SERVICE-CONTINGENT FINANCIAL AID:

Exploring State Loan Forgiveness and Conditional Grant Programs

MIDWESTERN HIGHER EDUCATION COMPACT

POLICY REPORT
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REPORT OVERVIEW

Over the past two decades, student loans have grown to play a significant role in how students pay for college. Today, college graduates have an average loan debt of approximately $35,000, and outstanding student loan debt in the United States exceeds $1.5 trillion (College Board, 2023).

This report examines state-funded loan forgiveness and conditional grant programs, designed to alleviate student loan debt and address workforce shortages in high-need fields. These service-contingent programs incentivize graduates to work in targeted occupations or underserved areas in exchange for debt relief.

Conditional grants are awarded during college with service obligations post-graduation, while loan forgiveness applies to existing loans contingent on meeting service requirements. Failure to meet obligations typically results in repayment obligations.

KEY INSIGHTS

- **Research indicates that service-contingent aid programs are effective in recruiting professionals to underserved areas and retaining them beyond the required service period.** Conditional grants tend to have a greater impact potentially due to reduced debt aversion and the positive labeling effect associated with grants. The effectiveness of programs varies across fields and may depend on administrative processes, program awareness, and award size.
- **Policy options for developing and improving service-contingent programs include:**
  - aligning funding priorities to complement need-based aid;
  - setting award amounts that reflect education costs and projected wages;
  - simplifying and clearly communicating service criteria (e.g., eligibility and obligations);
  - strengthening program evaluation to guide improvement; and
  - coordinating state and federal initiatives to maximize efficiency and reduce redundancy.
- **For the 2021-22 academic year, 135 programs were offered across 35 states, with 39 of these programs located in the Midwest.** The proportion of programs in the Midwest awarding conditional grants (59%) and loan forgiveness (41%) mirrored the national distribution.
- **Among the targeted occupations, about 41% of programs in the Midwest supported teachers and 39% focused on healthcare, particularly nursing, general healthcare, and medicine.**
- **Awards vary significantly by profession and state.** In healthcare, average awards ranged from $4,400 in Illinois to $48,791 in Minnesota, while teaching awards ranged from $995 in Minnesota to $9,167 in Wisconsin.
- **On average, about 4% of state financial aid budgets nationally were dedicated to service-contingent programs in 2021-22.** Allocations in the Midwest range widely, from 0.5% in Ohio to 28.5% in Kansas.

Introduction

Over the past two decades, student loans have grown to play a significant role in how students pay for college. Today, college graduates have an average loan debt of approximately $35,000, and outstanding student loan debt in the United States exceeds $1.5 trillion (College Board, 2023). Moreover, the amount individuals borrow, and the impacts associated with loan repayment vary according to borrowers' demographics and institutional sector. Minority students, students at for-profit institutions, and low-income students borrow at higher rates and are more likely to face default during repayment compared to their respective counterparts (Baum, 2020).

The potential impact of high student debt levels has prompted a national dialogue on whether state and federal action is necessary to help alleviate student loan debt through loan cancellation and other policy measures (Catherine & Yannelis, 2021; Goss et al., 2023). Research demonstrates how student loan debt can influence a borrower's life decisions such as starting a family or buying a house (Gicheva, 2016; Mezza et al., 2020; Sieg & Wang, 2018). Additionally, high student loan debt may discourage individuals from taking lower-paying positions that are vital to society, such as teaching or public service jobs (Rothstein & Rouse, 2011; Minicozzi, 2005).

With rising student loan debt, state policymakers frequently grapple with how to create financial aid programs that will assist students in paying for college while reducing the reliance on student loans. At the same time, policymakers need to address state workforce needs, particularly with labor shortages exacerbated by the COVID-19 pandemic (Domash & Summers, 2022; Hobijn & Sahin, 2022). For example, workforce shortages have been reported across the nation in several fields that traditionally require in-person services, such as teaching and healthcare (Kraft & Lyon, 2024; Schmitt & DeCourcy, 2022; PRC, 2023; ASPE, 2022). Two financial aid programs that attempt to meet these goals are state loan forgiveness and conditional grant programs, which provide debt relief to borrowers who work in specific occupations that are in high demand. [1]

ATTRIBUTES OF LOAN FORGIVENESS AND CONDITIONAL AID PROGRAMS

Loan forgiveness and conditional grant programs have one or more of the following four primary objectives: (1) to provide financial assistance for students to pay for college by reducing their dependency on student loans; (2) to encourage individuals to choose a specific college major or occupation; (3) to attract individuals to work in an underserved region for a specific period of time; or (4) to retain individuals in high-need occupations or regions (Hegji, et al, 2018). These programs are collectively known as service-contingent programs because they require participants to fulfill service requirements. State funded service-contingent programs in the Midwest for the 2021-22 academic year are listed in the Addendum.

Different terms are used by researchers and policymakers to describe loan forgiveness and conditional grant programs, which can make the distinction between the two confusing. For example, "conditional grants or loans" may sometimes be referred to as "loan forgiveness programs," and "loan forgiveness programs" may be referred to as "loan repayment programs" (McCallion, 2005). However, loan forgiveness and conditional grant programs are distinguished by their operational and administrative processes.

A conditional grant is a program that provides a financial award to a student while enrolled in college. In exchange for receiving the award, the recipient must fulfill certain service or work requirements after graduating from college (NASSGAP, 2023). If recipients fail to fulfill the service obligations, they must repay the award. Conditional grants can also be referred to as conditional loans when the recipient incurs interest charges while enrolled in college. Both are functionally equivalent, as award repayments are waived upon service completion. An example of a conditional grant is Kansas's Teacher Service Scholarship, which provides college students with an award of up to roughly $5,500 annually. Students sign a promissory note with the state of Kansas agreeing to teach in a high-demand discipline or an underserved geographic region for each year the recipient receives an award. Should the recipient not fulfill the service obligation, the grant

[1] An earlier version of this report was released in 2018. The current version includes more recent data and provides an update to the overview of research on program effectiveness.

converts to a loan (with accrued interest) that is to be repaid to the state. Another example is Wisconsin's Nursing Student Loan program, wherein students can receive an award of up to $3,000 annually ($15,000 maximum) while enrolled in college. For each of the first two years the student works as a nurse, 25% of the award does not need to be repaid. If the student does not fulfill the service requirements (in part or in whole), the remaining award amount is to be paid back to the state with interest (5%).

Conditional grant stipulations are also used in some college promise programs, which typically promise eligible high school graduates that part or all of their tuition will be covered when they enter college (Kelchen, 2017). While most promise programs do not have post-graduation service commitments, some tie full tuition coverage to requirements for residency or employment within the state after graduation. For example, the Kansas Promise Act Scholarship covers full tuition for students in selected fields at community and technical colleges, provided recipients live and work in Kansas for two consecutive years after graduation. [2] Similarly, North Dakota's Career Builders Loan Repayment program awards up to $17,000 to students at eligible two- and four-year institutions who agree to work for three years in high-demand fields, such as teaching, computer programming, carpentry, nursing, machinists, and social service. [3]

In contrast, loan forgiveness programs are for borrowers who have unconditional student loan debt (i.e., student loans awarded without service-related conditions). Borrowers can have their loan repaid or forgiven after fulfilling certain service or work obligations (NASSGAP, 2023). If the service obligations are not fulfilled after a pre-determined period, the recipient becomes ineligible to have the loan forgiven. The types of loans that can be forgiven – such as those borrowed from a private bank, a state government, or the federal government – and the processes for obtaining loan forgiveness vary by state and program. Some programs allow loans to be forgiven at the end of the service obligation. One example is Illinois's Teacher Loan Repayment Program, which provides teachers who qualify for a federal teacher loan forgiveness program with an additional match award of up to $5,000 to repay their student loan debt after five years of service. Alternatively, loan forgiveness programs can forgive a portion of a borrower's student loans on an annual basis until service completion. For example, Iowa's Rural Nurse Practitioner and Physician Assistant Loan Repayment program pays up to $20,000 to borrowers' federal Direct Loan servicer in exchange for five years of service in rural areas ($4,000 of loans are forgiven annually).

Although this report focuses on state service-contingent programs, federal policymakers have also developed programs to recruit individuals to work in high-need areas (see Hegji et al., 2024). In 1998, Congress created a loan forgiveness program that allowed teachers to have $5,000 of their federal loans forgiven after five years of teaching in a low-income school. In 2004, the federal government supplemented the teacher loan forgiveness program by raising the forgiveness amount to $17,500 for teachers in mathematics, science, or special education. Congress approved another loan forgiveness program in 2007, called the Public Service Loan Forgiveness (PSLF), that relieved students' loan debt in exchange for a 10-year employment term in the public or non-profit sector. Congress also created a conditional grant in 2007 called Teacher Education Assistance for College and Higher Education (TEACH), which provides up to $4,000 annually in grants to students who intend to teach full-time in high-need subject areas at low-income schools. If the student does not fulfill the service obligations within eight years after graduating from college, the grant converts to an unsubsidized loan.

[2] A list of approved programs of study is provided at https://www.kansasregents.org/students/student_financial_aid/promise-act-scholarship.

[3] A list of occupations is provided at https://ndus.edu/2022-high-need-and-emerging-occupations-list/ The program also includes a loan forgiveness component for individuals who were not able to receive a conditional grant but are working in a high-demand occupation and have student loan debt.

Prevalence of Service-Contingent Programs

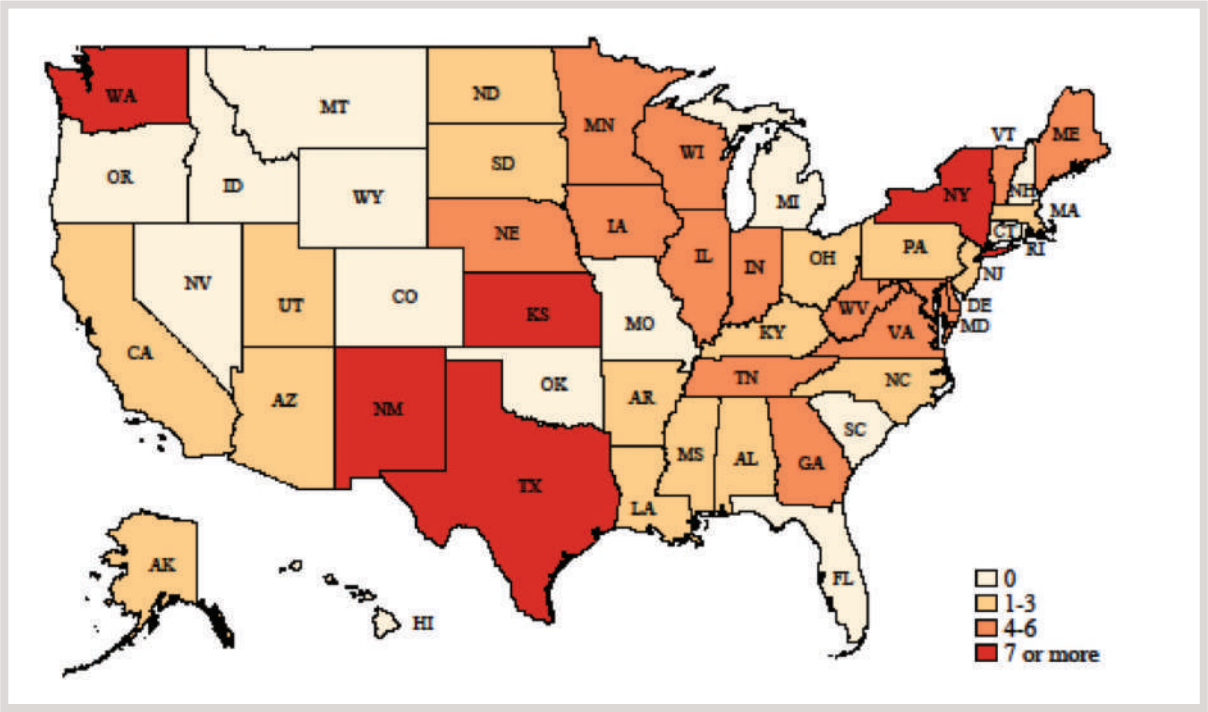
States in the Midwest and across the nation differ in the number of service-contingent aid programs. Figure 1 displays states that offered service-contingent aid programs during the 2021-22 academic year. [4] Service-contingent programs are more popular in the East, Southern, and Midwest regions, with fewer states in the Rocky Mountain region offering them. Most states had between one and three programs, though five states had more than seven programs: Kansas, New Mexico, New York, Texas, and Washington. Among the 12 Midwest states, Michigan and Missouri did not operate a state-funded service-contingent aid program in 2021-22. However, Michigan created the MI Future Educator Fellowship program in 2023, providing up to $10,000 in conditional grants for teachers.

States in the Midwest and across the nation have generally supported conditional grant programs more than loan forgiveness programs. As Figure 2 illustrates, in 2021-22, 23 (59%) of the 39 service-contingent programs in the Midwest offered conditional grants, while 16 (41%) were loan forgiveness programs. Similarly, at the national level, 80 (59%) of the 135 state service-contingent programs offered conditional grants, with the remaining 55 (41%) being loan forgiveness programs. Figure 2 also shows that the total number of service-contingent programs nationwide peaked around 2007-08 with 183 programs, followed by a gradual decline. In contrast, the number of programs in the Midwest has remained relatively stable over this period.

Targeted Occupations

In 2021-22, states targeted a wide range of occupations through their service-contingent programs, with a significant focus on teaching and healthcare fields (see Table 1). In the Midwest, 41% of programs focused on supporting teachers, and 39% targeted healthcare fields, including nursing (18%), general healthcare (13%), and medicine (8%). These percentages reflect a greater emphasis on teachers and

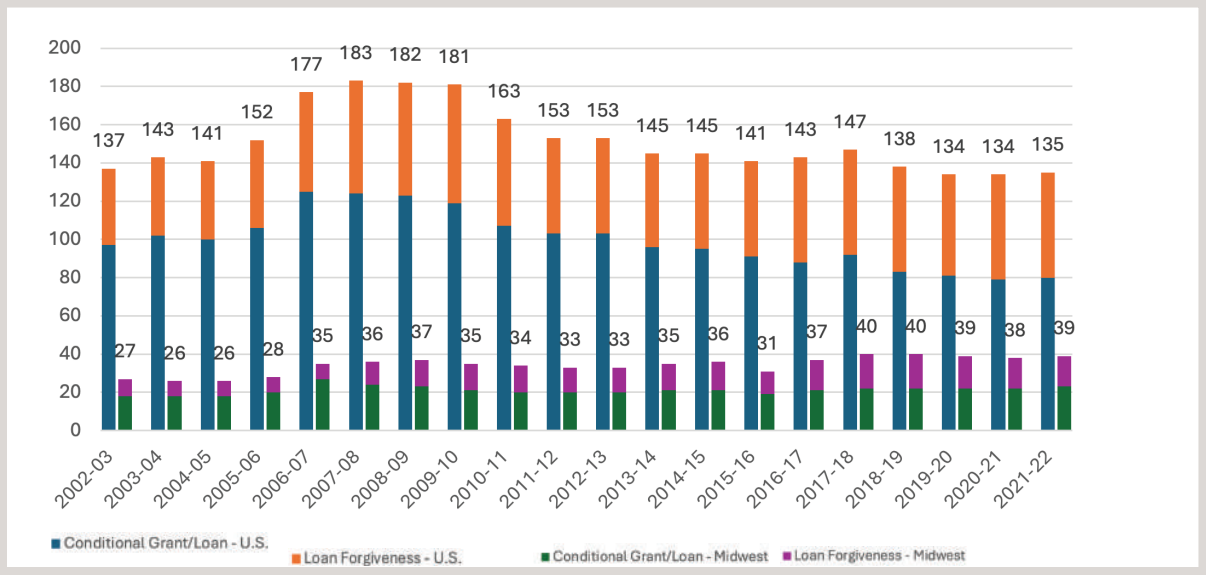
FIGURE 1. State Service-Contingent Programs in 2021-2022



Source: National Association of State Student Grant and Aid Programs [NASSGAP]. (2023). *Annual Survey Report on State-Sponsored Student Financial Aid.*

[4] State service-contingent programs were identified using data from the National Association of State Student Grant & Aid Programs (NASSGAP), which is collected through annual surveys. This data identifies financial aid type – grant, loan, conditional grant, and loan forgiveness. To ensure consistency in reporting of financial aid programs and to identify the targeted occupation for the service-contingent aid program, additional research was performed through online searches of aid programs. The analysis excludes state-administered federal loan forgiveness programs unless the state provides matching or additional funding for such programs.

FIGURE 2. Number of State Service-Contingent Programs



Source: National Association of State Student Grant and Aid Programs [NASSGAP]. (2023). *Annual Survey Report on State-Sponsored Student Financial Aid.*

nurses in the Midwest compared to national levels, though the overall distribution remains similar nationwide, where 33% of programs target teachers and 33% focus on the aforementioned healthcare fields. While many programs across the nation focus on specific occupations, such as teaching or healthcare, others span multiple fields. For example, Maryland's Workforce Shortage Student Assistance Grant Program provides awards of up to $4,000 for students pursuing careers in a range of fields, including child-care, human services, teaching, nursing, social work, and public service. Recipients must complete one year of service within one year of earning their degree.

Average Award

Service-contingent programs vary widely in the average award size depending on the profession and state (see Table 2). On average, programs targeting healthcare professionals tend to offer larger awards, especially for physicians and high-need specialties. Some notable variations in award size can be observed within the same field. For example, Minnesota's Health Professional Education Loan Forgiveness Program provides an average award of $48,791, significantly higher than other healthcare-related programs. For physicians, the awards vary from $15,000 in Kansas to $37,667 in Iowa. In nursing, awards range from Ohio's Nurse Education Assistance Loan Program at $1,354 to Illinois' Nurse Educator Loan Repayment Program at $4,877. Service-contingent programs for teachers also show significant variation.

TABLE 1. Distribution of Targeted Occupations in 2021-22

Occupation	Share of programs nationally (N=135)	Share of midwest programs (N=135)
Teacher	33%	41%
Nursing	13%	18%
General Health	13%	13%
Medicine/Physician	7%	8%
Multiple or Other	7%	8%
Public Sector/Social Services	7%	0%
Military	7%	5%
Dentistry	3%	0%
Engineering/Cybersecurity	3%	0%
Agriculture/Fishery/ Veterinary	3%	5%
Lawyer	2%	3%
Education Administrator or Childcare	1%	0%
Other Education	1%	0%

Source: National Association of State Student Grant and Aid Programs [NASSGAP]. (2023). *Annual Survey Report on State-Sponsored Student Financial Aid.*

TABLE 2. Average Amount Awarded through Service-Contingent Programs in Healthcare and Teaching Fields in the Midwest

Category	State	Program Name	# of Participants	Average Award
General Healthcare	IL	Veterans Home Medical Providers' Loan Repayment Program	6	$4,400
	IA	Des Moines University Recruitment Program	39	$10,092
	KS	Kansas Optometry Service Scholarship	28	$4,964
	MN	Health Professional Education Loan Forgiveness Program	150	$48,791
	NE	Nebraska Loan Repayment Program	20	n/a
Medicine/ Physician	IN	Indiana Primary Care Scholarship	113	$15,462
	IA	Rural Iowa Primary Care Loan Repayment Program	20	$37,667
	KS	Kansas Osteopathic Service Scholarship	10	$15,000
Nursing	IL	Nurse Educator Loan Repayment Program	54	$4,877
	IA	Rural Iowa ARN and PA Loan Repayment Program	3	$4,000
	KS	Kansas Nursing Service Scholarship	95	$3,503
	KS	Nurse Educator Scholarship	33	$3,554
	OH	Nurse Education Assistance Loan Program	531	$1,354
	WI	Nursing Student Loan	138	$2,702
	IA	Health Care Loan Repayment Program	54	$4,556
Teacher	IL	Golden Apple	711	$4,046
	IL	Minority Teacher Scholarship MTI	365	$4,826
	IL	Teacher Loan Repayment Program	96	$4,582
	IN	High Needs Stipend	101	$4,033
	IN	Minority Teacher Scholarship	179	$3,423
	IN	Minority Teacher Stipend	42	$1,190
	IN	Next Generation Hoosier Educators Scholarship	658	$7,314
	IA	Teach Iowa Scholar	82	$4,000
	KS	Kansas Teacher Service Scholarship	270	$4,490
	MN	Agricultural Education Loan Repayment Program	7	$3,000
	MN	Teacher Shortage Loan Repayment Program	208	$995
	NE	Attracting Excellence to Teaching Program	163	$3,000
	NE	Enhancing Excellence in Teaching Program	480	$2,101
	WI	Minority Teacher Loan	12	$9,167
	WI	Teacher Education Loan	25	$8,774
	WI	Teacher of the Visually Impaired Loan	14	$7,071

Source: National Association of State Student Grant and Aid Programs [NASSGAP]. (2023). *Annual Survey Report on State-Sponsored Student Financial Aid.*

Note. Programs that were implemented after the 2021-22 academic year are not reflected. For example, Kansas created the Kansas Adult Learner Grant in 2023, a conditional grant program that provides up to $3,000 in tuition assistance for individuals who are at least 25 years of age and pursuing a bachelor's degree in specified high demand fields. Michigan's MI Future Educator Fellowship program was created in 2023 and provides up to $10,000 in conditional grants to individuals enrolled in an educator preparation program.

The Minority Teacher Loan in Wisconsin offers an average award of $9,167, while Minnesota's Teacher Shortage Loan Repayment Program provides $995.

Funding Levels

Understanding how states allocate resources to service-contingent programs is crucial for evaluating their role within broader state financial aid strategies. These programs aim to address workforce needs, but questions often arise about whether their funding comes at the expense of other aid programs, particularly those serving students with the greatest financial need (IHEP, 2002). However, on average, only about 4% of state financial aid budgets supported service-contingent programs nationally, indicating that while important, they remain a relatively small part of overall state financial aid strategies. As displayed in Table 3, the percentage of financial aid budgets allocated to service-contingent programs varied from 17% to 0.1% nationally, and from 28.5% to 0.5% in Midwest states. For example, Illinois has five service-contingent programs, but they account for only 1% of the state's total funding for financial aid programs. In contrast, states such as Kansas, New York, and Utah allocate over 10% of their financial aid budgets to these programs. This variance highlights different state priorities in balancing targeted workforce development needs with traditional financial aid programs.

TABLE 3. State Financial Aid Funding for Service-Contingent Programs in 2021-22

State	Number of Service-Contingent Programs	State Funding for Service-Contingent Programs (in millions)	Program Funding as Percentage of All State Financial Aid Funding
AL	2	1.2	2.2%
AK	2	1.4	6.5%
AZ	1	0.1	0.3%
AR	2	1.1	1.0%
CA	2	55.9	2.3%
CO	0	n/a	n/a
CT	0	n/a	n/a
DE	6	0.3	1.0%
FL	0	n/a	n/a
GA	4	6.3	0.7%
HI	0	n/a	n/a
ID	0	n/a	n/a
IL	5	5.4	1.1%
IN	5	7.6	2.6%
IA	5	1.7	2.0%
KS	8	10.3	28.5%
KY	2	0.7	0.3%
LA	1	0.7	0.2%
ME	4	2.6	9.0%
MD	6	2.4	1.9%
MA	2	2.0	1.5%
MI	0	n/a	n/a
MN	5	7.9	2.8%
MS	2	1.0	2.3%
MO	0	n/a	n/a
MT	0	n/a	n/a
NE	4	2.9	8.2%
NV	0	n/a	n/a
NH	0	n/a	n/a
NJ	1	0.6	0.1%
NM	11	7.1	5.9%
NY	12	134.9	15%
NC	2	22.1	7.8%
ND	1	0.1	0.5%
OH	1	0.7	0.5%
OK	0	n/a	n/a
OR	0	n/a	n/a
PA	1	11.1	2.9%
RI	0	n/a	n/a
SC	0	n/a	n/a
SD	1	0.4	6.6%
TN	4	0.4	0.1%
TX	7	14.4	1.1%
UT	2	3.3	17%
VT	4	1.6	7.0%
VA	5	0.9	0.1%
WA	7	8.4	1.7%
WV	4	3.2	3.4%
WI	4	0.8	0.7%
WY	0	n/a	n/a

Source: National Association of State Student Grant and Aid Programs [NASSGAP]. (2023). A*nnual Survey Report on State-Sponsored Student Financial Aid*

OVERVIEW OF RESEARCH ON PROGRAM EFFECTIVENESS

Past research provides some insight into whether service-contingent programs are effective in attracting students to occupations and recruiting and retaining individuals in high-need areas. The findings from studies examining service-contingent programs are presented below, categorized according to the occupational field in which they are intended to serve. Many of these studies have evaluated programs that target occupations in healthcare, law, and education.

Healthcare

In 2023, the average student loan debt for medical school graduates exceeded $200,000 (AAMC, 2023). This substantial debt level can deter graduates from pursuing careers in high-demand, underserved areas. The need to attract healthcare professionals to underserved areas is critical, as shortages of essential medical services can impact community health outcomes and mortality rates (Iglehart, 2018). According to the U.S. Department of Health and Human Services, there are currently over 120 million individuals living in medically underserved regions in the United States, with a need for roughly 30,000 healthcare professionals in primary care, dentistry, and mental health (DHHS, n.d.).

The descriptive results from several health worker surveys – mainly medical school students and graduates – provide some tentative evidence that service-contingent programs can attract individuals to work in specific areas and medical fields (AMN Healthcare, 2023; Richards et al., 2018 Scheckel et al., 2019)) [5]. In a 2023 survey of final year medical students, 29% of respondents indicated that whether a potential employer offered loan forgiveness as an incentive would be an important factor in considering a job opportunity (AMN Healthcare, 2023). Similar research utilizing survey responses from osteopathic medical graduates found that those with high debt levels were more likely to report intending to practice in an underserved area compared to those with smaller loan debts (77% vs. 58%) and to participate in a loan forgiveness program (81% vs. 49%) (Richards et al., 2018). Scheckel et al. (2019) used the same survey data but applied probabilistic modeling to find that graduates who received a service-contingent award were between 46% to 65% more likely to choose a primary care specialty than non-recipients.

A large body of research using more rigorous analyses of survey data has examined service-contingent programs through the National Health Service Corps (NHSC). Established in the early 1970s, the NHSC provides a conditional grant to eligible medical students in exchange for work in a medically underserved area. NHSC introduced a loan forgiveness program in 1987, allowing physicians who did not receive the conditional grant an opportunity to have a portion of their medical school debt forgiven for each year of service (Holmes, 2004) [6]. Several studies have demonstrated that the NHSC service-contingent programs increased the number of health professionals working in underserved areas (Bärnighausen & Bloom, 2009; Robinowtiz, et al., 2000; Robinowitz, et. al. 2001; Probst et al., 2003; Rittenhouse et al., 2008). For example, using data from the American Medical Association, Rittenhouse, et al. (2008) found that NHSC physicians were nearly seven times more likely to work in a community health center after graduation than were non-NHSC physicians [7]. While many recipients leave their original placement site mid-service or immediately after completing their service (Pathman et al., 1994; Singer et al., 1998), several studies found that NHSC recipients are more likely than non-recipients to continue working in underserved areas even after leaving their original placement site (Bärnighausen & Bloom, 2009; Rosenblatt et al., 1996; Cullen, 1997) [8]. Several non-financial factors appear to affect retention rates, such as family

[5] Research on service-contingent aid programs relating to healthcare occupations mostly relies on the use of survey data, which, at times, does not control for or consider other factors that may also influence an outcome. These types of studies are more prone to bias, as the responses could reflect ex-post decisions on whether to work in high-need area, and the analysis does not control for other factors that could impact decisions or outcomes.

[6] Most studies evaluating NHSC focus on the conditional grant portion of the program, and studies that do examine both NSHC service programs struggle to separate the impact between the two. Few studies examine whether one service-contingent program is more effective than the other.

[7] Participation was based on medical schools receiving NHSC funding, whereas non-participation was based on medical schools not receiving NHSC funding.

[8] These results are consistent with survey research from Glazerman and Seftor (2005) who examined a separate federal health care loan forgiveness program under the National Institute of Health, which offered similar benefits to the NHSC.

proximity, job opportunities, and the overall attractiveness of rural and underserved areas (Bärnighausen & Bloom, 2009).

Since the implementation of NHSC service-contingent programs, more recent federal loan forgiveness programs, such as the Public Service Loan Forgiveness (PSLF), have been introduced over the past two decades that target the same healthcare workers that NHSC intends to serve. Dissimilar to NHSC, the PSLF is not limited to individuals in healthcare and does not contain a capped amount of the loans forgiven. Davis et al. (2023) examined the uptake of the PSLF and NHSC programs among early career physicians. Using national survey data, their analysis revealed that PSLF participation increased from 7% in 2016 to 22% in 2020, whereas NHSC participation remained steady at 4% to 5%.[9] The authors suggest that the significant uptake in PSLF among physicians could be attributed to the program's ability to forgive any loan amount after 10 years of service, whereas NHSC only forgives up to $125,000 after 5 years. However, the authors' demographic analysis indicated that NHSC participants were more likely to be from underrepresented groups, practice in multiple areas of primary care, and work in rural or medically underserved areas, compared to those using PSLF. Therefore, the NHSC continues to fulfill a distinctive mission despite the introduction of a potentially competing loan forgiveness program.

Less research has focused on state-funded programs. Renner et al. (2010) surveyed 93 healthcare providers consisting of physicians, dentists and dental hygienists, nurses, nurse practitioners, lab and radiology technicians, and pharmacists who participated in three state-funded programs that provided loan forgiveness in exchange for service in rural areas or designated urban areas with underserved populations in Colorado.[10] When focusing on the subset of respondents who were not working in an eligible area prior to applying for loan forgiveness (34% of the sample), 69% reported that the opportunity for loan forgiveness influenced their choice of where to practice. Regarding location, 34% reported that the program influenced their decision to practice in a rural area. In terms of retention, the authors found that 55% of providers who completed their terms of service remained at their original placement site. Among those who stayed in a rural region, 41% reported that participation in the programs was an important factor in their decision to stay. However, the factors influencing participants' decisions to leave their community varied between rural and urban settings. Among rural providers, 48% indicated that their family's desire to move was an important factor. The second most important factor for rural participants was feeling professional or personal isolation, reported by 35%. In contrast, the two main factors for leaving among urban providers were the desire for higher income (67%) and their family's desire to move (22%).

Opoku et al. (2015) examined the retention of physicians in rural Nebraska by comparing two programs. The first group consisted of physicians who received a J-1 visa waiver, which allows international medical graduates to forgo the two-year return-to-home country requirement for three years of service in a high-needs area. The second group consisted of physicians who were awarded loan forgiveness through the Nebraska Loan Repayment program, which offers up to $40,000 in forgiveness for three years of service. Using survival analysis, the study found that the average length of stay in rural Nebraska was 4.1 years for J-1 visa waiver recipients and 8.1 years for those who received state loan forgiveness. Among physicians who stayed in rural Nebraska for at least three years (the expected service commitment term), the average stay for J-1 visa waiver and loan forgiveness recipients was 5.6 and 9.7 years, respectively. Their analysis also showed that physicians in the J-1 visa waiver program were almost four times more likely to leave rural Nebraska compared to their state loan forgiveness counterparts. The authors suggested that difference in retention rates might be due to loan forgiveness recipients having stronger ties to rural communities in Nebraska than international physicians in the J-1 visa waiver program.

[9] This finding is consistent with research from Friedman et al. (2016), who found that physicians were more likely to report a preference to participate in PSLF over NHSC.

[10] The three forgiveness programs were Colorado Health Professional Loan Repayment Program (CHLRP), Colorado Rural Outreach Program (CROP), and Dental Loan Repayment Program (DLRP).

Law

High loan debt among law school graduates is well documented, with nearly 75% graduating with debt and an average debt exceeding $100,000 (Hanson, 2023). A 2021 ABA survey of recent law school graduates found that 90% of respondents borrowed loans for their J.D. or prior degrees, and 80% to 90% of these borrowers indicated that their student debt altered their career trajectory or negatively impacted their financial well-being, causing them to prioritize salary more heavily in job selection than they had anticipated when entering law school (ABA, 2021). The ABA survey also found that approximately 20% of lawyers were pursuing loan forgiveness through the federal PSLF program. Among those working toward PSLF, 70% agreed that the program allows them to pursue their chosen profession in the nonprofit or public sector.

Reviews of past research examining the influence of service-contingent programs on career decisions have frequently cited Field's (2009) study relating to law school debt, which used rigorous research methods to compare the effectiveness of loan repayment programs in recruiting law students to serve in the public sector. Jobs in public interest law traditionally pay less than those in the private sector. Field (2009) investigated the impact of financially equivalent loan forgiveness and conditional grant programs randomly assigned to students at New York University (NYU) Law School. She found that students who were assigned to receive a $45,000 conditional grant as opposed to the loan forgiveness option were 36% more likely to work in public interest law two years after graduation. Field attributed the greater impact of conditional grants to student debt aversion. Previous research on labeling effects has indicated that financial aid awards that are labeled as "loans" are less likely to be chosen over the financially equivalent awards labeled as "grants" (Caetano et al., 2019; Evans et al., 2019).

Education

The field of education has been a common occupational target for state-funded service-contingent programs due to teacher shortages across the country. According to Nguyen et al. (2022), there are at least 36,500 teacher vacancies in the United States and 163,000 teachers who are underqualified, either because they are not fully certified by state standards or are certified in subject areas other than their respective teaching assignments. A combination of relatively low salaries and high student debt has been identified as a critical factor affecting teacher recruitment, job satisfaction, and retention (Garcia, et al., 2023). In 2021-22, the average annual salary for public school teachers was roughly $66,000, and the average outstanding student loan debt for teachers was $58,500, with 1 in 8 owing more than $100,000 (U.S. Department of Education, 2022; Weingarten et al., 2022).

Past research examining service-contingent programs for teachers suggests that such programs can impact recruitment and retention rates. Liou et al. (2010) examined a conditional grant program titled the National Science Foundation's (NSF) Robert Noyce Teacher Scholarship Program, which provided up to $10,000 annually to college students as a means to increase the number of STEM teachers in high-need areas. Their analysis of survey results demonstrated that the Noyce Program did recruit teachers to a high-need area, as 70% of respondents indicated that the scholarship influenced their commitment to teach in a high-need school, and 71% reported that the scholarship influenced their decision to remain teaching in a high-need school for their full commitment term. In a follow-up study, Lou and Lawrenz (2011) examined the impact of the Noyce grant on college tuition and found that the higher the percentage of tuition covered by the grant, the more influence the program had on individuals' decisions to become a teacher.[11]

Conditional grant programs may be more impactful when the award's terms and conditions are easy to understand and follow. In 2015, the Government Accountability Office (GAO, 2015) released a report on a federal conditional grant called Teacher Education Assistance for College and Higher Education (TEACH), a program that provides aid funding to college students in exchange for four years of service at a low-income school. GAO found that almost one-third of TEACH recipients started but did not fulfill the service requirement of the grant. Based on in-depth interviews with administrators at four colleges and graduates from

[11] Both Lou et al. (2010) and Lou and Lawrenz (2011) studies, however, should be cautiously interpreted, as the sample only consisted of individuals who had received the award and did not consider a comparison group of non-award individuals.

teacher training programs, GAO suggested that the failure of individuals to fulfill the program requirements was due to their lack of knowledge of the service obligations and the required annual certification paperwork.

In comparison to research on conditional grant aid programs, research on loan forgiveness for teachers has had mixed results. Feng and Sass (2015) used administrative data from the state of Florida to examine the Critical Teacher Shortage Program. Using hazard modeling, the researchers analyzed retention rates among teachers who had recently completed their college degree and were in their first year of working in a teacher-shortage area. Over the first six years of the program, loan forgiveness recipients were more likely to remain as a public teacher in a shortage area than non-recipients. Specifically, the probability of a loan forgiveness recipient leaving a public school decreased by 8.6% for science teachers, 11.1% for math teachers, 11.4% for foreign language teachers, and 25% for English as a second language teachers.

Recent research examining federal teacher loan forgiveness programs, however, suggests limited effects on teacher retention. Russell (2020) examined the impact of federal loan forgiveness on teacher retention in high-need schools by comparing schools in Massachusetts, New York, North Carolina, and South Carolina that were just above and below the 30 percent free or reduced priced lunch (FRPL) threshold that determines forgiveness eligibility. She found that the program had no effect on teacher retention rates and student test scores. Jacob et al. (2024) replicated Russell's study by examining Michigan schools near the FRPL threshold and also found no impact on teacher retention rates. Jacob et al. posited that the null effects could be attributed to teachers being unaware of loan forgiveness programs or the value they provide. The authors then randomly distributed information about federal loan forgiveness to teachers working in eligible schools. While teachers who received information about loan forgiveness were more likely to report they have a better understanding of the federal programs, they were just as likely as those who did not receive the information to change schools or leave teaching in the public school system. Additional research is needed to assess the role of administrative barriers associated with completing loan forgiveness applications, such as coordinating with loan servicers and having administrators validate employment. These barriers may prevent teachers from receiving the programs' benefits, ultimately impacting retention.

Researchers have also compared the effects of conditional grants and loan forgiveness for teachers. Steele, Murnane, and Willett (2010) used a quasi-experimental design to compare the effectiveness of a forgiveness program and conditional grant in California. The conditional grant, California's Governor's Teaching Fellowship (GTP), was given to teachers enrolled in accredited post-baccalaureate teacher licensure programs. GTP offered teachers a $20,000 grant in exchange for at least four years of work in low-income schools. To determine the effects of the GTF, the researchers used a comparison group of teacher licensure candidates who had signed contracts for California's loan forgiveness program, the Assumption Program of Loans for Education (APLE), which forgives up to $19,000 in loans for service in a low-income school. The researchers found that the GTF award, compared to APLE-eligible teachers, increased the probability of its recipients teaching in a low-income school by as much as 28 percentage points. Even though GTF increased recruitment to selected schools, the researchers found that both GTF and APLE programs had a combined high retention rate: 75% of participants remained in a low-income school for at least four years.

Summary of Program Effects Across Fields

In general, service-contingent programs, including both loan forgiveness and conditional grant programs, can be effective in recruiting professionals to underserved areas. Simplifying administrative processes, increasing awareness, and ensuring that financial incentives cover substantial portions of educational debt may further enhance their effectiveness. Some programs, like the NHSC, are also effective in retaining professionals in underserved areas after the completion of the service term, though factors such as family proximity and job opportunities also significantly influence retention. When comparing the two service-contingent programs, conditional grants often have a greater impact on career decisions compared to loan forgiveness programs, largely due to debt aversion and the labeling effect. Variation in program effectiveness across healthcare, law, and education highlights the need for tailored approaches in different fields.

More research is needed in several areas to help explain the mixed results on the effectiveness of service-contingent programs. The extent to which the programs are effective may relate to the existing job market. For example, service-contingent programs may be effective in incentivizing an individual to take a particular position in a certain area when there are multiple job opportunities. But at the same time, the programs could be ineffective when the job opportunities are limited, as individual competition for a select number of jobs obscures the programs' incentive to entice individual decisions. Furthermore, more understanding of the design and award structure of loan forgiveness programs is needed. For example, some state programs provide forgiveness on an annual basis, unlike federal programs that offer a one-time lump sum forgiveness. Providing forgiveness on an annual basis may provide more of an incentive for participants to remain in a service area, though more research is needed. Additionally, research discussed above demonstrated how there is a growing interest in the federal PSLF program. Research should examine the overlaps between state service-contingent programs and PSLF, in terms of awarding parameters and targeted occupations. Finally, while prior studies have demonstrated the impact of service-contingent programs on recruitment and retention in underserved areas, more research is needed to determine whether the prospect of future financial support influences individuals to choose specific college majors or professions.

ADMINISTRATIVE COST CONSIDERATIONS

Understanding the costs associated with administering and funding service-contingent programs is challenging. It is easier to determine the state appropriation level needed for conditional grant programs than to estimate the outlays for loan forgiveness programs, as funding levels for conditional grants are limited to the number of budgeted participants. In contrast, loan forgiveness funding depends on borrower participation and service over a period of time, which can be hard to precisely estimate (Hegji, Smole, & Heisler, 2018). Loan forgiveness costs could also be substantial depending on the state's forgiveness cap, whether loans are forgiven on an annual basis or lump sum, and the time period for the service commitment. Thus, when estimating costs, state policymakers should consider the program design and administration needed to monitor service commitments.

CONCLUSION

Rising tuition prices, coupled with the declining purchasing power of grants, have led to a financial aid system increasingly reliant on student loans, leaving college graduates with an average debt of $35,000 (College Board, 2023). This debt burden can deter students from seeking lower-paid positions in high-need areas, potentially exacerbating workforce shortages in critical fields. In response, both federal and state policymakers have supported service-contingent programs that seek to address both the challenges of rising student debt and workforce shortages. In 2021-22, 35 states funded 135 service-contingent programs, including 39 programs in the Midwest, with a majority targeting teaching and healthcare professions. These programs vary widely in award size depending on the profession and state, with healthcare-focused programs—particularly those for physicians—offering some of the largest awards. Despite their popularity, these programs typically account for a small proportion of state financial aid funding.

Research focusing on service-contingent programs in healthcare, law, and education indicates that both loan forgiveness and conditional grants can play a crucial role in recruiting professionals to underserved areas. Some studies suggest that conditional grants may be more effective, possibly due to debt aversion and the positive labeling effect associated with grants. The findings also indicate that participants in both programs are more likely to remain in high-need areas after fulfilling their service requirements, compared to those who did not receive a financial incentive. However, the effectiveness of these programs varies across fields, with some areas, such as healthcare, showing stronger retention effects, while others, such as education, reveal challenges related to administrative complexities and participant awareness.

As policymakers continue to grapple with creating financial aid programs that both assist students in paying for college and address state workforce needs, careful consideration should be given to program design and implementation. Key factors include award size, program

awareness, and administrative processes, all of which can impact the effectiveness of these initiatives in meeting their goals of debt relief and workforce development.

The current knowledge base suggests several policy options to consider when establishing service-contingent program:

- **Balance funding priorities.** While most states allocate a relatively small portion of their financial aid budgets to service-contingent programs, it is important to ensure that funding allocations align with need-based aid programs that support college access and success. Service-contingent programs can complement, rather than compete with, traditional need-based aid programs, potentially enhancing the overall effectiveness of state financial aid strategies in increasing postsecondary attainment rates.
- **Weigh costs and benefits.** Service-contingent programs have the potential to recruit individuals to high-need areas, with evidence suggesting that conditional grants generally have a greater impact on recruitment than loan forgiveness programs. However, conditional grants may be more administratively costly to implement, as they are awarded while students are still in college and require continual tracking. Program design and the forgiveness cap need careful consideration to balance costs and benefits.
- **Award size matters.** Larger awards are more effective in promoting both recruitment and retention. It is important to ensure that the size of the award accounts for the average cost of education, projected wages, student loan amounts, and a premium for working in a high-need area.
- **Enhance retention.** Service-contingent programs generally help retain individuals in designated areas, though the relative effectiveness of different types of programs remains unclear. Retention rates may be influenced by factors such as awareness of eligibility criteria and non-financial incentives that are difficult to control, such as family proximity, job opportunities, and the overall attractiveness of rural and underserved areas. Ensuring that service criteria and procedures are easily understood and widely disseminated can improve effectiveness. Additional considerations include the structure of the service commitment, the flexibility of the program, the size of the financial incentives, and how well the program aligns with participants' personal and professional goals.
- **Strengthen program evaluation.** Providing ongoing data collection and research support is essential to ensure that service-contingent programs operate efficiently and effectively target the intended occupations. Regular evaluation of program outcomes, including recruitment and retention rates, can help identify areas for improvement and ensure that the programs are meeting their objectives in addressing workforce shortages and mitigating student debt.
- **Coordinate with federal programs.** When defining targeted occupations, service commitments, and award amounts for loan forgiveness programs, it is important to identify overlaps and similarities with federal loan forgiveness programs, such as the Public Service Loan Forgiveness (PSLF) or the Teacher Loan Forgiveness (TLF). Coordinating with these programs can enhance the effectiveness and appeal of state-level initiatives while reducing duplication in targeted efforts.

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ADDENDUM

List of Midwestern Service-Contingent Programs for 2021-22

State	Program Name	Award Type	Occupation Target	Funding (in millions)	Percent of State Aid	Number of Recipients	Average Award
IL	Golden Apple	Conditional grant or loan	Teacher	2.88	0.6%	711	$4,046
IL	Minority Teacher Scholarship MTI	Conditional grant or loan	Teacher	1.76	0.4%	365	$4,826
IL	Nurse Educator Loan Repayment Program	Loan assumption or forgiveness	Nursing	0.26	0.1%	54	$4,877
IL	Teacher Loan Repayment Program	Loan assumption or forgiveness	Teacher	0.44	0.1%	96	$4,582
IL	Veterans Home Medical Providers' Loan Repayment Program	Loan assumption or forgiveness	Healthcare	0.03	0.0%	6	$4,400
IN	High Needs Stipend	Conditional grant or loan	Teacher	0.41	0.1%	101	$4,033
IN	Indiana Primary Care Scholarship	Conditional grant or loan	Medicine/ Physician	1.75	0.6%	113	$15,462
IN	Minority Teacher Scholarship	Conditional grant or loan	Teacher	0.61	0.2%	179	$3,423
IN	Minority Teacher Stipend	Conditional grant or loan	Teacher	0.05	0.0%	42	$1,190
IN	Next Generation Hoosier Educators Scholarship	Conditional grant or loan	Teacher	4.81	1.6%	658	$7,314
IA	Des Moines University Recruitment Program	Loan assumption or forgiveness	Healthcare	0.39	0.4%	39	$10,092
IA	Health Care Loan Repayment Program	Loan assumption or forgiveness	Nursing Educator	0.25	0.3%	54	$4,556
IA	Rural Iowa ARN and PA Loan Repayment Program	Loan assumption or forgiveness	Nursing	0.01	0.0%	3	$4,000
IA	Rural Iowa Primary Care Loan Repayment Program	Loan assumption or forgiveness	Medicine	0.75	0.8%	20	$37,667
IA	Teach Iowa Scholar	Loan assumption or forgiveness	Teacher	0.33	0.4%	82	$4,000
KS	Kansas Nursing Service Scholarship	Conditional grant or loan	Nursing	0.33	0.9%	95	$3,503
KS	Kansas Optometry Service Scholarship	Conditional grant or loan	Healthcare	0.14	0.4%	28	$4,964
KS	Kansas Osteopathic Service Scholarship	Conditional grant or loan	Medicine/ Physician	0.15	0.4%	10	$15,000
KS	Kansas Promise Act Scholarship	Conditional grant or loan	Multiple or Other	3.88	10.7%	1155	$3,361
KS	Kansas ROTC Service Scholarship	Conditional grant or loan	Military	0.23	0.6%	35	$6,560
KS	Kansas Teacher Service Scholarship	Conditional grant or loan	Teacher	1.21	3.4%	270	$4,490
KS	National Guard Tuition Assistance Program	Conditional grant or loan	Military	4.23	11.7%	1072	$3,947
KS	Nurse Educator Scholarship	Conditional grant or loan	Nursing	0.12	0.3%	33	$3,554
MN	Agricultural Education Loan Repayment Program	Loan assumption or forgiveness	Teacher	0.02	0.0%	7	$3,000

State	Program Name	Award Type	Occupation Target	Funding (in millions)	Percent of State Aid	Number of Recipients	Average Award
MN	Aviation Degree Loan Repayment Program	Loan assumption or forgiveness	Multiple or Other	0.02	0.0%	3	$5,000
MN	Health Professional Education Loan Forgiveness Program	Loan assumption or forgiveness	Healthcare	7.32	2.6%	150	$48,791
MN	Rural Veterinarian Loan Repayment Program	Conditional grant or loan	Agriculture/ Fishery/ Veterinary	0.30	0.1%	20	$15,000
MN	Teacher Shortage Loan Repayment Program	Loan assumption or forgiveness	Teacher	0.21	0.1%	208	$995
NE	Attracting Excellence to Teaching Program	Conditional grant or loan	Teacher	0.49	1.4%	163	$3,000
NE	Enhancing Excellence in Teaching Program	Conditional grant or loan	Teacher	1.01	2.8%	480	$2,101
NE	Nebraska Loan Repayment Program	Loan assumption or forgiveness	Healthcare	1.29	3.6%		N/A
NE	Rural Practice Loan Repayment Assistance	Loan assumption or forgiveness	Lawyer	0.15	0.4%	34	$4,401
ND	ND Career Builders Loan Repayment	Conditional grant or loan / Loan assumption or forgiveness	Multiple or Other	0.12	0.5%	28	$4,401
OH	Nurse Education Assistance Loan Program	Conditional grant or loan	Nursing	0.72	0.5%	531	$1,354
SD	Veterinary Student Tuition Assistance Grant	Conditional grant or loan	Agriculture/ Fishery/ Veterinary	0.43	6.6%	16	$26,838
WI	Minority Teacher Loan	Loan assumption or forgiveness	Teacher	0.11	0.1%	12	$9,167
WI	Nursing Student Loan	Conditional grant or loan	Nursing	0.37	0.3%	138	$2,702
WI	Teacher Education Loan	Conditional grant or loan	Teacher	0.22	0.2%	25	$8,774
WI	Teacher of the Visually Impaired Loan	Conditional grant or loan	Teacher	0.10	0.1%	14	$7,071

Note: This list of service-contingent programs does not include programs that were implemented after the 2021-22 academic year. Kansas created the Kansas Adult Learner Grant in 2023, a conditional grant program that provides up to $3,000 in tuition assistance for individuals who are at least 25 years of age and pursuing a bachelor's degree in specified high demand fields. Michigan's MI Future Educator Fellowship program was created in 2023 and provides up to $10,000 in conditional grants to individuals enrolled in an educator preparation program. No programs were identified in Missouri.

Mission MHEC brings together midwestern states to develop and support best practices, collaborative efforts, and cost-sharing opportunities. Through these efforts it works to ensure strong, equitable postsecondary educational opportunities and outcomes for all.

Vision To improve individual career readiness and regional economic vitality through collective problem-solving and partnerships that strengthen postsecondary education.

Who MHEC Serves MHEC is comprised of member states from the midwestern United States. MHEC works with and for a variety of stakeholders within and across member states, including higher education system leaders, state policymakers, legislators, and institutional leaders, while always maintaining a focus on students and their success.

How MHEC Works MHEC's strategic approach highlights member states' strong desire for collaboration, effectiveness, and efficiency. MHEC believes that collaborative actions informed by research and best practices are the catalyst for improving quality, accessibility, relevance, and affordability of postsecondary educational opportunities. MHEC does this primarily through the following approaches: convenings, programs, research, and cost-savings contracts. Increasingly, MHEC looks to leverage these approaches in conjunction with each other to serve its strategic priorities.

Compact Leadership

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Ohio Department of Higher Education