

DEREK MESSACAR
PHILIP OREOPOULOS

Staying in School

A Proposal for Raising High-School Graduation Rates

*By making school attendance compulsory until age 18
and adding targeted support programs,
states can better help students avoid regret.*

High-school dropouts fare substantially worse than their peers on a wide variety of long-term outcomes. On average, a dropout earns less money, is more likely to be in jail, is less healthy, is less likely to be married, and is unhappier than a high-school graduate. Yet dropout rates in the United States have remained mostly unchanged, at roughly 30%, during the past three decades. This problem disproportionately affects low-income and minority students. Nearly half of these individuals do not graduate with their class.

A growing body of research, however, suggests ways to improve high-school graduation rates and close the achievement gap. A key element is for all states to increase their minimum school-leaving age to 18. Many studies have found that this intervention significantly improves several long-term outcomes. More effort is also needed to keep students engaged in school, even at an early age. If states invest in ef-

fective support programs, they can further increase graduation rates and reduce future costs of enforcing compulsory-schooling policies. All of these interventions should be implemented with the goal of strengthening the nation's primary education system to promote college attendance and improve career outcomes among youth.

Lifetime of challenges

High-school dropouts face daunting challenges. Skills and educational attainment are increasingly important in today's economy, and individuals with the least education are faring particularly badly. Among recent dropouts, 16% are unemployed and 32% live below the poverty line. Dropouts with jobs earn an average of only \$12.75 per hour, with the most common jobs found in the construction, food services, and landscaping industries. Labor-market outcomes remain bleak throughout life. Dropouts aged 50 earn an average of \$16.50 an hour and are most commonly employed in construction, food services, and truck transportation.

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Dropouts face worse social outcomes as well. For example, 33% of recent female dropouts have given birth as a teenager, 13% of male and female dropouts are separated or divorced, 32% report being unhealthy, and 22% report being unhappy, according to data from the 2005–2010 waves of the General Social Survey, which is considered a reliable indicator of societal trends.

Several studies also link a region's proportion of dropouts to its overall prosperity. Individuals earn higher wages if they work in regions with fewer dropouts, irrespective of their own level of educational attainment. Crime rates are lower, and civic participation is higher. For these reasons, the high-school dropout rate is sometimes used as a quality measure of schools and an appraisal of the skill level of the future national workforce.

With so much hardship associated with leaving high school before graduating, why do so many students decide to do it? Of course, there is no single explanation: Conflicts at home, urgent financial difficulties, and unexpected pregnancies are only a few examples. Some dropouts say they are too poorly prepared to complete. A majority of these individuals say they are unmotivated or uninspired to go to class. Dropouts are truant more often, experience more academic troubles, and record more failing grades throughout all levels of schooling than do their peers who graduate. Dropouts are more likely to be from households where parents are less active in promoting and helping with school. By the time students decide to leave, they often feel there is disconnect or lack of support between themselves, their parents, and their teachers. The act of dropping out, therefore, must be understood not as a single event but an outcome that begins with school disengagement, often long before the dropout finally decides to stop coming to class.

Many studies have found that youth are particularly predisposed to impulsive behavior, especially in situations involving immediate costs relative to long-term benefits. Similar forces seem to be at play for many students in their decisions to drop out of school. In hindsight, adults who dropped out almost universally express regret. In one study, 74% admitted that they would have stayed in school if they could make the same decision again. So although the reasons students disengage from school are important to understand and address, the basic fact remains that students miss out on long-term payoffs from doing so.

For decades, laws compelling school attendance have been implemented with the goals of raising educational attainment, reducing the number of dropouts, and addressing the problems myopic youth and disinterested parents have in choosing whether the student stays in school. The com-

pulsory-schooling age sets the minimum length of time that students must spend in school before they have the legal option to leave. States generally set the laws covering compulsory attendance. The laws have been around for many decades—in some cases, for more than a century—and they have been updated periodically, sometimes increasing and sometimes decreasing the time, depending on the particular needs and desires of each state. The youngest age at which students are now allowed to leave school is 16 (although often with some exceptions), which is the case in 21 states.

Much scientific evidence supports the view that increasing the compulsory schooling age is socially desirable. As President Barack Obama said in his 2012 State of the Union address: “When students don’t walk away from their education, more of them walk the stage to get their diploma. When students are not allowed to drop out, they do better.”

National blueprint

Requiring states to establish compulsory-schooling laws set at age 18 is not, however, a silver bullet for addressing the problem of dropouts. But it could form the cornerstone of a suite of policies to reengage the most at-risk young students; establish the right expectations for students, their families, and educators; and provide a focus for related policies to improve educational outcomes. In this light, we propose a four-part national approach to address the challenge.

First, the federal government should educate states on the benefits of high-school graduation and encourage legislative action to increase the minimum age at which students are legally allowed to drop out of high school to 18 years.

Compulsory schooling and education in general are usually legislated at the state level. The federal government, as it has recently done, can encourage states to consider more-restrictive laws and grade states based on the extent to which they follow federal recommendations. Even if the federal government could impose a national minimum school-leaving age, it is clear, based on experience, that such legislation is not likely to be effective if buy-in does not exist at the regional levels. The federal government has a larger role in disseminating best practices and motivating policies from a cost/benefit perspective.

On balance, the evidence suggests that students with more compulsory schooling would do better across a wide range of lifetime outcomes. The federal government can work to ensure that these benefits are clearly communicated to state and local policymakers, with the understanding that the gains from promoting high-school completion through compulsory schooling outweigh the costs of implementing and enforcing such laws.

Some of the best evidence suggesting that high-school students gain, on average, from staying in school comes from historical changes in compulsory-schooling laws. The first empirical studies in this area dealt with increases in the minimum school-leaving age that occurred in the first half of the 20th century. These studies consistently found large gains in adult socioeconomic outcomes. In the United States, studies found that annual earnings are nearly 10% higher for students compelled to stay an additional year in school, and comparable results have been observed in the United Kingdom and Canada.

In addition, studies using various states’ recent changes to the minimum school-leaving age have found that each year of additional schooling that students receive lowers the probability by 3.6 percentage points that they will end up unemployed, lowers the likelihood by 5.5 percentage points of their being on welfare, and lowers by 8.1 percentage points the likelihood of their living below the poverty line. Among those working more than 25 hours per week, a year of compulsory schooling is also associated with a 10.7% increase in annual earnings. These results may be understated, because education earnings gaps tend to increase with age, and the studies focused on younger cohorts.

Individuals nudged to finish high school through mandatory-schooling laws also fare better than dropouts on outcomes other than employment and income. Compulsory schooling has been shown in some studies to lower overall crime and incarceration rates, although there is some evidence that increasing the minimum school-leaving age to 18 results in higher in-school violence. Compulsory schooling makes individuals healthier: High-school dropouts are more likely to use cigarettes and illicit drugs than are high-school graduates, and better-educated individuals tend to have slightly longer life expectancies. Compulsory schooling reduces the incidence of teen pregnancy and may even have positive effects on memory and other cognitive abilities. There are also documented broader consequences of compulsory education that make democracies more effective by increasing political interest and involvement. In addition, it can decrease intergenerational inequality in educational attainment: Parents with more compulsory schooling are less likely to have children repeat a grade or drop out of school themselves.

Studies have also demonstrated the effects of increasing the school-leaving age above 16 on education attainment. In a study of a sample of 20- to 29-year-olds, for example, for each year the dropout age was extended above 16, school attainment increased by an average of 0.12 years per student. High-school completion rates increased 1.3 percent-

age points, on average, from increasing the school-leaving age from 16 to 17, and 2.4 percentage points from increasing it to 18. Raising the school-leaving age also led to an increase in college enrollment rates by 1.5 percentage points, suggesting that many of those encouraged to stay on and complete high school take advantage of new opportunities by pursuing college. Using these estimates, increasing the school-leaving age to 18 for every state would lead to approximately 55,000 more students completing high school and 34,000 more students entering college per year.

Lessons drawn from these and other findings can form a compelling argument that may encourage states to examine their compulsory-schooling laws and make sure they reflect the best current scientific evidence.

Second, states should be encouraged to develop new programs to reengage at-risk youth.

Compulsory-schooling laws help establish social norms and expectations for minimum school attainment. But compulsion should be a last resort alongside other policies to promote engagement and foster an environment in which struggling students are encouraged and assisted to complete high school. States should be challenged to come up with innovative plans, relevant to their communities, to keep young students engaged and learning before they approach high-school ages where they actually drop out.

The decision to drop out of school often results from a much longer process of disengagement that begins in elementary school. Patterns of high absenteeism and lower performance by future dropouts tend to start as early as the third grade. Thus, policies that combat early disengagement may prevent at-risk students from falling into a downward spiral, in which missing school causes them to fall behind in their studies, which in turn makes them feel even less motivated to attend classes and puts them further behind. At young ages, truancy is more often related to parental issues. Addressing parent situations that keep children away from school while working with parents to improve conditions for children to cope with the social and academic challenges of school are ways to foster school engagement. Children tend to do better when parents set high expectations for them. Setting rules and helping with homework are ways that parents can encourage their children to adapt to school early and do well in the long term.

Parents also need to be actively involved through all levels of schooling. Although many parents become more involved on learning that their child is considering leaving school, they are often not aware of their child's poor performance until it is too late. When school administrators and educators communicate more regularly with parents

regarding their children's performance, they provide a means for parents to take a more active role.

The school environment itself is obviously another strong determinant of whether at-risk students succeed. Students who are supported, motivated, and encouraged by their teachers, who regard their teachers as caring, and who receive guidance from their teachers usually like school. In contrast, dropouts often report leaving school because they did not get along with their teachers or classmates. Smaller class sizes or counseling and guidance programs for struggling students are ways to improve how students perceive their teacher support networks.

Recent evidence points to the importance of setting high academic expectations. Students should be made to feel that they are expected to complete high school, and that teachers and parents are there to help make that happen. Compulsory-schooling policies, in a broader context, exist to set minimum expectations about school attendance and attainment. A number of other interventions show promise in fostering expectations and engagement, even at an early age. Mentoring programs, especially, provide opportunities for administrators to directly interact with students and families, and they are relatively cost-effective. For example, Check & Connect is a program that sends support workers to meet with students and parents in urban middle schools to discuss attendance and academic performance. A number of randomized controlled trials have found that the program, developed at the University of Minnesota, leads to lower tardiness and absenteeism and increased graduation, as well as to increases in literacy and school completion. Of course, this intervention is not without cost—the price tag of Check & Connect is approximately \$1,100 per student per year—but the long-term benefits of the program probably far outweigh its costs.

Third, state and local governments should improve the enforcement of new and existing laws.

Although a strictly enforced minimum school-leaving age should, in theory, cause every student to either remain in school until the requisite age or face a penalty, compulsory-schooling laws tend not to be strictly enforced, often for reasons of cost. For example, Los Angeles had 260 attendance counselors to cover 660 schools in 2002. Yet Boston had only seven truant officers in 2003, and Denver had only one officer in 2004. In the 1990s, Chicago eliminated all truant officers for budgetary reasons in favor of using mentoring programs to tutor and reengage moderately truant students. More resources clearly should be devoted to hiring more truant officers and attendance counselors.

Although the importance of involving parents in deal-

ing with truant children cannot be overstated, punitive measures may be useful to curb absenteeism in cases where counseling is not as successful. Parents may be unwilling or unable to discipline children to attend school, especially for older adolescents who are more independent. In some cases, the parents may also suffer from problems of mental illness or drug addiction, which further complicates the matter. The credible (and possibly implicit) threat of fines and court hearings for parents may motivate them to make sure their children are attending school regularly. Community service requirements, fines, and misdemeanors sanctioned on students are other ways of targeting truancy in cases where absenteeism is a result of student delinquency. Imposing restrictions on driving privileges has also shown to be a successful deterrent to truancy. However, because fines and court hearings are resource-intensive, they should be used as last resorts after counseling or other corrective measures have been exhausted.

Also, exemptions to compulsory-schooling laws are common in many states. These exemptions permit adolescents to leave school when obviously appropriate. In many cases, dropping out is a result of teenage pregnancy, the need to care for a family member, or an immediate need to make money. States often address these concerns by requiring parental consent, coupled with a younger minimum dropout age, to ensure that basic educational requirements are still met. Having clear exemptions in place would give administrators flexibility to accommodate cases in which the costs of continuing are obviously too high.

These different approaches to enforcement will probably have different results. Researchers are only now learning about which approaches work best. For instance, a study is under way to explicitly test different approaches to enforcing compulsory-schooling laws in a sample of truant youth in Chicago, in the absence of any other enforcement of those laws.

Fourth, compulsory-schooling laws should be designed to promote college attendance and improve the career outcomes of students.

The motivation for a renewed focus on compulsory-schooling laws is the increasingly poor labor-market outcomes of high-school dropouts. In the past several decades, an increasingly competitive global economy and technological advancements have reduced the job opportunities available to less-educated, less-skilled workers and increased them for higher-skilled workers. This increased demand for skilled labor is reflected in the rise in earnings premiums of high-school and college graduates as compared with those of high-school dropouts. For example, the U.S. Census Bureau reported in 2005 that individuals who graduated from

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high school earn 1.5 times more than dropouts, and college graduates earn 2.7 times more than dropouts. Yet even high-school graduates have seen large declines in their average earnings levels and employment rates relative to college graduates during the past several decades. This suggests additional opportunities for improved social and economic success through college. Increasing high-school attainment should be regarded as part of a more general goal to make youth more competitive in the labor market.

Although traditional education is clearly highly prized in today's labor market, the goal of compulsory-schooling laws is not to try to shoehorn all students into that model. Its purpose should be to prepare the nation's youth for a range of opportunities, including college and careers. To that end, nontraditional programs that have a clear track record of proven results should be eligible to fulfill the requirements of compulsory-schooling laws. For instance, vocational training and school-to-career programs may also be effective ways of providing disengaged students with alternative school options for developing practical, hands-on learning and useful skills for success in the labor market.

Career academies—programs in high schools focused on preparation for postsecondary education and the transition to work—enable students to combine standard classroom learning with on-the-job work experience. These programs are primarily located in urban schools and serve a cross section of students, including many at-risk minority students. They offer small learning communities that combine academic and technical curricula around a career theme to enrich learning. Monthly earnings are higher for career academy graduates, particularly for males, than for similar students who did not participate in the programs. More important, these gains most consistently accrued to students classified as being at the highest risk of dropping out of school. The option to receive assistance in finding work after school also entices many students to graduate on time, because the financial benefits of remaining in school are made more salient. Per-student costs of school-to-work programs can be similar to those of mentoring programs and may even be repaid by graduates through subsequent payroll taxes.

Furthermore, compulsory schooling may be one way of encouraging youth to pursue higher education, even though such laws do not explicitly mandate it. There is evidence that some individuals nudged to complete high school become more interested in college or view higher education as less daunting an obstacle than when they were younger. Some studies have also found that mandating that students complete the college application and financial aid process

may lead to increased college enrollment.

In addition to communicating the importance of continued education and mitigating absenteeism, mentoring programs and parent-teacher outreach initiatives also provide opportunities to help students choose courses and plan their learning paths to achieve their long-term career goals. It is important that high schools offer an array of course options to keep students interested in learning and prepare them for college. Vocational training, such as student-work programs, may be useful for providing students who would otherwise typically not go on to college with real-world work experience, which may in turn open doors to a successful career.

Weighing costs

Economic evidence points to sizable financial and nonfinancial benefits, on average, for students from increasing the minimum school-leaving age. But although compulsion and truancy prevention affect particular groups of students more than others, costs and resource burdens affect schools, administrations, and states on a wider scale. This raises the question of whether such costs are justified or offset by the observed gains of at-risk groups.

On the benefits side, for example, is the estimated 10% increase in annual income, on average, from encouraging a student to stay a year longer in school. This means that the lifetime earnings increase from finishing high school and joining the labor force at age 18 rather than exiting high school at age 16 is approximately \$226,700. After correcting for the fact that much of this income comes long after the high-school years, this sum is equivalent to a one-time payment of \$94,300 at the age of 16 (when individuals are facing the decision of whether to drop out). There are also the many benefits of compulsory schooling that are difficult to quantify, such as reduced teenage pregnancy, improved individuals' health, reduced dependency on public support programs, decreased crime rates, and increased voting and political involvement. Thus, beyond the increase in earnings of would-be dropouts, there are broader benefits to the students and to their families and communities.

On the cost side, more truant officers or caseworkers would probably be needed, although it is unclear precisely how many. According to estimates made by the Maryland General Assembly in 2012, if each worker makes \$85,000 per year (the average in the state) and one worker can monitor 40 students, that is an increase of more than \$4,000 to monitor each additional student for two more years.

Also, accommodating tens of thousands of students across the country who otherwise would have dropped out will entail direct costs from some combination of hiring more teach-

ers, building new schools, or increasing class sizes. Per-pupil spending in the United States is roughly \$12,300 per year, based on 2011 data from the National Center for Education Statistics. If accommodating each new student costs this amount, a state would pay almost \$25,000 to keep a 16-year-old dropout in school through graduation. In reality, however, adding students to the education system is likely to increase costs by far less than the average rate per student. Some new schools and classrooms may have to be built to accommodate the would-be high-school dropouts who remain in school, but most of the infrastructure already exists to support these students. Actual costs of education, then, may be closer to \$10,000 or \$15,000 for each additional student.

Beyond these direct costs, there may be indirect costs, many of which are difficult to quantify. For example, increasing the number of students in public schools could lead to larger class sizes if schools accommodate these students without hiring new teachers or building new classrooms. Furthermore, some of the students who would remain in school as a result of the law change may be disruptive to their peers because they are among the least-enthusiastic students. This is most likely to affect students who are already struggling, who are most at risk of being distracted and falling into bad habits. There are also concerns that the incidence of crime and violence in schools might rise because of the increased attendance of unhappy and unwilling teenagers. Finally, many schools are already pressed for funds, and the increased financial burdens from compulsory schooling would divert resources from other valuable uses.

Positive bottom line

The best estimates suggest that the economic benefits that accrue to students who graduate more than offset potential costs. Although there is not an off-the-shelf compulsory-schooling program, a comparison can be made by hypothesizing a program that has substantially more teachers and classrooms to hold class size constant, as well as substantially more truant officers to deal with potentially unenthusiastic students. An upper estimate for these costs is roughly \$28,800 for each student who is compelled to stay in school

for an additional two years (although actual costs may be significantly lower). Thus, per student, the combined quantifiable benefits of increasing the compulsory-schooling age appear to exceed the costs substantially.

It also should not be overlooked that the vast majority of the costs are incurred in the actual education of would-be dropouts, as opposed to the enforcement of any laws. But any intervention that succeeded in reducing the dropout rate by a commensurate level would entail those same direct education costs. Compulsory schooling, then, is only expensive insofar as it is successful in keeping students in school, which, the economic evidence suggests, is a worthy goal.

Furthermore, programs that target disengagement among at-risk students at an early age will not only increase high-school graduation rates and the ensuing benefits that compulsory schooling brings; they also have the potential to significantly lower many of the associated costs. For instance, states will have to devote fewer resources to enforcing compulsory-schooling laws if relatively less-expensive programs such as Check & Connect curb disengagement early in students' academic careers. These programs also may decrease the number of disruptive students in the public school system, which would minimize some of the potentially negative peer effects of compulsory schooling.

Plus, better-educated students will help drive today's economy, which is searching for such employees, and the higher income-tax revenues that will result will partially offset states' costs and provide a worthwhile return on investment. All told, states may find that many of these support programs are sound investments for increasing their population's education level and economic outcomes in the most cost-effective way.

Derek Messacar (derek.messacar@utoronto.ca) is a Ph.D. candidate in the Department of Economics, and Philip Oreopoulos (oreo@chass.utoronto.ca) is professor of economics and public policy at the University of Toronto. This article is based on the paper "Staying in School: A Proposal for Raising High-School Graduation Rates," which was prepared for the Hamilton Project of the Brookings Institution.