

# Major Themes in Economics

---

Volume 23

Article 4

---

Spring 2021

## Designing Promise Programs: Decisions and Effects

Shay Slifka

University of Northern Iowa, [slifka.shay@gmail.com](mailto:slifka.shay@gmail.com)

Follow this and additional works at: <https://scholarworks.uni.edu/mtie>



Part of the [Economics Commons](#)

*Let us know how access to this document benefits you*

Copyright ©2021 by Major Themes in Economics

---

### Recommended Citation

Slifka, Shay (2021) "Designing Promise Programs: Decisions and Effects," *Major Themes in Economics*, 23, 35-50.

Available at: <https://scholarworks.uni.edu/mtie/vol23/iss1/4>

This Article is brought to you for free and open access by the CBA Journals at UNI ScholarWorks. It has been accepted for inclusion in Major Themes in Economics by an authorized editor of UNI ScholarWorks. For more information, please contact [scholarworks@uni.edu](mailto:scholarworks@uni.edu).

## Designing Promise Programs: Decisions and Effects

Shay Slifka

### **Abstract**

Having gained popularity over the past two decades, promise programs are a relatively new policy tool aimed at increasing the number of people who earn two-year and four-year postsecondary educational degrees by providing partial or full financial aid. In contrast to other forms of financial aid for postsecondary education, promise programs guarantee funding to students of a specified geographic area, which is sometimes accompanied by merit or need-based requirements. Promise programs differ in design, vary in result, and potentially cause substitution and migration effects. By analyzing several mature promise programs, I identify three fundamental design decisions that policymakers must consider when creating promise programs.

### **Introduction**

In January of 2015, President Barack Obama and Vice President Joe Biden announced America's College Promise: a proposal offering two years of tuition-free community college or technical college education to any student attending at least half-time, maintaining a minimum college GPA of 2.5, and making sufficient progress toward program completion. This proposal was structured as a federal-state partnership in which the federal government would match each state's contribution by a factor of three. Thus, state governments would pay 25% of program costs, and the federal government would pay the other 75% (Office of the Press Secretary 2015, 1-2). America's College Promise has not passed through legislation despite reintroduction in 2019 (Baldwin Senate 2019), but newly elected President Joe Biden has discussed plans to further this educational initiative that he initially proposed as Vice President alongside President Obama (Biden-Harris 2020).

Modeled after the state-level Tennessee Promise, America's College Promise would be the broadest program to date as the first federal-level promise

program. Research on the Tennessee Promise and other early promise programs, however, has identified significant variance in program designs, results, and potential unintended effects. Given this variability, policymakers concerned with efficient spending must make informed decisions about promise program design variables and their effects before large-scale implementation takes place. This paper will focus on three fundamental policy decisions: first-dollar vs. last-dollar, two-year vs. four-year programs, and what is the goal?

### **Terms and Definitions**

Promise programs are financial aid programs that promise funding for the purpose of earning a post-secondary education to students of a specified geographic area. Defining these programs are three general goals: to increase awareness and preparedness of post-secondary education opportunities, increase access to those opportunities through partial or full financial aid, and stimulate economic and community growth (Swanson and Ritter 2018, 4-5). Beyond these broad defining characteristics and goals, promise programs vary significantly in design.

All promise programs are place-based, meaning that eligibility for the program requires residence and high school graduation within a designated geographic area. The breadth of place requirements, however, varies on a spectrum from broad to narrow programs. Broad programs limit eligibility to students at the state level, narrow programs limit eligibility to students at a high school institutional level, and programs within the spectrum may limit eligibility at district and county levels. Programs also vary in duration of residency/attendance requirements. Some programs have no duration of residency/attendance requirements, but others may require attendance within the designated place from years 9-12 or years K-12, with only partial scholarships provided to students attending years 9-12 (Swanson and Ritter 2018, 15).

Financial award structure can take the form of either first-dollar or last-dollar. First-dollar programs provide a fixed amount of aid to students without regard to other sources of financial aid. In these programs, students are allowed to use any financial aid in excess of the amount of tuition and mandatory fees toward textbooks and living expenses. By contrast, last-dollar programs provide aid in the remaining amount of tuition and mandatory fees after other sources of financial aid have been applied. In addition, last-dollar aid covers only tuition and mandatory fees, with no aid provided for textbooks and living expenses

(Swanson and Ritter 2018, 5). Often the choice of financial award structure is related to the program's source and size of funding. Most first-dollar programs are funded by private endowments, whereas last-dollar programs may be funded by either private or public sources.

In terms of eligibility, programs are either universal or restrictive. Universal promise programs include any student within the promise place requirement without regard to other demographic or student performance factors. Restrictive promise programs may include need-based requirements, such as having family income below a certain threshold. Other restrictive programs may include merit requirements such as a minimum GPA, school attendance requirements, college preparatory courses, completing community service projects, or mentorship from a community member (Carruthers et al., 6-7).

Many city and county level promise programs emphasize a community orientation, which can influence restrictions on how and where financial aid from the promise program can be used. Promise programs may provide aid for up to two years and often require that the institution be an accredited community or technical college, while others cover four years at universities. Many other postsecondary institutional restrictions may apply such as state restrictions, public versus private, and even use of the award being restricted to a single institution within the promise area. Any of the aforementioned variables may combine to form a unique program whose place requirement, financial aid structure, funding, eligibility requirements, and institutional restrictions are determined by the city, county, or state based on the availability of funds and the needs of that geographic area.

### **Policy Decision I: First-Dollar vs. Last-Dollar**

This paper will analyze the outcomes of four mature promise programs: two first-dollar and two last-dollar. Frequently cited as the maiden program, the Kalamazoo Promise was established in 2005 for graduates of Kalamazoo public schools in Kalamazoo, Michigan. As a first-dollar, universal program that covers up to four years of aid at any college or university in Michigan, the Kalamazoo Promise is a generous, privately funded program that has served as a model for many promise programs to follow, such as the El Dorado Promise (Bartik et al. 2016). The El Dorado Promise was established in 2006 for graduates of schools in the El Dorado, Arkansas school district as a first-dollar, universal, generous, and privately funded program covering up to five years of

aid at any postsecondary institution in the country (Swanson and Ritter 2018, 3-4).

In 2008, Knox Achieves was established for graduates of schools in Knox County, Tennessee as a last-dollar, universal, privately funded program that covered up to two years of aid at community colleges. After three years, Knox Achieves was replaced by a broader county-level program called *tnAchieves*, which served as a model for the statewide program, Tennessee Promise, that was introduced in 2014. Aside from broadening the place requirements and finding a new source of funding, *tnAchieves* and the Tennessee Promise have similar designs as the original Knox Achieves program (Carruthers et al., 3-7). In the same year as the establishment of Knox Achieves, the Pittsburgh Promise was established as a last-dollar program for students of Pittsburgh public schools. Though the Pittsburgh Promise is a last-dollar program, it generously covers up to four years at any post-secondary institution in Pennsylvania. Furthermore, students may be eligible for a promise award of up to \$1,000 per year even if their cost of attendance, which includes tuition, mandatory fees, books, and living expenses, are completely covered by other sources of funding. The generosity of this program, however, has been scaled back in recent years as local fundraising for such a costly program has proved to be unsustainable. The Pittsburgh Promise is unique in being a generous, last-dollar program, and it is the only program in this analysis that is not universal because of its minimum GPA and attendance requirements (Page et al. 2019, 2-7).

Because first-dollar programs can provide fundamental assistance in direct costs of tuition and mandatory fees, as well as supplemental assistance in reducing opportunity costs and other indirect costs of attending college, they are considered more generous. As a consequence, however, they are also more costly. By contrast, last-dollar programs provide only unmet fundamental assistance in direct costs of tuition and mandatory fees. Though they are less generous, last-dollar programs share the cost of post-secondary financial aid with private programs and government programs, such as Federal Student Aid, which administers FAFSA and Pell Grants (Carruthers et al., 8). With greater generosity driving higher program costs, the natural questions emerge whether greater generosity from first-dollar promise programs leads to better outcomes and whether those outcomes are worth higher program costs.

In terms of college enrollment, both first-dollar and last-dollar promise programs have had positive impacts. The generous, first-dollar, four-year El Dorado Promise increased postsecondary enrollment by 11.4 percentage points

(Swanson and Ritter 2018, 34). The last-dollar, four-year program, Pittsburgh Promise, had an increase of 7 percentage points in postsecondary enrollment (Page et al. 2019, 21). Alternatively, the other last-dollar program that is less generous and covers only two years, Knox Achieves, had only a 3 percentage point increase in postsecondary enrollment (Carruthers and Fox 2015, Table 2). This research indicates that promise programs, regardless of financial award structure, increase postsecondary enrollment; however, more generous programs, which are *typically* first-dollar, do so at a rate roughly two to four times that of less generous programs, which are *typically* last-dollar. In the last-dollar, yet generous Pittsburgh Promise, the program increased postsecondary enrollment by more than its less generous, last-dollar counterpart but by less than the first-dollar program.

Analyzing program results across gender and racial subgroups suggests that promise programs have the greatest positive effects on conventionally disadvantaged students: women and students of color. The first-dollar Kalamazoo Promise increased program completion by 45-49% for women but had a null effect on men, and it increased program completion by 50% for students of color but had a null effect on white students (Bartik et al. 2016). Similarly, the first-dollar El Dorado Promise increased postsecondary enrollment by 4.6 percentage points more for women than men and increased postsecondary enrollment by 13.4 percentage points for students of color while having an insignificant effect on white students (Swanson and Ritter 2018, Table 7). Thus, both first-dollar programs were associated with pronounced positive effects for women and students of color.

Last-dollar Knox Achieves, however, had no significant difference in effects among women and men in terms of credit accumulation, degree attainment, and earnings after high school, but it did have greater effects on black and Hispanic students compared to white students (Carruthers et al. Table 6). Similarly, the last-dollar Pittsburgh Promise had no significant differences across gender and racial subgroups. An important note, however, is that the Pittsburgh Promise is the only promise program in this analysis to be restrictive with GPA and high school attendance requirements. On average, black students in Pittsburgh public schools have lower average GPAs, such as the graduating class of 2007 at 2.27 for black students compared to white students at 2.98 (Page et al. 2019, 22). Thus, GPA requirements that restrict a greater portion of conventionally disadvantaged students from receiving promise funds may decrease the magnitude of positive effects on those subgroups that would otherwise be received in a universal program. Overall, these results suggest that promise

programs, regardless of financial award structure, have the greatest positive effects on conventionally disadvantaged groups, but more generous (*typically* first-dollar) programs have effects that are more pronounced for women and students of color compared to less generous (*typically* last-dollar) programs. In addition, GPA requirements may further mitigate the magnitude of positive program effects on conventionally disadvantaged populations.

Analysis across income subgroups suggests heterogeneous results between first-dollar and last-dollar programs. The first-dollar Kalamazoo Promise was associated with a 12 percentage point increase in attainment of any credential, and program completion results varied by only 3 percentage points across income subgroups (Bartik et al. 2016). Since first-dollar programs provide a fixed amount of aid to students of all income levels, they appear to have similar effects on students across income subgroups. Alternatively, Carruthers et al. (22) found in last-dollar Knox Achieves that middle-income students had the highest increase in accumulated credits of 22% compared to their low- and high-income counterparts at 15% and 8%, respectively. They also found the only income group to experience an increase in likelihood of attaining a bachelor's degree was the middle-income group at 1.8 percentage points (Carruthers et al., 22). A potential explanation for this program's greater effect on middle-income students is that this subgroup is least likely to receive financial aid from other sources; high-income students may have familial financial aid assistance, and low-income students are more likely to receive funding through programs like the Pell Grant. Thus, last-dollar programs like Knox Achieves provide a higher amount of aid that would otherwise be unavailable to middle-income students and, consequently, last-dollar programs have a greater positive effect on middle-income students.

Thus far, this analysis has determined that first-dollar and last-dollar programs are both associated with positive effects on postsecondary educational attainment with pronounced effects on conventionally disadvantaged groups. Results have differed, however, in magnitude between first-dollar and last-dollar programs with the former having greater effects, which suggests that greater generosity from first-dollar programs does lead to better outcomes. The question still remains, however, whether those better outcomes are worth the higher program costs. Compared to last-dollar Knox Achieves, which spent approximately \$1,000 per enrolled student per year, first-dollar programs such as the Kalamazoo and El Dorado promises averaged costs that were eight to ten times as high (Carruthers et al., 8). Despite significantly higher costs, research indicates that first-dollar programs have significant positive returns. In a cost-

benefit analysis of the Kalamazoo Promise, in which expected lifetime earnings were used to calculate benefits, Bartik et al. (2016) found significant positive returns and varying results for gender and race subgroups.

In the aggregate, the Kalamazoo Promise had a benefit-cost ratio of 4.66, 11.3% rate of return, and benefits exceeding costs by \$64,463. Women had a higher outcome than the aggregate with a benefit-cost ratio of 4.75, 12.2% rate of return, and benefits exceeding cost by \$69,008. For men, however, the study showed no increase in educational attainment, which led to no increase in earnings. The high number of men attending college represented a high cost resulting in no positive benefits in terms of expected earnings. Students of color had a benefit-cost ratio of 5.37, 12.4% rate of return, and benefits exceeding cost by \$51,925. By comparison, there were small effects for white students with a benefit-cost ratio of 0.75, 1.9% rate of return, and costs actually exceeding benefits by \$5,679 (Bartik et al. 2016, Table 5). Though men and whites have high returns on education, many of the male and white students participating in the Kalamazoo Promise would have completed a bachelor's degree without the presence of the program. Thus, for men and white students, the program provides a very small increase in educational attainment compared to the high cost of attendance the program pays for. With that said, a generous, first-dollar, universal program like the Kalamazoo Promise may help men and white students to reduce college loans, but it does not have the same increase in educational attainment for them as it does for women and students of color. Discussion of the policy implications these heterogeneous results may have will occur later under Policy Decision III. Overall, first-dollar programs, though more costly, have significant positive returns in the aggregate with varying results across gender and racial subgroups.

Cost-benefit comparisons to last-dollar programs are not yet available, though Carruthers et al. attempted a back-of-the-envelope calculation that led to an inconclusive result. In that study, Carruthers et al. examine the effects of Knox Achieves on early labor market returns, and they find positive returns for both students who were eligible and students who participated in Knox Achieves. Earnings began to rise for eligible students five years after high school graduation, with a peak rise in the seventh year of \$732.70 and tapering effects over the eighth and ninth years. Participants in Knox Achieves experienced a similar pattern of rise in earnings, however, their peak rise over doubled that of eligible students (Carruthers et al., 19). Carruthers et al. (20) also looked at the impact of Knox Achieves on Unemployment Insurance (UI) covered jobs in Tennessee, which showed a higher likelihood of Knox Achieves students



working in UI-covered jobs one to nine years after high school graduation, higher log earnings in those jobs years one to eight, and a two percentage point decrease in attrition from UI covered jobs. Though these early labor market returns are positive, the back-of-the-envelope cost-benefit analysis attempted by Carruthers et al. was inconclusive due to the presence of a potential substitution effect away from bachelor's degrees, which typically result in higher labor market earnings. This potential substitution effect is the cause for Policy Decision II.

### **Policy Decision II: Two-Year vs. Four-Year**

Research suggests that both two-year and four-year programs may influence students to substitute away from certain types of postsecondary education that they may have pursued in the absence of a promise program. Knox Achieves, a last-dollar, two-year program, increased the likelihood of students earning a certificate or associate's degree by one to three percentage points, but it did not increase the average likelihood of students earning a bachelor's degree. Certain subgroups, such as low-income, low-achieving, black, and Hispanic students, were more likely to complete a bachelor's degree, but an imprecise measure indicated that other, more advantaged subgroups were actually less likely to complete a bachelor's degree (Carruthers et al., 32). Of Knox County students who did not participate in the program, 25% had earned a bachelor's degree within six years of graduation, whereas only 17% of Knox Achieves participants earned that level of credential within six years of graduation. Though the coefficient estimate was imprecise, eligibility for Knox Achieves was associated with either a rise in bachelor's degree attainment of up to two percent or a fall of up to seven percent (Carruthers et al., 18).

These results suggest that two-year programs, like Knox Achieves, may influence students on average away from bachelor's degrees. A potential explanation for this effect is that the transfer process from community college to a four-year institution can be confusing, complicated, and costly, which may deter students. As previously suggested, this effect may have an impact on the cost-benefit analyses of two-year programs because bachelor's degrees typically result in higher earnings premiums than associate's degrees. Therefore, the benefit of increased earnings from additional college educated workers may not outweigh the cost of fewer bachelor's degree earning workers (Carruthers et al., 32).

By contrast, the El Dorado Promise, a first-dollar, four-year program increased attainment of bachelor's degrees within six years of graduation by 10.7 percentage points, but it did not increase attainment of associate's degrees on average. Within the subgroup of students with above average GPAs, however, students ineligible for the El Dorado Promise had a rate of increase of associate's degree attainment that was 3.7 percentage points higher than eligible students (Swanson and Ritter 2018, 21-34). These results suggest that four-year programs, such as the El Dorado Promise, may influence students away from associate's degrees and towards bachelor's degrees with higher earnings premiums. Intuitively, if students are offered the opportunity to receive greater benefits without the constraint of internalizing the higher costs of those benefits, a rational student will seek to maximize their benefits holding all else equal.

Both potential substitution effects require further research to ensure that promise programs are designed to efficiently increase postsecondary educational attainment. If students are influenced in their decision of postsecondary education by factors other than their skills and abilities, then there is a potential for inefficiency from job-skills mismatching. If two-year programs influence students away from bachelor's degrees, then students with skills and abilities consistent with bachelor's degrees may receive jobs that do not maximize their potential contributions to society through higher skilled labor and higher earnings premiums.

Conversely, if four-year programs influence students away from associate's degrees, then students with skills and abilities consistent with associate's degrees will impose higher costs on society than what is necessary for their contributions. Thus, while promise programs aim to reduce inefficiencies in postsecondary educational attainment caused by informational and financial barriers, they may also cause inefficiencies by influencing decisions inconsistent with job-skills matching. Further research needs to be conducted to confirm the existence of these effects and determine their magnitudes so that policymakers can choose between the respective consequences of each program's substitution effects, or policymakers can potentially alter program designs to mitigate those effects.

### **Policy Decision III: What is the Goal?**

Factoring into the choices made for Policy Decisions I and II are tradeoffs between program goals. One tradeoff in goals exists between increasing the portion of the population with a postsecondary education versus increasing the amount of postsecondary education provided to each participant. For example,

Pittsburgh's population, academic enrollment, and academic achievement have been in decline since the late 1950's. In 1968, enrollment in Pittsburgh public schools was 68,000 students, and today enrollment has decreased to under 25,000 students (Page et al. 2019, 5). Furthermore, 68% of Pennsylvania students score proficient or advanced in mathematics and 72% in reading, meanwhile only 48% of students in Pittsburgh public schools scored proficient or advanced in mathematics and 63% in reading (Page et al. 2019, 5). Given these city-specific issues, the Pittsburgh Promise aimed to increase population, enrollment, and quality of education. With those goals in mind, the Pittsburgh Promise developed as a first-dollar, four-year program that applied to a *narrow portion* of the population, and it could, consequently, provide *more education* per participant.

The Tennessee Promise was implemented as part of the state's "Drive to 55" campaign, which aimed to increase the percentage of the population with a postsecondary education from 39.3% to 55% by 2025 (Carruthers et al., 3). The emphasis of this goal is not on increasing the amount of education per participant, like the Pittsburgh Promise. Rather, the emphasis of this state-specific goal is to increase the portion of the population with a postsecondary education. With that goal in mind, the Tennessee Promise developed as a last-dollar, two-year program that applied to a *broad portion* of the population and, consequently, provided *less education* per participant. Thus, funding limitations create a tradeoff between the portion of the population and the amount of education per person that a promise program can provide. Choosing between these tradeoffs will help policymakers to determine the first two policy choices between first-dollar vs. last-dollar and two-year vs. four-year programs.

Another tradeoff in goals exists between increasing postsecondary educational attainment vs. decreasing student loan debt. Previous sections have established that first-dollar programs have better outcomes with higher costs, and promise programs, regardless of financial award structure, have the greatest positive effects on conventionally disadvantaged populations. Furthermore, the Kalamazoo Promise had null effects on men and white students in terms of postsecondary educational attainment. With those results in mind, if the goal of a promise program is to increase postsecondary educational attainment, then policymakers might decide to provide *more education* per participant through first-dollar programs (with better results) to a restricted *narrow population* of conventionally disadvantaged students like women and students of color (who receive the greatest benefits). In theory, such a program would be efficient for

the goal of increasing postsecondary educational attainment, though it would arguably lack equity.

Alternatively, if the goal of a promise program is to decrease student loan debt, then policymakers might decide to provide *less education* per participant through last-dollar programs to a universal *broad population* who would all benefit from reduced student loan debt. Thus, choosing between these tradeoffs will also help policymakers to decide between first-dollar vs. last-dollar and two-year versus four-year programs.

### **Other Considerations**

In addition to tradeoffs in program goals, policymakers must factor several other considerations into Policy Decisions I and II such as differences in racial composition, differences in beliefs about education, potential migration effects, and funding constraints. For example, the racial composition of Pittsburgh public school systems is 53% black, which is over double the amount of black Pittsburgh residents (Page et al. 2019, 5). Given the significantly greater impact that promise programs have on black students and other disadvantaged populations, the Pittsburgh Promise would reasonably be designed differently than a program with a significantly higher population of white students.

Regions also differ in their beliefs about education. Perna and Leigh's (2017, 3) sociological framework for studying promise programs assumes that students' understanding of the value of postsecondary education and the postsecondary institutions they consider are a result of their "habitus." "Habitus refers to the internalized system of thoughts, beliefs, and perceptions that is acquired from the immediate environment, including the social, organizational, and cultural contexts in which individuals are embedded" (Perna and Leigh 2017, 3). Therefore, if student beliefs and choices vary by region, then promise programs would reasonably be designed differently by region to capture this variance.

Migration between regions may also influence program design. College graduates are more likely to leave their hometown area to pursue national job opportunities compared to non-college graduates; 20 percentage points fewer college graduates stay in their hometown area compared to non-college graduates (Bartik et al. 2016). As a result, promise programs might contribute to a reduction in community population size. College graduates who attend college in their home state, however, are 10 percentage points more likely to remain in their home state after graduation (Bartik et al. 2016). Thus, promise

programs that promote in-state colleges may induce graduates to stay in the local workforce, which would result in a more highly educated workforce. Fostering a higher skilled workforce may have a spillover effect of attracting more skilled labor to the area. Parents may also be more likely to stay in or move to a promise area as a result of the attractive financial aid offer. The Kalamazoo Promise shows evidence of this effect by increasing district public high school enrollment by 30% (Bartik et al. 2016).

When taking into consideration differences in racial composition, differences in beliefs about education, and potential migration effects, a national program is not likely to capture the vast heterogeneity of the United States. The positive effects of city-, county-, and state-level programs thus far, however, provide hope for efficiently designed smaller, specialized programs. Therefore, policymakers must also decide on the size or scope of each program. Though city or county level programs would ideally capture the most demographic differences, higher administrative costs and city/county competition may inhibit such micro-level management. By comparison, designing 50 unique state-level programs would contain costs and migration effects while still capturing variance by geographics. Before a federal mandate of state level programs can be implemented, however, more research needs to be done on the potential substitution effects of both two-year and four-year programs. In addition, significant research would need to be done on state-level racial compositions, habitus, and problems to overcome to ensure that program designs align with each state's goals and demographics.

A potential problem for mandating any level of program, however, would be determining a source of funding. Most city and county level programs have been established and administered as a result of private donations. For example, the first-dollar, four-year El Dorado Promise was established by an initial endowment of \$50 million from the Fortune 500 company, Murphy Oil (Swanson and Ritter 2018, 3). Most state-level promise programs instead rely on public sources of funding, such as the last-dollar, two-year Tennessee Promise, which is funded by an endowment of \$361.1 million from excess lottery reserve funds (Meehan et al. 2019, 4).

These examples demonstrate the tradeoffs made between narrow population, generous programs and broad population, less generous programs; as promise programs cover a broader population of students, more funding is required and less generosity is available. Because private donations are not likely to cover the cost incurred by broad population promise programs, policymakers would

need to determine how widespread mandated promise programs could feasibly be publicly funded.

Would public funding be enough to provide four-year promise programs? If not, would two-year programs cause a substitution effect away from bachelor's degrees? Although mandating state-level programs, as opposed to city and county level programs, would likely reduce migration effects, would the effects still be significant enough to cause labor market distortions by state?

If a national mandate of state-level programs was funded by a federal-state partnership in which the federal government matches \$3 for every \$1 spent by state governments, as suggested by President Biden, will wealthier states offer superior education through higher funding and leave less wealthy states with inferior education leading to deeper inequality? Though promise programs have had positive effects thus far, these questions demonstrate that many policy decisions and potential effects need to be considered before policymakers implement widespread promise programs.

### **Limitations**

Several limitations to this research apply. First, the rapid proliferation of promise programs in recent years means that many programs are still too young to have substantial data for program completion and labor market returns. Second, the unique design of each promise program makes it difficult to aggregate program results based on one variable. The sample of promise programs analyzed in this paper was selected due to program maturity and financial award structure. These four programs represent only a few variations of promise programs. Perna and Leigh (2017, 3) found 289 programs, as of 2017, in the United States that fit their broad promise program criteria. Due to the high variance in program designs, categorizing promise programs by one variable can fail to capture the unique influence of each design variable. For example, the Pittsburgh Promise is a last-dollar program, but its first-dollar-like generosity led to increased postsecondary enrollment at a rate closer to first-dollar programs as opposed to its last-dollar counterpart.

Third, some county- and city-level programs have small sample sizes that may bias results especially when researching variance across subgroups. Finally, the cost benefit analysis discussed in this paper measured benefits in terms of expected lifetime earnings. Such a narrow analysis might fail to capture non-

pecuniary benefits such as improved physical and mental health, reduced crime, increased civic engagement, and other positive externalities. It also does not take into account that higher gross income from more college graduates will result in higher tax revenues and reduced transfers (Bartik et al. 2016).

## **Conclusion**

Research on promise programs at the city, county, and state levels has shown positive effects on postsecondary enrollment, attainment, and labor market returns in the aggregate. In addition, programs typically have greater positive effects for traditionally disadvantaged populations. The magnitude of these positive effects, however, are greater for generous (*typically* first-dollar) programs compared to less generous (*typically* last-dollar) programs. Though first-dollar programs have greater positive effects, they are also significantly more costly than last-dollar programs. The decision to design a promise program as first-dollar or last-dollar may be influenced by the size and source of funding and the goals of the promise area. These factors may also influence the decision to design a promise program as two-year versus four-year. That decision, however, may cause substitution effects, which merits further research. In addition to funding and goals, policymakers must also consider racial composition, beliefs about education, and potential migration effects when designing promise programs.

Because White House leaders have already proposed the implementation of a federal-level promise program, studying the effects of design variables and further researching potential effects is essential to designing a program that maximizes efficiency. Through their many design variables, promise programs have the ability to capture much of the vast heterogeneity of the United States in terms of racial composition, beliefs about education, and goals. In order for that heterogeneity to be captured, however, policymakers must be informed about the tradeoffs and effects of their policy design decisions.

## References

Baldwin Senate. 2019. "Senator Baldwin and Representative Levin Lead Effort to Create New Partnership with States to Provide Students at Community Colleges and Technical Schools More Affordability." Tammy Baldwin, United States Senator for Wisconsin. July 24, 2019.

<https://www.baldwin.senate.gov/press-releases/americas-college-promise-act-2019>

Bartik, Timothy J, Brad Hershbein, and Marta Lachowska. 2016. "The Merits of Universal Scholarships: Benefit-Cost Evidence from the Kalamazoo Promise." *Cambridge University Press: Journal of Benefit-Cost Analysis* 7, no. 3 (November 7). <https://www.cambridge.org/core/journals/journal-of-benefit-cost-analysis/article/merits-of-universal-scholarships-benefitcost-evidence-from-the-kalamazoo-promise/70FFCF40CEEABF12D74272EBA8201649>

Biden-Harris. 2020. "The Biden Plan for Education Beyond High School." Democratic National Committee, Last Modified March 31, 2020.

<https://joebiden.com/beyondhs/>

Carruthers, Celeste K, and William F. Fox. 2016, "Aid for all: College coaching, financial aid, and post-secondary persistence in Tennessee." *Economics of Education Review* 51, 104.

<https://uni-illiad-oclc-org.proxy.lib.uni.edu/illiad/illiad.dll?Action=10&Form=75&Value=94535>

Carruthers, Celeste K, William F. Fox, and Christopher Jepsen. Work in Progress. "Promise kept? Free community college, attainment, and earnings in Tennessee."

[https://www.frbatlanta.org/-/media/documents/news/conferences/2020/04/16/southeastern-micro-labor-workshop/Carruthers\\_Fox\\_Jepsen.pdf](https://www.frbatlanta.org/-/media/documents/news/conferences/2020/04/16/southeastern-micro-labor-workshop/Carruthers_Fox_Jepsen.pdf)

Meehan, Kasey, Shanell Hagood, M. Kate Callahan, Ph.D., and Daniel C. Kent. 2019. "The Case of Tennessee Promise: A Uniquely Comprehensive Promise Program." Research for Action, Bill & Melinda Gates Foundation, December 2019. <https://files.eric.ed.gov/fulltext/ED603810.pdf>



Page, Lindsay C, Jennifer E. Iriti, Danielle J. Lowry, and Aaron M. Anthony. 2019. "The Promise of Place-Based Investment in Postsecondary Access and Success: Investigating the Impact of the Pittsburgh Promise." *The MIT Press Journals* 14, no. 4 (September 23).

[https://www.mitpressjournals.org/doi/full/10.1162/edfp\\_a\\_00257](https://www.mitpressjournals.org/doi/full/10.1162/edfp_a_00257)

Perna, Laura W, and Elaine W. Leigh. 2017. "Understanding the Promise: A Typology of State and Local College Promise Programs." *SAGE Journals* 47, no. 3 (November 22).

[https://journals.sagepub.com/doi/full/10.3102/0013189X17742653?casa\\_token=PpOW7pAOCJUAAAAA%3AkIhJfWTVZaDIFB3IWWvZgVRJR3APKdLdCnsl\\_KFCKGE3hNN9lvOEoR4XQNAfiGXFsWpQKnQAS40t](https://journals.sagepub.com/doi/full/10.3102/0013189X17742653?casa_token=PpOW7pAOCJUAAAAA%3AkIhJfWTVZaDIFB3IWWvZgVRJR3APKdLdCnsl_KFCKGE3hNN9lvOEoR4XQNAfiGXFsWpQKnQAS40t)

Swanson, Elise, and Gary Ritter. 2018. "Examining the Impact of the El Dorado Promise on Postsecondary Outcomes." *EDRE Working Paper Series* no. 2018-02. The University of Arkansas Department of Education Reform, April 2.

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3153153#](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3153153#)

Office of the Press Secretary. 2015. *FACT SHEET - White House Unveils America's College Promise Proposal: Tuition-Free Community College for Responsible Students*. January 9.

<https://www.cpwdc.org/wp-content/uploads/WhiteHouseFactSheetforAmericasCollegePromise.pdf>