allow students to leave at an earlier age. As shown in Tables 4 and 5, this is not the case. However, there is an important limitation to simple cross state analyses, such as the one above. This type of analysis does not account for the many factors that may impact dropout and graduation rates such as demographic and socioeconomic differences among states; the array of other dropout prevention

18 U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State nonfiscal survey of public elementary/secondary education," 1986-87 through 2005-06; and The Averaged Freshman Graduation Rate for Public High Schools From the Common Core of Data: School Years 2002-03 and 2003-04. (This table was prepared June 2007.). Retrieved from http://nces.ed.gov/programs/digest/d07/tables/dt07_102.asp.

19 U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Common core of data state-level public school dropout data file," 2002-03, version 1a; "Common Core of Data State-Level Public School Dropout Data File," 2003-04, version 1a; and "Common Core of Data State-Level Public School Dropout Data File," 2004-05, version 1a. Retrieved from http://nces.ed.gov/pubs2008/hsdropouts/tables/table_3.asp?referrer=report.

strategies that may be in place; differences in the extent to which states enforce compulsory school age requirements; the effectiveness of states' anti-truancy programs; and the extent to which states differ in criteria for granting waivers or approving exemptions.

Research Findings

The research most often cited by proponents of raising the compulsory age is a 1991 study conducted by Angrist and Krueger.²⁰ This research is based on the premise that children born in the first quarter of the calendar year (January, February and March) tend to enter school at a slightly older age and can therefore drop out after completing less schooling than their classmates who were born near the end of the calendar year. The study found that a significant number of students drop out of school around the time they turn the legal school leaving age.

An important limitation of this research is that the study is based on 1960, 1970 and 1980 census data. Some of the analysis focused on cohorts of men only, who were born in the 1930s and 1940s, while other analyses compared three cohorts of men and women: those who were age 15 or 16 in 1960, 1970 and 1980. We cite this as a limitation because the circumstances behind drop out decisions were most likely quite different during these time periods than they are today. Proponents of raising the compulsory age who cite Angrist and Krueger's research often do not acknowledge this important limitation.

In addition, Angrist and Krueger's findings themselves are suggestive of the changing times. The study found that a significant number of students dropped out of school around the time they turn the legal school leaving age. These findings suggest that a compulsory school age of 18 keeps students in school longer, however, the effect decreased over time. The effect was the strongest in 1960, smaller in 1970 and even smaller in 1980. The study also found

differences in the graduation rates of children born in the first quarter and fourth quarter of the year. The researchers argue that these gaps are due to compulsory attendance laws which require students born later in the calendar year to stay in school longer. However, the gaps were small and again, the effect shrank over time.

A similar declining effect is evident in a 2005 study by Oreopoulos which involved an analysis of Current Population Survey (CPS) data.²¹ Using data from the 1970s and 1980s, the study findings suggest that raising the compulsory school age above 16 decreased the dropout rate by between 1.2 and 2.1 percentage points and increased the fraction of adults with at least some college by between 1.5 and 2.1 percentage points. When the analysis examined a more recent cohort, individuals who were age 16 between 1992 and 1999, the effects were even smaller. These findings suggest that raising the compulsory school age above 16 increased the fraction of adults who completed grade 12 by less than one (.7) percentage point.

Another analysis conducted as part of Oreopoulos' study revealed only small effects. Analysis of school attainment of individuals who were age 16 between 1970 and 1995 suggests that, on average, raising the compulsory age above 16 increases an individual student's length of schooling by between .12 and .16 years. In other words, on average, students stay in school for an additional 1½ to 2 months.

A highly publicized March 2006 report entitled *The Silent Epidemic: Perceptions of High School Dropouts* recommended that state policymakers consider increasing the compulsory school attendance age to 18.²² The research that underpins this recommendation is based on interviews and focus groups with high school dropouts, 38% of whom identified "too much freedom" as a factor that enabled them to drop out of school. Rather than pointing to empirical

20 Angrist, J. D. & Krueger, A.B. (1991). Does compulsory school attendance affect schooling and earnings? *Quarterly Journal of Economics*: 979-1014.

21 Oreopoulos, P. (2005). *Stay in school: New lessons on the benefits of raising the legal school-leaving age*. Retrieved from C.D. Howe Institute Commentary Web site: http://www.cdhowe.org/pdf/commentary_223.pdf.

22 Bridgeland, J., DiJulio, J. and Morison, K.B. (2006). *The silent epidemic: Perspectives of high school dropouts*. Washington, DC: Civic Enterprises. Retrieved from <http://www.civicerprises.net/pdfs/thesilentepidemic3-06.pdf>.

evidence, this recommendation is largely based on the authors' "educated guess (and hope)" (page 16) that raising the compulsory school age to 18, when coupled with numerous other initiatives (including efforts to address the underlying conditions that caused students to leave school in the first place), will have a significant effect on reducing dropout rates.

As a follow-up to their report, *The Silent Epidemic: Perceptions of High School Dropouts*, Bridgeland, Dilulio and Streeter (2007) continue to advocate for increasing the compulsory age of attendance to 18.²³ This report states "important research suggests that raising the compulsory school age curtails dropout rates and produces other positive outcomes" (page 1) and directs the reader to the work of Angrist and Kreuger (1991) and Oreopoulos (2005), the limitations of which we have cited above. Bridgeland, Dilulio and Streeter also direct readers to a report by Bhanpuri and Reynolds (2003) that contains very little research on the policy's effectiveness in keeping potential dropouts in school; this report contains a few sentences about one school district in Texas that has seen positive results in decreasing its dropout rate by raising the compulsory attendance age.²⁴

Considerations for Policymakers

Today's demands for a highly skilled workforce require, at minimum, a high school diploma. Statistics on the economic disparity between those who have completed high school and those who have dropped out, and the related social implications of this disparity, are troubling. Research indicates that high school dropouts have limited job choices, earn low wages and are more likely than high school graduates to engage in criminal activities, have health problems and become dependent on welfare and other gov-

ernment-related assistance. Research citing the vast number of students who drop out of school each year, the financial hardships they face and the fiscal burden they place on society is compelling. The problem of students dropping out of school clearly warrants continued attention from Massachusetts policymakers.

As described in this policy brief, some states have passed laws that require high school students who have not graduated to stay in school until they are 18. The primary rationale behind raising the compulsory school attendance age to 18 is the belief that it will decrease the number of students who drop out and increase the number of students who graduate. However, our review revealed that there is little research to support the effectiveness of compulsory attendance laws in achieving these goals. As we have described, the evidence that does exist is dated. The research suggests that these laws had an impact on high school students in the 1960s, 1970s and 1980s when the circumstances behind the decision to drop out were likely quite different than they are today. In addition, the findings themselves suggest that the impact of laws requiring students to stay in school until they are 18 has decreased over time.

Due to the lack of empirical evidence to support the idea that an increase in compulsory age will decrease dropout rates and increase graduation rates, we urge policymakers in Massachusetts to consider other, more evidence-based, policies to address the Commonwealth's dropout crisis. Timely and credible data exist on the reasons students drop out both nationally and in Massachusetts. Recent research based on surveys, interviews and focus groups with students, parents, teachers and school administrators points to poor relationships between students and teachers; chaotic and unsafe school environments; lack of interest in topics being covered in classes; weak academic skills; and personal problems.²⁵ We urge policymakers to implement policies and support

23 Bridgeland, J., Dilulio, J., & Streeter, R. (2007). *Raising the compulsory school attendance age: A case for reform*. Washington, DC: Civic Enterprises. Retrieved from <http://www.civicerprises.net/pdfs/raisingschoolage.pdf>.

24 Bhanpuri, H. & Reynolds, G.M. (2003). *Understanding and addressing the issue of the high school dropout age*. Naperville, IL: Learning Point Associates. Retrieved from <http://www.ncrel.org/policy/pubs/html/second/index.html>.

25 See research cited throughout this report including work by Boston Youth Transitions Task Force, 2006; Bridgeland, Dilulio, & Morison, 2006; Massachusetts Department of Elementary and Secondary Education, 2006.

programs that have been shown to be successful in addressing these issues and in helping at-risk students stay in school and complete a path to graduation.

We acknowledge that for some, there may be reasons for legally requiring students to stay in school until age 18 that outweigh the lack of empirical evidence on this policy's impact. However, it is important to note that the most prominent advocates of the policy acknowledge that raising the compulsory school age alone will not result in fewer dropouts and more graduates. They argue that this policy must be coupled with other actions and new alternatives to help at-risk students progress through high school. For example, the authors of the *Silent Epidemic* recommend that an increase in compulsory age be “coupled with well-trained staffs, more manageable caseloads, working partnerships with government agencies to support parents and guardians who struggle to keep their children in school, and efforts to address the issues that caused students to leave school” (page 16).²⁶ We agree that other actions are required if there is any chance that increasing the compulsory age to 18 will have a positive impact on Massachusetts' young adults. But rather than couple legislation that increases the compulsory age with other policies and initiatives, we advocate for first addressing the issues that cause students to leave school. We believe that an increase in compulsory school attendance age should only be considered after the Commonwealth has laid a strong foundation for young adults who are at risk of dropping out to be engaged in school and on a path to earning a high school diploma.

Given the array of issues the Graduation and Dropout Prevention and Recovery Commission was charged with examining, it is clear that Massachusetts has an urgent need to develop a comprehensive approach for responding to the dropout crisis. We believe that an increase in the compulsory school age

will *not* be successful in reducing dropout rates and increasing graduation rates. Informed by our work in compiling this policy brief, we believe there are important issues that must be addressed, and procedures and programs that must be in place, prior to passing legislation that increases the age of compulsory school attendance.

We offer the following considerations for policymakers. It is our hope that this information will contribute to the current policy discussions focused on the issue of raising the age of compulsory school attendance in Massachusetts.

Consider empirical evidence.

Our review revealed little research to support the idea that an increase in compulsory age decreases dropout rates and increases graduation rates. As a result, we urge policymakers to first consider other policies to address the Commonwealth's dropout crisis. Timely and credible data exist on the reasons students drop out of school. We recommend that policymakers implement policies and financially support programs that have been shown to be successful in addressing these issues and in helping at-risk students to not only stay in school but to complete a path to graduation.

Address student disengagement and alienation from school.

Both national²⁷ and local²⁸ research studies have found that dropping out of high school is a gradual process of disengagement. Loss of interest in school, poor relationships with teachers and impersonal learning environments are among the factors that lead to the decision to drop out. We believe that developing new structures and practices for engaging disconnected and discouraged students in a positive learning environment is a critical first step to ensuring that students persist and graduate.

26 Bridgeland, J., DiJulio, J. and Morison, K.B. (2006). *The silent epidemic: Perspectives of high school dropouts*. Washington, DC: Civic Enterprises. Retrieved from <http://www.civicerprises.net/pdfs/thesilentepidemic3-06.pdf>.

27 Ibid.

28 Boston Youth Transitions Task Force. (2006). *Too big to be seen: The invisible dropout crisis in Boston and America*. Retrieved from <http://www.bostonpic.org/resources/too-big-be-seen-invisible-dropout-crisis-boston-and-america>.

Improve attendance monitoring and early intervention systems.

Dropouts typically show many signs of disengagement before they drop out. Among the most common are frequent absences, skipping classes and leaving school early in the day. Absenteeism is an early indication that a student may be at risk for dropping out and thus should be closely monitored. As described in this policy brief, Massachusetts law (Chapter 76, Section 2) currently states if a student is absent for seven full days or fourteen half days within any period of six months, his/her parent/guardian will, on complaint by a supervisor of attendance, be punished by a fine of not more than twenty dollars. Policymakers should consider updating this provision to require the student and his/her parent/guardian to meet with school officials to discuss both the school and non-school related reasons for the student's absence and develop a plan to address them. Policymakers should also consider requiring that the intervention occur after fewer absences.

Increase alternative educational options.

For some students, the traditional structure of high school simply does not fit. Students with family obligations, children of their own, and those who need to work full-time are sometimes not able to adhere to the schedule of a traditional school day. Another subset of students who leave school early is those who have severe behavioral issues and leave either by choice or by invitation. Other students leave school because they feel unsafe and distracted due to the chaotic environment of their school settings.²⁹ For all of these students, alternative programs and nurturing school environments must be in place if these students are to persist to graduation.

Examine and consider eliminating some of the existing exemptions that permit 14- and 15-year-olds to leave school prior to graduation.

Massachusetts law (Chapter 76, Section 1) includes an exemption from compulsory attendance requirements for youth between 14 and 16 who meet the

requirements for the completion of the 6th grade, hold a permit for employment and are regularly employed for at least six hours per day or have written permission from the superintendent of schools to engage in non-wage-earning employment at home. It may be that some of these exemptions make it easy for students to drop out of school prior to age 16 and should be eliminated. Policymakers should also consider whether the state should play a role in monitoring the use of exemptions.

Examine and consider updating the process for legally leaving school.

As described in this policy brief, Massachusetts law (Chapter 76, Section 18) specifies the conditions under which students age 16 or older may legally leave school. The law requires that a student's parent/guardian meet with the school committee prior to the student permanently leaving school. The purpose of the meeting is to discuss the reasons for the student permanently leaving school and plans for an alternative education program or other placement. Policymakers should consider requiring that the student and his/her parent/guardian meet with a team of school staff including the principal, guidance counselor and other applicable staff (i.e. Special Education Director) and that the meeting follow a standard protocol. The protocol might include questions for both the student and the parent about the school and non-school related factors that led to the student's decision to drop out; general questions about the student's experience in school; and include counseling on the implications of dropping out. Policymakers should also consider whether the state should play a role in ensuring that the meetings take place.

Examine the fiscal impact of increasing the age of compulsory school attendance.

Students will not benefit from an unfunded mandate. The costs that would be associated with an increase in the compulsory school attendance age should be examined prior to passing legislation. Maryland

²⁹ Boston Youth Transitions Task Force. (2006). *Too big to be seen: The invisible dropout crisis in Boston and America*. Retrieved from <http://www.bostonpic.org/resources/too-big-be-seen-invisible-dropout-crisis-boston-and-america>.

is among the states that have examined the fiscal impact of raising their compulsory age of attendance to 18. Maryland estimated that the total additional cost for providing educational and related services to the 10,500 dropouts who would return to school would exceed \$200 million per year.³⁰ We urge Massachusetts policymakers to appoint a group to study the fiscal impact of implementing this policy.

Informed by our work in compiling this policy brief, we have identified several issues that must be addressed if this policy is to have an impact on keeping at-risk students in school and making progress toward a high school diploma. These issues significantly (and perhaps prohibitively) increase the fiscal impact of raising Massachusetts' age of compulsory attendance to 18. We list the most important issues here:

- **The cost of enforcement.** Without enforcement in place, the compulsory attendance law is meaningless and will have little or no influence on keeping students in school. Therefore, policymakers should consider the costs associated with devising a comprehensive plan for enforcing the law. The plan would likely include hiring additional local school attendance officers; evaluating current truancy prevention programs and implementing new ones; evaluating the capacity of existing district courts, or working with the state court system to develop alternative models. To improve the chances that an increase in the compulsory school attendance age will keep students who might otherwise drop out in school, policymakers should review and consider updating the truancy laws and other components of the school attendance law.
- **Funding outreach programs.** If increasing the compulsory age of attendance means that young adults who have already dropped out will be required to return to school because they have not reached age 18, a procedure should be in place for contacting

and re-enrolling them in school or an appropriate alternative. For example, Indiana has a Dropout Recovery Project. As part of this project, the principal of each high school is required by law³¹ to send a list of names and last known addresses of all students who have dropped out to the superintendent. The names and contact information are stored in a database that is made available to authorized representatives of agencies whose purpose it is to enroll high school dropouts in various education and training programs. Massachusetts policymakers might consider a similar program to facilitate connections between the authorized programs and agencies equipped to provide education services, and the dropouts who may benefit from them.

- **Increasing capacity to serve youth who would return to school.** There is some evidence to suggest that the Commonwealth does not have the capacity to serve the number of young adults who would re-enter the school system if the compulsory age were raised to 18. For example, Boston Public Schools has the capacity to seat about 18% of the city's 8,000 dropouts and Boston's existing community-based alternative educational and dropout reclamation services offer seats to about 15% of them.³² Costs of additional classrooms in traditional and alternative educational settings and associated supplies (such as furniture, textbooks and other instructional materials) and services (such as transportation) should be considered.
- **Expansion and professional development of teacher workforce.** A plan to implement an increase in the compulsory attendance age should include an estimate of the number of teachers needed to fill positions created by the additional students and a plan for recruiting, hiring and training them. Studies of dropouts conducted by the Boston Youth Transitions Task Force found that the relationships between students and teachers, and other caring adults, are the most important factor in students' school experience.³³ The study found that

30 Maryland State Department of Education. (2007). *Attending to learn: The implications of raising the compulsory age for school attendance*. Final Report of the Task Force to Study Raising the Compulsory Public School Attendance Age to 18. Submitted to the Maryland General Assembly and Governor on December 1, 2007.

31 Indiana Code 20-33-2-33. Retrieved from <http://www.ai.org/legislative/ic/code/title20/ar33/ch2.html>.

32 Boston Youth Transitions Task Force. (2006). *Too big to be seen: The invisible dropout crisis in Boston and America*. Retrieved from <http://www.bostonpic.org/resources/too-big-be-seen-invisible-dropout-crisis-boston-and-america>.

33 Ibid

poor relationships with teachers and impersonal learning environments led youth to feel disconnected, and led many to feel invisible. Thus, we ask policymakers to consider the costs associated with training both new and existing teachers on how to more effectively engage at-risk students and prevent them from dropping out.

- **Expansion and professional development of other school staff.** Often personal problems, unrelated to school (such as trouble with the law or becoming a parent) contribute to a student's decision to drop out.³⁴ A plan to implement an increase in the compulsory school attendance age should include an estimate of the number of additional guidance counselors, adjustment counselors, school nurses, school psychologists and other school staff who can provide the support necessary to address students' non-academic needs. We also ask policymakers to consider the costs associated with providing professional development to new and existing staff on how to effectively work with at-risk students and prevent them from dropping out.

Conclusion

Massachusetts has an urgent need to develop a more comprehensive approach for responding to the dropout crisis. The question that lies before policymakers and that serves as the central focus of this policy brief is: *Is there empirical evidence to support Massachusetts raising its compulsory school attendance age to 18?* This report has provided an overview of the trends in compulsory attendance laws across the United States, summarized the viewpoints of those in favor of and opposed to raising the compulsory attendance age, and described the lack of research on the impact of this policy. Due to the lack of empirical evidence to support the idea that an increase in compulsory age will decrease dropout rates and increase graduation rates, we urge policymakers in Massachusetts to consider other policies to address the Commonwealth's dropout crisis. Much is known about the reasons students drop out both nationally and in Massachusetts. We urge policymakers to use this research to inform their decisions and to *focus first* on developing policies and programs that have been shown to be successful in helping at-risk students stay in school and persist toward earning a diploma.

³⁴ Boston Youth Transitions Task Force. (2006). *Too big to be seen: The invisible dropout crisis in Boston and America*. Retrieved from <http://www.bostonpic.org/resources/too-big-be-seen-invisible-dropout-crisis-boston-and-america>.

Appendix A

To provide a broad picture of high school dropouts and graduates in the United States, the National Center for Education Statistics (NCES) calculates four rates: the event dropout rate, the status dropout rate, the status completion rate, and the averaged freshman graduation rate.

Rates for tracking changes in the school system:

- The *event dropout rate* estimates the percentage of both private and public high school students who left high school between the beginning of one school year and the beginning of the next without earning a high school diploma or its equivalent (e.g., a GED). It should be used to track annual changes in the experiences of students in the U.S. school system.
- The *averaged freshman graduation rate* estimates the proportion of public high school freshmen who graduate with a regular diploma four years after starting 9th grade. The rate focuses on public high school students as opposed to all high school students or the general population and is designed to provide an estimate of on-time graduation from high school. Thus, it provides a measure of the extent to which public high schools are graduating students within the expected period of four years.

Rates for studying general population issues:

- The *status dropout rate* reports the percentage of individuals in a given age range who are not in school and have not earned a high school diploma or equivalency credential, irrespective of when they dropped out. The rate focuses on an overall age group as opposed to individuals in the U.S. school system, so it should be used to study general population issues.
- The *status completion rate* indicates the percentage of individuals in a given age range who are not in high school and who have earned a high school diploma or equivalency credential, irrespective of when the credential was earned. The rate focuses on an overall age group as opposed to individuals in the U.S. school system, so it should be used to study general population issues.

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