

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Miller-Adams, Michelle; McMullen, Isabel

Working Paper

Promise program design for equity outcomes: A landscape survey

Upjohn Institute Working Paper, No. 22-366

Provided in Cooperation with:

W. E. Upjohn Institute for Employment Research, Kalamazoo, Mich.

Suggested Citation: Miller-Adams, Michelle; McMullen, Isabel (2022): Promise program design for equity outcomes: A landscape survey, Upjohn Institute Working Paper, No. 22-366, W.E. Upjohn Institute for Employment Research, Kalamazoo, MI, https://doi.org/10.17848/wp22-366

This Version is available at: https://hdl.handle.net/10419/262394

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





Upjohn Institute Working Papers

Upjohn Research home page

5-25-2022

Promise Program Design for Equity Outcomes: A Landscape Survey

Michelle Miller-Adams W.E. Upjohn Institute for Employment Research, miller-adams@upjohn.org

Isabel McMullen

W.E. Upjohn Institute for Employment Research, mcmullen@upjohn.org

Upjohn Author(s) ORCID Identifier:

https://orcid.org/0000-0001-6869-9063

https://orcid.org/0000-0002-1831-7175

Upjohn Institute working paper; 22-366

Follow this and additional works at: https://research.upjohn.org/up_workingpapers



Part of the Higher Education Commons

Citation

Miller-Adams, Michelle and Isabel McMullen. 2022. "Promise Program Design for Equity Outcomes: A Landscape Survey." Upjohn Institute Working Paper 22-366. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/wp22-366

This title is brought to you by the Upjohn Institute. For more information, please contact repository@upjohn.org.

Promise Program Design for Equity Outcomes: A Landscape Survey

Upjohn Institute Working Paper 22-366

Michelle Miller-Adams
W.E. Upjohn Institute
for Employment Research
and
Grand Valley State University
miller-adams@upjohn.org

Isabel McMullen W.E. Upjohn Institute for Employment Research mcmullen@upjohn.org

April 2022

ABSTRACT

Using the W.E. Upjohn Institute's Promise Programs Database—a searchable data set covering about 200 place-based scholarship programs—this paper explores how the design of Promise programs can shape their equity impacts. The authors first examine the landscape of place-based programs to understand the impact of program design on equity outcomes. They then use the statistical method of polychoric correlation to combine design features related to the equity potential of community-based Promise programs and develop an index expressing this concept. They conclude with two vignettes of recently announced Promise programs with different design features and implementation strategies to highlight the varied paths to equitable student outcomes. The paper finds that while some Promise programs have more potential than others to close equity gaps, whether they in fact do so will depend on implementation. Ongoing definitional debates, program heterogeneity, and the difficulty of observing implementation all complicate the task of assessing equity impact and underscore the need for more qualitative research focused on questions of equity and effectiveness.

JEL Classification Codes: I22, I24

Key Words: Free college, Promise programs, College Promise, Education equity, Place-based scholarship, Tuition-free higher education

Acknowledgments: This paper was prepared for the 2021 APPAM Fall Research Conference, Austin, Texas, rescheduled for March 27–29, 2022. Michelle Miller-Adams is a senior researcher at the W.E. Upjohn Institute for Employment Research and professor of political science at Grand Valley State University. Isabel McMullen is a senior research analyst at the W.E. Upjohn Institute. The authors are grateful to Brad Hershbein, Elizabeth Kellogg, and Bridget Timmeney for their valuable assistance.

Upjohn Institute working papers are meant to stimulate discussion and criticism among the policy research community. Content and opinions are the sole responsibility of the author.

The modern free-college movement has been underway since the announcement of the Kalamazoo Promise in 2005. More than 200 localities and community colleges, along with about 20 states, have created place-based or "Promise" scholarships in the intervening years, usually with the goals of reducing college costs, promoting greater equity in postsecondary access and attainment, and creating a more skilled workforce (Miller-Adams 2021). This process of state and local policy diffusion has been supported by the creation of national advocacy organizations promoting the free-college idea, and by increased attention to federal support for tuition-free college, embodied most recently in legislation promoted by the Biden administration in 2021.

Despite ongoing policy innovation and growing public attention to the issue of free college, little systematic research has been undertaken to compare Promise-program design choices and how they relate to stakeholder goals. This lapse is partly a function of the heterogeneity of these programs and ongoing definitional questions that researchers continue to try to resolve (Perna and Leigh 2018). (Note that in this paper, we use the terms place-based and Promise scholarships interchangeably.) Decisions about key elements of place-based scholarships, such as which students are eligible for a scholarship and the postsecondary institutions they can attend, are often driven by cost constraints, political exigencies, or assumptions about student behavior that are not deeply rooted in evidence. Yet it is these decisions that shape the operation and potential impact of Promise programs, so understanding the connection between design and outcomes is essential.

The purpose of this analysis is to examine the landscape of place-based scholarships to understand how design can shape equity impacts and explore some of the other resources needed to ensure equitable outcomes for students.

What do we mean by equity? It is well documented that low-income, Black, Hispanic, and Native Americans complete college degrees and credentials at lower rates than middle- and upper-income, White, and Asian students. Racial and economic gaps in college enrollment have been declining for several decades; however, disparities in degree completion remain stubbornly fixed. There is also strong patterning in the types of higher-education institutions students of different races, ethnicities, and income groups attend, with Black, Hispanic, low-income, and first-generation college-goers underrepresented at elite private and state flagship institutions and overrepresented at community colleges and within the for-profit sector (Lumpkin, Kolodner, and Anderson 2021; Monarrez and Washington 2020).

Racial and economic disparities in college-going shape job opportunities and incomes, and gaps in earnings persist even among those who complete degrees. Financial returns to a college education are lower for students who grew up in low-income families (Bartik and Hershbein 2016), and higher levels of borrowing by Black students have meant that college-going can exacerbate the Black-White wealth gap (Brown 2021).

Promise programs address only a few of the many structural barriers that contribute to these unequal outcomes. The provision of new grant aid to students eligible for a place-based scholarship makes college enrollment more likely (Bifulco, Rubenstein, and Hosung 2019; Page et al. 2019) and, at least for generous programs, increases the likelihood of degree completion, especially at the bachelor's degree level (Bartik, Hershbein, and Lachowska 2019; Bell and Gándara 2021; Swanson and Ritter 2020). There is also emerging evidence that Promise programs can reduce the level of student loan debt (Odle, Lee, and Gentile 2021) while shaping students' workforce outcomes and locational decisions (Carruthers, Fox, and Jepsen 2020; McMullen and Hershbein 2021).

Equally important is the impact of Promise programs on the systems that serve low-income students—from their K–12 school districts to the colleges that enroll them, to student support organizations. Generous place-based scholarship programs can increase school-district enrollment (Hershbein 2013; LeGower and Walsh 2017), affect students' awareness of and planning for college (Millett, Saunders, and Fishtein 2018), and have an impact on the behavior and academic performance of K–12 students (Ash, Swanson, and Ritter 2021; Bartik and Lachowska 2014). Promise initiatives can also change the nature of receiving institutions, contributing to increased community-college enrollments (Gándara and Li 2020) and shifts in attendance patterns (Bell 2021).

But Promise programs are not a panacea for resolving systemic biases deeply embedded in society, including disparities in educational quality and a Black-White wealth gap that makes it difficult for Black families to afford to send their children to college without high levels of borrowing. Recipients of Promise scholarships may continue to struggle to cover college costs, experiencing basic needs insecurity and taking on more hours of work than is compatible with degree completion (Collier and Parnther 2021). Promise programs *can* contribute to greater racial and economic equity, but whether in fact they do so will depend on key design choices, as well as implementation (Perna, Wright-Kim, and Leigh 2021).

Defining Promise Programs

The definition of Promise programs used in this paper is the same definition that the W.E. Upjohn Institute uses in its research and its Promise Programs Database (<u>Upjohn Institute 2021</u>). The Upjohn Institute is specifically interested in the dynamics of place-based initiatives. To this end, it defines Promise programs as scholarship programs that are *geographically bounded*, often along the lines of a school district (although boundaries may be larger, such as a county, or

smaller, such as an individual school). Such programs usually include an *enrollment and/or residency requirement* for length of attendance within the school district or eligible entity.

Because of this enrollment requirement, Promise programs function as *early awareness programs*. Families and children know upon entering a Promise community that scholarship resources will be available to them upon high school graduation. Finally, Promise programs seek to *transform places*, as well as individuals, and as such require community support from multiple stakeholders representing diverse sectors.

This is a more restrictive definition than that found in other parts of the free-college movement that take an explicitly "big tent" approach. The national advocacy organization College Promise includes 368 local and state programs in its Fall 2021 catalog (College Promise 2021a). The revised database (Perna and Leigh 2020) of the University of Pennsylvania Alliance for Higher Education and Democracy (PennAHEAD) lists 425 programs intended to reduce college costs and promote access, among them statewide need- and merit-based scholarship programs, and scholarships offered by four-year institutions to in-state residents. In contrast, the Upjohn Institute database includes just over 200 programs.

The landscape of Promise programs captured in the Upjohn database comprises two types of place-based scholarship initiatives: 1) *community programs* that emanate from a group of stakeholders within a local area and 2) *institutional programs* launched by community colleges that sometimes encompass only their catchment area but at other times (as in the case of most of California's free community-college programs) are open to any enrollee. The impact of these two types of programs on students and localities differ; however, they are similar enough in structure and goals to belong in the same universe and can be studied in ways that yield valuable comparisons.

A third group of Promise programs—statewide initiatives that offer free tuition to a large portion of their residents based on residency rather than need or merit—bear a resemblance to community-based programs, although they operate at a larger scale.

The Upjohn Institute Database

In the years following the Kalamazoo Promise's announcement in 2005, a growing number of communities, intrigued by this new model for student financial aid and economic development, announced Promise programs of their own. As this process unfolded, staff at the Upjohn Institute began to track these initiatives. The goal was to capture not just where such programs were being created and by whom, but also their key design features, such as student eligibility, covered postsecondary institutions, maximum dollar amount, and time frame for usage. As this collection of information expanded, it informed research on the shape of the Promise movement and the design choices available to stakeholders (Miller-Adams 2015). It also created a rich data set that led to the creation of the Upjohn Institute's Promise Programs Database.

Launched in 2017 and updated in 2019, 2020, and 2021, the database includes a Webbased interface for easy searching and program comparison, as well as an Excel data file that includes 95 variables. These variables include both program design details and demographic information about the communities being served. The Upjohn Institute has also developed two indices to measure the potential impact of programs—1) a *Saturation Index* that captures how broad the reach of the scholarship is across students and 2) an *Intensity Index* that captures the generosity of funding. The Saturation and Intensity measures are created using a method that incorporates how several inputs are related and computes a single score. The set of programs is then divided into "high," "medium," or "low" levels of saturation and intensity.

The database was last updated in October 2021 and currently includes 204 programs. The majority of these (125, or 61 percent) originate from the communities they serve, while 78, or 39 percent, originate from postsecondary institutions, primarily two-year colleges. The online interface is available at http://upjohn.org/promise, and the full database is available on request.

As noted above, the database reflects the Upjohn Institute's particular interest in place-based policies and the central role of human capital investments in promoting local economic vitality. Not included are statewide programs, like the Tennessee Promise, that bear many similarities to community-based programs; neither do we include statewide merit- or need-based programs that focus on the individual attributes of students. Also excluded are college access programs that lack a scholarship component or are not yet actively granting scholarships, and scholarships emanating from four-year institutions (often based on merit or need, but sometimes on location) that are driven by institutional rather than societal needs.

How Can Promise Programs Enhance Equity?

In general terms, Promise programs contribute to equity through several avenues. First, they bring new financial resources to students in the form of scholarships based on residency or K–12 school attendance rather than on traditional measures, such as financial need or academic merit. Second, this means that financial awards are provided at a large scale, rather than tailored to individual student attributes, and that their availability is secure and signaled to students and families early in their K–12 years. As a result, Promise programs can dramatically simplify the messaging around college affordability. Third, the scale and simplicity of the college-affordability message means that Promise programs can serve as robust catalysts for the creation of college-going cultures within K–12 school districts and in the communities in which they are based, leading to achievement and behavioral gains as well as innovation around college

readiness and access (see <u>Doleac and Gibbs 2016</u>; <u>Iriti, Page, and Bickel 2018</u>; <u>Miron, Jones, and Kelaher-Young 2011</u>; Ritter and Ash 2016; and others).

Equity—in this context, strengthening college access and completion for low-income, first-generation, Black, Hispanic, and other racially minoritized groups—is inherent in the Promise movement, although it is not always articulated clearly. In announcing a place-based scholarship, leaders will often cite the need to make college more affordable and stress the benefits to residents and the larger community that will flow from such an effort. But the equity orientation of Promise programs is reflected in where they are most likely to be found: school districts that serve low-income students; communities that are experiencing some level of economic distress; and community colleges, the sector of higher education most likely to enroll low-income and first-generation college-goers. The demographic information collected in the Upjohn Institute database supports this general understanding:

- Among community-based programs included in the database, the mean poverty rate for the eligible community boundary is 18.3 percent, higher than the national average of 13.4 percent (U.S. Census ACS 2019).
- Seventy-eight percent of community-based programs (97/125) are in communities with a poverty rate higher than the national average.
- The mean nonwhite population among community-based programs is 32.7 percent, higher than the national rate. (In the database, the nonwhite population of an area is defined using U.S. Census racial categories. We subtract the racial category "one race—white" from the total population of the relevant geography to arrive at the size of the nonwhite population.) Nationally, the share of the U.S. population that is one race and nonwhite is 25 percent.

It is worth mentioning the equity potential of statewide Promise programs, even though they are not included in the Upjohn Institute database or the index described in this paper. Apart from the two most generous of these programs (those in Washington and New Mexico), statewide initiatives promote equity somewhat indirectly: by democratizing the practice of applying to college and for financial aid, even if most of the funding awarded may not actually

go to the lowest-income students. (Almost all statewide programs are "last-dollar," meaning that students must use their Pell grants before receiving Promise funding.) Still, there are clear equity implications for these larger-scale programs. All but three (18/21) of the existing broad-based statewide Promise programs restrict their benefits to the two-year sector (mainly community colleges, but in some states this also includes colleges of applied technology and/or those that offer vocational training). This design decision is driven primarily by cost considerations and the goal of supporting a better-trained workforce, but it has clear equity implications. It is impossible to build a better-educated workforce without broadening the pipeline of students pursuing postsecondary education to include those who historically have not done so, and the focus on the two-year sector means that a less-advantaged segment of the population is being served, even if mainly through messaging and ease of application rather than from the awarding of new financial resources.

There has been a robust debate, especially regarding these statewide programs, over whether they do indeed promote equity. In 2018, the Education Trust, a national nonprofit that works to close opportunity gaps through research and advocacy, sought to define an equity-oriented statewide Promise program and found the field wanting (Jones and Berger 2018); this analysis was updated in 2020 and published as *A Promise Worth Keeping* (Jones, Ramirez-Mendoza, and Jackson 2020). Also in 2018, the Institute for Higher Education Policy critiqued both Tennessee's and New York's programs and pointed out several of their features that, arguably, work against equity outcomes (Poutré and Voight 2018).

In its reports, the Education Trust argues that to promote equity, statewide Promise programs should do the following:

- Cover the full cost of college—beyond tuition and fees—for four or more years
- Help students from low-income backgrounds defray their living expenses

- Serve adult, returning, and part-time students, as well as all undocumented and currently or previously incarcerated students
- Attach no strings, such as GPA or credit accumulation requirements, that discourage
 certain student groups from applying for or making use of a scholarship, beyond those
 required to retain federal financial aid
- Take the form of grant aid with no possibility of converting to a loan

These are thoughtful criteria; however, as the authors acknowledge, they describe a largely hypothetical universe rather than the real landscape of Promise programs. Only 1 of the 23 programs considered in the latest Education Trust report (the Washington College Grant) meets all 10 of these criteria, and, on average, programs score 5.5/10 (see Jones, Ramirez-Mendoza, and Jackson [2020], Equity Analysis Graphic, p. 12). (The recently expanded version of the New Mexico Opportunity Scholarship also meets all these criteria and is even more inclusive than the Washington program.)

Can we apply a similar, equity-oriented lens to the landscape of community-based Promise programs using the Upjohn Institute database—and, if so, what do we find? Before turning to this question, we look in more detail at the design decisions that matter most for equity outcomes.

In thinking about design, there are four key questions to consider, and tremendous variation in the answers. (This is a grassroots and heterogeneous movement, in which local programs are tailored to local needs and assets—hence, there is no standard, one-size-fits-all approach to answering these questions.)

The first key question is, "Who is eligible for the scholarship?" Our database includes Promise programs that fall into one of two broad categories: 1) universal (that is, available to everyone, although this is a misnomer, because such programs almost always include a minimum number of years of enrollment or residency within a given school district or city), or 2) targeted,

with targeting usually based on some measure of high school academic success, such as a minimum high school GPA, and sometimes a behavioral measure such as a minimum daily attendance rate. As of the October 2021 update, 106 (or 52 percent) of the programs in the Upjohn database did not have GPA or other merit requirements, while 98 (or 48 percent) conditioned their award on some measure of academic success. Only about one-fifth of programs had a financial need requirement.

There are many nuances to discerning the equity impacts of eligibility requirements. For example, residency and enrollment minimums—with higher awards for longer-term enrollment—are designed to promote long-term attachment to a school district and community with the idea that this can promote college readiness; however, these minimums can also disadvantage lower-income students who may have higher rates of mobility because of job loss or housing insecurity. (Based on such concerns, the Pittsburgh Promise dropped its sliding scale for award amounts beginning with the Class of 2018, and now simply requires four years of high-school enrollment in the Pittsburgh school district for scholarship eligibility.) Similarly, academic merit requirements intended to increase the likelihood of college success can work against equity because high school students from low-income, non-college-going families tend to have had access to fewer pre-K-12 resources associated with academic success, and such requirements can thus limit access to the scholarship. The impact of GPA thresholds on Promise scholarship usage has been studied by researchers examining the Degree Project, based in Milwaukee's schools; their findings suggest that high school performance requirements limit both the effectiveness and equity of financial aid (Harris et al. 2018).

There is no one-size-fits-all approach to the question of student eligibility, but programs that reach a larger proportion of students (those that are universal, without GPA or merit

requirements, and without other onerous hurdles to surmount) have greater equity-enhancing potential than those with more restrictive access.

A second key question is, "Where can a scholarship be used?" Here, the landscape varies from programs that require students to use their scholarship at a single, local community college, to those whose scholarships can be applied to any accredited higher-education institution in the United States. In the October 2021 updated database, 140 of the 204 programs (69 percent) were single-institution programs. (Many of these are in California, owing to the structure of that state's "free college" legislation.) The equity implications of this second design feature are hard to gauge. A focus on community colleges can help bolster opportunities for lower-achieving and first-generation college-goers who may not have considered postsecondary education in the absence of a Promise program, and deepening ties between school districts and their local community colleges can be beneficial from a workforce perspective. But, as the Education Trust criteria suggest, it is beneficial to students to have a range of higher-education institutions to choose from, including those that offer four-year degrees.

An important factor in an individual's success in higher education is the notion of fit, or ensuring that students match with the best institution for their abilities and interests. Programs that limit attendance to two-year colleges may shift students at the margin from four-year to two-year institutions, with negative implications for degree completion. ("Undermatching"—attending an institution that is less selective than those for which the student appears to be qualified—has been shown to be important, as students who attend more selective institutions graduate at a higher rate and in less time than equivalent students at less selective institutions; see Chingos and McPherson [2011]). An equity-oriented advantage of Promise programs with multiple postsecondary options is that they end up directing additional resources to this question

of fit, in some cases through additional advisers in high schools, and in other cases through navigation supports such as mentorship. While offering students two-year and four-year postsecondary pathways is desirable from an equity standpoint, in practice (and largely from cost considerations) it is not a dominant feature of the Promise landscape; only about one-third of community-based programs in the database offer both two-year and four-year options (44 out of 125, or 35 percent), and institution-based programs are by definition limited to a single community college.

A third key question is, "How is scholarship funding structured and delivered?" Most Promise programs cover only tuition and mandatory fees for students, leaving out other important costs of college attendance. Some offer a fixed-amount scholarship, such as the Baldwin (Mich.) Promise's \$5,000 a year maximum scholarship, while others commit to covering tuition and fees at whatever eligible institution a student chooses to attend. Equally important, though, especially from an equity standpoint, is whether Promise funding is offered on a first- or last-dollar basis (before or after other forms of grant aid, the most important of which are Pell grants). Only a handful of Promise programs (fewer than 5 percent in our database) are structured as first-dollar programs. Most require students who are Pell-eligible to apply those grants first to the cost of tuition and fees, with the Promise scholarship making up any remaining difference. This structure is cost-effective, as it makes use of students' existing need-based financing by inducing more students to complete the FAFSA and claim Pell grants for which they are eligible. (In this way, it brings down the cost of operating a Promise program perhaps by as much as half.) It also has the perverse effect of awarding more dollars to lowerneed students than to those with higher need. In some cases, students who are Pell-eligible may receive no new money from the Promise scholarship program. (This is most often the case when A small number of Promise programs have innovated by offering supplemental grants to students when this situation arises, providing an additional stipend to cover some expenses—this is sometimes called a "middle-dollar" structure.

These three decisions interact to create scholarship programs that have very different types of effects. The Saturation and Intensity indices mentioned above capture some of these effects, and here we seek to develop an index to measure the equity potential of Promise programs of varying design. Equity *potential*, because the true impact of Promise programs depends on three elements that are difficult to capture in a database and not included in any existing database efforts. These are as follows:

- 1) How effectively is the message about college affordability delivered to students and families?
- 2) What kind of student support resources are embedded in or catalyzed by a Promise program?
- 3) In what ways has the broader community engaged with or aligned its activities in support of the Promise scholarship?

These issues relate to implementation rather than the formal structure of a Promise program, and we will return to them following discussion of our index.

An "Equity Potential" Index

We argue here, based on the discussion above, that equity is enhanced by simple, generous, flexible scholarship programs that remove both financial and informational barriers to college-going, are utilized by a wide variety of students, and provide support at key transition points. Can we use the existing information in the Upjohn Institute database to assess how well the current landscape of community-based Promise programs fits this description?

There are several difficulties surrounding such an effort. The first is a challenge common to most Promise research—the heterogeneity of programs. By definition, community- and institution-based Promise initiatives originate at the grassroots level and reflect local needs and assets. As such, they vary in their details, and studying them as a field requires overlooking some of these distinctions. In the Promise Programs Database, we have focused on attributes that can be readily coded—for example, is there a minimum high school GPA for receiving a scholarship (a "Yes" or "No" field)? If so, what is that GPA level (a numerical value on the 4.0 GPA scale)? But important pieces of information are missing, because it is virtually impossible to observe this large and diverse group of initiatives in operation. This helps explain why there are no reliable data on how many students are receiving Promise scholarships nationwide, the total amount of funds expended by such programs, or the average award amount. It also means that critical elements of implementation, such as the effectiveness of messaging around program rules, the nature and robustness of student support efforts, and the degree of community alignment and engagement are hard to capture. While these issues can (and should) be studied through qualitative research, doing so is a resource-intensive process, and findings will vary over time, making such aspects of program operation difficult to capture in a database. This limits the utility of the index, because these variables are important for understanding the ultimate equity impact of a Promise program.

Other program characteristics that could provide insight into equity potential are currently missing from the database but could potentially be added in future iterations. For example, the database does not have fields for whether undocumented or incarcerated students are eligible, or whether a program offers additional academic or advising supports beyond the financial benefit. This is mainly because these features were rare at the beginning of the Promise

movement when the database was created. Even some program features that are captured in the database are not conducive to analyses of the variation between programs. For example, the database has a field devoted to whether adults can utilize scholarship funding, but the vast majority of programs that allow adult enrollers (62 of 70) are in California and vary little in their other program rules. Somewhat paradoxically, while too much heterogeneity among programs, especially as it pertains to unique program terms, is a challenge to understanding and measuring equity, a lack of variation in design also makes it hard to discern differences between programs.

Finally, there are challenges related to the way the Upjohn Institute database was initially structured that could be improved upon in the future. A good example is the "full versus partial coverage" field, which refers to whether the maximum scholarship amount offered will cover full tuition and fees at eligible institutions, or whether the award covers only part of this amount. A full-coverage scholarship at a community college might bring less money to students than a partial coverage scholarship with a wider range of college choices, so it is difficult to use this particular field to assess the generosity of a scholarship program. Of course, there may also be errors in the database, including new programs we have missed or specific fields where information is out of date or incorrect. (We welcome all input to keep the information in the database current and accurate.)

In order to compare programs in our database in terms of their capacity for equitable student outcomes, we created an index (Table 1, below) similar to our existing saturation and intensity measures. We first selected variables from our list of fields in the database that would have an impact on the equity potential of the program. Based on prior research, we selected the following fields:

Table 1 An Index of Program Variables That Can Influence Equitable Student Outcomes

Variable	Description	Values	Rationale
Eligibility	Whether the program is targeted or universal.	0 (less equitable) if targeted, 1 (more equitable) if universal.	Equity is enhanced when benefits are available to widest possible group of students (in low-income places).
Income requirement	Whether the program has an income requirement or not.	0 (less equitable) if there is an income requirement, 1 if there is no income requirement.	Equity is enhanced when students above the Pell cutoff can also benefit.
Enrollment category	Categories of the number of years that a student must enroll in the district to receive funding.	0 (less equitable) if there is no residency requirement, or if there is a lengthy (5+ years) requirement. 1 if there is some moderate number of years requirement (1–4 years).	Creating an incentive for long-term attachment to a school district can be equity-enhancing, but strict enrollment/residency requirements can work against lower-income families, who may be more mobile.
Other requirements	Whether the program has any other requirement not captured by income, enrollment/ residency, or attendance (not included here)	0 (less equitable) if there are any other requirements, 1 if there are no additional requirements.	Additional program requirements can narrow eligibility and create additional messaging challenges.
Coverage	A scale for how much coverage of the cost of college the scholarship potentially awards.	0 (less equitable) if the scholarship is last-dollar and covers no other costs. 1 if it is last-dollar but covers other costs (room/board, transportation, supplies, etc.). 2 if scholarship is first-dollar and covers no additional costs. 3 if scholarship is first-dollar and covers other costs.	Equity is enhanced if students have access to new financial resources to cover a range of college costs. Last-dollar programs can still have a positive impact on equity if they bring more students into the higher-education pipeline, but that is a function of messaging and implementation, not program structure.
Scholarship benefit years	Number of years that a scholarship will grant funding, in credit-years.	Ranging from 1 to 6 years.	Having more years of scholarship funding usually correlates with more funding and greater flexibility of usage.
Scholarship eligibility period	Number of years in which the scholarship can be used.	Ranging from 1 to 10.	More years of scholarship eligibility usually correlates with greater flexibility around full vs. part-time attendance.
Scholarship coverage	Whether the scholarship partially or fully covers tuition.	0 (less equitable) if the scholarship only partially covers tuition, 1 if it fully covers tuition.	This can be a confusing indicator for reasons discussed above, but in general terms, full coverage of tuition costs is more equitable than partial coverage.
Part-time allowance	Whether the scholarship allows part-time attendance.	0 (less equitable) if the scholarship doesn't allow part-time attendance, 1 if it does.	Reaching students historically excluded from higher education means adapting to their needs, which may include full-time work and family obligations. Permitting part-time attendance can be helpful, especially for adult learners.

SOURCE: W.E. Upjohn Institute Promise Programs Database and authors' compilation.

With these variables in hand, we created a matrix that displayed the polychoric correlation between each variable. Polychoric correlation is a specific type of statistical method that uses the correlation among a set of variables (which could be categorical or continuously valued) to estimate the value of a latent, unobserved variable related to the other, observed variables (Olsson 1979). This type of analysis is akin to factor analysis, a more commonly known type of statistical analysis that reduces a large number of variables with a lot of variation to a more manageable and intuitive set of "factors." These factors, in our case a single index, are much more useful for describing data and policy implications, as well as issuing recommendations. Thus, here we target the unobserved variable of program equitability.

The ability to calculate the polychoric correlations is partially determined by the variation in the input variables. In other words, there were fields in our database we would have liked to include in this calculation of equity, but there wasn't enough variation in the program design for the variable to be meaningful. (For example, see the above discussion of coverage for adult learners.) In some cases, a few variables that did not present sufficient variation were combined where appropriate; e.g., the database variables that indicate whether a program covers room and board or textbooks on their own were rare, but combined with the first/last dollar indicator they created a scale of coverage that we included in the index calculation.

After we calculated the correlations and predicted the values of the equity index, we made some alterations to the values to account for some important features that weren't included. For example, because we know that high GPA requirements are an impediment to equitable outcomes, we discount the equity scores of programs with GPA requirements above a 2.5 by subtracting from the equity score the value of 0.5 times the standard deviation of the score. Similarly, because we believe that providing a path to a four-year degree favors equity, we add

the same value to programs that offer funding to attend four-year institutions. After making these numerical adjustments to the index, we divided the index into even thirds and assigned each group a categorical label of high, middle, or low equity potential (see Appendix).

Finally, we made a few adjustments based on our knowledge of individual programs. Some programs have specific design features that produce high barriers to entry to the scholarship, even if other design elements of the scholarship generally point toward equity. For example, a program with a "first come, first served" policy in terms of dollar disbursement and a program with a homeownership requirement were both moved from the "high" category to the "medium" category. These unique policy decisions were not included in the equity index calculation; thus, the programs had ended up in the "high" category based on their other requirements and features.

As the process for calculating the index suggests, creating an equity potential index—or any kind of index—has subjective elements and is as much of an art as it is a science. It is also important to note that the categories of high, middle, or low equity potential are determined relative to the other programs in the database, not relative to any other education or scholarship program, including the broader population of Promise programs. We believe that any program that grants funding and simplifies college access for students who might not otherwise be able to attend college is a step toward greater equity.

What Is Missing?

The index presented here uses fields in the Upjohn Institute database to generate insight into how scholarship structure can create the potential for greater equity. But whether equitable outcomes will actually be achieved depends on implementation. Some key lessons of Promise implementation have become clearer with more than a decade of research and practice:

- Simplicity in program design and effective messaging are essential components of effective, equity-enhancing Promise programs. The Kalamazoo Promise's single-page application is arguably as important for broadening access to higher education as its promise of generous funding.
- While money matters, it is not enough on its own to ensure higher rates of degree or credential attainment. Promise dollars can bring students onto the postsecondary pathway, but many will need navigation to find their way to the right institutions that will meet their needs and help them thrive. And, once enrolled, students without previous college knowledge or strong support networks may struggle to progress and complete degrees or credentials.
- Community alignment is a critical element in the success of any Promise program, but it is especially important when it comes to equity impacts. Promise programs can serve as catalysts for bringing new resources to higher-needs students, whether through K-12 tutoring, provision of basic needs support once in college, outreach and reconnection for stopouts, or the creation of new pathways from college into the workforce. They can also catalyze change in the systems serving those students—by, for example, stimulating the creation of a more robust college-going culture in K-12 school districts.

Promise programs have learned these lessons through their operations over time, and along the way they have become important sources of innovation around messaging, student support, and community engagement strategies.

Some of these innovations center on the pivotal *high-school-to-college transition*. Several Promise programs have invested funds in high school–based college access centers, sometimes called Future Centers. The Denver Scholarship Foundation led the way with this approach, supporting 14 Future Centers that serve 21 high schools, and it has been emulated in places as diverse as LaCrosse, Wisconsin; Lynchburg, Virginia; and Oakland, California. In Kalamazoo, site of the first of the current wave of place-based scholarship programs, a similar approach of embedding college-access resources in high schools began several years ago with the hiring of "Pathways Coaches" housed at the district's high schools.

Another intervention at this important juncture is mentoring. Here, the Tennessee

Promise has provided a powerful model, taking the mentorship component of its place-based

predecessor, Knox Achieves, to a much larger scale (on the role of mentors in Knox Achieves,

see Carruthers and Fox 2016). Every applicant for the Tennessee Promise—about 90 percent of the state's public high school seniors apply—is paired with a mentor who provides virtual or phone guidance to help the student navigate the college-application and financial-aid process during his or her senior year and over the summer before college. For the Class of 2021, tnAchieves (the nonprofit organization that serves as operational arm of the program) recruited and trained more than 9,000 mentors drawn from the business and civic sector (tnAchieves 2021). Some community-based programs, including the Richmond (Calif.) Promise, have replicated this light-touch mentorship model (the advertised time commitment is one hour a month for one year). Both mentorship and Future Center strategies support FAFSA completion, which serves as a critical link in funding last-dollar programs. Tennessee has the nation's highest FAFSA filing rate thanks to the Tennessee Promise, and Lynchburg (Tenn.) students saw their FAFSA completion rate climb from 39 percent to 79 percent, due in part to the work of Future Center staff (Narehood 2021).

Promise programs serving low-income or first-generation students, especially those with universal eligibility rather than having met a high school GPA minimum, must quickly grapple with a difficult challenge: that many students using the scholarship may be insufficiently prepared for *success in college* or may have unmet basic needs. Completion is an especially acute problem for students attending community colleges, where six-year completion rates stand at just over 40 percent (National Student Clearinghouse Research Center 2022). Promise programs have adapted their rules and devised new supports to help scholarship recipients progress along the degree path toward completion. Quite early in its history, the Kalamazoo Promise revised its full-time college-going requirement to allow students attending the local community college to go half-time. It also moved from a voluntary student-support model to a

mandatory one, pairing Promise recipients at the community college with a Success Coach and utilizing the resources of the college's Student Success Center to meet their various needs. The Kalamazoo Promise pays a small per-student stipend to the college to secure these resources.

One of the best-publicized support models has come from Detroit, where the Detroit Promise implemented a success program known as the Detroit Promise Path, modeled on the highly regarded Accelerated Study in Associate Program (ASAP). The program has four components:

- Connection with a campus coach who provides academic and personal support (sometimes known as an "intrusive coaching" model)
- 2) Monthly monetary incentives for students who meet regularly with their coaches
- 3) Summer engagement to keep students connected to their college year-round
- 4) Data collection that provides insight into progression and serves as an early-warning system for problems

The research and evaluation firm MDRC carried out a randomized control trial (RCT) to assess the value of these services and found them to be so effective that the Detroit Promise extended its Promise Path services to all participants (Ratledge et al. 2019). Subsequent research on the Detroit Promise Path has shown that while coaching helps with progression, it has not (yet) had an effect on degree completion—perhaps a reflection of the large financial challenges still faced by students who participate in this last-dollar, community-college-oriented program (Ratledge et al. 2021). (The ASAP model did improve completion in two RCTs at City University of New York and in Ohio; see City University of New York [2017] and MDRC [2020].)

The next step is providing navigation and support around the *higher-education-to-workforce transition*. Here, resources are less well developed, although Promise communities

from Kalamazoo to New Haven to Pittsburgh have introduced paid internship components to smooth a pathway for Promise scholars into the local workforce. Richmond has also extended its mentorship approach to this area, providing Promise scholars with career mentors while they are enrolled in higher education. Navigation at this stage of the pipeline is especially critical for Promise programs focused on adult learners who are reengaging with higher education expressly to upskill and find better jobs (Upjohn Institute 2020). The research around whether and to what degree Promise programs contribute to better workforce outcomes for participants is partial and mixed, and this may reflect relative inattention to strategies for guiding Promise recipients through higher education and into the workforce. It also raises the possibility that by connecting with apprenticeship and industry-accepted certificate programs (which a handful of Promise programs already do), positive workforce outcomes can be promoted. For some, these vocational pathways will provide a better fit and the potential for long-term income gains, and thus they should be part of any discussion of equity.

There is also a set of interventions designed to reach students and families *earlier in the course of their lives*. These include efforts to introduce Children's Savings Accounts for students who may later benefit from a place-based scholarship, as well as to provide two-generation models that seek to simultaneously provide opportunities to recent high-school graduates and to their parents (College Promise 2021b; Elliott and Nielsen 2020; Sommer et al. 2021). These interventions build on a fundamental attribute of place-based scholarship programs—their longevity. Longevity, coupled with broad eligibility requirements, means that Promise programs can serve as early-awareness (and in some cases explicit early-commitment) programs for students and their families. By communicating to a district's population that college tuition will be free, even many years down the road, the assumption is that students' K–12 trajectories can be

altered. This is an intuitive but largely untested assumption that underscores the need for Promise programs to take a long-term approach to funding and ensure their financial sustainability (Millett 2017).

Different Paths to Equity

We conclude this paper with vignettes of two Promise programs introduced in February 2022. Both have equity goals, but they are dramatically different in terms of design. (Neither is in the Promise Programs Database, although they will be part of future updates.) We share these stories to show that the local origin of place-based scholarships means that Promise programs intended to promote equity can take radically different forms and are likely to have very different impacts on students and the community.

Lake Michigan College (LMC) is a small, public community college with three campuses in Southwest Michigan. Its district includes the distressed city of Benton Harbor, the more prosperous lakefront community of South Haven, other small towns, and rural areas. In 2020–2021, using federal money, LMC piloted a free-tuition program that led to large enrollment increases. This February, LMC announced a new program, the LMC Promise, for new and returning students beginning in Fall 2022 (Lake Michigan College 2022). This is a last-dollar program that will cover in-district tuition for students through age 24 with family incomes below \$75,000. The program is designed to close a funding gap for those students who do not stand to benefit from the statewide Michigan Reconnect program, which is restricted to adults aged 25 and up. The LMC Promise was developed in strong partnership with local business and civic leaders. In announcing the program, Trevor Kubatzke, the college's president, said, "We created this program to address the needs of both local employers and the underemployed. We promise to connect all eligible students with free tuition and the opportunity to earn their associate degree

with minimal loans to pay back and no strings attached" (Moody on the Market 2022). Because of these program features, it is likely that the LMC Promise would end up in the middle of our equity categories. As a last-dollar program with an income restriction, it would probably not fall into the highest equity category, but its long eligibility period (six years) and lack of a high school GPA requirement means it would score higher than many other programs in the database. LMC's outreach campaign focuses on reaching students through the region's K–12 school districts while encouraging local businesses to send their employers to LMC for training as a human capital investment and retention strategy. The campaign's slogan, "Education is essential, it shouldn't be expensive," reflects the need to engage both of these audiences if the promise of greater access and affordability is to be realized.

Hope Chicago is structured differently from the LMC Promise on almost every measure, yet it too seeks to promote equity for students, families, and their communities (PR Newswire 2021). In February, Hope Chicago announced that it was granting 4,000 scholarships to Chicago Public Schools students at five high schools. While fitting within the place-based Promise landscape, Hope Chicago includes at least two unusual features. First, it commits to covering the full cost of college attendance for participants, not just tuition and fees, ensuring a debt-free path to a degree. (Publicity materials note that only 63 percent of Chicago Public Schools' ninth graders enroll in college and only 27 percent graduate. Many drop out because of financial pressures, and only 1 in 10 low-income, first-generation students earn a degree within six years of high school graduation; see PR Newswire 2022).

Second, based on interest in two-generation strategies for addressing poverty, Hope Chicago offers the parents of eligible high school students a scholarship to return to higher education or pursue job training (Northwestern University). (This model has been piloted at one

high school in Toledo, Ohio, through the Hope Toledo Promise; see Sommer, Jones, et al. [2021] and Sommer, Chase-Lansdale, et al. [2021].) Powered by a high-profile group of Chicago business and civic leaders and led by former superintendent of Chicago Public Schools Janice Jackson, Hope Chicago is hoping to raise \$1 billion in philanthropic funding to extend this model throughout Chicago Public Schools. For now, Hope Chicago is "going deep" with a more limited group of students. Once operational, it will undoubtedly end up in the "high" category of our equity-potential index because of its universal eligibility, generous funding, wide range of participating postsecondary institutions (there are now 20), and provision of a range of student supports.

Stakeholders in both communities are seeking to improve prospects for students traditionally underserved by postsecondary education and ensure that they benefit from the financial, personal, and civic gains that come from college degrees and credentials. In Chicago, this goal is being pursued through the provision of generous funding and unique two-generation benefits for students at a small number of high schools. The tuition-free opportunity offered by the LMC Promise involves less funding—it is a last-dollar scholarship to a community college—but it is widely available to any new or returning student of any age in the college's catchment area, provided that student's family income is below a relatively high income ceiling.

These stories suggest that the connection between Promise programs and equity is far from straightforward, let alone easy to capture in an index. Ongoing definitional debates, program heterogeneity, and the difficulty of observing implementation all complicate the task of assessing equity impact and underscore the need for more qualitative research focused on questions of equity and effectiveness.

Appendix: Equity Potential Index¹

Program	Equity Potential Category
Philadelphia Education Fund	High
Pontiac Promise Zone	High
KC Scholars—Adult Learners	High
Denver Scholarship Foundation	High
Richmond Promise	High
Say Yes to Education, Syracuse	High
Holland-Zeeland Promise	High
Say Yes to Education, Cleveland	High
Power of YOU	High
Pensacola Pledge Scholars	High
Kalamazoo Promise	High
The Boston Bridge	High
Challenge Scholars—Traditional	High
Champion City Scholars Program	High
Arkadelphia Promise	High
Bay Commitment	High
Baldwin Promise	High
Cooperman College Scholars	High
Say Yes to Education, Buffalo	High
Challenge Scholars—Transfer	High
ISU 4U Promise	High
Stockton Scholars	High
Pittsburgh Promise	High
Aims College Promise (G. Town Promise)	High
Lansing Promise	High
PACE Promise	High
KC Scholars—Traditional	High
Assurance Scholarship Program	High
Tuition-Free Community College Plan (Boston)	High
DC Mayor's Scholars Undergraduate Program	High
Beacon of Hope	High
El Dorado Promise	High
Montgomery County Ohio College Promise	High
Tangelo Park Program / Rosen Foundation Scholarship	High
Say Yes to Education, Guilford	High
Oakland Promise	High
Buchanan Promise	High
Northport Promise	High
New Haven Promise	Middle
Mammoth Lakes Foundation Scholarship	Middle
Michigan City Promise Scholarship	Middle
Harper College Promise	Middle

¹ The Equity Potential Index covers community-based Promise scholarship programs that are part of the Upjohn Institute database. The "high," "medium," and "low" rankings refer to how the structural features of these programs relate to the population considered here, not to any other education or scholarship program. We believe that any program that grants funding and simplifies college access for students who might not otherwise be able to attend college is a step toward greater equity.

Appendix (Continued)

Program	Equity Potential
Siskiyou Promise	Category Middle
Moraine Park Promise	Middle
Free City (City College of San Francisco)	Middle
Achieve Atlanta	Middle
The VanGuarantee Scholarship Program	Middle
Wicomico Economic Impact Scholarship	Middle
Detroit Promise—four-year	Middle
Rockford Promise	Middle
Louisville Rotary Club Scholarship	Middle
Chicago Star Scholarship	Middle
College Bound	Middle
Hazel Park Promise	Middle
Ignite Davie	Middle
Capital Region Sponsor A Scholar	Middle
Detroit Promise—two-year	Middle
Dallas County Promise	Middle
Dyer County Promise	Middle
Jeffersonville's Promise	Middle
Tazewell County Connect	Middle
50th Anniversary Scholars Program	Middle
Flint Promise	Middle
Madison College Scholars of Promise	Middle
Challenge Scholars—GRCC	Middle
Saginaw Promise	Middle
School Counts! Salem	
	Middle
Greenwood Promise	Middle
Berkeley Promise	Middle
Rusk TJC Citizens Promise	Middle
Compton Promise	Middle
Legacy Scholars	Middle
The Walter and Rose Sampson Promise	Middle
Quincy Promise	Middle
plEDGE Program	Middle
Great River Promise	Middle
Hartford Promise	Middle
Garrett County Scholarship Program	Middle
Advantage Shelby County	Middle
Jacksonville Promise (Illinois)	Middle
Galesburg Promise	Middle
WSCF Regional County Graduate Scholarship	Low
13th Year Promise Scholarship	Low
American Dream Scholarship	Low
Los Angeles College Promise	Low
The Corcoran Promise	Low
Access to Community College Education (ACCE)	Low
Jefferson-Can Community Scholars Award	Low
CORE Promise Scholarship	Low
Detroit College Promise	Low
The San Diego Promise	Low
West Sacramento College Promise	Low
The Cuesta Promise	Low

Appendix (Continued)

Program	Equity Potential Category
Grossmont-Cuyamaca College Promise	Low
Newaygo County Area Promise Zone	Low
Palomar Promise	Low
South Bay Promise	Low
School Counts! Conway	Low
Muskegon Area Promise	Low
Community Scholarship Program	Low
School Counts!	Low
Santa Ana College Promise	Low
School Counts! Cumberland	Low
Passport to Promise	Low
Dabney Promise	Low
Asbury Park College Promise	Low
Long Beach College Promise	Low
Ontario's Community College Promise	Low
Hopkinsville Rotary Scholars	Low
Cerro Coso Promise	Low
Benton Harbor Promise	Low
Abbeville Promise	Low
Promise for the Future	Low
School Counts! Madisonville	Low
Allentown School District Promise Scholarship	Low
Morgan Success Scholarship	Low
Valley-Bound Commitment	Low
Battle Creek Promise	Low
Jackson Legacy Scholarship	Low
Wichita Promise	Low
Ontario-Montclair Promise Scholars	Low
RichmondCC Guarantee	Low
Columbia College Promise	Low
Community Scholarship Program	Low

SOURCE: Authors' calculations.

REFERENCES

- Ash, Jennifer, Elise Swanson, and Gary Ritter. 2021. "A Promise Kept? The Impact of the El Dorado Promise Scholarship on Student Achievement." *Educational Evaluation and Policy Analysis* 43(1): 83–107. https://doi.org/10.3102%2F0162373720970512
- Bartik, Timothy J., and Brad Hershbein. 2016. "Degrees of Poverty: Family Income Background and the College Earnings Premium." *Employment Research* 23(3): 1–3. https://doi.org/10.17848/1075-8445.23(3)-1
- Bartik, Timothy J., Brad Hershbein, and Marta Lachowska. 2019. "The Effects of the Kalamazoo Promise Scholarship on College Enrollment and Completion." *Journal of Human Resources* 56(1): 269–310. https://doi.org/10.3368/jhr.56.1.0416-7824R4
- Bartik, Timothy J., and Marta Lachowska. 2014. "The Short-Term Effects of the Kalamazoo Promise Scholarship on Student Outcomes." In *Research in Labor Economics*, *New Analyses of Worker Well-Being* 38: 37–76. https://doi.org/10.1108/S0147-9121(2013)0000038002
- Bell, Elizabeth. 2021. "Estimating the Spillover Effects of the Tennessee Promise: Exploring Changes in Tuition, Fees, and Enrollment." *Journal of Student Financial Aid* 50(1): 1–26. https://ir.library.louisville.edu/jsfa/vol50/iss1/4 (accessed May 17, 2022).
- Bell, Elizabeth, and Denisa Gándara. 2021. "Can Free Community College Close Racial Disparities in Postsecondary Attainment? How Tulsa Achieves Affects Racially Minoritized Student Outcomes." *American Educational Research Journal* 58(6): 1142–1177. https://doi.org/10.3102/00028312211003501

- Bifulco, Robert, Ross Rubenstein, and Hosung Sohn. 2019. "Evaluating the Effects of Universal Place-Based Scholarships on Student Outcomes: The Buffalo 'Say Yes to Education' Program." *Journal of Policy Analysis and Management* 38(4): 918–943. https://doi.org/10.1002/pam.22139
- Brown, Dorothy A. 2021. "College Isn't the Solution for the Racial Wealth Gap. It's Part of the Problem." *Washington Post*, April 9.

 https://www.washingtonpost.com/outlook/2021/04/09/student-loans-black-wealth-gap/
 (accessed May 17, 2022).
- 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(1): 97–112. https://doi.org/10.1016/j.econedurev.2015.06.001
- Carruthers, Celeste K., William F. Fox, and Christopher Jepsen. 2020. "Promise Kept? Free Community College, Attainment, and Earnings in Tennessee." Unpublished manuscript. Knoxville: University of Tennessee. https://www.atlantafed.org/
 <a href="https://
- Chingos, Matthew, and Michael McPherson. 2011. "Improving Educational Attainment: Recent Trends and Challenges." In *Forum Futures 2011*, a compilation of summaries of the papers presented and discussed at the Forum for the Future of Higher Education 2010 symposium, held in Aspen, CO. https://files.eric.ed.gov/fulltext/ED533213.pdf (accessed May 17, 2022).

- City University of New York (CUNY). 2017. Evaluation of Accelerated Study in Associate

 Programs (ASAP). New York: City University of New York.

 https://www1.cuny.edu/sites/asap/evaluation/ (accessed May 17, 2022).
- College Promise. 2021a. College Promise Catalog of Local and State Programs: Fall 2021.

Washington, DC: College Promise. https://assets.website-

<u>files.com/61ba001bb59d05538c5a4bd8/61ba001bb59d05c3355a4c6b_College%20Promise%20Catalog%20Fall%202021_Final-min.pdf</u> (accessed May 17, 2022).

_____. 2021b. Building Assets and Aspirations: A Playbook for Integrating College

Promise (CP) Programs and Children's Savings Accounts (CSAs). Washington, DC:

College Promise. https://assets.website-

files.com/61ba001bb59d05538c5a4bd8/61d31a90a0ea5ce0b01ad00a_building-assets-and-aspirations-nov-21-final-min.pdf (accessed May 17, 2022).

- Collier, Daniel A., and Ceceilia Parnther. 2021. "Conversing With Kalamazoo Promise Scholars:

 An Inquiry into the Beliefs, Motivations, and Experiences of Tuition-Free College

 Students. *Journal of College Student Retention: Research, Theory and Practice* 22(4):

 572–596. https://doi.org/10.1177%2F1521025118774561
- Doleac, Jennifer L., and Chloe R. Gibbs. 2016. "A Promising Alternative: How Making College
 Free Affects Teens' Risky Behaviors." Unpublished manuscript. Charlottesville:

 University of Virginia. http://jenniferdoleac.com/wp-content/uploads/2015/03/Doleac_Gibbs_PromiseRiskyBehaviors.pdf (accessed May 17, 2022).
- Elliott, William III, and Sophia Nielsen. 2020. <u>Reimagining College Promise Programs: A</u>

 <u>Wealth Perspective.</u> Policy brief. Washington, DC: College Promise.

https://assets.website-

files.com/61ba001bb59d05538c5a4bd8/61ba001bb59d0566165a4c73_Willie%2BElliott %2BCP-CSA%2BPolicy%2BBrief-min.pdf (accessed May 17, 2022).

- Gándara, Denisa, and Amy Li. 2020. "Promise for Whom? 'Free-College' Programs and Enrollments by Race and Gender Classifications at Public, 2-Year Colleges."

 Educational Evaluation and Policy Analysis 42(4): 603–627.

 https://doi.org/10.3102/0162373720962472
- Harris, Douglas N., Raquel Farmer-Hinton, Debbie Kim, John B. Diamond, Tangela Blakely Reavis, Kelly Krupa Rifelj, Hilary Lustick, and Bradley R. Carl. 2018. *The Promise of Free College (and Its Potential Pitfalls)*. Report. Brown Center on Education Policy at Brookings. Washington, DC: Brookings Institution.

 https://www.brookings.edu/research/the-promise-of-free-college-and-its-potential-pitfalls/ (accessed May 17, 2022).
- Hershbein, Brad J. 2013. "A Second Look at Enrollment Changes after the Kalamazoo Promise."

 Upjohn Institute Working Paper No. 13-200. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/wp13-200
- Iriti, Jennifer, Lindsay C. Page, and William E. Bickel. 2018. "Place-Based Scholarships:

 Catalysts for Systems Reform to Improve Postsecondary Attainment." *International Journal of Education Development*, 58(C): 137–148.

 https://doi.org/10.1016/j.ijedudev.2017.02.002
- Jones, Tiffany, and Katie Berger. 2018. *A Promise Fulfilled: A Framework for Equitable Free-College Programs*. Washington, DC: The Education Trust. https://edtrust.org/resource/a-promise-fulfilled/ (accessed May 17, 2022).

- Jones, Tiffany, Jaime Ramirez-Mendoza, and Victoria Jackson. 2020. *A Promise Worth Keeping:*An Updated Equity-Driven Framework for Free College Programs. Washington, DC:

 The Education Trust. https://edtrust.org/resource/a-promise-worth-keeping/ (accessed May 17, 2022).
- Lake Michigan College. 2022. *LMC Announces New Free Tuition Program, LMC Promise*.

 News release, February 15. https://www.lakemichigancollege.edu/about/news-events/2022-02/lmc-announces-new-free-tuition-program-lmc-promise (accessed May 17, 2022).
- LeGower, Michael, and Randall Walsh. 2017. "Promise Scholarship Programs as Place-Making Policy: Evidence from School Enrollment and Housing Prices." *Journal of Urban Economics* 101(C): 74–89. https://doi.org/10.1016/j.jue.2017.06.001
- McMullen, Isabel, and Brad J. Hershbein. 2021. *Beyond Degrees: The Kalamazoo Promise and Workforce Outcomes*. Policy and Research Brief. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/pb2021-37
- MDRC. 2020. "ASAP in Ohio Yields Successful Results." News release, January.

 https://www.mdrc.org/news/mdrc-news/asap-ohio-yields-successful-results (accessed May 17, 2022).
- Miller-Adams, Michelle. 2015. *Promise Nation: Transforming Communities through Place-Based Scholarships*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/9780880995061

. 2021. The Path to Free College: In Pursuit of Access, Equity, and Prosperity.

Harvard Education Press. https://eric.ed.gov/?id=ED611758 (accessed May 17, 2022).

- Millett, Catherine M., ed. 2017. Designing Sustainable Funding for College Promise Initiatives.

 Policy Information Report. Princeton, NJ: Educational Testing Service.

 https://files.eric.ed.gov/fulltext/EJ1168715.pdf (accessed May 17, 2022).
- Millett, Catherine M., Stephanie R. Saunders, and Daniel Fishtein. 2018. "Examining How College Promise Programs Promote Student Academic and Financial Readiness."

 Education Testing Service Research Report Series 2018(1): 1–24.

 https://doi.org/10.1002/ets2.12229
- Miron, Gary, Jeffrey N. Jones, and Allison J. Kelaher-Young. 2011. "The Impact of the Kalamazoo Promise on School Climate." *Education Policy Analysis Archives* 19(17): 1–25. https://doi.org/10.14507/epaa.v19n17.2011
- Monarrez, Tomás, and Kelia Washington. 2020. *Racial and Ethnic Representation in Postsecondary Education*. Research report. Washington, DC: Urban Institute. https://www.urban.org/research/publication/racial-and-ethnic-representation-postsecondary-education (accessed May 17, 2022).
- Moody on the Market. 2022. "LMC Promise' Offers Free College Tuition to Under 25's Who Qualify." New release, February 15. moodyonthemarket.com.

 https://www.moodyonthemarket.com/lmc-promise-offers-free-college-tuition-to-under-25s-who-qualify/ (accessed May 17, 2022).
- Narehood, Elizabeth. 2021. "Lynchburg Beacon of Hope: Building a Collaborative Framework for Student Success." Policy brief. Washington, DC: College Promise.

 https://assets.website-
 files.com/61ba001bb59d05538c5a4bd8/61fbf25492d8c35fffaf73e4 Lynchburg%20Polic

<u>v%20Brief%20(3).pdf</u> (accessed May 17, 2022).

- National Student Clearinghouse Research Center. 2022. *Completing College: National and State Reports*. Completing College Series, No. 10. Herndon, VA: National Student Clearinghouse Research Center. https://nscresearchcenter.org/wp-content/uploads/Completions Report 2021.pdf (accessed May 17, 2022).
- Odle, Taylor K., Jason C. Lee, and Steven P. Gentile. 2021. "Do Promise Programs Reduce Student Loans? Evidence from Tennessee Promise." *Journal of Higher Education* 92(6): 847–876. https://doi.org/10.1080/00221546.2021.1888674
- Olsson, U. 1979. "Maximum Likelihood Estimation of the Polychoric Correlation Coefficient." *Psychometrika* 44(4): 443–460. https://doi.org/10.1007/BF02296207
- 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." *Education Finance and Policy* 14(4): 572–600. https://doi.org/10.1162/edfp-a-00257
- Perna, Laura W., and Elaine W. Leigh. 2018. Understanding the Promise: A Typology of State and Local College Promise Programs." *Educational Researcher* 47(3): 155–180. https://doi.org/10.3102/0013189X17742653
- ______. 2020. *Database of College Promise Programs*. Philadelphia: University of Pennsylvania, Alliance for Higher Education and Democracy. https://ahead-penn.org/creating-knowledge/college-promise (accessed May 17, 2022).
- Perna, Laura W., Jeremy Wright-Kim, and Elaine W. Leigh. 2021. "Will College Promise

 Programs Improve or Reduce Equity? Understanding the Contextual Conditions That

 Influence Program Implementation." *Education Policy Analysis Archives* 29(26): 1–31.

 https://doi.org/10.14507/epaa.29.5436

- Poutré, Alan, and Mamie Voight. 2018. Do Tennessee Promise and New York's Excelsior

 Scholarship HelpMeans Afford College? Washington, DC: Institute for Higher Education

 Policy. https://files.eric.ed.gov/fulltext/ED595131.pdf (accessed May 17, 2022).
- PR Newswire. 2021. "HOPE Chicago Launches Transformative \$1 Billion Multi-Generation Scholarship Program, Sending Chicago Students and Parents to College." News release, September 29. https://www.prnewswire.com/news-releases/hope-chicago-launches-transformative-1-billion-multi-generation-scholarship-program-sending-chicago-students-and-parents-to-college-301387421.html (accessed May 17, 2022).
- . 2022. "Hope Chicago Completes Historic Week Awarding Debt-Free College Scholarships to 4,000 Students at 5 Chicago Public High Schools." News release, February 28. https://www.prnewswire.com/news-releases/hope-chicago-completes-historic-week-awarding-debt-free-college-scholarships-to-4-000-students-at-5-chicago-public-high-schools-301491167.html (accessed May 17, 2022).
- Ratledge, Alyssa, Rebekah O'Donoghue, Dan Cullinan, and Jasmina Camo-Biogradlija. 2019. *A Path from Access to Success: Interim Findings from the Detroit Promise Path Evaluation*. New York: MDRC.

 https://www.mdrc.org/sites/default/files/Detroit_Promise_Path_Report-Final_0.pdf

 (accessed May 17, 2022).
- Ratledge, Alyssa, Colleen Sommo, Dan Culliman, Rebekah O'Donoghue, Marco Lepe, and

 Jasmina Camo-Biogradlija. 2021. *Motor City Momentum: Three Years of the Detroit Promise Path Program for Community College Students*. New York: MDRC.

 https://www.mdrc.org/sites/default/files/DetroitPromis_Path-Final.pdf (accessed May 18, 2022).

- Ritter, Gary W., and Jennifer Ash. 2016. "The Promise of a College Scholarship Transforms a District." *Phi Delta Kappan* 97(5):13–19. https://doi.org/10.1177%2F0031721716629652
- Sommer, Teresa Eckrich, P. Lindsay Chase-Lansdale, Lauren A. Tighe, and Atiya Addie. 2021.

 An Implementation Study of the HOPE Toledo Promise Inaugural Class of 2020.

 Evanston, IL: Institute for Policy Research, Northwestern University. https://cpb-us-el.wpmucdn.com/sites.northwestern.edu/dist/6/3833/files/2021/08/HOPE-Toledo-Implementation-Report-1.pdf (accessed May 17, 2022).
- Sommer, Teresa Eckrich, John C. Jones, Lauren A. Tighe, P. Lindsay Chase-Lansdale, and Atiya Addie. 2021. "A Novel Two-Generation Approach to College Promise: HOPE Toledo Promise." Washington, DC: College Promise. https://assets.website-files.com/61ba001bb59d05538c5a4bd8/61d319ec83733e11d06b6332_hope-toledo-brief.pdf (accessed May 17, 2022).
- Swanson, Elise, and Gary Ritter. 2020. "Start to Finish: Examining the Impact of the El Dorado Promise Program on Postsecondary Outcomes." *Journal of Student Financial Aid* 49(3): Article 2. https://ir.library.louisville.edu/jsfa/vol49/iss3/2 (accessed May 17, 2022).
- tnAchieves. 2021. "Mentor Program Update: Class of 2021." Knoxville: tnAchieves.

 https://tnachieves.org/mentors (accessed May 17, 2022).
- W.E. Upjohn Institute for Employment Research (Upjohn Institute). 2020. *Postsecondary Outcomes for Adult Learner Scholars: Evaluating the Kansas City Scholars College Scholarship Program*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://kcscholars.org/wp-content/uploads/2020/03/Postsecondary-Outcomes-for-Adult-Learner-Scholars-2019.pdf (accessed May 17, 2022).

_____. 2021. *Promise Programs Database*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://www.upjohn.org/promise/promiseSearch.html (accessed May 17, 2022).