Promise scholarships offer an alternative to traditional aid programs by making commitments to students early on in high school and providing motivation and encouragement as students prepare for college.

5

Is traditional financial aid too little, too late to help youth succeed in college? An introduction to *The Degree Project* promise scholarship experiment

Douglas N. Harris

ONE OF THE MAIN purposes of education, and a primary reason for government funding, is to provide opportunities to people across all walks of life—to level the playing field of life chances. By almost all accounts, however, the system fails miserably. Children from low-income families are much less likely than their higher-income peers, as Heckman and his colleagues argue, to enter or graduate from college.[1] Compared with the lowest income quartile, students in the highest income quartile are almost three times and likely to enter college and six times as likely to complete a bachelor's degree.[2] This is especially troubling given the rising return to education and other social benefits of higher education.[3]

One theory is that low-income students do not succeed in college because they are less academically prepared at the end of high school.[4] But inequality in academic preparation cannot be the only

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explanation.[5] One-third of the income gap in college entry cannot be explained by cognitive skills and high-income students with low test scores are about as likely to attend college as low-income students with high test scores.[6]

An additional potential cause of the income gap in college outcomes may be the rising price of college.[7] For more than a century, college tuition has risen at a rate of 2–3 percentage points above the rate of inflation and in recent years it has risen much faster than real median income.[8] This has contributed to a 350 percent increase in loans.[9]

While these rising costs have been largely offset by increased government financial aid for low-income students, there are still some ways in which low-income groups have been harder hit.[10] Compared with more advantaged groups, they seem to be more averse to taking out loans and overstate college costs by a factor of three.[11] Low-income students also express concern about the cost of college—in our own data, students report this as one of the greatest barriers to college success.

Given the concerns about costs, it is perhaps somewhat surprising that financial aid programs seem to be only moderately cost effective in helping students persist in college through graduation. Students do slightly better with more aid, but at considerable expense.[12] These findings have brought renewed interest to the design of financial aid. Are there better ways to use aid to address rising costs, especially for low-income groups? Many researchers seem to think so and have proposed ways to redesign these programs, for example, by simplifying and easing the burden of financial aid forms.[13]

Another problem—and the focus of this chapter—is that traditional aid programs do not make concrete commitments to students until they are nearly finished with high school, when many are already off track. The concern over cost and affordability might make students less likely to work hard in school or see themselves as college material. There is another way. "Promise scholarships" make commitments to low-income students when they are much

younger and therefore have the potential to encourage students to better prepare during high school, develop the social capital they need to navigate the path to college, and pay for growing college costs—and at very little additional cost.

Promise programs might help build a road to college—by providing some gas money—with which students can "drive" their strong college aspirations. At least seventy-three such programs exist nationally, including the well-known *Kalamazoo Promise*, and have received wide national media and political attention.[14] In a speech at a high school that had such a program, President Obama spoke about how the early aid had "helped inspire an entire generation of young people here . . . to imagine a different future for themselves."[15]

Unfortunately, the praise has somewhat outpaced the evidence. In this chapter, we describe the design and rationale for *The Degree Project* (TDP), the first U.S. randomized trial of a promise scholarship. In addition to the important new evidence the demonstration program will generate, TDP also shows how educators and researchers can work together to provide the insight and answers policy makers need to address very real education gaps. After discussing the program and setting in more detail, we elaborate on the rationale and discuss potential policy implications.

The Degree Project (TDP)

On November 17, 2011, all first-time ninth graders attending half of Milwaukee's thirty-six public ninth-grade schools were given the chance to receive $12,000 to pay for college. The Great Lakes Higher Education Corporation (Great Lakes) has committed up to $31 million to fund the scholarships, enough to provide the full scholarship to every one of the 2,587 TDP promise recipients.

To receive the money, students will have to meet some academic and other requirements during high school and of course eventually attend college. While there are not explicit income

requirements, 82 percent of MPS students are eligible for free- or reduced-price lunches. Only 69 percent of MPS ninth graders typically complete high school on time and only 44 percent of those high school graduates directly transition to college.[16]

Students will receive TDP funds so long as they graduate on time with at least a 2.5 cumulative GPA (C+/B−) and attend class 90% of the time.[17] To graduate, students must meet MPS academic requirements and GEDs do not qualify. In addition, TDP scholarships will require students to complete a Free Application for Federal Student Aid (FAFSA) during their senior year and each year of college, and attend an eligible college at least half-time. The GPA and attendance requirements—nearly identical to those of the *Pittsburgh Promise*—are cumulative across years, so that students who fall behind can catch up.

TDP scholarships must be used within four years of expected high school graduation. Students need not start college immediately, but must start within fifteen months of on-time high school graduation. For example, students who do not attend college at all in the first year after high school graduation can still use the full scholarship amount, but they would have to do so by spring 2019. The college must be one of the sixty-six public or nonprofit two- or four-year institutions in Wisconsin, a list that includes almost all of those commonly attended by MPS graduates. There are no GPA requirements during college.[18]

TDP scholarships are "last dollar" and will cover up to the cost of attendance. Many TDP students will have a zero expected family contribution (zero EFC); for these students, the total TDP scholarship would cover the entire cost of attendance for more than two years at a public two-year college. Looking at the full-time tuition and fees of the two- and four-year institutions most commonly attended by MPS students—$3,184 annually at Milwaukee Area Technical College (MATC) and $8,675 annually at the University of Wisconsin–Milwaukee (UW–Milwaukee)—we see that TDP by itself would cover all tuition and fees for a two-year degree and more than one full year at a four-year college. (Half

of MPS students who go on to college attend one of these two institutions.) Although tuition and fees are likely to rise before 2015, when TDP recipients first enter college, $12,000 constitutes a substantial reduction in the direct costs of college, and perhaps more importantly, will likely seem a large amount of money to a ninth grader.

TDP communications plan

Information is crucial to the success of almost any program, and especially those that involve financial incentives with eligibility requirements, involving disadvantaged groups. For that reason, the program funder is carrying out an aggressive communication plan. Prior research suggests that students are ill-informed about the steps they have to take to be successful in college, especially about costs and financial aid.[19] Even when they are already receiving aid, students often forget about the opportunities available to them.[20]

Therefore, three months after the initial announcement, Great Lakes sent individualized reminder letters that indicated whether each student was "on track" to meet the requirements. These on-track letters will be sent approximately three times per year during high school. As with the initial award letters, all on-track letters and subsequent written communication will be sent twice, one to school and one home by U.S. Mail.

Going forward, these letters will also include information about typical high school course work of successful college students, average college costs and financial aid amounts in Wisconsin, names of colleges recently attended by MPS students, and the process for—and importance of—signing up for the ACT test. Because one requirement is filling out the FAFSA, the program will provide FAFSA information to students multiple times as they begin their senior year. Research shows that FAFSA completion is a significant impediment to college entry.[21] Finally, the program has a

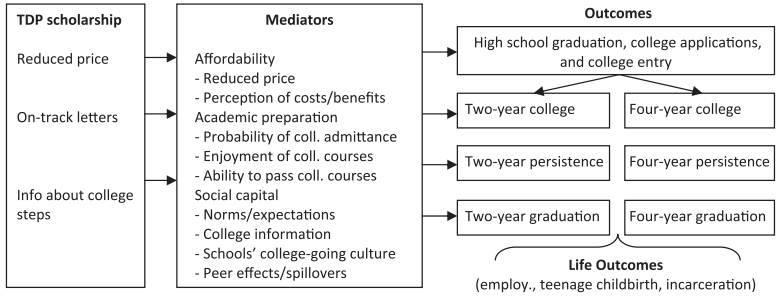
public web site (www.degreeproject.com) and a telephone hotline to address questions.

Random assignment

In addition to the careful design of the program itself, TDP was designed to provide the most convincing evidence possible about its cost effectiveness. The eighteen schools where first-time ninth graders received the scholarship offer were therefore selected *at random* and the remaining eighteen schools serve as the control group. This type of experiment, or randomized controlled trial, is generally considered the most rigorous method for identifying the effects of almost any program.[22] Because schools were chosen for the scholarship offer at random and have an equal chance of being chosen, we can expect that, in the absence of the scholarship, the two groups would have had the same high school and college outcomes—the same grades, attendance, and college completion. Therefore, any differences in outcomes must be due to TDP. In contrast, in Kalamazoo, the absence of random assignment and other factors led its evaluators to conclude that "it is difficult to determine how much of [the effects] can be attributed to the Promise versus other changes."[23]

In most experiments, students are selected so that some within the same classroom or school receive the treatment and others do not. This "individual randomization" is a problem in cases where, as with TDP, the treatment might have a positive feedback loop across students. For example, if TDP increases college expectations for one student, that might carry over to higher expectations for that student's friends and peers. But if we had randomized individuals so that some students in each ninth-grade class received the treatment and others not, the feedback loop—or "spillovers"—would not have as much of a chance to work and we would have misunderstood how the program would work if applied to all students and schools.[24] The fact that whole groups of students were

Figure 5.1. Theory of change



chosen for TDP—all first-time ninth graders in eighteen schools—is therefore significant, and more like the natural implementation of government programs. Large groups of students (around 140 on average per school) in the same school will experience TDP at the same time and the benefits for each may add to the benefits for all.

General rationale: Affordability, social capital, and academic preparation

Our general rationale for early aid programs like TDP, compared with traditional "late commitment" aid, is that early aid will reduce students' concern and uncertainty about college costs and therefore encourage them to better prepare during high school. Here, we explain in greater detail by breaking down TDP into its three components: the reduced price of college that comes with the potential $12,000, the on-track letters, and other information about the key steps to college success sent by Great Lakes.

Our theory, as shown in Figure 5.1, is that all three of these are important and collectively result in improved affordability, better academic preparation, and increased social capital.[25] While the three program components are interdependent, the three arrows on the left side of Figure 5.1 suggest the primary influences of each component. For example, the primary effect of the scholarship offer is to make college more affordable (first arrow); also, by

reminding students of their academic success with the on-track letters, students may be motivated to improve their academic preparation (second arrow).

Finally, we believe the additional information we provide about college, combined with the potential feedback loop, will facilitate social capital formation (third arrow). For instance, the college information provided by TDP will help do the work that counselors often cannot do themselves, initiating additional student–counselor interactions and establishing norms of college-going that are accepted by students and counselors. These student–counselor interactions may add up to more than the sum of their parts, creating a stronger college-going school culture.

The outcomes are listed on the right side of Figure 5.1. Research suggests that many of the same general factors affecting college entry also affect persistence and completion, for example, affordability and academic preparation.[26] In fact, as researchers have found, students appear to drop out because they have chosen colleges that are less competitive than their skills warrant—they are "under-matched."[27] Academically prepared students often never even apply to colleges commensurate with their ability, partly because of the college-going culture of the school.[28] Affordability, academic preparation, and social capital may each have different effects on entry versus persistence in college. For this reason, we list each of the four main college outcomes separately and allow separate paths/mechanisms for each outcome. Finally, improved education outcomes may, in turn, increase employment and reduce teenage childbirth and incarceration. Our ongoing analysis of the TDP will examine all of these outcomes.

Figure 5.1 oversimplifies matters in at least one important way. We view the decision to go to college—and acquire academic and social capital—as the result of complex and interrelated processes. For example, academic preparation could be influenced by either the increased affordability of college (college is more likely and induces students to work harder to be ready for it) and/or by the GPA and attendance requirements (some students would go to college anyway, but the requirements still induce them to work

harder). These complex processes—which are difficult to illustrate with boxes and arrows—become more evident as we elaborate on the theoretical model and discuss below existing evidence about promise programs.

Affordability. Basic economic theory suggests that promise programs, as well as other forms of financial aid, increase the likelihood of college success simply by making it less expensive.[29] While students often seem responsive to costs, tuition, and financial aid, they do not act like "adolescent econometricians," as Manski points out, and do not make education decisions in ways predicted by basic economic theory.[30] Part of the problem is that students misperceive the costs and benefits of college. TDP will address affordability by providing substantial funds and by communicating with students and parents about college costs. We are aware of no prior evidence about how students' perceptions about college costs are affected by promise programs.

Academic preparation. A substantial literature indicates the importance of academic preparation—specifically, preparation for college-level courses.[31] Some researchers of college readiness have stressed the need to develop basic skills in reading and writing, content-specific academic skills, and noncognitive skills, such as perseverance. This may be why college financial aid programs with performance requirements appear to be more effective than those that do not.[32] TDP could improve academic preparation with its GPA and class attendance requirements and by communicating the academic path to college.

Evidence about effects of U.S. promise programs on high school academic outcomes is positive, but not very persuasive. In studying the *Kalamazoo Promise*, which provides up to 100 percent tuition for each graduate of the public schools, Bartik, Eberts, and Huang report that student achievement increased considerably in Kalamazoo, MI schools after the Kalamazoo Promise was instituted and that 30 percent of students said that they had enrolled in more college preparation courses during high school because of the promise.[33] Also, 58 percent of the students interviewed and 66 percent of the school employees believed that students' attitudes

about school work had improved.[34] Again, whether these studies really reflect the effects of the programs is questionable because of the lack of random assignment or other methods to convincingly account for student differences.

More recent evidence from Kalamazoo is mixed. Bartik and Lachowska report a small positive effect on GPA and one fewer suspension day per year.[35] On the other hand, there were no effects on the number of suspensions, suggesting that the effect on suspensions may be due to school principals being more lenient in punishing scholarship-eligible students. Also, another recent report suggests that high school graduation rates for minorities have been unchanged since the start of the Kalamazoo Promise.

Social capital. Social capital can be defined in different ways, but in this case we focus on social norms and information available to students and their capacity to navigate the bureaucratic processes pertaining to college. Limited access to these forms of social capital is likely to be a key factor preventing students from reaching their college potential, but the key policy issue is to what degree educational policy can address this mechanism.[36]

Students' peers represent one important social network and have been shown to play an important role in college access.[37] I have written elsewhere about the complexity of peer interactions in general and surveyed a range of theories to explain them.[38] Building on prior work, I argued that the evidence favors a theory of *group-based contagion*—that is, students tend to emulate the specific peers with whom they identify most closely, such as those of the same race or gender.[39] Thus, if getting a TDP scholarship can directly influence the information and beliefs of individual students, then this could have positive spillovers for their classmates and friends in terms of group information and social norms around college going.

School teachers and counselors can also be viewed as sources of social capital. Some research shows that students need "structures of support" to help them navigate the college selection, admission, and financial aid processes.[40] Educators, along with peers, also help to establish a college-going culture that sets a norm of

college entry.[41] This finding highlights how social capital and academic preparation are intertwined. A college-going culture, for example, may induce students to take more demanding courses and study harder. Further, if college-going becomes more the norm, then students may gather more college information and share that through their social networks, so that peers and counselors help to offset limited social capital in students' families.

Even if financial aid does not affect short-term behavior, it may change students' perceptions and expectations in ways that influence future behavior. Psychological theory and research suggest that expectations and students' perceived control over college opportunities are affected by costs and financial aid and are strong predictors of college success, even after accounting for a host of other observable differences.[42] While college expectations are generally high among adolescents, low-income groups have lower expectations that decline sooner and faster as they progress through school and become more realistic about their college prospects.[43] Increasing college expectations by reducing the price and price uncertainty early on might therefore be precursors to behavioral changes and greater academic effort later in high school.[44]

The Canadian *Future to Discover* (FTD) program provides evidence that promise scholarships can increase social capital in just this way. This early aid program involved $8,000 "learning accounts" assigned at random to low- and middle-income students in Canada during tenth grade. Students "earned" $2,000 for each year of high school completed and for meeting attendance requirements. Students in the study were at or below the provincial median income.[45] Fowler and her colleagues note the program had positive effects on college expectations in the first two years, especially among students from families with low incomes and low parental education. Effects on high school academic outcomes are not reported.[46]

The above theory and evidence was instrumental not only in deciding that the program might represent a cost-effective improvement in the design of financial aid, but also, as a demonstration experiment, it informed some of the specific

design decisions. Consider first that TDP starts in ninth grade and has more time to work, in contrast to FTD (tenth grade) and traditional aid (twelfth grade). Performance requirements, which are not included in many purely need-based programs, are fundamental to the design of TDP.[47] These include output-oriented performance requirements (GPA) and, as suggested by Fryer, school attendance as an input-oriented requirement. TDP provides reminders to students about the program and information so that they better understand what they need to accomplish to achieve college success.[48] To facilitate the role of peer effects and college-going culture, the entire cohort of first-time ninth graders in each school was selected, in contrast to all prior randomized trials of college aid which randomized individuals.[49] Finally, TDP does not require eligibility for Pell or any other grant, reducing the possibility that students might lose TDP for reasons outside their control.[50] It remains to be seen whether these design choices were sufficient to change how students think about college or what they do to prepare for it.

Potential implications for the nation's financial aid system

Given strong political support for financial aid, perhaps the most important policy question is whether early aid proves more cost effective than traditional late commitment aid. If it does, then shifting to an early aid approach could improve college access and address continued gaps in college outcomes. The primary benefits are the types of improved preparation studied here during students' high school years, while the costs are arguably small.[51] Even modest effects on high school preparation could be important given growing evidence that, as Heckman writes, skill begets skill.[52]

There are two main impediments, however, to revamping traditional aid with early commitments. First, it is not clear whether

the government can credibly commit to providing funding many years in advance in the way the TDP funder did. One solution would be for the government to deposit the money into a bank account in the student's name when the funds are first committed as is done in the social security systems in countries, such as Chile. This not only largely eliminates the credible commitment problem but also takes advantage of the fact that people seem to respond more strongly to the prospect of losing something to the prospect of gaining that same thing—sometimes called "loss aversion."[53] Once the government puts the money in an account, students may fear losing it.

Even within a more typical pay-as-you-go-type system, the government could convince students the money will be there if they provide stable funding over time, a de facto commitment.[54] Indeed, the real level of total government grants for college has remained steady or grown every year since 1982.[55] The U.S. Social Security system is another case in point. Prior actions by governments are the best predictors of future actions.

A second impediment is that aid packages depend on the college attended and students do not know that in advance. Aside from eliminating the college-specific nature of aid, one solution to this problem would be to commit some minimum aid level that the government would provide no matter what college the student chooses. If the government could also simplify aid applications and link them to IRS records, then most students could receive their aid commitments from the government automatically when they enter ninth grade, for example, based on parent income at that point in time.

Government financial aid programs—which now spend $177 billion annually—have no doubt contributed to the growth of educational attainment over the past century.[56] But in an environment where government support for higher education will continue to be strained by health care, pensions, and other government responsibilities, it may be necessary to rethink the design of existing programs and allocation of higher education resources. Early aid may be one way to improve efficiency and equity simultaneously. Over

the next several years, the potential benefits will become clearer as students in Milwaukee, Kalamazoo, and Canada progress through school and into the workforce.

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44. Student performance on standardized tests, for example, was influenced in one experiment by randomly assigned information meant to affect students' beliefs about their academic abilities.

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54. Heller (2006) argues that stable funding is not enough because of the growth of tuition costs, but this growth itself has been predictable and this same problem arises with late commitment aid. He also provides evidence about the stability of eligibility over time. To ensure that students who fall into poor economic conditions toward the end of high school are still eligible for aid, students could always request that their aid packages be updated. This would have the side effect that, for any given level of funding, aid will be somewhat less well targeted to low-income families compared with late commitment aid; however, these differences are likely to be small given the stability of family circumstances.

55. Geiger & Heller (2011).

56. Goldin & Katz (2008).

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