International Journal of
Education Policy & Leadership

IJEPL
Volume 15(16)
2019

Student Choice and Social Mobility through Institutional Policy: An Examination of Loan Repayment Assistance Programs

Jon L. McNaughtan, *Texas Tech University*
Margaret T. Brower, *University of Chicago*
Betty Overton, *University of Michigan*

Abstract

The cost of higher education continues to rise, forcing many students to seek financial support to pursue their education. Many countries have utilized national systems of student aid to help mitigate the increasing costs. However, these financial aid systems often lead to significant student debt. Guided by restrained choice theory, this study analyzes innovative institution-level policies in the United States called Loan Repayment Assistance Programs (LRAPs), and provides insight into how these policies affect traditionally disadvantaged students' choice to enroll in a university. Findings suggest that disadvantaged students, specifically first-generation students, are more cognizant and have a better understanding of innovative financial policies (e.g., LRAPs), and the use of such programs could increase student choice and retention, based on their subsequent enrollment satisfaction.

Keywords: Higher education; Student debt; Access; Marginalized students; Policy; Financial aid

Jon L. McNaughtan, Margaret T. Brower, & Betty Overton. (2019). Student Choice and Social Mobility through Institutional Policy: An Examination of Loan Repayment Assistance Programs. *International Journal of Education Policy & Leadership 15*(16). URL: http://journals.sfu.ca/ijepl/index.php/ijepl/article/view/925 doi: 10.22230/ijepl.2019v15n16a925

Introduction

Postsecondary education is considered a vehicle for economic mobility across the world (Bowen, 2018). The benefits of a college education are evident for both individuals who receive greater economic opportunities (Valletta, 2018) but also the broader society, which benefits from the innovation, research, and skills of a higher education (Bowen, 2018). However, as many Western democracies decrease government support for education in general and increase tuition, the burden of paying for postsecondary education is increasingly falling to college students (Johnstone, 2011). As costs increase, students are faced with a difficult choice of pursuing a college education and the significant debt associated with it, or foregoing postsecondary education altogether (Delaney, 2014). This imposed situation is not one that provides a set of desirable options but rather a limited and constrained choice (Autor, 2014; Green & Shapiro, 1996).

The constrained choice is especially evident in the most marginalized and disadvantaged populations, which either avoid college, and the associated increased earning potential, or acquire enormous debt through enrollment—two options that often fail to improve economic mobility (Goldrick-Rab & Cook, 2011; Kochhar & Fry, 2014). National governments have implemented financial support systems and legislation to mitigate the financial burden for students and influence their decisions. However, countries such as Canada, Sweden, the United Kingdom, Australia, and the United States are wrestling with how to ensure educational institutions are promoting economic mobility instead of economic inequality (Autor, 2014).

In the United States, the national approach has focused on need-based aid, which has resulted in over $1 trillion dollars in student debt; one in five households across the country owe some amount of money for educational expenses (Fry, 2015). What is worse, this debt is not distributed evenly among the American population, with 58 percent of student debt owed by households in the lowest quartile of net worth (Fry, 2015). In addition, historically disadvantaged students (i.e., students of color, low-income students, and first-generation students) accumulate more student debt on average, and they have been found to be more likely to not complete a degree and to have a higher probability of defaulting on their loans when compared to more advantaged students (Callender & Jackson, 2005; Fleming, 2017; Rothstein & Rouse, 2011). Thus, the financial policies of national governments are supporting students through college, but they may hinder social mobility after college or discourage postsecondary participation (Antonucci, 2016).

Disadvantaged students are left with few alternatives as the job market increasingly requires a college degree (Gottschalk & Hansen, 2003; O'Leary & Sloane, 2016), and jobs only requiring a high-school diploma fail to offer a livable wage (Goldrick-Rab & Cook, 2011). As more students opt to accrue debt, institutional leaders need to consider their role in the development of innovative financial policies to decrease the economic burden on students and encourage students to pursue postsecondary education, especially students from disadvantaged populations. Many institutions offer both need- and merit-based financial support, but few have developed loan-based programs for students who do not qualify for institutional grants.

This study focuses on one segment of colleges in the United States as a case study for exploring how institutional policies are associated with student decision-making and satisfaction with their college choice. Specifically, it utilizes constrained choice theory to guide the work and to inform understanding of how one institution-based program, the Loan Repayment Assistance Program (LRAP), is associated with student decision-making and enrollment satisfaction. While the LRAP is similar to other income-contingent loan schemes, it differs in two ways. First, LRAPs are conducted at the institutional level as opposed to the national level, which allows them to be used by institutions for student recruitment, and they have the potential to incentivize colleges to inform students more fully about the financial support programs available to them. Second, LRAPs are designed to encourage students to be less concerned about compensation upon graduation and more focused on selecting workforce opportunities they are interested in pursuing. The LRAP is unique among financial aid options because of its focus on student choice (Schrag & Pruett, 2011). Few income-contingent loan programs are evaluated and examined in terms of their impact on student choice and financial literacy.

This analysis examines how an understanding of the LRAP at a constrained set of undergraduate institutions varies by key student characteristics. In addition, it analyzes the relationship between the presence of the LRAP and enrollment satisfaction, student background characteristics, and a student's enrollment decision. The findings suggest disadvantaged students, specifically low-income and first-generation students are more cognizant and understanding of innovative financial policies (e.g., the LRAP), and that the use of such programs can increase student choice and satisfaction.

Background

As countries adopt educational models that require students to pay for their education, student debt and concerns of social mobility increase (Hillman, 2014). Even in countries where tuition is free, such as Sweden, young people are increasingly accruing student debt to pay the high living costs in surrounding college areas (Fry, 2014). In Canada, where some institutions provide free tuition for specified student groups while others require tuition, 50 percent of students that graduate with a baccalaureate degree acquire some form of debt, with the average in 2010 being approximately U.S.$26,000 (Ferguson & Wang, 2014). In the United Kingdom, student debt has not only become an individual issue but a family issue—as families take on debt on behalf of college graduates (West, Roberts, Lewis, & Noden, 2015).

Using the United States as an example of how college affordability continues to increase levels of inequality, it is highly unlikely for students to be able to attend higher education without federal aid (Fry, 2014). Scholars argue that while past generations were able to work minimum wage for around 20 hours a week and attain an undergraduate degree without federal aid, the current generation would need to work well over 70 hours a week to cover the cost of college (Goldrick-Rab & Cook, 2011). In addition, increases in tuition at institutions of higher education outpaced median family income growth in the United States, decreasing the likelihood of family support (Ehrenberg, 2000). As these changes took place over time, the unmanageable cost of college education was directed toward students and their families

(Hauptman, 2001; Johnstone, 2011). These increases in the cost of higher education have led many potential students to opt out of college, especially individuals from traditionally disadvantaged backgrounds, who are significantly impacted by this financial burden (Fry, 2015).

In the United Kingdom, Claire Callender and Jonathan Jackson (2005) found that historically disadvantaged students are the most at risk for failing to attend higher education or to persist in it; therefore, increases in college debt only reinforce societal stratification (Smith, 2014). Furthermore, historically disadvantaged students are more likely to experience student-loan default (Hillman, 2014). This reality is especially problematic when considering that default rates have consistently increased over the last decade with a startling 10 percent of the 2011 class defaulting their loans by 2012 (Reed & Cochrane, 2012). This outcome has long-term negative impacts on disadvantaged students' financial credit and future economic mobility; one study found that it took the average borrower 21 years to repay their accumulated debt (Bidwell, 2014). The mounting financial burden has led to large numbers of these students choosing to avoid college all together (Antonucci, 2016; Fry, 2015).

Policies and institutional change

Access to some level of postsecondary education has long been the path to economic mobility and viability in society. Federal and institutional policies have significantly shaped these opportunities and outcomes. In 1862, the United States Congress passed the *Morrill Act* and established the public land-grant system of higher education, which was designed to provide support to develop higher-education institutions, educate more blue-collar workers, and reduce the burden on the student. The *GI Bill of Rights* allowed veterans to access to these institutions (Mumper & Freeman, 2005), changing the traditional composition of students in colleges to reflect more diverse populations. The Pell Grant provided federal aid to many low-income students, again increasing access to higher education and changing the composition of students attending universities and colleges.

More recently, federal proposals such as Loans for Education Opportunity have attempted to provide more access to colleges and universities by providing a program that adjusts student-loan repayments to match incomes (Dynarski & Kreisman, 2013). Though this policy does not reduce student debt, it does provide a way for students to manage their debt burdens and still afford to purchase homes, and it allows them to seek lower-paying public service careers (Rothstein & Rouse, 2011). Institutional policies have also attempted to increase access, especially for traditionally disadvantaged populations, and reduce the financial burden of going to college. Traditionally, institutions have used their endowments and fundraising to develop programs to provide financial aid in an attempt to eliminate or reduce the necessity of student debt (McPherson & Shulenburger, 2008). Yet, despite what seems like an abundance of aid, the student debt crisis continues to grow.

There has increasingly been a need for more innovative institutional policies that reach a broader spectrum of students, especially those attending institutions with fewer resources. A few undergraduate institutions are turning to a model of financial support that has been limited to use in graduate and professional colleges: the LRAP.

In this program, institutions either fund student loans through the use of institutional funds, or partner with a third-party lender to offer loans directly to students.

Students are required to opt into the LRAP program when they first enroll in college, but they are not required to select a specific major or career upon enrollment. The LRAP is similar to other programs as it is based on student need and can be used for tuition, room, board, and supplies. When students opt into the LRAP program they pursue their education and receive financial assistance through their identified educational program. Upon graduation the student is expected to repay the loan with interest, but payments are calculated based on the student's income, and the institution or third-party lender remains in contact with the student. The LRAP is designed to provide students with a sense of security knowing that their loan payment will be associated with their chosen profession. In graduate programs, this has led highly qualified students to select public service careers and nonprofit work. Loan payments for some qualified graduates are completely forgiven, based on the student's economic situation and postgraduate work and depending on the institution and program funding (Schrag & Pruett, 2011). This salary-based loan assistance provides a safety net for families and students to rely on in the event a student chooses a major associated with a lower salary or public service occupation, or has difficulty finding a higher paying job because of local economic conditions. As a result of these supplemental payments, LRAPs can prevent graduates from defaulting on their loans and shield payees from non-payment consequences (e.g., bad credit, garnishments).

While there are many benefits to this program, it faces some challenges. First, the initial cost of an LRAP program can be substantial. Historically, a variety of LRAPs have emerged over the years at law colleges, created by state bar associations and foundations; recently they have been offered through the federal and state governments (Schrag & Pruett, 2011). These third parties provided additional capital to ensure the program would work. Some ill-resourced institutions may not be able to adopt these programs readily due to financial constraints. Second, some LRAP programs limit the student's occupational choice. For example, some LRAPs have been developed at hospitals to encourage people to pursue medical or nursing careers to address a shortage of medical personnel in the United States in certain areas. This could be especially challenging if a student did not complete the degree, or changed career goals, as they would still be required to pay back the loans in full with a penalty. Finally, an LRAP in a professional college developed a notable track record of helping to attract and retain graduate students who were able to participate more fully in a variety of professional careers, but data on undergraduates is limited. This study is one step to increasing our understanding of undergraduate students' experience in LRAP programs.

More recently, undergraduate colleges seeking new ways to recruit and retain increasingly debt-adverse student populations have sought out the LRAP model, and LRAPs have been implemented at a handful of undergraduate institutions. However, researchers are just beginning to gather data about the outcomes and impact of these undergraduate efforts. The use of LRAPs in undergraduate institutions is a new approach, and little is known about how these programs are understood by this pop-

ulation, how they affect student choice, how they impact student satisfaction, and how they influence enrollment decisions. This current study presents one of the early investigations of the use of LRAPs in undergraduate institutions. The study provides background about the use of LRAPs at eight undergraduate institutions and specifically investigates the extent to which they have affected disadvantaged students' access to and satisfaction with their institutional choice.

Theoretical framework

This study is guided by the constrained choice theory, which is informed by rational choice theory (Ehrenberg & Smith, 2016; Green & Shapiro, 1996). Given the critiques and potential challenges associated with taking a rational choice approach, which claims that economic agents have all of the information needed to make an optimal choice, the constrained choice perspective aligns more with the decision-making of college students. In summary, constrained choice refers to the process of economic agents selecting the optimal outcome given limited choices (Hay, 2004). Many young people, especially those from disadvantaged populations, find themselves in a constrained choice framework as they balance the decision to pursue postsecondary education and the potential for large amounts of debt.

The constrained choice framework was ideal for framing the results of this study for a number of reasons. First, constrained choice acknowledges that individuals' decisions are constrained by external factors that limit their ability to choose the most rational choice (Hay, 2004). In this case, the increased cost of higher education combined with undesirable financial aid options has placed traditionally disadvantaged populations in situations where they have to make constrained choices. If they decide to attend college, most will have no choice but to apply for student loans (Engle & Tinto, 2008); if they decide not to attend college, most will have significantly less economic opportunities (Goldrick-Rab & Cook, 2011). Both of these choices perpetuate economic inequality among these populations, as young people choose between limited economic mobility in the present or decreased economic mobility in the future.

Second, the constrained choice theory specifically acknowledges the potential influence of an individual actor's resources and experiences in decision-making. Past research has found that approximately 40 percent of lower-income individuals choose to pursue a postsecondary institution directly after high school, in contrast to 84 percent of individuals who report a family income over $100,000 (Engberg & Allen, 2011). Therefore, the socioeconomic status and privilege of an individual can affect his or her perceived educational choices. While in college, disadvantaged students also face other financial challenges (Bernhardt, 2013; Gurin, Dey, Hurtado, & Gurin, 2002) that decrease their likelihood of graduation (Conley & Hamlin, 2010) and influence their decision on which institution to attend (Kofoed, 2017; McPherson & Schapiro, 1991). This aspect of constrained choice theory informed this study's inclusion of individual student with a variety of experiences and backgrounds.

Finally, constrained choice theory acknowledges that there is the potential for actors to be limited in the information they receive about how to seek their optimal outcome (Ehrenberg & Smith, 2016). This acknowledges that students likely do not

have all of the information they need; it controls for their understanding of the LRAP program and seeks to understand it in relationship to their enrollment and their satisfaction with enrollment.

Purpose of this study

This study investigates how financial policies, namely the LRAP, can shift young people out of a constrained choice framework and into a more autonomous decision-making structure. As the financial burden of loan debt is perceived to be more manageable and affordable, this study examines the extent to which students seek to understand innovative institutional options and their satisfaction with enrollment in connection with the LRAP specifically. It theorizes that as young people move out of a constrained choice framework through the availability of a LRAP, they will have more satisfaction because they are able to select their first-choice institution and their economic prospects upon graduation will not be hindered by debt.

This analysis explores the extent to which LRAPs provide disadvantaged students with more economic access to higher education institutions. It investigates how the LRAP program is associated with college choice for disadvantaged students, as defined by the connection between their knowledge of the LRAP, satisfaction with enrollment, and the importance of the LRAP in their decision to enroll. In particular, it focuses on the following empirical questions:

> **RQ 1:** How does knowledge about the LRAP program differ by race, income, first-generation status?
>
> **RQ 2:** Is the LRAP associated with student satisfaction in the enrollment decision when controlling for academic, social, personal, and financial issues?
>
> **RQ 3:** What student characteristics and considerations (e.g., academic, personal, social, and financial) are associated with the importance of an LRAP program in a student's decision to enroll?

Data and methods

Data for this study were collected over a two-year time span at two four-year colleges in 2013 and six four-year colleges in 2014 through the administration of a survey by a third party at the orientation sessions of each college. Administering the survey during orientation was necessary to focus on the experiences of students prior to enrollment and limit the influence of other college experiences, such as academic success, interactions with other students, and residential experiences. Paper surveys were administered and students were not asked to provide any identifying information. Institutional Review Board approval was obtained prior to the distribution of the survey at the exempt level. A total of 99 usable responses were yielded in 2013 and 342 were yielded in 2014, which was approximately a 30 percent response rate for both years. Given that the same survey was given in both years, the responses for 2013 and 2014 were combined for this analysis, resulting in a total of 441 total respondents from eight colleges.

This analysis focused on four-year private faith-based colleges located in the Midwest. These institutions were selected for two reasons. First, the theoretical framing of this study around college choice led to the inclusion of niche colleges that

would have a higher likelihood of being a student's first choice. Private-faith-based colleges serve as a specialized market and would likely be a first-choice institution for many students. Second, institutions currently using LRAP programs and informing students about them during the recruitment and admissions process were sought. These colleges all utilize the same provider for their LRAP program, which also resulted in a more consistent sample. Finally, the faith-based colleges in the sample are tuition-dependent institutions, which heightens their need to recruit students. Their use of the LRAP as a recruitment tool was likely high, as they sought to inform all potential applicants of the resources available to them.

Analytical methods

To analyze the extent that institutional policies such as the LRAP have on the enrollment of traditionally disadvantaged students, this study surveyed students that both opted in and opted out of the program. The survey resulted in a number of constructs (e.g., academic, social, personal, and financial issues), and questions were drawn from the College Selection Inventory (Hayden, 2000) and modified specifically for this study. The constructs selected were informed by literature on student college choice, and this approach allowed for the analysis of how the provision of the LRAP impacted students' decision-making around college choice and satisfaction with their choice, while controlling for other factors.

A combination of descriptive, psychometric, and multivariate analytic techniques was utilized after the survey data were collected. In addition to descriptive analytic methods, exploratory factor analysis (EFA) guided initial data processing and organization. Utilizing EFA provided an opportunity to identify and develop appropriate constructs for the various measures of student attitudes discussed above. For this study, EFA was necessary because it was less clear which survey items (i.e., observed variables) best represented the constructs the survey instrument intended to measure (Beavers, Lounsbury, Richards, Huck, Skolits, & Esquivel, 2013; Fabrigar, Wegener, MacCallum, & Strahan, 1999). Although the measures included have been used in previous research, EFA was chosen over confirmatory factor analysis (CFA) because the available theories guiding this work have not been explored with the type of sample targeted for this study.

Following the descriptive and psychometric approaches, logistic regression was used to conduct the analysis and cluster the standard errors based on the colleges to control for variances between colleges. Logistic regression was the most appropriate method for this study, as the dependent variables were both dichotomous (Allison, 2012). Specifically, the first set of models focused on how a student's knowledge about LRAPs and how much they factored into the student's enrollment decision are associated with college satisfaction. Students were classified as either satisfied or unsatisfied. The second analysis measured which characteristics (e.g., first-generation status and academic, social, personal, and financial issues) were associated with the influence of the LRAP on a student's decision to enroll, with the outcome being either that the LRAP had a positive influence or no influence/negative influence. The results are presented as nested regression models to illustrate how results may differ, as new variables are included in the model.

Variables and measures

There were two dependent variables in this study. The first dependent variable was the student's *satisfaction with decision to enroll.* Students were asked about their satisfaction with their decision to enroll and responded using a five-point Likert scale, which was collapsed to either satisfied or not satisfied because 80 percent of the respondents reported being very satisfied with their decision to enroll. The second dependent variable was the *influence of the LRAP on decision to enroll.* Students were asked to rate if the presence of the LRAP at the institution influenced their decision to enroll on a scale from one to four, with one being no influence and four being a positive influence. Nearly half the respondents claimed that the LRAP program was a positive influence on their decision to enroll, with the majority of the other half finding it to be not important and only three respondents perceiving the LRAP program as a negative influence. Thus, the variable was dichotomized to be either negative to no influence or positive influence.

The independent variables can be divided into three areas. First, there are student characteristics, such as race, family income, and parent's education (i.e., first-generation college student). These characteristics provided insight into the students' status as first-generation students, race, and socioeconomic background.

Table 1. Cronbach's alpha and items included in factor variables

Construct	2013	2014	Items (*2013 Only)
Academic issues 2013α = .82 2014α = .85	3.52 2.58 3.67 2.26 2.75 2.89 2.04 2.02 3.32 3.38 2.76 3.62 2.90	3.43 2.56 3.53 2.41 3.04 2.53 1.71 1.94 3.37 3.31 3.00	The academic reputation of the institution The academic competitiveness of the institution The availability of my major The availability of tutoring services The availability of academic advising The availability of computer resources The presence of an honors program The use of the library The use of the classes that I would be taking The student-to-faculty ratio The contact I had with professors and administrators during the search process The availability of the integration of my faith* The availability of cross-cultural studies*
Social issues 2013α = .90 2014α = .88	3.03 1.66 1.71 1.77 1.48 2.55 2.79 2.98 3.32 3.04 1.85 3.32 3.41	3.24 1.60 1.60 1.62 1.44 2.53 2.39 2.21 3.63 2.96 2.26	The total number of students at the institution The racial composition of the students The ratio of females to males The number of diverse students The number of diverse faculty The volunteer programs available The number of clubs and organizations The presences of cross-culture experiences The religious activities The availability of recreational facilities The athletic program The chapel program at the college* The presence of Greek fraternities and sororities*

Table 1. (continued)

Construct	2013	2014	Items (*2013 Only)
Personal issues 2013α = .83 2014α = .80	3.25	3.18	My parents'/guardians' advice
	2.18	2.38	My friends' advice
	2.08	1.68	My high-school counselor's advice
	2.27	2.18	Leaving my family to attend the institution
	2.75	2.81	The proximity of this institution to my home
	2.22	2.19	The classes I took in high school
	2.52	2.56	The extracurricular activities I participated in during high school
	2.03	2.19	The people I knew who were already attending this institution
	3.02	3.12	My feelings about this institution before I applied for admission
	3.03	2.81	The information I received through the mail about this institution
	2.46	2.24	The availability of career counseling at the institution
	2.29	2.04	The internships available to me through this institution
	3.33	3.06	The prospects of landing a job after graduating from this institution
	2.52	2.27	The number of alumni who obtained jobs in their field after graduating
	1.97	1.75	The number of graduates who attend graduate school after they graduate
Financial issues 2013α = .84 2014α = .84	3.00	2.15	The total cost of attending this institution
	2.54	2.19	The grants I received from my institution
	3.45	2.96	The scholarships I received from my institution
	3.58	3.20	The grants I received from outside sources
	2.91	2.34	The scholarships I received from outside sources
	2.86	2.32	The opportunity for work-study positions at the institution
	2.89	2.56	The opportunities for regular employment on campus
	2.90	2.60	The cost of living in the area where the institution is located
	1.98	1.62	My parents'/guardians' income
	2.23	1.96	The extent to which my family would be required to support me
	2.26	2.11	The fact that other members of my family are in college and need money
	1.40	1.04	The other financial obligations of my parents/guardians
	1.92	1.65	The money my parents saved for me to be able to attend the institution
	1.94	1.68	The money I saved on my own to be able to attend the institution
	2.31	1.80	The amount of debt in loans I will have when I graduate

The second type of independent variable included the considerations and perceptions of the students, which were discovered through the use of exploratory factor analysis. Table 1 presents the name of each construct, an estimate of internal consistency (Cronbach's alpha), the average importance (on a Likert scale between 0 and 4), and the items included in each of the developed constructs. The four student-experience constructs (e.g., academic, social, personal, and financial issues) were created by factoring select questions from the College Selection Inventory (Hayden,

2000) and were adjusted for use in this study. Specific items are provided for 2013 and 2014 because questions varied across the two years. Finally, measures of LRAP knowledge and influence are included. Students were asked a series of questions about the LRAP; in both years, they were given one point for each correct response.

Limitations

There are a number of potential limitations to this study. First, it attempts to control for the students' perceptions of their experiences prior to applying to college using the items and associated constructs identified in Table 1, but there are many other pre-college factors that may influence a student's desire to attend a college or be satisfied with their enrollment that this study does not account for. For example, the items do not capture the student's actual academic ability, academic preparation, or even parental involvement in the student's college choice. In this study, the construct is based on students' perceptions of their experience, but given that the identified observed experiences have been found to be associated with student choice in past studies, future research could seek to understand their relationship to institution-based aid programs.

The second limitation to this study is the lack of specific environmental factors. For example, there is not a measure of the students' high-school enrollment, family structure, or the proximity between the students' home and their college choice. These environmental factors could also influence student choice and satisfaction levels. These particular factors could be associated with the students' financial situations before and after college, but they are not accounted for in this analysis.

A third limitation to this analysis is associated with the sample, which included only students who attended the institution and not those who did not enroll. This could bias the results as it is not possible to measure whether students who did not enroll had any knowledge about the LRAP program, or if their knowledge was associated with their decision to not enroll. In addition, by only studying enrolled students, there is the possibility that their satisfaction is associated with confirmation bias in their choice to attend. However, this should be mitigated by the fact that all enrolled students were surveyed and they should all experience the same level of confirmation bias.

Findings

The findings of this analysis are divided into three parts. First, a descriptive analysis is presented. Table 2 includes the descriptive statistics for the sample, which provides insight into its demographic characteristics. Table 3 provides the average score on the LRAP knowledge test by select descriptive categories. Second, the nested regression tables for the relationship between LRAP's influence on enrollment and college satisfaction are presented, while controlling for student considerations. The final analysis is a second set of logistic regression models that present the association between LRAP influence on enrollment with students' considerations and characteristics. The goal of these analyses was to examine the extent to which the LRAP program, in general, was associated with college choice and enrollment satisfaction.

Table 2. Select descriptive statistics for sample

Variables		*n*	% of n/ Mean
Age		439	18.31
Sex	Male Female	157 279	36% 64%
Race	White Students of color	360 77	82% 18%
Family income	<$50,000 >$50,000 Don't know	161 149 128	37% 34% 29%
First-generation status	First gen. Not first gen.	146 295	33% 67%
Residency	In state Out of state	253 185	57% 42%
LRAP award knowledge	*(out of 5)*	432	4.05
LRAP influence	Little/none Significant influence	256 182	58% 41%
Satisfaction	Satisfied Not satisfied	352 89	80% 20%

Note: Totals may differ due to missing data.

Table 3. LRAP knowledge by pertinent subgroups/categories

		n	mean	SD
LRAP effect on decision	No influence Significant influence	249 181	4.03 4.09	0.90 0.83
Race	White students Students of color	354 74	4.03 4.16	0.88 0.86
Family income	Less than $15,000 $15,001–$30,000 $30,001–$50,000 $50,001–$70,000 More than $70,000 Don't know	18 52 76 73 85 125	4.17 4.13 4.02 3.90 4.03 4.13	0.61 0.81 0.86 0.88 0.94 0.88
First-generation status	First gen. student Not first gen.	143 289	4.08 4.04	0.87 0.88
Residency	In state Out of state	247 182	4.05 4.06	0.86 0.89

Descriptive analysis

Table 2 contains the descriptive statistics. The sample has an overrepresentation of female students (64 percent) and white students (82 percent); this is higher than the current average in the United States, where nearly half of all enrollments are students of color (Brown, 2019) and just over half (56%) are women (Marcus, 2017). While this sample does not represent the racial diversity of many colleges, there are a number of other indicators that this sample includes students that may be disadvantaged. Specifically, the sample contains a fairly even balance of students who come from homes that earn less than $50,000 (37 percent) and students from homes that earn more than $50,000 (34 percent), and there is a robust representation of

students who are first-generation college students (33 percent). Finally, nearly half (41 percent) of the sample stated that the LRAP program was a positive influence on their decision to enroll in their college.

Knowledge of LRAP

As demonstrated by the descriptive statistics, students had a basic understanding of the LRAP (average score of 4.05 out of 5), and the availability of the LRAP influenced enrollment for many of these students. However, students of color had a slightly better understanding of the LRAP than white students, and there are differences across economic levels, with low-income students being more knowledgeable about the LRAP program. Table 3 presents the average number of correct responses and standard deviations of select sub-groups of students.

Students who reported that the LRAP award had a more significant influence on their decision to enroll at their respective institutions had slightly higher LRAP knowledge than those for whom the award was less significant. Furthermore, the standard deviations for those students for whom the LRAP was a significant influence on their enrollment decision were much smaller (0.83 compared to 0.90), demonstrating greater consistency with the more LRAP-conscious group. This is an important finding because it suggests that there was indeed some relationship between the level of the LRAP's influence on the enrollment decision and the amount of knowledge about the program.

The results across students' background characteristics also highlight key differences in level of LRAP knowledge. For example, white students had a slightly lower LRAP knowledge (4.03) when compared to students of color (4.16). Similarly, first-generation college students had a slightly higher LRAP knowledge than their non-first-generation student counterparts (4.08 compared to 4.04). Knowledge of LRAP across family income categories was somewhat counterintuitive. Students who reported family income at the lowest end of the income categories (less than $15,000 and $15,001–$30,000) had the two highest LRAP knowledge scores, 4.17 and 4.13, respectively, which may be tied to their sensitivity to college cost. However, the students at the uppermost end of the income categories (more than $70,000) reported the next-highest LRAP knowledge score (4.03). This may be related to college knowledge in general and illustrate how individuals in median income categories ($30,001–$50,000 and $50,001–$70,000) may not feel that they could take advantage of financial aid in the same way others do.

Influence of the LRAP on enrollment satisfaction

Table 4 presents a set of nested logistic regression models of the relationship between select variables and student enrollment satisfaction. Model one focuses exclusively on the relationship between the LRAP's influence on students' decision to enroll and their subsequent satisfaction. Model two includes student characteristics, model three includes student enrollment considerations, and model four accounts for the individual's score on the LRAP knowledge quiz. The results were fairly consistent across the models.

Table 4. Nested logistic regression models of LRAP influence, student considerations, and LRAP knowledge on enrollment satisfaction

		(1)	(2)	(3)	(4)
LRAP influence (Base: little/none)	Significant	1.52** (0.26)	1.43* (0.29)	1.42 (0.33)	1.46* (0.28)
Race (Base white)	Students of color		0.50*** (0.09)	0.52*** (0.09)	0.47*** (0.08)
Income	Less than $50,000		0.94 (0.30)	0.89 (0.25)	0.88 (0.25)
Parent's education	Less than college degree		1.57 (0.61)	1.69 (0.75)	1.61 (0.69)
Student considerations	Academic issues			1.29 (0.21)	1.32* (0.21)
	Social issues			0.84* (0.08)	0.79*** (0.06)
	Personal issues			1.14 (0.15)	1.17 (0.14)
	Financial issues			0.79** (0.09)	0.77** (0.09)
LRAP knowledge	Score out of 5				1.11** (0.06)
N		**438**	**433**	**419**	**411**

Notes: Exponentiated coefficients; Standard errors in parentheses; $^{*}p < 0.10$; $^{**}p < 0.05$; $^{***}p < 0.01$

Model four reveals that there is a statistically significant positive relationship between the students' knowledge of the LRAP and their subsequent satisfaction with enrollment ($p < .05$), whereas for every point increase in LRAP knowledge there is an 11 percent higher probability of being satisfied with their enrollment ($p < .05$). Thus, the existence of the LRAP is at least peripherally connected to a student's enrollment satisfaction or college choice.

Regarding some of the indicators of student disadvantage, there is a negative relationship between being a student of color and enrollment satisfaction ($p < .01$), financial issue consideration ($p < .01$), and social-issue consideration ($p < .01$). This finding may illustrate that even after students have made their choice, the number of social and financial considerations they experience as a result of their enrollment can still negatively influence their satisfaction.

Student background and LRAP importance

Table 5 presents the results for the logistic regression analyzing the relationship between the importance of the availability of the LRAP as well as the student's background and academic, social, personal, and financial considerations. Similar to Table 4, the models are presented progressively to highlight changes, as additional variables are included in the model.

Table 5. Nested logistic regression models of student considerations and LRAP knowledge on LRAP importance (2013)

		(1)	(2)	(3)
Race (Base white)	Students of color	1.04 (0.16)	0.98 (0.14)	1.02 (0.14)
Income	Less than $50,000	0.78 (0.13)	0.90 (0.16)	0.87 (0.16)
Parent's education	Less than college degree	1.86*** (0.18)	1.87*** (0.16)	1.89*** (0.17)
Student considerations	Academic issues		0.96 (0.09)	0.95 (0.10)
	Social issues		1.02 (0.18)	1.01 (0.18)
	Personal issues		1.31* (0.19)	1.30* (0.18)
	Financial issues		1.24*** (0.09)	1.24*** (0.08)
LRAP knowledge	score out of 5			1.08 (0.13)
N		**433**	**419**	**411**

Note: Exponentiated coefficients; Standard errors in parentheses; $^{*}p < 0.10$; $^{**}p < 0.05$; $^{***}p < 0.01$

Reviewing background characteristics revealed that while race and income were not statistically associated with the importance of an LRAP program, first-generation status did have a strong association ($p < .01$). In fact, first-generation students are almost two times (1.87) as likely to view the LRAP as a positive influence on their decision to enroll. Further, when reviewing the student college consideration issues (e.g., academic, social, personal, and financial), there is a statistically significant relationship between financial issues and a student's concern with the availability of the LRAP ($p < .01$).

Specifically, the more the student was concerned with financial issues, the more likely the student would see the availability of the LRAP as a positive influence on their decision to enroll. Although, these relationships are not causal, we can see that there is an important connection between students' understanding of the LRAP program and their perception of the importance of its availability at the campus they are seeking enrollment.

Discussion

This study illustrates how differences in student backgrounds are associated with the perceived importance of institutional financial-support programs, such as the LRAP (West et al., 2015). Specifically, the study found that at the identified institutions, students' decision to enroll—as evidenced by both their stated importance of the LRAP and their satisfaction with their college choice—is associated with the existence of an LRAP program on their campus. In addition, students' background characteristics are associated with their knowledge about the LRAP program. These findings support the idea that increasing knowledge about the availability of finan-

cial-aid programs has the potential to increase student choice and their satisfaction with that choice. This aligns with the work of Eric Bettinger, Bridget Long, Philip Oreopoulos, and Lisa Sanbonmatsu (2012), who found that as students better understood federal aid options and received support in filling out the required forms, they were more likely to attend college.

More significantly, traditionally disadvantaged populations, namely low-income and first-generation students were found to be more positively affected than their peers. For example, the results of the study indicate that first-generation and low-income students' levels of LRAP knowledge were slightly higher than their counterparts. This effect is important, given that these students traditionally lack social, cultural, and financial capital associated with college choice, which often exasperates their constrained choice framework (Aries & Seider, 2005; Fry, 2014). Yet, the findings from this study indicate that disadvantaged students are slightly more aware of this institutional program than their more advantaged peers. While not inherently surprising, this finding is slightly different than past work by other scholars (e.g., Bernhardt, 2013; Kofoed, 2017); however, differences may be connected to the type of institution analyzed in this study.

Further, these students were more likely to view this program as a positive influence on their decision to enroll in college. This association can be interpreted as an indicator of the LRAP expanding student choice and helping students to gain more perspective in a constrained choice environment. Students' satisfaction with their decision to enroll based on their understanding of the LRAP demonstrates a positive choice, which is often not available via a constrained choice framework when students are forced to select from less appealing options (Ehrenberg & Smith, 2016; Green & Shapiro, 1996). Expanded student choice, as demonstrated by greater enrollment satisfaction, has to potential to increase the likelihood of degree completion, leading to enhanced economic benefits (Bowen, 2018).

Finally, the results of this work suggest the LRAP was an important factor in choosing a college for the participants in this study, especially for low-income and first-generation students, who indicated more concern around financial issues than other students. For these students, the availability of the LRAP was a positive influence on their decision to enroll in their specific college. This finding is important to consider because it demonstrates the LRAP has the potential to mitigate some of the harms and stresses often associated with financial issues for some students and can become another viable option for institutions to consider. Institutions would, however, need to enhance fundraising for these types of programs (McPherson & Shulenburger, 2008).

Implications and directions for future research

These findings provide further evidence that innovative programs, such as the LRAP, may be worth increased investigation and possible adoption. Specifically, they suggest that either the design or promotion of LRAP is uniquely effective in reaching traditionally disadvantaged students. However, this is not true for all types of disadvantaged students. Students from traditionally marginalized racial groups did not experience the same outcomes. If LRAPs are particularly effective in reaching first-

generation and low-income students, as this study may suggest, more research on how institutional leaders communicate their LRAP programs to these groups of students would be helpful as we consider designing other programs tailored to these types of students.

The LRAPs studied were implemented by private, faith-based institutions that may be typically disadvantaged in terms of their competitiveness with other types of institutions. If providing LRAPs is a policy that increases access to first-generation and low-income students, it is possible that other types of institutions that are less competitive and may serve larger numbers of disadvantaged groups of students would experience similar benefits. Further research is needed to understand if these outcomes are transferable to other types of institutions and which aspects of LRAPs are most influential to students.

Institutional policies such as the LRAP may be an important new model at the undergraduate level for increasing access to education for disadvantaged groups of populations. First-generation and low-income students need to be able to not only access the LRAP but also understand it fully and incorporate it into their decision-making process for choosing a college and remaining at an institution. Therefore, these types of policies may be better tailored to the needs of traditionally disadvantaged student when it comes to college affordability and retention.

Moving forward, additional research is needed to explore these findings more longitudinally. Though these findings prove valuable in understanding the implications of LRAPs on the college selection process and the depth of knowledge about LRAPs among first year students, the impact of these programs goes far beyond the first year. It will be valuable to survey and interview this population of students again in their senior year to determine how their perceptions of LRAPs may have changed over time and how enrollment in this program affects retention and future economic mobility. Finally, this study only focuses on the United States. To fully understand the generalizability of this institutional policy, it would be necessary to study similar programs in other countries or compare the LRAP to other types of programs in a selection of Western democracies. Until additional research is pursued, this study provides important insights for considering how institutional policies can influence access to higher education for disadvantaged groups of students by influencing their decision-making processes to enroll in and sustain their college education.

References

Allison, P.D. (2012). *Logistic regression using SAS: Theory and application*. Cary, NC: SAS Institute.

Antonucci, L. (2016). *Student lives in crisis: Deepening inequality in times of austerity.* Bristol, UK: Policy Press.

Aries, E., & Seider, M. (2005). The interactive relationship between class identity and the college experience: The case of lower income students. *Qualitative Sociology, 28*(4), 419–443.

Autor, D.H. (2014). Skills, education, and the rise of earnings inequality among the 'Other 99 percent.' *Science, 344*(6186), 843–851. doi: 10.1126/science.1251868

Beavers, A.S., Lounsbury, J.W., Richards, J.K., Huck, S.W., Skolits, G.J., & Esquivel, S.L. (2013). Practical considerations for using exploratory factor analysis in educational research. *Practical Assessment, Research & Evaluation*, *18*(6), 1–13.

Bernhardt, P.E. (2013). The advancement via individual determination (AVID) program: Providing cultural capital and college access to low-income students. *School Community Journal*, *23*(1), 203–222.

Bettinger, E.P., Long, B.T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. *The Quarterly Journal of Economics, 127*(3), 1205–1242.

Bidwell, A. (2014). Student loan expectations: Myth vs. reality. *USA Today.* Retrieved June 4, 2019, from https://www.usnews.com/news/blogs/data-mine/2014/10/07/student-loan-expectations-myth-vs-reality.

Bowen, H. (2018). *Investment in learning: The individual and social value of American higher education.* New York, NY: Routledge.

Brown, S. (2019). Nearly half of undergraduates are students of color. But black students lag behind. *The Chronicle of Higher Education.* Retrieved November 4, 2019 from https://www.chronicle.com/article/Nearly-Half-of-Undergraduates/245692.

Callender, C., & Jackson, J. (2005). Does the fear of debt deter students from higher education? *Journal of Social Policy*, *34*(04), 509–540.

Conley, P.A., & Hamlin, M.L. (2010). Justice-Learning: Exploring the efficacy with low-income, first-generation college students. *Michigan Journal of Community Service Learning*, *16*(1), 47–58.

Delaney, J.A. (2014). *Federal stimulus funds under the ARRA did not protect state student financial aid, further eroding higher education affordability.* [Blog post]. Retrieved June 4, 2019, from: http://blogs.lse.ac.uk/usappblog/2014/09/11/federal-stimulus-funds-under-the-arra-did-not-protect-state-student-financial-aid-further-eroding-higher-education-affordability/

Dynarski, S., & Kreisman, D. (2013). Loans for educational opportunity: Making borrowing work for today's students. *The Hamilton Project. Discussion Paper.* Retrieved June 4, 2019, from: http://www.hamiltonproject.org/files/downloads_and_links/THP_DynarskiDiscPaper_Final.pdf.

Ehrenberg, R.G. (2000). *Tuition rising.* Boston, MA: Harvard University Press.

Ehrenberg, R.G., & Smith, R.S. (2016). *Modern labor economics: Theory and public policy.* New York, NY: Routledge.

Engberg, M. E., & Allen, D. J. (2011). Uncontrolled destinies: Improving opportunity for low-income students in American higher education. *Research in Higher Education, 52*(8), 786–807.

Engle, J., & Tinto, V. (2008). *Moving beyond access: College success for low-income, first-generation students*. Washington, DC: Pell Institute for the Study of Opportunity in Higher Education.

Fabrigar, L.R., Wegener, D.T., MacCallum, R.C., & Strahan, E.J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*(3), 272–299.

Ferguson, S.J., & Wang, S. (2014). *Graduating in Canada: Profile, labour market outcomes and student debt of the class of 2009–2010*. Ottawa, ON: Statistics Canada.

Fleming, P. (2017). The human capital hoax: Work, debt and insecurity in the era of Uberization. *Organization Studies, 38*(5), 691–709.

Fry, R. (2014). *Young adults, student debt and economic well-being.* Washington, DC: Pew Research Center, Social & Demographic Trends Project.

Fry, R. (2015). *A record one-in-five households now owe student loan debt.* Washington, DC: Pew Research Center, Social & Demographic Trends Project.

Goldrick-Rab, S., & Cook, M.A. (2011). College students in changing contexts. In P. Altbach, P. Gumport, & R. Berndahl (Eds.), *American higher education in the twenty first century: Social, political, and economic challenges* (pp. 254–278). Baltimore, MD: Johns Hopkins University Press.

Gottschalk, P., & Hansen, M. (2003). Is the proportion of college workers in noncollege jobs increasing? *Journal of Labor Economics*, *21*(2), 449–471.

Green, D., & Shapiro, I. (1996). *Pathologies of rational choice theory: A critique of applications in political science.* Hartford, CO: Yale University Press.

Gurin, P., Dey, E., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review*, *72*(3), 330–367.

Hauptman, A.M. (2001). Reforming the ways in which states finance higher education. In D.E. Heller (Ed.), *The states and public higher education policy: Affordability, access, and accountability* (pp. 64–80). Baltimore, MD: The Johns Hopkins University Press.

Hay, C. (2004). Theory, stylized heuristic or self-fulfilling prophecy? The status of rational choice theory in public administration. *Public Administration, 82*(1), 39–62.

Hayden, M.L. (2000). *Factors that influence the college choice process for African American students* (Doctoral dissertation). Virginia Polytechnic and State Institute, Blacksburg, VA.

Hillman, N.W. (2014). College on credit: A multilevel analysis of student loan default. *The Review of Higher Education, 37*(2), 169–195.

Johnstone, D. (2011). *Financing higher education worldwide: Who pays? Who should pay?* Baltimore, MD: Johns Hopkins University Press.

Kochhar, R., & Fry, R. (2014). *Wealth inequality has widened along racial, ethnic lines since end of great recession*. Washington, DC: Pew Research Center, Social & Demographic Trends.

Kofoed, M.S. (2017). To apply or not to apply: FAFSA completion and financial aid gaps. *Research in Higher Education, 58*(1), 1–39.

McPherson, M.S., & Schapiro, M.O. (1991). Does student aid affect college enrollment? New evidence on a persistent controversy. *The American Economic Review*, *81*(1), 309–318.

McPherson, P., & Shulenburger, D.E. (2008). University tuition, consumer choice and college affordability: Strategies for addressing a higher education affordability challenge. Washington, DC: National Association of State Universities and Land-grant Colleges.

Marcus, J. (2017). Why men are the new college minority. *The Atlantic.* Retrieved November 1, 2019, from https://www.theatlantic.com/education/archive/2017/08/why-men-are-the-newcollege-minority/536103/.

Mumper, M., & Freeman, M.L. (2005). The causes and consequences of public college tuition inflation. In J. Smart (Ed.), *Higher education: Handbook of theory and research* (pp. 307–361). United Kingdom: Springer.

O'Leary, N., & Sloane, P. (2016). Too many graduates? An application of the Gottschalk–Hansen model to young British graduates between 2001–2010. *Oxford Economic Papers, 68*(4), 945–967.

Reed, M., & Cochrane, D. (2012). Student debt and the class of 2011. *The Project on Student Debt*. Washington DC: Institute for College Access & Success.

Rothstein, J., & Rouse, C.E. (2011). Constrained after college: Student loans and early-career occupational choices. *Journal of Public Economics, 95*(1–2), 149–163.

Schrag, P.G., & Pruett, C.W. (2011). Coordinating loan repayment assistance programs with new federal legislation. *Journal of Legal Education, 60*(4), 583–615.

Valletta, R.G. (2018). Recent flattening in the higher education wage premium: Polarization, skill downgrading, or both? In C. Hulten & V. Ramay (Eds.) *Education, skills, and technical change: Implications for future US GDP growth* (pp. 313–342). Chicago, IL: University of Chicago Press.

West, A., Roberts, J., Lewis, J., & Noden, P. (2015). Paying for higher education in England: Funding policy and families. *British Journal of Educational Studies, 63*(1), 23–45.