URBAN INSTITUTE · ELEVATE · THE · DEBATE

An Earnings Test for Master's Degrees: Identifying Programs at Risk of Failing a Proposed Rule for Federal Loans

An Essay for the Learning Curve by Jason Delisle and Jason Cohn

October 2023

Policymakers are increasingly interested in evaluating higher education programs using data on students' postenrollment earnings. Although much of this interest has focused on outcomes for undergraduates, a new bill sponsored by Senate Republicans would apply an earnings test to programs at all degree levels at all types of institutions. We estimate that about 14 percent of master's degree programs would fail the bill's earnings test, which requires that completers earn at least as much as the typical bachelor's degree holder.[1] Failing programs are most prevalent in teacher education, social work, mental and social health services, and psychology.

The Streamlining Accountability and Value in Education for Students Act (S.1971), sponsored by Senator John Cornyn (R-TX), would require that the median earnings of master's degree students in each program exceed the median earnings of working individuals ages 25 to 34 with only a bachelor's degree in the state where the institution is located.[2] Programs that fail this test in two out of three consecutive years could no longer receive federal student aid, though any other passing program at the university would remain eligible.

[1] The estimate is weighted according to program size, measured by the number of federal student loan borrowers enrolled. Without weighting, 19 percent of programs fail the earnings test.

[2] This standard also applies to professional degrees. For undergraduate programs, median earnings of students must be higher than those of workers ages 25 to 34 with only a high school diploma within the state. See Streamlining Accountability and Value in Education for Students Act, S.1971, 118th Cong. (2023).

A Bachelor's Degree Earnings Test for Master's Degrees

To estimate which master's degree programs fail the earnings test, we compared median earnings reported in the College Scorecard four years after completion for each program with the median earnings of all bachelor's degree holders ages 25 to 34 reported in the US Census Bureau's American Community Survey for the state where the institution is located.[3] This approach should result in an accurate estimate of failing programs because the legislation specifies that Census Bureau data be used to construct the benchmark. One limitation of our estimate, however, is that earnings data in the College Scorecard data are limited to completers and the number of years after completion (i.e., earnings four years postcompletion). The proposed policy measures former students' earnings six years after *enrollment*, thereby capturing both completers and noncompleters.[4]

The bachelor's degree benchmark that master's programs must meet in the Cornyn proposal is not adjusted for field of study. Each master's degree program is compared with the median earnings of all bachelor's degree holders in the age group, regardless of their field of study. For example, a master's program in teacher education in Arizona must generate median earnings at least as high as the median earnings of all bachelor's degree recipients (ages 25 to 34) who are working in Arizona.

The Cornyn bill differs somewhat from other quality assurance proposals in that it is exclusively an earnings test. It does not include a debt or price component and therefore does not measure the cost students pay to attend or their debt burdens, which has several implications. Programs that produce relatively high earnings but are also expensive and lead to potentially unaffordable debt levels would still pass the earnings test and remain eligible for federal aid. Conversely, programs with low earnings will always fail the earnings test, even if their prices and debts are also low.

Master's Degrees That Fail the Earnings Test

As a first step for understanding which programs fail the Cornyn proposal, we examine the median earnings of bachelor's degree recipients in each state. We find that earnings fall within a wide range. The lowest earnings are in West Virginia ($39,000) and the highest are in Massachusetts ($60,000), which indicates that in Massachusetts, every master's degree program must generate median earnings among

[3] We measured master's degree program earnings according to four-digit Classification of Instructional Programs (CIP) categories. The proposed legislation specifies that the benchmark earnings for a bachelor's degree recipient be calculated using US Census Bureau data for working adults ages 25 to 34 within the state where the institution is located. There is a special provision for if fewer than 50 percent of the students enrolled in the institution reside in the state where the institution is located; in that case, the benchmark is national median earnings of bachelor's degree recipients in that age group. We do not adjust our analysis for institutions that may have high shares of students residing out of state, and we compare all programs against the earnings benchmark for the state where the institution is located.

[4] Both the College Scorecard and the proposed bill would measure working, nonenrolled individuals, though the discrepancy between completers only versus total enrollees in a cohort remains. The College Scorecard data cover working and not enrolled (with some exceptions) individuals, and those parameters align with the population the legislation would measure. The legislation appears to include all students in the earnings test, regardless of whether they received federal student aid. College Scorecard data are limited to students who received federal aid, and our analysis therefore includes only those students.

former enrollees (completers in our analysis) no less than $60,000 to participate in the federal student loan program.[5] Appendix table A.1 shows median bachelor's degree earnings in each state.

Most master's degree programs will easily pass the proposed earnings test, but we estimate that about 14 percent lead to median earnings below what the typical bachelor's degree recipient in the state earns. Among the largest master's degree fields, programs in nursing, business, and accounting have 100 percent pass rates (figure 1). Appendix table A.1 shows the pass rates for all master's degrees by state.

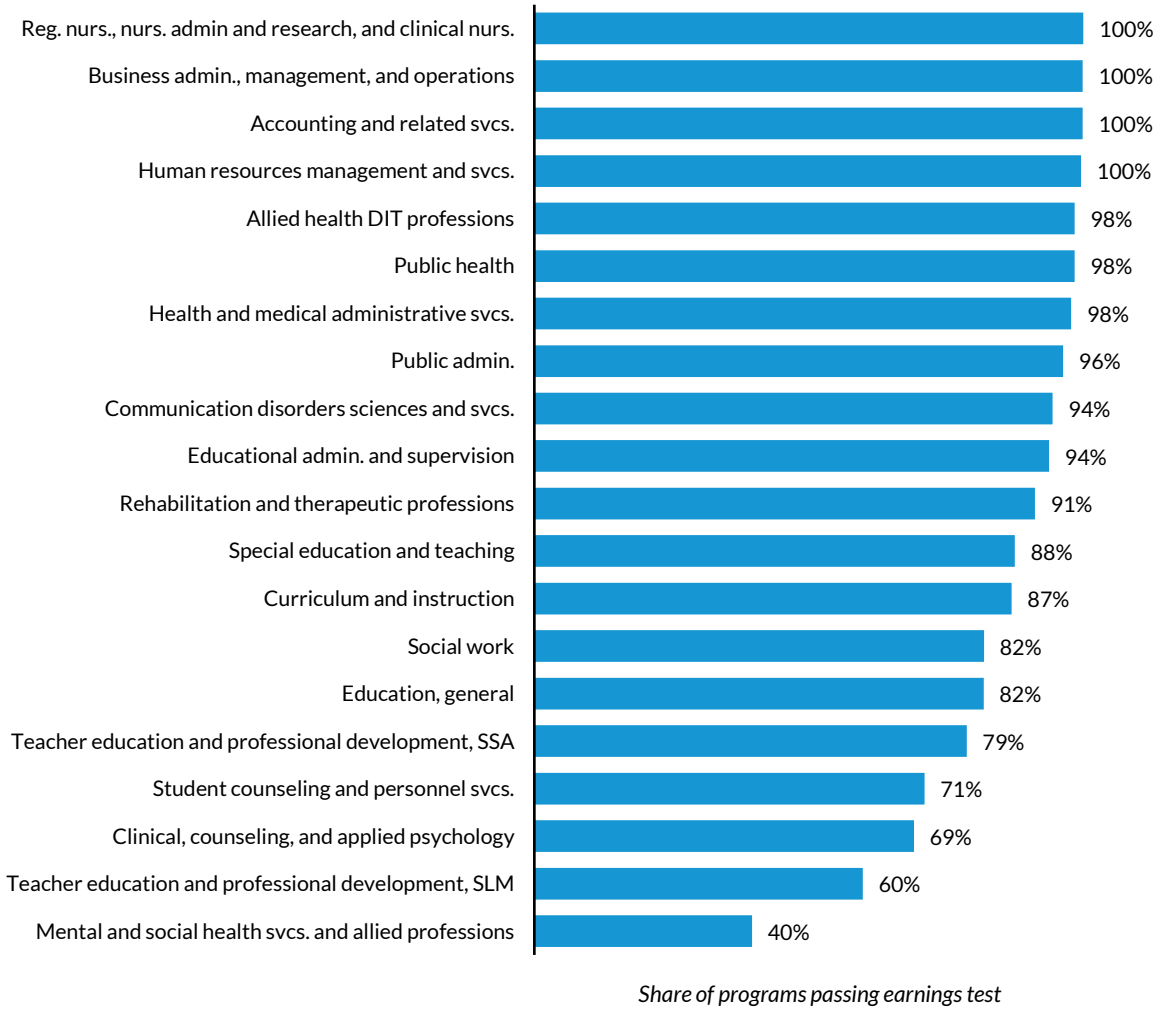
Mental health, counseling, and teacher education programs have some of the lowest passing rates among the 20 largest fields of study (figure 1). Only about 40 percent of programs in mental and social health services would pass. Around 70 percent of degrees in student counseling or clinical, counseling, and applied psychology degrees would pass the test. Teacher education programs have pass rates between 60 and 80 percent. (The College Scorecard data include multiple large categories for teacher education master's degrees that we do not collapse.) Master of social work programs also have relatively low pass rates (82 percent pass) among the largest master's degree fields.

[5] Washington, DC, has a higher median earnings benchmark than any of the states ($72,000).

FIGURE 1

Mental and Social Health Services, Teacher Education, and Clinical Psychology Have the Lowest Passing Rates

Share of programs in each of the 20 largest master's degree fields that pass the proposed earnings test, weighted by program size



URBAN INSTITUTE

Source: Urban Institute analysis of data from the American Community Survey, the College Scorecard, and the Integrated Postsecondary Education Data System.
Notes: admin = administration; DIT = diagnostic, intervention, and treatment; nurs. = nursing; reg. = registered; SSA = specific subject areas; SLM = specific levels and methods; svcs. = services. The 20 largest programs are listed in descending order by pass rate. Programs are weighted by the number of borrowers to account for program size. The 20 largest programs shown here include multiple teacher education categories because this is how they are reported in the College Scorecard.

If we examine only the programs that fail the test, a similar pattern emerges. Teacher education and social work account for nearly a quarter of all failing programs. Programs in mental health, psychology, and counseling make up another 22 percent of failing programs (table 1). Although social work

programs have higher pass rates on the test than these other fields, the programs are larger and therefore account for a larger share of failing programs.

TABLE 1

Programs Failing the Earnings Test Are Concentrated in Education, Counseling, and Social Service Fields

Degree fields most common among failing programs, weighted by program size

Field	Share of failing programs	Typical earnings of graduates
Teacher education and professional development	12%	$48,274
Social work	11%	$53,807
Mental and social health services	9%	$49,088
Clinical, counseling, and applied psychology	8%	$48,044
Student counseling and personnel services	5%	$49,775
All other programs	55%	$46,796

Source: Urban Institute analysis of data from the American Community Survey, the College Scorecard, and the Integrated Postsecondary Education Data System.
Note: Programs are weighted by the number of borrowers to account for program size.

We also examined the share of master's degree programs that pass the test in each state and found that there is considerable variation (appendix table A.1). Generally, the higher the earnings benchmark in each state, the lower the share of master's degree programs that pass. Virginia stands out for having the lowest pass rate by a wide margin. Only 56 percent of programs pass. (Massachusetts is the next lowest, with 74 percent passing.) Median earnings for bachelor's degree recipients in Virginia are well above average, which is one contributing factor. Many of the failing programs in Virginia provide education master's degrees, and earnings for teachers with those credentials in Virginia are often below the state's bachelor's degree earnings benchmark, which is higher than that of most states.

Master's degree programs that fail the earnings test are found at all types of institutions, but there is some notable variation. Public institutions have the lowest rate of failing programs (12 percent). At private nonprofit institutions, 15 percent of programs fail. At private for-profit institutions, 19 percent fail.

Comparing Earnings with Similar Fields of Study

Other policy proposals that would set earnings thresholds for master's degree programs use benchmarks based on fields of study. Under this approach, earnings for a master's in education are compared with the earnings among those with a bachelor's degree in education. This comparison is meant to determine whether the master's degree increases earnings among graduates in the same or a similar profession. This approach would allow master's degrees in fields with lower earnings to pass and remain eligible for aid so long as the master's degree produces an earnings premium relative to a bachelor's degree in the same field.

One complication with a field-of-study adjustment is that it is difficult to consistently and precisely match master's degree programs to similar fields of study at the bachelor's degree level. Ideally, a policy that uses this adjustment would match fields with a high level of specificity. For example, a master's degree in economics would be compared with a bachelor's degree in economics. But sample size limitations in the Census Bureau data require that a bachelor's degree in economics be measured against a broader field of social sciences, which could lead to an inaccurate estimate of earnings, as a typical economics graduate may have different earnings potential than graduates in a broader field of social sciences.

Despite this limitation, a field-of-study match ensures master's degree programs will not be compared with bachelor's degree programs in different fields. In contrast, under the Cornyn proposal, a master's degree in social work is compared with an aggregate bachelor's degree earnings threshold that includes bachelor's degrees in different fields, such as engineering and computer science.

We constructed bachelor's degree earnings benchmarks by field of study and the state where the institution is located using the same Census Bureau data for the earlier analysis to estimate the effects of a field-of-study adjustment for the Streamlining Accountability and Value in Education for Students Act earnings test.[6] In our estimate, each state has up to 51 earnings benchmarks based on 51 fields of study. A master's in teacher education therefore must produce earnings at least as high as the median earnings of individuals with only a bachelor's degree in education.[7]

Both the number and type of master's degree programs that fail the test change substantially when we make these adjustments (figure 2). The number of failing programs is cut in half to about 7 percent. Programs that had low pass rates under the approach in the proposed bill, such as teacher education, psychology, and student counseling, now have high pass rates, suggesting that these programs do produce an earnings premium relative to a bachelor's degree in the same field. Failing programs are also dispersed across many fields and occur (albeit at low rates) even among high-earning fields, such as business or accounting. The policy now identifies the lowest-earning master's degree programs within fields of study instead of measuring the lowest-earning master's degrees in absolute terms.

Nearly every field that had relatively low pass rates in our first analysis improves when using a field-of-study adjustment, but one field performs worse. About 40 percent of programs offering master's degrees in mental and social health services pass the earnings test in the bill. That share drops to just 19 percent under our field-of-study adjustment because these programs are categorized more broadly as health professions, meaning they are compared not only with bachelor's degree programs in mental and social health services but with programs in fields with higher earnings, such as nursing and public health.

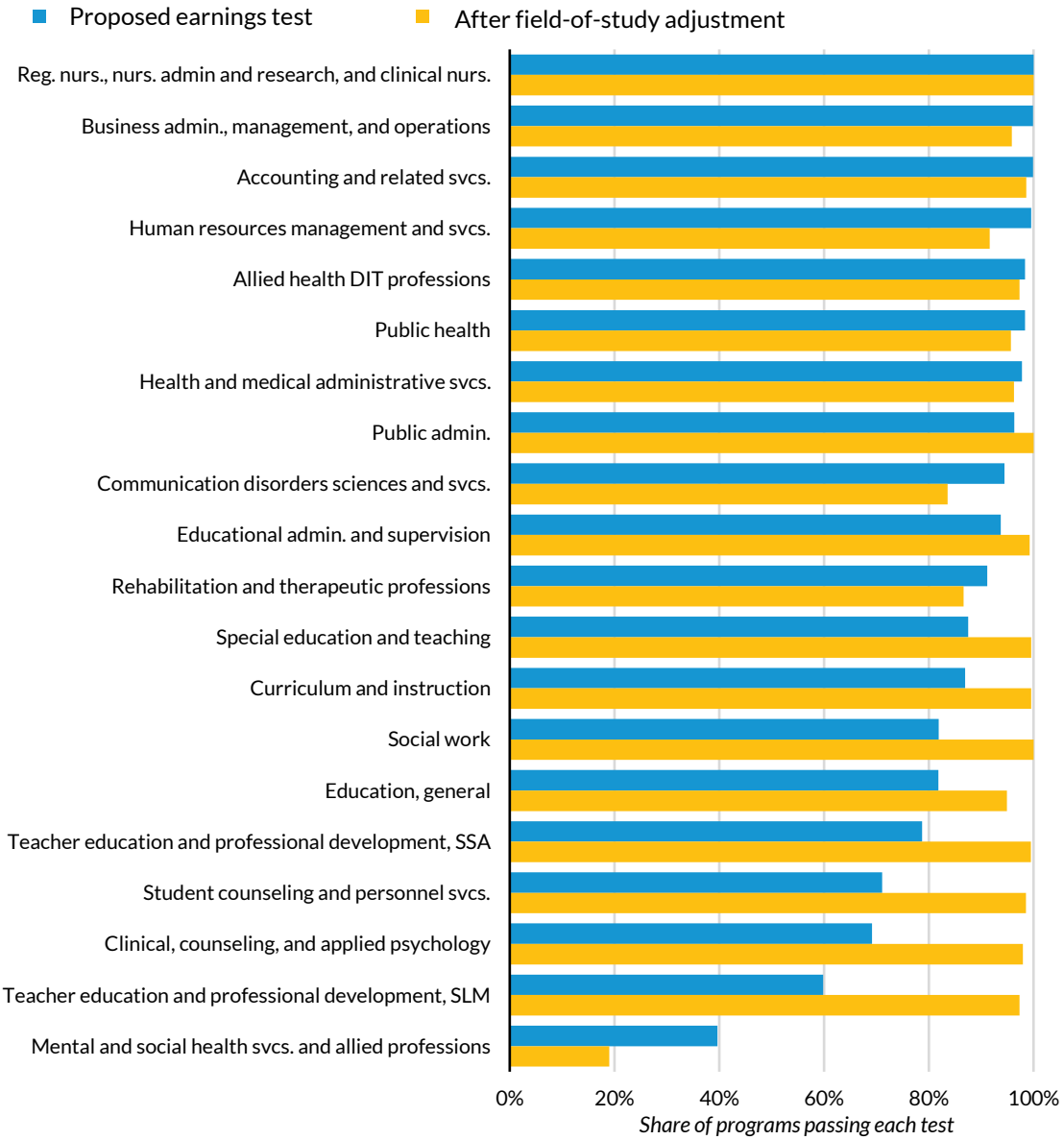
[6] For these bachelor's degree earnings benchmarks, we use two-digit CIP codes for field of study. Master's degrees in the College Scorecard are reported by four-digit CIP code, which is a higher level of specificity.

[7] Because of sample size limitations, we use a slightly broader field of study for the bachelor's degree earnings benchmarks, meaning the bachelor's degree comparison in this example includes any education field, not just teacher education.

FIGURE 2

Fewer Programs Fail Overall When Adjusting for Field of Study, but More Disciplines Show Some Failing Programs

Share of programs in each of the 20 largest master's degree fields that pass the proposed earnings test and an alternative field-specific earnings test, weighted by program size



URBAN INSTITUTE

Source: Urban Institute analysis of data from the American Community Survey, the College Scorecard, and the Integrated Postsecondary Education Data System.

Notes: admin = administration; DIT = diagnostic, intervention, and treatment; nurs. = nursing; reg. = registered; SSA = specific subject areas; SLM = specific levels and methods; svcs. = services. Programs are weighted by the number of borrowers to account for program size. This field-specific earnings test compares master's degree earnings with bachelor's degree earnings in the same two-digit Classification of Instructional Programs code.

Policy Implications

As policymakers continue to explore potential reforms to federal aid programs that tie eligibility to earnings, information on the likely effects of such proposals can help ensure the policies have their intended effect. Using an earnings benchmark for master's degree programs based on bachelor's degree earnings can produce different effects depending on whether it is adjusted for field of study.

Using a benchmark that reflects all bachelor's degrees can help ensure master's degree programs meet a minimum earnings threshold. That approach may be best suited to discouraging institutions from offering programs that lead to low earnings, regardless of field of study, and it might pressure employers to raise wages for low-earning professions. Many of the failing programs are in government and public service sectors, such as teaching and social work, so policymakers at those levels of government may need to raise pay for those fields or reconsider whether master's degree requirements that may be in place for licensure in those fields deliver a sufficient payoff.

Most programs in public service fields, though, pass the earnings test in the Streamlining Accountability and Value in Education for Students Act, suggesting that the test may be accurately identifying only the lower-quality programs within these fields or those that are poorly aligned with labor market requirements. In that case, it may have its intended effect. State policies around certification, licensure, and pay may also be responsible for certain programs leading to lower earnings. If a state requires longer supervised work periods before licensure in social work or has policies leading to lower teacher pay, programs in that state may be more likely to lead to lower earnings, even if they are aligned with labor market needs. The earnings test could spur reforms to those policies that ultimately increase pay in lower-earning professions over the long term but may cause labor shortages in those fields in the short term.

If policymakers are concerned that the unadjusted earnings benchmark would affect too many public service and mental health professions, however, we have shown that adjusting for field of study allows nearly all these programs to pass the earnings test. We have also shown that adjusting for field of study can be an effective policy for identifying programs within each field that have the weakest outcomes. For example, using the adjustment identifies the small number of master's programs in business administration or human resource management that may not be adding value over a bachelor's degree in a similar field. There is some risk that institutions may have an incentive to choose different classifications for their programs with this method, however, so they are compared against more favorable bachelor's degree categories. Currently, institutions have wide latitude in how they classify their programs, but those practices may need to be standardized and enforced under a field-of-study adjusted earnings test.

Our analysis also uncovered several implementation issues that policymakers may want to consider. The US Department of Education via the College Scorecard does not collect earnings data for entire cohorts of enrollees at the program level. Current practice excludes students who enroll but do not complete and those who did not receive federal aid. The department will need to collect these data to implement the proposed policy. Creating program-level cohorts that include all enrollees can be

challenging for undergraduate programs where students may not immediately declare majors or may change majors, but these issues are less applicable for master's degree programs. The earnings test may have different effects when these groups are included that we cannot observe currently.

Master's degree programs have come under increased scrutiny for not always delivering a high return on investment for students or federal financial aid programs. The Streamlining Accountability and Value in Education for Students Act, if enacted, would be the first federal policy to impose specific standards on master's degree programs at all institutions, requiring that graduates outearn bachelor's degree recipients. Earnings data suggest most programs currently clear this hurdle, but at least one in five programs in teacher education, mental health, and counseling fields and nearly one in five social work programs are at risk of failing and losing access to federal loans.

Appendix

TABLE A.1

Median Bachelor's Degree Earnings and Master's Degree Program Passing Rates, by State

State	Earnings test threshold	Master's degree program pass rate
District of Columbia	$71,842	84%
Massachusetts	$60,406	74%
Washington	$60,000	85%
New York	$59,343	82%
New Jersey	$58,287	87%
California	$57,568	86%
Connecticut	$57,474	83%
Maryland	$56,106	89%
Virginia	$55,027	56%
Illinois	$54,428	79%
Minnesota	$53,948	79%
Texas	$53,948	83%
Colorado	$52,988	79%
Alaska	$52,869	100%
New Hampshire	$52,000	75%
Pennsylvania	$51,947	84%
Delaware	$50,000	85%
Rhode Island	$50,000	93%
Wisconsin	$50,000	92%
Ohio	$49,809	86%
Michigan	$49,737	96%
Arizona	$49,632	85%
Georgia	$48,553	89%
Kansas	$48,553	90%
Hawaii	$48,000	100%
North Dakota	$48,000	100%
Oregon	$47,689	90%
Wyoming	$47,625	100%
Iowa	$46,800	97%
Missouri	$46,629	80%
Nevada	$46,421	99%
North Carolina	$46,421	94%
Indiana	$46,418	96%

State	Earnings test threshold	Master's degree program pass rate
Utah	$46,000	100%
Nebraska	$45,316	94%
Louisiana	$45,000	86%
South Dakota	$45,000	92%
Florida	$44,211	95%
Kentucky	$44,211	87%
Oklahoma	$44,211	96%
Tennessee	$44,211	95%
South Carolina	$43,961	88%
Alabama	$43,158	99%
Maine	$43,000	100%
Arkansas	$42,914	92%
Vermont	$42,390	83%
Idaho	$42,000	100%
Montana	$41,868	100%
New Mexico	$40,000	97%
Mississippi	$39,774	90%
West Virginia	$39,000	98%

Source: Urban Institute analysis of data from the American Community Survey, the College Scorecard, and the Integrated Postsecondary Education Data System.
Notes: Programs are weighted by the number of borrowers to account for program size. Analysis does not account for institutions that may have high shares of students residing out of state, which the proposed bill would require to meet an earnings test based on bachelor's degree earnings at the national level.

Jason Delisle is a nonresident senior fellow in the Center on Education Data and Policy at the Urban Institute. Jason Cohn is a research analyst in the Center on Education Data and Policy.

Acknowledgments

This essay was supported by the Walton Family Foundation, the Bill & Melinda Gates Foundation, and Arnold Ventures as part of the Learning Curve essay series. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the author and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at www.urban.org/fundingprinciples.

URBAN INSTITUTE

500 L'Enfant Plaza SW
Washington, DC 20024

www.urban.org

ABOUT THE URBAN INSTITUTE

The Urban Institute is a nonprofit research organization that provides data and evidence to help advance upward mobility and equity. We are a trusted source for changemakers who seek to strengthen decisionmaking, create inclusive economic growth, and improve the well-being of families and communities. For more than 50 years, Urban has delivered facts that inspire solutions—and this remains our charge today.