Increasing College Completion with a Federal Higher Education Matching Grant

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Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

The Project is named after Alexander Hamilton, the nation’s first Treasury Secretary, who laid the foundation for the modern American economy. Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that “prudent aids and encouragements on the part of government” are necessary to enhance and guide market forces. The guiding principles of the Project remain consistent with these views.
Increasing College Completion with a Federal Higher Education Matching Grant

A college degree is increasingly necessary in today’s economy. Federal policymakers have attempted to encourage college attendance and degree attainment through financial aid provided to students. However, this aid has generally been unsuccessful in raising degree attainment rates, which remain quite low and have not risen for the past 20 years, as shown in figure 1.

A new policy proposal by David J. Deming of Harvard University argues that increasing degree attainment rates will require commensurate improvements in the quality of education and academic support received by students. This policy brief summarizes Deming’s proposal for a federal matching grant to support such improvements. The proposal would provide an incentive for increased per student spending by those public institutions that implement free college proposals to improve educational quality, particularly for students from low-income families. The federal matching grant would also provide states with an incentive to limit both administrative costs and the expenses incurred by students, while maintaining or increasing spending levels on core academic functions that have been shown to improve quality. Even under optimistic assumptions about participation in the matching grant, the author projects that the cost to the federal government would be no more than one third of current spending on federal financial aid programs.

The Challenge

Erosion of State and Local Aid and Falling College Completion Rates

State and local aid to public institutions has historically allowed them to provide a high-quality education at a sticker price that is much lower than its true cost. In 1990 inflation-adjusted net tuition (after subtracting financial aid and other grants) per full-time equivalent student in public institutions was $2,896, and yet educational revenue for that same student totaled $11,583, reflecting a large state subsidy. Deming notes that nearly all U.S. public postsecondary institutions spend much more—sometimes much more—per student than they charge in tuition. This extra spending improves educational quality by facilitating smaller classes, better instruction, and academic supports such as tutoring or counseling, among other services.

In recent years tuition prices at public postsecondary institutions have risen steadily. At the same time, per student state funding at those institutions declined by about $1,773 between 2000 and 2014.

The decline in net spending (i.e., spending minus revenue from students) by public postsecondary institutions has coincided with falling rates of college completion. Although college enrollment rates have risen dramatically in the past 30 years—40.5 percent of all youths ages 18–24 were enrolled in a degree-granting four-year institution in 2015, compared to 27.8 percent in 1985—growth in degree attainment has been modest or nonexistent. Low college completion rates are particularly

FIGURE 1.
College Attendance and Bachelor's Degree Attainment Rates by Age 25, by Birth Cohort

Note: Figure shows share of each birth cohort that attended at least one year of college and the share that completed at least a bachelor's degree, respectively.
pronounced for both low-income and minority students. For example, in the 2008 college entry cohort, only 41 percent of African American students and 53 percent of Hispanic students graduated from bachelor’s degree programs within six years, compared to 63 percent of white students.

The financial consequences of failure to graduate can be significant. Students who expect to obtain a four-year degree but fail to do so borrow an average of $7,413. These costs are further compounded by the loss of current earnings from enrolling in college instead of working, and by the loss of future earnings because college graduates earn more on average than non-graduates.

**Financial Aid Is Not Raising Completion Rates**

Policy makers and institutions have responded by increasing the generosity of financial aid, as the author details in the paper. While published tuition and fees—the “sticker price”—grew by more than $5,000 at public four-year institutions between 1996 and 2016, the net price students actually paid grew much more modestly, by about $1,400. Net tuition and fees actually decreased by more than $1,000 at public two-year colleges over this period.

In other words, the decline in state support for public postsecondary institutions has occurred at the same time that federal and state financial aid programs have become much more generous. Total real federal spending on student aid increased from $50.9 billion in 1995 to $156 billion in 2015, with a peak of $188.4 billion in 2010.

Unfortunately, the author notes, there is limited evidence that federal and state financial aid programs increase completion rates, with the exception of certain generous, well-targeted, and transparent financial aid programs. Many researchers have found that the Pell Grant program in particular, as well as other federal education tax benefits, have been ineffective at increasing college enrollment.

Moreover, despite the large increase in the generosity of need-based federal aid, income gaps in college attendance and completion have continued to widen.

**Higher Per Student Spending Increases College Completion**

Although financial aid is generally ineffective at raising completion rates, the author describes recent research suggesting that greater institutional spending, especially on the core spending categories of instruction and academic support, is effective. Research examining changes in state appropriations finds that budget cuts have a large negative impact on postsecondary attainment. Another study finds that declines in resources per student—rather than changes in students’ academic preparedness—are the cause of declining college completion rates.

These findings align with a growing body of evidence showing that differences in college quality within less-selective institutions are strongly related to differences in degree completion. College completion is lower—and takes longer—when states have larger cohorts of college students and fewer resources to devote to any given student.

**What Does Increased Spending Buy?**

The author proceeds to explore the channels through which increased college spending boosts completion rates. Several recent studies have identified counseling, tutoring, and other supports to students entering college as important contributors. One program—the CUNY Accelerated Study in Associate Programs (ASAP)—nearly doubled graduation rates by providing comprehensive academic and support services to students entering community colleges.

In fact, student support interventions replicate services already provided by better-resourced colleges. In 2013, academic support was 10.3 percent of total spending in selective four-year public institutions, but only 8.5 percent of total spending in less-selective four-year public institutions, and only 7.1 percent in community colleges. In separate work, Deming estimates that a 10 percent increase in state funding for nonselective public institutions leads to a 17 percent increase in spending on academic support programs, suggesting that colleges will invest in mentoring and student supports when provided with additional resources.

**A New Approach**

In light of evidence that federal financial aid does not increase completion rates, and that spending more on core instruction and academic support does, Deming proposes a 1:1 federal matching grant for public spending on institutions that implement so-called free college plans, where tuition is eliminated for eligible students enrolled in two-year and four-year degree programs. In the upcoming reauthorization of the Higher Education Act (HEA) of 1965, the U.S. Congress would commit to matching the first $5,000 of net per student spending at all public postsecondary institutions that make college tuition-free for eligible students.

**Eligibility**

The matching grant proposed by Deming would apply to all public, Title IV—eligible (i.e., federal financial aid eligible), degree-granting, postsecondary institutions that commit to making college tuition-free for at least full-time in-state students who have not previously earned a degree. A number of states have already moved in this direction.

In order to receive federal matching funds, institutions must commit to providing tuition-free college to all students meeting minimal eligibility requirements. These eligibility requirements may include having earned a high school diploma or GED but no postsecondary degree. Institutions may also restrict the offer of
free tuition to students enrolling full time in a degree-granting program who maintain a minimum college GPA of 2.0, as in the Tennessee Promise program. Some existing state programs have additional requirements, such as mandatory community service, which would also be allowed. Notably, the matching grant would be available to institutions that charge non-tuition fees or charge tuition and fees to out-of-state, part-time, and/or non-degree students. Regardless, the match would be calculated based on total spending per full-time equivalent student, net of tuition and fee revenue, to ensure that colleges actually use the match to increase student supports, rather than simply shifting the cost burden from eligible to ineligible students.

Currently, most free college plans apply either to all two-year institutions or all institutions in a state. However, in states such as New York where free college is only offered at some institutions, only those institutions that offer free tuition would be eligible to receive matching funds. Technical training centers and other Title IV–eligible public institutions that only grant certificates or other short-course credentials would also be ineligible.

**Eligible Spending Categories**

The federal matching grant proposed by Deming is restricted to two categories of institutional spending: instruction and academic support. Other categories of spending, including extracurricular activities, administration, research, capital maintenance, and similar spending categories, are not eligible for the federal match.

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**Roadmap**

- In the reauthorization of the Higher Education Act of 1965 (HEA), Congress will commit to matching the first $5,000 of net per student spending on instruction and academic support services at all public postsecondary institutions that make college tuition-free for eligible students. The match will be calculated using total spending per full-time equivalent student, net of tuition and fee revenue.
- Congress will restrict eligibility for the matching grant to funds spent on instruction and academic support services (e.g., tutoring, mentoring, or counseling services). Congress will also stipulate that administrative costs must not exceed pre-program levels, on a per student basis and as a percentage of core spending.
- Congress will allow institutions to set their own eligibility requirements for students—with the exception that pre-college outcomes not be used, and that students must pursue a two- or four-year degree.
- Congress will establish a 2:1 competitive matching grant pilot program for spending on programs shown to increase degree completion among low-income students.

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**To ensure that the matching grant actually increases spending on instruction and academic support, the proposal will include a maintenance-of-effort provision for each participating institution and spending category. Institutions receiving matching funds in the first year of the program are required to maintain per student spending (exclusive of the federal match) on both instruction and academic support at pre-program, pre-match levels. Institutions must maintain or increase per student spending levels on instruction and academic support every subsequent year to continue receiving federal matching funds.**

Furthermore, the federal matching grant would require that administrative spending be limited. Public institutions receiving federal matching funds must maintain administrative spending at no more than pre-program levels, on a per student basis and as a percentage of core spending. For example, if a college is currently spending $4,000 per student on instruction, $1,000 per student on academic support, and $1,000 per student on administration, administration equals 20 percent of core spending and colleges must keep administrative spending at or below this percentage to continue receiving federal matching funds.
Finally, the proposal would establish a competitive pilot program offering grants at a 2:1 match rate for spending on programs that have been shown to increase degree completion among low-income students. For example, programs that combine financial aid with mentoring and other academic supports would be among those eligible for the pilot program.

Benefits

The author’s proposed federal matching grant would have important advantages over existing free college plans. First, the federal matching grant would disproportionately benefit low-income students who tend to enroll in less-selective institutions with lower per student spending. The federal match would have the largest impact on these less-selective public institutions with low current levels of spending. The pilot of an increased match rate for programs demonstrated to help low-income students would also ensure the progressivity of the policy.

Second, the proposal would ensure that the shift toward free college occurs without reducing educational quality. The worsening condition of state higher education budgets around the country raises concerns that free college will be financed by reductions in per student spending, despite research showing that those reductions lead to lower college completion rates. This proposal helps states commit to providing a tuition-free college education while also maintaining quality and ensuring that students receive the support they need to succeed in college and in the labor market.

Costs

The biggest determinant of the matching grant’s expense is the number of states that choose to offer tuition-free college. If limited to the six states that have already enacted free college plans, the total annual cost of the program would be $1.1 billion for two-year colleges and $2 billion for four-year colleges, even if enrollment increases by 10 percent and participating institutions increase spending to maximize the matching funds received. These outlays are small relative to the more than $156 billion currently spent on federal financial aid.

If all 50 states enact free college plans, program costs would range between $10 billion and $14 billion for two-year colleges and between $19 billion and $29 billion for four-year colleges. Federal spending on grants and tax-based aid (excluding loans and interest rate deductions) was $61.7 billion in 2015; this figure rises to more than $156 billion when other sources of federal financial aid—like student loans—are included. The author’s proposal would reduce the amount that students need to borrow to pay for college, generating federal savings in these programs, and partially defraying the cost of the matching grant program.

Conclusion

There is substantial evidence that spending more on instruction and academic support services increases college completion rates. However, state support for higher education has stagnated in recent years, increasing by less than 4 percent from 1990 to 2015, even as full-time equivalent enrollment grew by 45 percent. Due to these budgetary restrictions, public institutions often feature large classes and provide little in the way of counseling, mentoring, and other student supports that have been shown to improve the likelihood of college completion.

In a new Hamilton Project proposal, Deming suggests a 1:1 federal matching grant for states that implement free college at their public postsecondary institutions. Building on recent academic research showing the benefits of spending more on core instruction and academic support services, Deming targets his matching grant to support spending on these activities, while simultaneously freezing administrative costs at participating institutions.
Questions and Concerns

1. Are you concerned that colleges will just reallocate resources to capture the funds, without changing anything that they do? Put differently, how do we know that colleges will spend federal matching funds in a way that improves student outcomes?

An important feature of the program is that the match is restricted to the first $5,000 of net per student spending on instruction and academic support services, ensuring that the federal government gets the biggest bang for its buck. The program has the biggest marginal impact on community colleges and less-selective four-year colleges, where budgets are tightest and college completion rates are lowest. Evidence suggests that providing additional resources is most effective for institutions with low levels of baseline spending. Looking to K–12 education, a study of the federal Title I program (which provides supplementary funding to K–12 schools that serve poor children) found that it increased school spending by $0.46 on every $1 in the average school district in southern states, but by almost $1 on every $1 in districts with low baseline revenue.

In addition, the match is calculated based on spending on instruction and academic support only. This is particularly important when tight state budgets make overall spending increases unrealistic. Institutions in states that are unable to increase higher education spending have a strong incentive to reallocate spending to instruction and academic support, thereby increasing their federal match.

Of course, institutions might still be able to reclassify spending without actually altering its allocation, which would be a major concern for the program. For example, to the extent that a college or university can reclassify its administrative expenses as academic support, it could increase its federal match without making any changes to its activities.

2. How does the federal matching grant program help low-income students?

Low-income students would benefit most from the matching grant program because they are more likely to attend less-selective institutions where baseline spending on students is typically lower and the effects of the grant would be greater.

Furthermore, the proposal calls for a competitive pilot offering a 2:1 match rate for spending on academic support and financial aid programs that increase degree completion among low-income students. This would ensure that the colleges disproportionately attended by low-income students receive the supplementary funding that would allow them to increase quality and provide needed academic supports to low-income and first-generation students.
Highlights

David J. Deming of Harvard University proposes a federal matching grant for public institutions that implement free college proposals in order to increase graduation rates at community colleges and universities.

The Proposal

Establish a 1:1 federal matching grant for institutions that implement free college plans. In its reauthorization of the Higher Education Act of 1965, Congress would commit to matching the first $5,000 of net per student spending at all public postsecondary institutions that make college tuition-free for eligible students.

Restrict the grant to spending on instruction and academic support services. There is substantial evidence that increased spending on these categories improves academic quality and raises completion rates. The matching grant also caps spending on administration as a share of spending per full-time student.

Provide the grant to eligible institutions. Deming’s proposal would apply to all public, financial aid-eligible, degree-granting institutions that commit to making college tuition-free for at least full-time in-state students who meet certain minimal eligibility requirements.

Establish a 2:1 match rate for competitive pilot programs that increase degree completion among low-income students. For example, innovative programs that combine financial aid with mentoring and other academic supports would be eligible.

Benefits

This proposal helps to rein in the rising cost of attending college while ensuring that a greater share of scarce state funds is spent on programs that have been shown to increase college completion rates. Enhancements in educational quality would particularly benefit students from low-income families, who are more likely to attend two-year and less-selective four-year institutions where current spending on instruction and academic supports is relatively low. Furthermore, even under optimistic assumptions about participation in the matching grant, the cost to the federal government would be no more than one third of current spending on federal financial aid programs.