

FINANCING THE FUTURE: THE EMERGING ROLE OF
INCOME SHARE AGREEMENTS IN HIGHER EDUCATION

Lauren Marie Schachar

A DISSERTATION

in

Higher Education Management

Presented to the Faculties of the University of Pennsylvania

in

Partial Fulfillment of the Requirements for the

Degree of Doctor of Education

2019

Supervisor of Dissertation:

Joni Finney, Professor of Practice of Education

Dean, Graduate School of Education:

Pamela L. Grossman, Dean and Professor

Dissertation Committee:

Joni Finney, Professor of Practice of Education

Manuel S. González Canché, Associate Professor of Education

Jason Presley, Senior Fellow

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LAUREN M. SCHACHAR

DEDICATION

To my incredible family, who have been a constant support during this journey, and to Ira who was always by my side with unwavering encouragement, patience, and love.

ACKNOWLEDGMENTS

In reflecting back on all of the individuals who helped make this work possible, I feel a tremendous amount of love and gratitude. Without you, this journey truly would not have been conceivable. You showed up in your own ways, and it was always what was needed in that moment. I am forever grateful.

To my team and colleagues, particularly Steven and Sari, thank you for being supportive and flexible, especially when I was away for cohort weekends or research site visits. You showed true compassion and understanding. Also to Dena, thank you for inspiring me to apply for this program.

To the participants of this study, especially those who helped coordinate my site visits, thank you for taking time away from your daily lives to help make this study a reality. Without your interviews, email exchanges, phone calls, etc., this would not have been achievable. I hope one day I am able to pay it forward.

To Joni, I have said it all along—I feel fortunate and lucky that you were my chair and role model. You set high expectations from the beginning, and I always felt like you were rooting for me to succeed. Your investment in this process has been so evident, and for that I am truly grateful. Thank you for everything.

To the other members of my dissertation committee—Drs. Manuel González Canché and Jason Presley. Thank you for adding to the richness of this research experience and dissertation writing process. Your feedback and guidance have been invaluable.

To Dream Team C17, our cohort was the best part of the whole experience. You all have become some of my closest friends and I cherish the memories—from week one on the bus to Bob’s house when we bonded over karaoke to our international trip to late nights at New Deck and our hilarious messaging. I will miss our tight-knit group. Thank you for the good times, life advice, and humor.

To Angela, Ashish, Matt, Michael, and Ruchi—the tribe within the tribe, and forever and always *Table Peeps*. Thank you for being goofy, fun, silly, and always down for anything. You all inspire me professionally and personally, and I am grateful for our friendship.

To Ron, Kathy and the Schachar siblings, it sure has been quite the year for the Schachar family. Thank you for the nonstop love and encouragement, and for believing so deeply in the value of education. I sure did score in the in-law department.

To my friends, George is done! For those of you who know this odd reference to someone named George, I love you. Thank you for all the late-night calls, encouraging cards, messages, and phone calls, and for the many coffee gift cards that you knew this gal needed. Most importantly, thank you for never giving up on me and for understanding when I had to miss things.

To Mom, Dad, and Keith. Thank you for always being a telephone call away when I needed a distraction, and then for always, always reminding me to get back to my homework once we had talked for too long. Parents, you taught me to dream big and believe in my own strength. I am grateful that you nurtured and encouraged my independence and never stifled my creativity.

Finally, to Ira, this brief paragraph will not capture all the words I could say about how thankful I am for you. More than anyone else, you know what it took to get to this point. You were the one who encouraged me to apply for this program in the first place, and often believed in me more than I believed in myself. Thank you for your unwavering support.

I am hopeful that these acknowledgements express my heartfelt appreciation.

ABSTRACT

FINANCING THE FUTURE: THE EMERGING ROLE OF
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Lauren Schachar

Joni Finney

With student debt exceeding \$1.5 trillion in 2018, institutions of higher education face increased pressure to improve college affordability. In response, a small but growing number of institutions have implemented income share agreements (ISAs) as an alternative way to help students pay for all, or a portion of, their college tuition. In an ISA arrangement, the student receives tuition funds in exchange for an agreed-upon percentage of their postgraduate income for a pre-specified length of time. Ideally, this model creates a link between postgraduate student performance and college or university tuition reimbursement. Although the concept of ISAs is relatively straightforward, implementation can vary widely based on how the ISA is constructed. Ideally, the college or university assumes some of the financial risk in the arrangement, but other funding sources have been pursued including external investor capital. Utilizing a qualitative methodology and comparative case study approach, the study examined three distinct ISA programs at three different universities, two public and one private, to uncover early lessons learned by institutions that have adopted ISAs, as well as their impetus for launching. The ISAs enabled institutions to provide an alternative finance tool as a method of minimizing the problems of default and underpayment on loans where the principal grows, especially for student populations that are debt-averse. ISAs are a

method of demonstrating more institutional accountability for students' postgraduate success, though it is still too early to know if they will alter institutional behavior and overall performance. Additional interviews were also conducted with higher education finance and policy experts to place ISAs in the broader finance landscape. Though ISAs are still in their infancy, findings from this study reveal that they are an innovative financing tool that show considerable promise and merit further exploration.

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CHAPTER 1: INTRODUCTION

One of the major challenges facing higher education today is the soaring cost and debt associated with obtaining a college degree. By 2013, the amount of federal student loan debt exceeded one trillion dollars (Bricker, Pence, Hannon, Brown, & Hannon, 2015) and has grown to a mean individual level of more than \$32,000 (Board of Governors, n.d.-b). In 2014, the national default rate of federal student loans reached 11.5% (U.S. Department of Education, 2018b). Although default rates dropped to 10.8% in 2015, student loan default rates are still unusually high when compared to other forms of debt. For example, the national average for delinquency rates on credit card loans in 2018 was 2.48% (Board of Governors, n.d.-a).

Unfortunately, the difficulties with student loan repayment are projected to get worse. Loan default rates for college students who borrowed federal loans in 2004 are projected to reach approximately 40% by the year 2023 (Scott-Clayton, 2018). In October 2018, the Brookings Institution published an analysis of student debt data that was released by the U.S. Department of Education (Scott-Clayton, 2018). Prior to 2017, the U.S. Department of Education released borrower data only for a limited period of three to five years, making it difficult to analyze and identify patterns and trends. The new data set, released in 2017, is far more comprehensive, covering a period of 20 years and allowing for more substantial predictive analysis. Following the default trends from the entry cohort in 1996, “the default rates continue to rise between 12 and 20 years after initial entry. Applying these trends to the 2004 entry cohort suggests that nearly 40% may

default on their student loans by 2023” (Scott-Clayton, 2018). The Brookings Institution analysis presents a concerning picture that may only worsen over time.

Although colleges and universities may not necessarily feel the direct effect of student loan defaults, they are beginning to experience indirect consequences. Overall, student loan debt seems to lead to decreased alumni giving behavior (Marr, Mullin, & Siegfried, 2005; Rothstein & Rouse, 2011) and, as reported in focus groups, a general distaste and distrust toward one’s alma mater (Delisle & Holt, 2015). Student loan debt also may have a negative impact on enrollment and institutions may have a harder time attracting minority students, who tend to be more debt-averse (Boatman, Evans, & Soliz, 2017). Of those college students with high loan debt, there is a decrease in completion rates and reduced attainment of college degrees, which was determined using the National Longitudinal Survey of Youth 1997 Cohort in order to examine the impact of indebtedness on young people (Dwyer, McCloud, & Hodson, 2012). These negative indirect effects of student debt have driven universities to experiment with other strategies for financing education.

Increasingly, institutions face public scrutiny over the value of a college education (Carnevale, Strohl, & Melton, 2011). With no agreed-upon set of metrics for assessing the quality of higher education, it makes it very difficult, or nearly impossible, to tangibly determine what constitutes a good education. Institutions of higher education are being pressured to show more financial accountability for their students’ education as the cost continues to rise (Deming & Figlio, 2016; Dougherty, Jones, Lahr, Natow, Pheatt, & Reddy, 2016; Kelchen, 2018). As a result, informal and formal accountability tools have

entered the higher education market, some of which have a direct impact on the financial incentives of the institution (Kelchen, 2018). These accountability tools often come from outside entities such as the federal or state governments, students and families, and society as a whole. Increasingly, institutions are being urged to develop their own internal accountability tools and to have more “skin in the game” when it comes to college financing (Deming & Figlio, 2016).

An alternative funding and accountability strategy that has not been widely researched is the use of income share agreements (ISAs). Under this arrangement, an institution agrees to waive all, or a portion of, the student’s tuition, and the student agrees to repay the university with a percentage of his or her postgraduate income, which may vary based on the degree and anticipated earnings. If a student is enrolled in a major with higher earning potential, then that student is likely to be offered a smaller payback percentage than a student who is enrolled in a major with lower earning potential, though this largely depends on the ISA model. Although ISA contracts vary depending on the institution, most agreements are capped at a certain point beyond the original amount funded to avoid crippling the student with significantly disproportionate payback amounts. For example, one existing ISA model caps repayment at 2.5 times the amount that the ISA was originally funded (Purdue, n.d.-a). ISAs have the potential to link student outcomes directly with university revenue as students who have lower postgraduate incomes pay less back to their alma mater, while those with a higher postgraduate income pay more. In its ideal form, institutions are then financially linked to the success of their students.

Originally proposed by economist Milton Friedman (1955), ISAs provide a unique mechanism for students to finance their higher education tuition. Friedman's proposal came out in the 1950s, when the crisis of student debt was in its infancy, and thus provided little incentive for universities to work through the challenges inherent in an innovative finance model. Yale University briefly tested the use of ISAs in the 1970s (A. Friedman, 2017), but they were largely ignored and forgotten.

In 2015, ISAs gained renewed public attention when Mitchell Daniels (2015), president of Purdue University, publicly declared a need for college affordability reform. During his interview, he announced that Purdue would be exploring ISAs as a possible way to make college more affordable for its students. The university launched an ISA program in 2016, which became known as the "Back a Boiler" program (Purdue, n.d.-a). It is managed by the Purdue Research Foundation and offers ISAs to rising sophomore, junior, and senior students regardless of whether they are in-state or out-of-state residents.

The federal government also has begun developing attempts to regulate these new alternative finance mechanisms. The Investing in Student Success Act (S. 268, 2017) was introduced in the United States Senate as a way of regulating ISAs, and by the end of 2017, a small but growing number of colleges and universities offered them, albeit in limited forms (Fain, 2017a). At present, ISAs have been offered only to undergraduate populations. States also have started exploring the implementation and regulation of ISAs. In 2018, a bill was introduced to the California legislature that would "request the University of California and the California State University to each select a university of

their respective system to establish, commencing with the 2020–21 academic year, a pilot program to waive the tuition for participating students who enter into an income share agreement with the university” (A.B. 1972, 2018).

Given the recent traction for higher education at the institution, state, and federal policy level, and the general novelty of ISAs, there has been some debate regarding their potential efficacy. Some argue that this new mechanism for financing education will completely disrupt the student loan market (A. Friedman, 2017), while others are more skeptical and wonder if this is a method of masking the effects of high tuition costs, or worse, a form of long-term indentured servitude (Farr, Hornung & Morgan, 2019; James & Columbus, 2015). Given that ISAs have only recently entered the higher education finance market, there is an absence of research on the topic, with very few empirical studies having been conducted. Moreover, there are no specific guidelines or standardized processes for them. Without a track record or regulatory standards, students and universities are naturally going to be wary about entering the ISA market. As ISAs become more prevalent at the institution, state, and federal policy levels, it is imperative to determine if they are actually beneficial for students and the university. Furthermore, it is important to understand what is actually motivating institutions to adopt ISAs.

This research is one of the first empirical studies to be conducted on the recently implemented ISAs to reveal early lessons learned and report on how ISAs fit into the larger higher education finance framework.

The primary research questions guiding this study were:

1. What is the impetus for colleges and universities to invest in ISAs as an alternative mechanism for funding all or a portion of a student’s tuition?

2. What early lessons have been learned from institutions adopting ISAs?
3. What are the views of higher education finance experts regarding ISAs in providing more affordable higher education for students and families?

To answer these questions, a qualitative inquiry using a comparative case study method was conducted on three nonprofit universities in the United States. Purdue University (West Lafayette, IA), University of Utah (Salt Lake City, UT), and Point Loma Nazarene University (San Diego, CA) served as sites for these case studies, all of which are at various stages of offering ISAs. To understand each unique ISA model, an in-depth review was conducted of the ISA contracts, target market and student profiles, tuition and fees structure, and financial model at each institution. Additional in-depth interviews were also conducted and included key stakeholders involved in the ISAs at each case study site. The findings from this research study provide key insights into existing ISA models, the results of which may influence other institutions that are considering them. For higher education finance scholars, practitioners, and leaders, the case studies reveal important information and knowledge about this new and innovative finance model that has yet to be widely explored. Finally, considering the recent introduction of ISAs at both the national and state policy level, higher education policymakers may use the results of this study to navigate the uncharted regulatory landscape of ISAs.

CHAPTER 2: LITERATURE REVIEW

Who Pays? A Broad Look at College Affordability

The cost of college education has risen considerably during the past 30 years (Figure 1) (Zumeta, Breneman, Callan, & Finney, 2012). In 2006, the cost of higher education faced increased scrutiny and the general public perception was, for the first time in decades, that college was not an affordable option (Perna & Li, 2006). Due to increased college prices and changes in student financial aid, student loan debt was nearing \$600 billion (Board of Governors, n.d.-c). To combat these trends, President Obama made college affordability a priority and attempted to improve access especially for low-income and middle-class families (Obama White House, n.d.).

During the Obama era, the administration raised the maximum Pell Grant awards

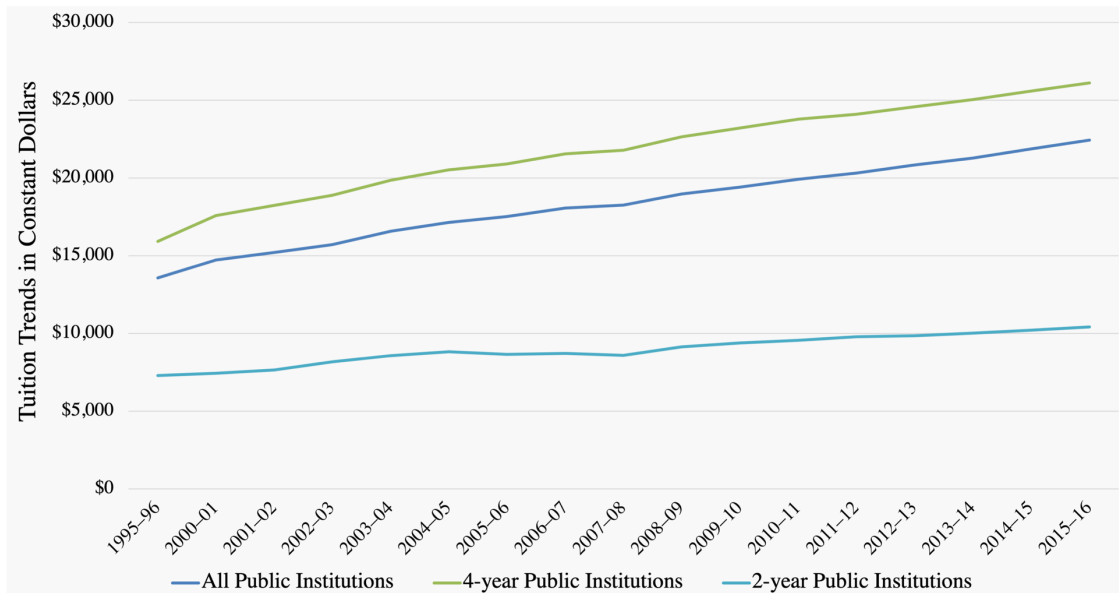


Figure 1. Rising cost of tuition over time after adjusting for inflation. Data retrieved from <https://nces.ed.gov/fastfacts.display.asp?id=76>

and increased its participant pool by more than 50%, providing increased access to higher

education for millions of college-going students (Obama White House, n.d.). The “Pay as You Earn” plan was also instituted as a way of expanding income-based repayments that capped repayment of loans at 10% of a person’s monthly income, thereby reducing both the short- and long-term burden of student debt. The president also expanded the education tax credits by establishing the American Opportunity Tax Credit in 2009. This tax credit provided \$10,000 for four years of tuition for families earning up to \$180,000 (Obama White House, n.d.). Finally, the president urged Congress to keep the interest rates low on federal subsidized student loans, which were around 3.4% at the end of Obama’s second term as president. In 2018, the fixed interest rate on direct subsidized and unsubsidized loans for undergraduate borrowers was 5.05% (U.S. Department of Education, n.d.-n).

Despite these efforts by the Obama administration, college affordability actually worsened during his tenure. Even though the Obama administration improved and streamlined several federal student aid programs, federal financial aid still strongly supported loans over grant aid (Zumeta et al., 2012). According to the 2016 College Affordability Diagnosis, the United States is losing ground on affordability due to a number of factors, such as limited finance options for students and families, decreased institutional and government financial aid, and cuts in state funding (Institute for Research on Higher Education, 2016). The report “paints a sobering picture of college opportunity in the United States today: A postsecondary education is no longer affordable for many low- and middle-income students and their families” (Institute for Research on Higher Education, 2016).

Considering the dire state of college affordability, the decision to go to college has become one of the more important financial decisions a person will make in their lifetime (Carnevale, Strohl, & Melton, 2011; Kulkarni & Rothwell, 2015). With soaring tuition prices and crippling postgraduate debt, the issue of affordability raises important considerations as to the value of earning a college degree (Carnevale, Cheah, & Hanson, 2015). Though college has traditionally been considered a worthy investment, there is increasing concern that both globalization and dynamic shifts in the labor market may leave students with potential unemployment or underemployment. As a result, higher education institutions are flooded with students who have high hopes that a degree will guarantee a successful job outcome (Brown, Lauder, & Ashton, 2012). However, overeducating students does not guarantee better jobs. Instead, it may create a marketplace that is oversaturated with degreed candidates, many of whom do not have specific job-related skills.

Despite public concerns surrounding college affordability and the value of a postsecondary education, enrollment numbers at degree-granting institutions continue to rise (Figure 2). Between 2005 and 2015, undergraduate enrollment rose from 15 to 17 million, or 14% overall (U.S. Department of Education, n.d.-k) and is expected to continue to rise by 2027 (U.S. Department of Education, n.d.-k). Many students and families view postsecondary education as a necessary pathway toward future career success (Johnstone, 2004). However, upon graduation, those same students are all too often faced with limited job prospects and large student loan debt. With the costs being so high, it raises questions as to who should shoulder the financial burden of higher

education (Johnstone, 2004). Should the government and taxpayers help reduce the costs? Or should students and families be responsible? Increasingly, there has been a shift, driven largely by higher education leaders and policymakers, toward personal financial responsibility of higher education, which represents a fundamental shift toward viewing education as a private rather than public benefit (Johnstone, 2004; Zumeta et al., 2012). This change in perception has significant implications, as the cost burden has been shifted from the government and taxpayers toward college students and their families (Johnstone, 2004; Zumeta et al., 2012).

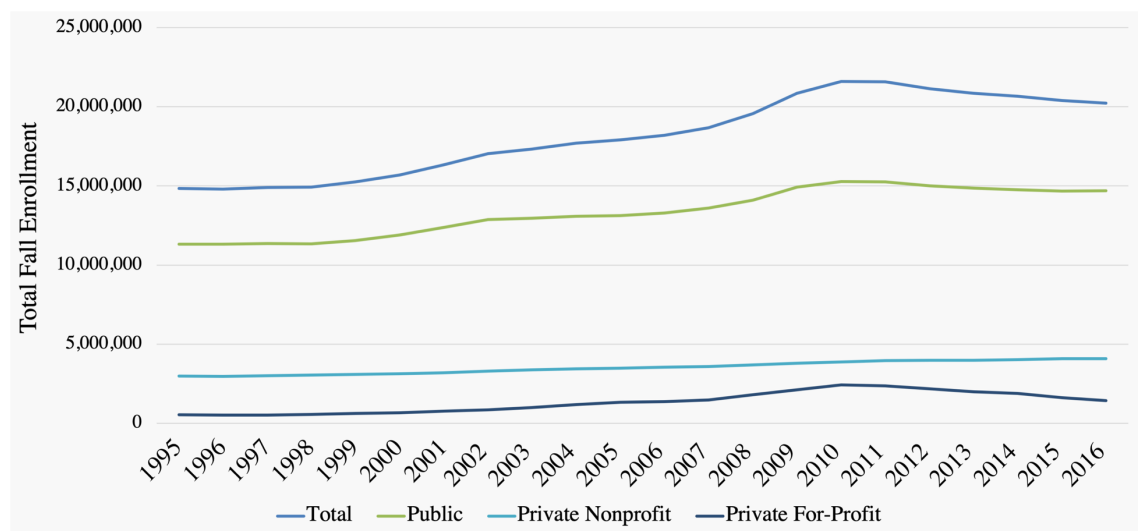


Figure 2. Total enrollment in all colleges and universities that participate in Title IV programs. Data retrieved from https://nces.ed.gov/programs/digest/d17/tables/dt17_303.20.asp?current=yes

Higher Education as a Private vs. Public Good

In exploring the question of who pays, it is important to provide a more in-depth analysis of whether education should be considered a private or public good. If education is truly a public good, then education should benefit society as a whole, and the

government and taxpayers should be willing to pay for these benefits. However, if these societal benefits are limited to individuals, then education can be viewed as a predominately private good and the cost burden would naturally land on the individual pursuing the degree. However, it is challenging to determine the overall total benefits in public versus private terms because they are inherently difficult to measure (Toutkoushian & Paulsen, 2016).

In their book, *Economics of Higher Education*, economists Toutkoushian and Paulsen (2016) provide a comprehensive analysis of the public and private benefits of education. For decades, American citizens have demonstrated their belief in education as a public good by their willingness to pay sufficient taxes in order to subsidize both K-12 as well as public postsecondary education (Toutkoushian & Paulsen, 2016). However, although the term “public good” is often used to describe the benefits of education, Toutkoushian and Paulsen (2016, p. 204) make clear that, “in the absence of government intervention, the education of students does not meet the strict non-excludability and non-rivalry requirements of the definition of public good as defined by economists.” Instead, they contend that when education is referred to as a “public good,” it is more likely a reference to a public benefit rather than a good in the true economic sense. This belief in education providing benefits to society is not surprising, as research shows that a more educated society results in an enhanced economy, a more employable workforce, and reduced unemployment (Johnstone, 2004; Toutkoushian & Paulsen, 2016).

Increasingly, however, higher education leaders and policymakers are shifting general perceptions of higher education to more of a private rather than public benefit

(Zumeta et al., 2012). The changing view may, at least in part, be due to the fact that it is simply easier to identify and measure individual benefits as compared to the broader public impact of higher education. Regardless of the reason, this shift in who pays for college has significant policy implications, resulting in the cost burden shifting away from government and taxpayers and toward the individual students and their families (Johnstone, 2004; Toutkoushian & Paulsen, 2016; Zumeta et al., 2012).

As college costs rise and the financial burden lands on the individual, students are taking a calculated risk by pursuing a college degree (Hillman, 2012). By investing in a college education, students, and often families, are expecting a return on investment and a sustainable financial future; otherwise, the risk likely would not have been taken in the first place (Baum & Ma, 2014; Brand & Xie, 2010). For many, the risk does pay off in the form of a rich learning experience inside and outside the classroom along with improved skills and credentials that result in a well-paying job after graduation, even if that means borrowing large sums of money to cover the costs of that education (Hillman, 2012). For others, they may be less fortunate and no better off, or even worse, than they would have been had they not attended college in the first place (Hillman, 2012).

Although there is inherent financial risk in pursuing higher education, individuals who graduate with a college degree tend to fare better in the labor market than those who do not pursue a degree beyond their high school diploma (see Figure 3) (Baum, 2014; Toutkoushian & Paulsen, 2016). In addition, for individuals with an undergraduate or more advanced degree, their earnings are markedly higher than those who do not have these credentials (Baum, 2014). According to the Bureau of Labor Statics, individuals

with a bachelor's degree earn an average of 68% more than those individuals who held a high school diploma alone (Chou, Looney, & Watson, 2017). Although the cost burden may be shifting toward the student and families, society as a whole has a stake in higher education because investment in human capital results in demonstrable public benefits (Toutkoushian & Paulsen, 2016).

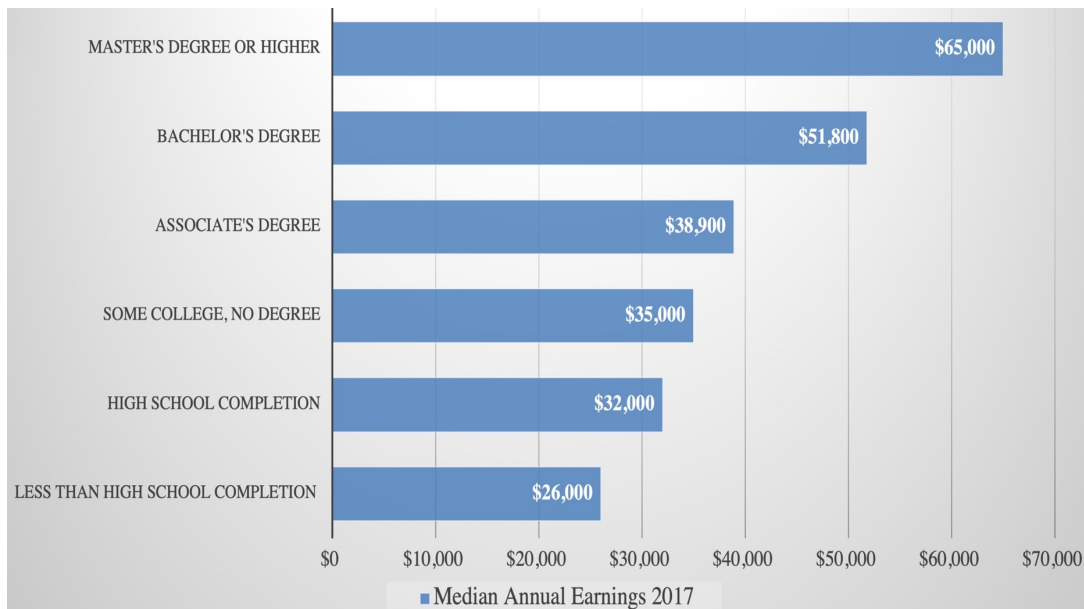


Figure 3. Median annual income by educational attainment. Adapted from https://nces.ed.gov/programs/coe/indicator_cba.asp

State Appropriations and Rising Tuition

Although explaining the current state of college affordability in America is a complex undertaking, one reason for the rising costs of tuition can be traced back, in part, to reductions in state appropriations for higher education. To combat these reductions in state funds, institutions often hike tuition prices to make up for lost revenue (Mitchell, Leachman, & Masterson, 2017). Reduction in state funding particularly impacts public

institutions and provides an important context for understanding the larger college affordability issues.

When the United States Constitution was established, it made clear that the individual states are responsible for higher education (Zumeta et al., 2012). Each state government has a major role in higher education and serves as the primary overseers of institutions on behalf of the state. One of the primary functions of the state is to ensure efficient allocation of financial resources to public higher education institutions (Zumeta et al., 2012). However, in recent years, state governments are facing their own financial challenges and budget deficits, due in large part to rising Medicaid costs (Finney, 2014). Given that higher education institutions can raise tuition rates, and students thus far have been willing to pay those rates, it is often higher education institutions that experience cuts from the state government (Finney, 2014). As a result, state financial support of higher education is rapidly declining (Baum, 2014; Finney, 2014; Tandberg, 2010).

Downward trends in state appropriations began in the 1980s and substantially deteriorated around the 2008 financial recession. “Between 2007-2008 and 2013-2014, state funding for public colleges and universities per full-time equivalent student decreased by an average of 23% across the United States” (Toutkoushian & Paulsen, 2016, p. 381). In 2014, public doctoral institutions experienced a reduction in revenue (44% to 27%) from state funding, and public master’s universities saw a drop from 55% to 35% (Toutkoushian & Paulsen, 2016). In the past few years, states have started to restore some of the financial cuts they made to higher education, but it is unlikely that this shift will make the kind of impact needed to improve college affordability

dramatically (Finney, 2014). The most recent State Higher Education Finance report for fiscal year 2017, produced by the State Higher Education Executive Officers Association (2018), reveals that more than half of the states are at pre-recession funding levels after adjusting for inflation. However, the cost of tuition still has not decreased overall as many states relied more heavily on tuition revenue than on local and state appropriations for financing.

When institutions experience state budget cuts, they must find alternative funding sources, which often results in sharp increases in the price of tuition for students and families (Mitchell et al., 2017; Zumeta et al., 2012). In a study that explored trends in college pricing, the College Board analyzed and compared published tuition and fee prices for one year of a full-time undergraduate education at a public institution. Their findings revealed that average tuition in the United States was 40% higher in 2015-2016 than it was in 2005-2006 (as cited in Zumeta et al., 2012). However, this was not the only time period that experienced increased tuition. The five years leading up to 2005 marked the period of the dot-com boom and subsequent recession. During this time, “per-student state appropriations to higher education fell by 17.09 percent, or \$1.73, while net tuition revenue per student received by public institutions jumped by 12.7 percent” (Zumeta et al., 2012). Albeit increasing tuition pays dividends for institutions, “these sharp increases in tuition have accelerated longer-term trends of reducing college affordability and shifting costs from states to students” (Zumeta et al., 2012). The examples presented signify further evidence of the changing perception of higher education as more of a private rather than public benefit.

Borrowing for College: The Student Loan Market

The examples outlined in the previous section explain the changing perception of who pays for college education today. These events have shifted much of the financial burden of higher education onto students and families, making it now—more than ever before—critically important to understand how students actually pay for college. The noticeable transformation in who pays for college has led to rapid borrowing among individuals and families in order to support the student in completing his or her college degree. Even after the recent economic crisis, student loan debt has continued to increase (Looney & Yannelis, 2015). Based on the individual return rates, “higher education today is increasingly provided and sold as a private good, its purchase heavily reliant on debt financing” (Zumeta et al., 2012). Students and families who are not able to pay in full typically finance the student’s education through a combination of federal, private, and parent loans. The upward trend in student borrowing has resulted in an increase in research focused on the personal effects of student debt (González Canché, 2017).

Federal Student Loans

Today, the United States has \$1.3 trillion in student loan debt, which includes federal, private, and parent loans borrowed over time (Mitchell et al., 2017; Zumeta et al., 2012). In order to understand the current state of student loan debt in America, it is essential to take a look back at the historical, political, and economic events that have led to the availability of loans for students and families (Zumeta et al., 2012).

The federal government made student loans available to individuals beginning in 1958 with the National Defense Loan Program (Baum, 2016). This program was

established to provide an alternative and low-cost funding option to students, and it has been expanded several times since its origination (Looney & Yannelis, 2015). Perhaps the most notable expansion of the National Defense Loan Program was marked by the passage of the Higher Education Act of 1965, in which the federal government launched its first major financial aid program in the forms of grants and loans (Geiger & Heller, 2012). The passing of the Higher Education Act also came with the creation of the Guaranteed Student Loan Program (Baum, 2016). These new loans were subsidized by the government, which meant that if students could not pay, the government would.

Over time, several revisions and new programs were established under the federal loan program. The Middle Income Student Assistance Program was created in 1978 so that students would not have to pay interest on their loans while they were in school (Baum, 2016). Although the higher education finance programs included both loans and grants, loans began to outpace grants starting in 1982 and have “remained the largest form of aid available to students to help them pay their costs of attending higher education” (Geiger & Heller, 2012). In 1992, the federal government issued a series of amendments to the Higher Education Act and created the Parent PLUS Loan for Undergraduate Students. The Parent PLUS loan program was attempting to make college a more affordable option for middle- and low-income families (Zumeta et al., 2012). However, this legislation represented a further shift toward borrowing as the main source for students and families to fund an undergraduate education. As student and parent loans started becoming one of the main sources of funding, there was a growing public sense of

a crisis in college affordability (Zumeta et al., 2012). The narrative of a college affordability crisis has remained a public concern ever since.

More recent legislation attempted to obviate some of the burden on students and families. In 2008, with the passage of the Higher Education Opportunity Act, the government significantly reduced interest rates on federal student loans in an attempt to make college a more affordable option for students and families (Zumeta et al., 2012). In 2010, the federal government developed a program to help students manage all federal loans called the Direct Loan Program (Zumeta et al., 2012). Although these federal loan programs have widened access to higher education, it does not take away from the fact that repayment is difficult for many individuals and student loan debt can be a significant burden on students and families.

Today, the federal government allows dependent students to borrow a maximum of \$31,000 and independent students to borrow a maximum of \$57,500 in Stafford Subsidized and Unsubsidized loans (Baum, 2016). The difference in maximum borrowing limits between dependent and independent students implies that dependent students have another source of income to supplement additional costs of education, assumed to be from parental support. There is also considerable variation among borrowers based on their geographic location.

In a recent study conducted by the Urban Institute, Braga and Baum (2018) used two large datasets from the credit bureau and College Scorecard database to explore “the regions and states with the largest shares of college students with student debt.” Their findings suggest that the regions where student borrowing is largest include the Midwest

and the Northeast. They estimate that approximately 44% of college students (ages 19-22) in the Midwest and 45% of college students in the Northeast used federal loans to pay for college. Among the states with the highest amount of college students borrowing are New Hampshire, Maine, and Pennsylvania. States with the lowest shares include New Mexico, Wyoming, and California (Braga & Baum, 2018).

Once students graduate, they have a six-month grace period before they must begin repayments on federal student loans (Baum, 2016). There are options for deferring payments; however, the interest still accrues on the total loan amount. Borrowers who fail to make the required payments on their student loans for 270 days are in default. If loans are in default, “the government can garnish wages or confiscate tax refunds to collect on the debt” (Baum, 2016, p. 36). However, it is important to note that default rates have been found to be higher in lower student debt amounts. In a 2016 study, Dynarski found that “of those borrowing under \$5,000 for college, 34 percent end up in default. This default rate actually drops as borrowing increases. For those borrowing more than \$100,000, the default rate is 18 percent” (Dynarski, 2016). While other forms of debt are dischargeable in bankruptcy, student loans cannot be discharged (Chou et al., 2017). It is important for students and families to make careful decisions when it comes to borrowing for college, as outstanding student loan debt can be psychologically distressing for the borrower (Dynarski & Kreisman, 2013).

Private Loans

Private loans are another source of lending that are often sought out by students when they cannot cover the full costs of education combined with other living expenses.

Private loans still carry the title “student loans,” so borrowers may confuse these with federal loans and assume the same protections apply (Baum, 2016). However, the federal government does not manage private loans. Instead, private loans come from banks and private lenders (Baum, 2015). Thus, private student loans lack government regulation and offer fewer protections and provisions for the students (Baum, 2016). Furthermore, interest rates on private loans vary and are often higher than federal student loan interest rates and can fluctuate dramatically (Baum, 2015).

Data collected by Baum from the National Center for Education Statistics in 2012 revealed that borrowing of nonfederal loans jumped from “\$10.5 billion (in 2012 dollars) in 2002-2003 to \$25.5 billion in 2007-2008” (Baum, 2015). A portion of these loans are still being repaid (Baum, 2015). According to Baum, nonfederal student loan borrowing ranges between \$8 to \$9 billion every year since 2009-2010 (Baum, 2015). This reliance on private loans for many students may mean that there simply are not enough financial resources available to offset the costs of education, especially for many middle-income families who do not qualify for need-based financial aid.

Impact of Student Loan Debt and Institutional Aid

Negative Impact of Student Loan Debt on the Institution

Universities largely have been insulated from the consequences of rising student debt as they are paid regardless of how students fare after graduation. Attempts have been made to make colleges and universities more accountable by linking student default rates and federal funding. Institutions may lose federal funding from the Direct Loan Program and/or Federal Pell Grant Program if student default rates from a given university class

rise to more than 30%. However, a 30% rate of student default captures only the most egregious offenders; it fails to capture institutions that leave students with crippling debt who struggle for decades to make payments but never default. In Fiscal Year 2015, for instance, only 12 schools were subject to sanctions (U.S. Department of Education, 2018b). There is little, if any, threat to institutions in the nonprofit sector in this regard, which is why there is little incentive to alter tuition rates or be overly concerned with postgraduate student debt and default rates. Nevertheless, despite being protected from the direct consequences of loan default, the issues are reaching such extremes that institutions are now experiencing unexpected indirect consequences from student debt.

Enrollment. Rapidly rising tuition rates and the associated student loans required for payment have, not surprisingly, had an impact on enrollment rates. In a 2016 essay on college affordability, William Doyle, professor of higher education at Vanderbilt University, estimates that “for every \$1,000 increase in the price of higher education, three percent fewer students enroll” (Doyle, 2016). His essay also suggests that lowering the price of a college education increases enrollment. However, it is important to note, as was previously described in this chapter, enrollment continues to increase at institutions across the country (Figure 2). In the event that increasing the price of tuition does negatively impact enrollment, this would have a correlated effect on an institution’s overall revenue. Lower enrollment can directly impact vital income streams for colleges and universities, which are highly dependent on consistent student tuition (Zemsky & Shaman, 2017).

Although there are increasing amounts of capital available to students and families through federal loan programs, private loan lenders, and the Parent PLUS loan program, aversion to debt is increasingly affecting enrollment, persistence, and degree attainment (Baker, Andrews, & McDaniel, 2017). Even nontraditional students, such as those returning to the classroom after years in the workforce, are less likely to enroll in college if the only option to pay for education is through student loans (Boatman et al., 2017). Further complicating these issues is recent evidence that student debt is not perceived equally across racial and demographic groups. Boatman, Evans, and Soliz (2017) explored loan aversion across different populations of students ($n = 6,000$) to examine the frequency of aversion. They report that the most credit-constrained individuals may choose not to enroll in college and instead pursue the workforce rather than take out student loans. They found that “about 20% of high school seniors and adults who have not attended college” are against borrowing money for tuition costs (Boatman, Evans, & Soliz, 2017). Furthermore, they found that African American and Hispanics seemed to be the most loan-averse. As a result, this aversion to debt may mean these individuals underinvest in higher education or simply do not enroll at all. They conclude their study by encouraging policymakers to consider alternative mechanisms for financing higher education to address the growing reliance on student loans (Boatman, Evans, & Soliz, 2017). This aversion to debt results in underinvestment of African Americans and Hispanics in higher education (Boatman, Evans, & Soliz, 2017).

Completion rates. Moreover, student loan borrowers who come from a more disadvantaged background are disproportionately more likely to “fail to complete their postsecondary schooling, leaving them without a higher education credential and the income advantage it offers but with the substantial loan debt that must be repaid irrespective of their degree status” (Trent, Lee, & Owens-Nicholson, 2006). This negative effect on traditionally disadvantaged socioeconomic groups may be subverting the attempt of colleges and universities to increase the diversity of their student body.

Adding to the research on how student loan debt impacts college enrollment, Dwyer, McCloud, and Hodson (2012) looked at how student loan debt impacts college completion. Using the National Longitudinal Survey of Youth 1997 Cohort and waves of data up to the 2007 cohort, they used a logistic regression model to analyze the relationship between completion rates and indebtedness. Their analysis found that debt rising above \$10,000 reduces college completion rates as compared to smaller amounts of student debt. The researchers found this phenomenon to be especially true in public colleges and universities. When students do not complete their college education yet still leave school with student debt, they are at a distinct disadvantage as their income may not be enough to repay student loans on top of other living expenses, and colleges and universities then will struggle to maintain their required student tuition streams.

Alumni giving behavior. An additional area of concern is the potential negative effect of student loan debt on alumni giving behavior and alumni perceptions of their alma mater. Alumni donations are an important revenue source for colleges and universities (Marr et al., 2005). Reductions in giving can result in a trickle-down effect

that undesirably impacts an institution's financial future and endowment. Research has found a correlation between student loan debt and subsequent alumni giving behavior (Delisle & Holt, 2015; Rothstein & Rouse, 2011). Rothstein and Rouse (2011) explored student loan debt and how it impacts students after college. Although they were looking specifically at student loan debt and employment outcomes, they also found evidence that student loan debt affects the graduate's postgraduate giving patterns to their alma mater. Their dataset included data on financial aid, employment outcomes, and admissions qualifications ($N = 8641$). In order to test their hypothesis that graduates with student loans are less likely to give, they tracked each graduate's pledge to give, which students selected during their senior year, and mapped this to their actual giving behavior after graduation, which they received from the university's development office. The researchers found that although student debt did not seem to have an impact on a student pledging to give back to the university during their senior year, debt does appear to negatively impact a student's actual giving patterns in that students who had incurred loan debt gave less back to the college once they earned their degree. Student loans, whether small or large, seem to result in decreased giving.

This reduction in giving often does not immediately manifest itself. Student pledges of alumni donations, which occur during the final year of enrollment, appear independent of student debt (Rothstein & Rouse, 2011). However, once a student graduates, there is a significant shift in behavior, with many of these pledges never manifesting into actual alumni donations (Rothstein & Rouse, 2011). Living expenses, credit card debt, and lower-than-expected postgraduate income combined with high

interest payments on education loans, all of which means that some students simply do not have sufficient disposable income for alumni donations. These financial challenges can often give borrowers a general distaste and feelings of distrust toward their alma mater, as discovered in focus groups of student loan borrowers, which can extend long after a student's debt is repaid (Delisle & Holt, 2015). The net effect is a reduced income stream for colleges and universities from alumni.

One method to compensate for this reduced giving behavior is to provide tuition reimbursements in the forms of grants, scholarships, and other forms of institutional aid. This allows colleges and universities to provide tuition discounts to students who struggle to pay, while charging the full sticker price to students who have the financial means (Zemsky & Shaman, 2017). All forms of tuition reduction are not equivalent, and even subtle changes in a financial aid package impacts a student's willingness to give back to the institution (Marr et al., 2005).

The factors associated with student loan debt and its impact on enrollment, completion rates, and alumni giving reveal the potential negative consequences experienced by colleges and universities. Therefore, it behooves institutions of higher education to explore alternative ways to help students pay for school beyond student loans.

A Closer Look at Institutional Aid

Even as student loan debt has been shown to negatively impact colleges and universities in certain areas, there is some evidence that institutional financial aid to a subset of students may have a positive impact. Institutional financial aid, through grants

and scholarships, is effectively a price reduction for students and makes costs of education more affordable for students (Toutkoushian & Paulsen, 2016).

Enrollment is an area where grant aid has demonstrated a positive impact, as would be expected in any traditional marketplace where lower cost is associated with increased demand (Angrist, Autor, Hudson, & Pallais, 2014; Curs & Singell, 2010; Field, 2009; Perna, Lundy-Wagner, Yee, Brill & Tadal, 2011). While student loans as a financial aid option can possibly lead to a negative impact on college enrollment, financial aid through grants and scholarships has the potential inverse effect and may improve both enrollment and persistence (Angrist et al., 2017). However, this is still an open question and “selection bias and the high implicit tax rates imposed by overlapping aid programs make this question difficult to answer” (Angrist et al., 2017). Additionally, these financial aid packages shift many applicants from two- to four-year schools (Angrist et al., 2017).

The College Choice Framework Model, developed by Curs and Singell (2010), is used for assessing a student’s responsiveness to institutional aid packages. Through a series of simulations, they found high price sensitivity of students to total tuition cost, level of student debt, and financial aid (Curs and Singell, 2010). This price sensitivity is asymmetrically distributed across socioeconomic and ethnic groups. Low-income and minority students are particularly incentivized by institutional aid and no-loan policies (Perna et al., 2011). However, even when the total effect on the money owed is equivalent, tuition-reduction strategies such as scholarships, grants, or tuition waivers

have a significantly stronger influence on enrollment compared to loan repayment assistance programs (Field, 2009).

Adding to the research in this area, Linsenmeier, Rosen, and Rouse (2002) studied the effects of institutional aid on minority college enrollment through an econometric case study. In the study, they examined an anonymous university's change in a financial aid package where the entire loan portion of their financial aid package for low-income students was replaced with grants. Prior to the introduction of this new aid package, students had primarily been offered aid packages, which included loans, campus jobs, and grants. Not surprisingly, their findings suggest that when loans are completely replaced with grants, it significantly increases the likelihood for low-income and minority students to matriculate to college (Linsenmeier et al., 2002).

Tuition Discounting and Revenue

Tuition discounting, “defined as institutional grant dollars as a share of gross tuition and fee revenue” (Jalal & Khaksari, 2019), has become a common practice for higher education institutions. Although institutional aid in the form of tuition discounting has become more prevalent, few empirical studies have looked at the financial return on investment to the college or university. The few studies that have looked at how tuition discounting impacts institutional revenue and financial risk have found that, if priced correctly, tuition discounting has the potential to provide an alternative revenue stream for universities (Hillman, 2012; Jalal & Khaksari, 2019). Nicholas Hillman's (2012) research sought to understand whether or not the cost associated with institutional aid at public four-year colleges and universities ($n=174$) can be used to generate additional

revenue. Hillman found that public institutions are able to utilize tuition discounting as an alternative revenue management stream; however, he also found there is a threshold: when the tuition discount rate exceeds 13%, the return to the college or university begins to diminish. Institutions that go beyond 13% are at a greater risk for weakening their net tuition revenue by overdiscounting. Hillman's study reveals important evidence that may contradict natural logic—that giving money or incurring some of the cost actually results in a financial return on investment when priced correctly.

Overdiscounting in an attempt to increase enrollment can result in a net reduction in total tuition revenue and can quickly lead to adverse financial consequences in the long term (Jalal & Khaksari, 2019). Therefore, tuition discounting presents some important evidence that market-sector tuition prices are unlikely to be at a market equilibrium in which the quantity demanded, and quantity supplied is neutral. However, alterations—specifically, discounting—may have positive revenue effects when priced correctly. When institutions overly discount, there may be a negative impact on revenue, so institutions must ensure their aid packages are designed in such a way to avoid such outcomes.

Moving Forward: Recommendations for Policy and Practice

Considering the current state of college affordability, and its impact on students and the institution, policymakers and institutions are beginning to explore alternative options for lessening the burden of student loan debt. According to Sandy Baum (2016), improvements in college affordability would require several important elements including: “stronger incentives for institutions to improve their performance and reduce

the debt levels of their students, possibly through a system that forces institutions to bear part of the financial risk when their students do not repay their loans” (Baum, 2016).

Although student loans make it possible for many individuals to pursue an undergraduate degree, these loans do not take into consideration the significant variation of postgraduate outcomes and salary earnings of college graduates (Baum, 2016). Hardships are impossible to predict and often unavoidable. Yet the current student loan program does not take into account these potential hardships, and students are required to pay regardless of their situation after college. Students enroll in higher education with the expectation that there will be a return, so ignoring postgraduate income misses a significant piece of the college affordability analysis (Baum, 2016).

Economists view the addition of income-driven repayment options on federal student loans as a good step in making college more affordable and accounting for some of the inherent risk in predicting college employment outcomes (Baum, 2016; Baum & Chingos, 2017). According to Baum (2016):

Income-driven repayment is critical to an efficient and equitable student loan system. For many borrowers, the difficulty of repayment is related to timing, not to long-term adequacy of income. Between 2009 and 2013, median annual earnings for 23-year-olds with a bachelor’s degree was \$32,000. For 30-year-olds, the median was \$51,000. There is a strong argument for allowing borrowers to wait to make payments until they can better afford them.

Baum presents an effective case for a student loan system that modifies expected payments to borrowers’ postgraduate incomes (Baum, 2016).

Though the income-driven repayment programs are certainly a good option for many college graduates, the interest rate on student loans is still accruing when students are not paying or making smaller monthly payments based on their income. Furthermore,

term limits of federal income-driven repayments are still often capped at between 20-25 years, which means interest could be accruing for years (Baum & Chingos, 2017).

Theoretical Framework

A theoretical framework will be utilized for analysis and discussion in later chapters. When this study was originally proposed, human capital theory was selected as the primary and exclusive theory for the framework. However, after collecting and analyzing the data, it became evident that human capital theory alone was not sufficient. Two supplementary theories or concepts were added retrospectively to this theoretical framework in order to conduct a proper and thorough analysis of the findings. In addition to human capital theory, the analysis will draw on agency theory as well as the concept of disruptive innovations to complete the theoretical framework, all three of which are introduced in the following section and will be discussed in greater detail in the final analysis and discussion chapter.

Human Capital Theory

The research that has been conducted on private and public benefits of higher education is grounded in human capital theory. Human capital theory is used as a basis for much of the literature on higher education finance and will serve as part of the theoretical framework for this research study. Today, scholars rely heavily on human capital theory as a lens through which to explain and understand the higher education decisions of students, which includes their financial decisions (Toutkoushian & Paulsen, 2016).

The exploration of human capital dates back to some of the early works in economics, originally described in Adam Smith's *The Wealth of Nations* (1776, 2014). In his book, *Principles of Economics*, Alfred Marshall (1898) referred to the investment in people as the most valuable of all capital. Although it was first described in the late 1700s, human capital was not established as a theory until around five decades ago during a period in economic research known as the human capital "revolution" (Becker, 1964). Leading economists such as Ted Schultz, Gary Becker, Jacob Mincer, Milton Friedman, Sherwin Rosen, and several others pioneered human capital as a theoretical concept (Becker, 1964). In a basic sense, human capital refers to the economic value of a person. The "capital" portion refers to the source of future earnings in return for an individual's productivity because that individual cannot be separated from his or her skills, knowledge, and values (Becker, 1964; Schultz, 1972). When it was originally described, the theory was heavily criticized based on the belief that human capital treats individuals as indentured servants or machines (Becker, 1964).

There are many activities that are thought to improve one's human capital, chief among them being education. From the early research on human capital theory, scholars and economists have been attempting to estimate the rates of return to education (Toutkoushian & Paulsen, 2016). According to Toutkoushian & Paulsen (2016, p.18), "economists stress that every human activity involves the use of scarce resources and going to college is no exception." Because human capital theory emphasizes the private financial benefits of education (i.e., a higher income and improved job prospects), speculations began to surface that questioned why the private recipient of higher

education should not pay more, or most, of the cost (Zumeta et al., 2012). Though human capital theory provides a framework for understanding the public and private benefits of education, it does not fully explain what has led to costs being so high and the mechanisms students and families use to cover the costs. As financial responsibility is increasingly being transferred to students and families, it is important to understand the confounding factors that contributed to the rising costs of education and the current state of college affordability.

Agency Theory

The study of economics is based largely on understanding incentive structures: incentives to be productive and work hard, perform well, save and invest, and so forth (Laffont & Martimort, 2009). Incentives in economic theory date back to early economists, even being discussed by Adam Smith when he described some of the incentive-based challenges of sharecropping contracts (Laffont & Martimort, 2009). In economics, incentives arise whenever there is a contractual relationship between two entities. When dividing labor and delegation of tasks, there is usually one entity doing the delegating and the other executing the task. In a true sense, both parties benefit from these incentive-based relationships. Take, for instance, an employer and employee relationship. In such a contractual arrangement, the employer delegates tasks to the employee and, in exchange, the employer agrees to a monetary value for that labor in the form of salaries and earnings. Presumably, employees are incentivized to perform well and work hard, and the employer may even use other incentives to entice the employee to be more productive such as financial bonuses or other benefits that are deemed valuable

to the employee. Though this is one of the more obvious examples, incentives exist in most contractual arrangements involving two entities.

The principal-agent model was developed as a framework for describing and understanding the incentives that exist in contractual relationships and the subsequent challenges that may arise as a result. Though incentives in relationships and contractual arrangements have arguably existed since the beginning of time, the concept was not formalized into the principal-agent problem or dilemma until the 1970s. Economist Stephen Ross (1973) is often referenced as one of the early economists to describe the economic theory of agency. Around the same time in 1975, Barry Mitnick produced the institutional theory of agency, which he claims was developed “independently and roughly concurrently” at the time of Ross’s theory (Mitnick, 2006). The two theories are relatively similar and complementary. Ross’s economic theory of agency describes some of the inherent challenges of compensation in contracts, whereas Mitnick’s institutional theory of agency describes how institutions evolve to deal with the challenges of agency and form around them (Mitnick, 2006). The theory was later more formalized by Jensen and Meckling’s (1976) theory of the firm in which they explore agency costs by leveraging several elements from the theories of property rights, agency, and finance.

In a basic sense, principal-agent models describe the principal as the entity providing the incentives and the agent as the entity that performs whatever act is assigned or necessary in the contractual relationship. In the case of the employee–employer relationship, the employer is the principal and the employee the agent. Any incentive relationship involves the “free rider” problem in which the agent does not perform to the

level expected by the principal. In such contractual relationships, the principal is not able to monitor the constant activities of the agent and may not produce the right incentive structures that result in hard work and production on the agent's part. This phenomenon is known in economics as a moral hazard. A moral hazard is a natural occurrence in any risk-sharing contracts where the agent is able to perform his or her tasks privately without principal oversight (Holmstrom, 1979). In principal-agent models, there also exists a common phenomenon that is described by economists as adverse selection, in which there is asymmetric information on the part of the principal or agent. Adverse selection creates a relationship imbalance where one entity holds more information than the other, which can produce less-than-ideal results (Greenwald, 1986).

In recent decades, a line of research has been conducted in the study of higher education accountability, governance, and politics that integrates principal-agent concepts (Enders, de Boer, & Weyer, 2013; Hillman, Tandberg, & Gross, 2014; Kelchen, 2018; Lane & Kivisto, 2008; McLendon, 2003; McLendon, Hearn, & Mokher, 2009). Leveraging principal-agent models as a framework for understanding the relationship between higher education institutions and their principals—whether it be the federal or state government, accrediting agencies, and so forth—is a useful approach for understanding motivations within often highly contractual incentive-based relationships. Thus, this research study will add to the growing body of higher education research that utilizes the principal-agent construct for understanding relationships between institutions of higher education and their principals. In the case of ISAs, the institution acts as the principal and the student is the agent.

Disruptive Innovation for Social Change

When new ideas enter a market, there is the potential that they disrupt the normative behaviors that define the market. Disruptive ideas create a competitive marketplace that, in turn, has the potential to cultivate an improved product or service for the consumer. Without such competition, the result is a stagnant marketplace that stays true to its norms, void of any real innovation that may threaten the traditional behaviors of existing players.

One of the preeminent constructs for understanding disruption, is what Joseph Bower and Clayton Christensen (1995) coined disruptive innovations. Originally described in 1995 in a *Harvard Business Review* article titled “Disruptive Technologies: Catching the Wave,” Bower and Christensen describe the danger of leading an industry without recognizing the need for change. Their article uses the hard-disk-drive industry as a model for what not to do. That industry stayed close to its consumers yet ignored other major technological advancements around them, the results of which meant complete destruction of the industry (Bower & Christensen, 1995). Even as the article made clear that few established companies had, at the time, been able to keep up with the disruptive innovations that threatened their livelihoods, it outlined a method for recognizing disruptive innovations. The original description of the concept establishes that there are two types of innovations: sustaining innovations and disruptive innovations.

Sustaining innovations make improvements to already existing products, many of which can be extremely successful yet not disrupt a market. An example of a sustaining innovation is the fifth blade of a razor (Christensen, Raynor, & McDonald, 2015). Most

consumers would argue that the addition of the fifth blade made the razor a much better product, hence a sustaining product, and yet this product enhancement would not be defined as a disruptive innovation. Instead, *disruptive innovations* develop business models that vary tremendously from existing players. Disruptive innovations also do not have to be successful to be considered disruptive, as described in a later article that makes clear that “not every disruptive path leads to triumph, and not every triumphant newcomer follows a triumphant path” (Christensen et al., 2015). For an innovation to be considered disruptive, it must originate in the low-end foothold of a market, meaning that the innovation must improve the product or experience for a market’s “least-demanding customers.” Once the more mainstream customer begins to adopt the new innovation, the disruption has occurred. The second way in which an innovation is disruptive is that it creates an entirely new market where none existed before (Christensen et al., 2015).

Though the term disruptive innovation has been widely used in the business world, it has also been described as a model for creating innovations that cultivate social change. The model for social change is described as *catalytic innovations* (Christensen, Baumann, Ruggles, & Sadtler, 2006). Many of the same features of catalytic innovations are seen in the disruptive innovation construct.

Like disruptive innovations, which challenge industry incumbents by offering simpler, good-enough alternatives to an underserved group of customers, catalytic innovations can surpass the status quo by providing good-enough solutions to inadequately addressed social problems. Catalytic innovations are a subset of disruptive innovations, distinguished by their primary focus on social change, often on a national scale.

In education, online education has been described as a catalytic innovation. The American community college model is also referred to as a catalytic innovation as it is

“dramatically changing the shape of higher education in the United States by expanding access to and redefining the goals for advanced study” (Christensen et al., 2006). The “disruptive innovation for social change” model is a helpful framework for assessing new innovations that may potentially lead to immediate social impact. Thus, the qualities of a catalytic innovation will be used as a framework for analyzing ISAs and the findings from this study and will be discussed in more detail in the concluding chapter.

ISAs in Higher Education

An alternative funding strategy that has not been widely researched is the use of ISAs to fund a student’s education. Under this arrangement, an institution agrees to waive all, or part of the student’s tuition and the student agrees to repay the university with a portion of his or her postgraduate income, the percentage of which will vary based on the degree and expected income. This concept is a direct extension of human capital theory, whereby institutions are investing both financially and educationally in the future capital of the student.

Similar to income-driven repayment options, ISAs account for variation in employment and salary outcomes; however, payment is made to the university rather than the federal government. Unlike income-driven repayment options, there is no interest attached to an ISA and repayments are usually capped, so if a student cannot pay at all during that time period, then he or she would not be required to pay. If a student is enrolled in a major with higher earning potential, then that student is likely to agree to a smaller payback percentage than a student who is enrolled in a major with lower earning

potential. Thus, there may be some correlation between certain major-types being more incentivized to enter an ISA over others; however, this has yet to be discovered.

History of ISAs in Education

The concept of an ISA was first proposed by economist Milton Friedman (1955) in his paper “The Role of Government in Education,” in which he describes the challenges with student loans for both the lender and borrower. His paper was written in the 1950s when student loans were just beginning to gain traction (Fuller, 2014). It also was written around the time when Friedman and others pioneered human capital theory on the idea that investing in a person would likely yield benefits to the individual and society as a whole. According to Friedman, fixed money loans run the risk of not being paid back because it is too hard to predict future earnings and one’s ability to pay back what they borrow. In order to account for capital losses or defaults on student loans, the interest rates would have to be much larger to be attractive for the lender. Although written more than 50 years ago, Friedman’s article paints a bleak picture that has played out in modern times, especially in the private loan market. The demand for higher interest rates, the proliferation of the college degree, and stagnating postgraduate incomes has led to crippling debt for many students. Given that the ability to pay off student loans effectively hinges on one’s future earnings, Friedman (1955) proposed an alternative method for paying that would allow an investor to “buy a share in an individual’s earning prospects.”

Friedman views ISAs as an investment in human capital where the lender essentially bets on a student’s future earnings. He recommends a program in which these

types of ISAs are not handled by the government but instead are offered, ideally, through the college or university the student attends. Friedman also recommended developing systems in which the return to the private lender is capped at certain percentages of a student's future earnings but also recognized the challenge of predicting earning potential based on one's college degree.

ISAs in Higher Education Today

Much has changed in higher education since the publication of Friedman's paper. In particular, the ability to track postgraduate outcomes is occurring both at the governmental and private institution level. This outcome data is now much more robust and extends through the last decade, allowing much more reliable predictions of expected income streams across student populations. Additionally, the student debt crisis has increased the appetite of students, parents, and some institutions to attempt novel funding strategies that may reduce the financial burden faced by students.

To date, there have been no in-depth empirical studies conducted on ISAs in higher education. The studies that have been published have been in the format of a policy briefing rather than a peer-reviewed study. However, these briefings are still helpful in providing background and context, both of which are important for understanding ISAs.

Though the novelty of ISAs initially raises skepticism, both students and, to a lesser degree, parents have shown surprising interest in ISAs as a potential replacement for standard loans, especially after being provided with a more thorough explanation of their short- and long-term financial consequences (Delisle, 2017). This perception from

students and families was tested in a study conducted by New America in which the researchers recruited 400 high school students and 400 parents to assess their level of interest in ISAs. The researchers explained the details of ISAs in six focus groups and tested the interest through a series of questions and answers and open discussion. The interest in ISAs shown in focus groups seemed to extend to both risk-averse and risk-tolerant individuals (Delisle, 2017).

Loan-averse individuals also seem to be attracted by the flexibility of monthly payment amounts under the ISA model when comparing them to traditional student loans (Peek, Mason, & Soldner, 2016). In a different study conducted by the American Institutes for Research, Peek, Mason, and Soldner (2016) recruited young adults (ages 16–24) to participate in focus groups. To be considered for this study, participants described themselves as loan-averse and indicated that they were not willing to use loans to cover the cost of college tuition. From the focus groups, the researchers concluded that ISAs have the potential to remove some of the psychological burden associated with paying for college as they provide a “safety net” for borrowers. The short length of payments under ISAs was deemed an attractive alternative to loans for potential borrowers (Peek, Mason, & Soldner, 2016). Given the flexibility of ISAs and the negative effects of short- and long-term debt, it is not surprising that borrowers of varying ages and backgrounds are interested in ISAs as an alternative to traditional loans (Peek, Mason, & Soldner, 2016). In their current implementation, albeit it is limited, ISAs are often capped at certain total amounts, preventing gross overpayment of tuition costs if postgraduate income is excessively high, and they end a fixed period of time after

graduation (Purdue, n.d.-a). For the Purdue University ISA, which is open to all majors, a student owes up to 10% of his or her postgraduate income depending on their choice of major. Payments stop once they have reached two times the original value of the contract or 10 years after graduation, whichever comes first (Purdue, n.d.-a).

As with any new funding mechanism, successful implementation of ISAs relies on initial testing in ideal market segments. Surprisingly, Purdue's "Back a Boiler" ISA program has been extended to more than 100 majors across six different colleges (Purdue, n.d.-a). Their initial round of funding was for \$6 million, so the fund had to cap the total amount of contracts available to students until the next round of funding. Far more robust implementation in specific markets will be needed before fully understanding the short- and long-term effects of these ISA strategies (American Institute for Research, 2015).

Understanding the perceptions of decision makers and stakeholders toward ISAs is an important starting point as colleges, universities, and policymakers explore the model as a potential funding mechanism for education. However, there is a shortage of peer-reviewed research on the topic of ISAs. Albeit they may be a viable revenue option for universities and a potential alternative to student loans, the efficacy of these finance models has yet to be fully explored. It is critical to investigate further to understand why colleges may want to consider a program of this kind, especially if key stakeholders demonstrate an appetite for such a financial aid offering.

Known Challenges of ISAs

Though there seems to be an interest in ISAs among borrowers, there are some concerns regarding their viability as a long-term method of tuition repayment and their ability to actually make college more affordable. From a viability standpoint, issues of adverse selection, moral hazard, and the regulatory environment are key concerns that may prevent formation of, or disrupt, existing ISA marketplaces.

Adverse selection may arise when students who are planning careers in low-income industries or have poor job-related skills disproportionately select ISAs as their method of tuition repayment. If institutions are unable to effectively screen students and assess their long-term earning potential, they may consistently underestimate, or worse, overestimate earning potential. Underestimation may prevent significant adoption, while overestimation could result in significantly lower long-term revenue, making the ISA revenue-negative for the institution.

Moral hazard arises when students with ISAs specifically choose not to pursue high-paying jobs because they are partially protected from the consequences of lower postgraduate income. When students carry significant debt burden and have a low postgraduate income, they are unable to pay down the principal, and their debt grows over time. Thus, they are incentivized to maximize their postgraduate income. With an ISA, it is possible that because repayment is tied to income, students will not be as motivated to put in the effort required to maximize their postgraduate income, as the consequences of lower postgraduate incomes are mitigated by the ISA.

The potential for ISAs to influence effort has been demonstrated in a study conducted using tournament poker players as participants. Poker players raise money from investors in order to fund their buy-in for online poker tournaments and subsequently agree to pay back a portion of their future earnings. The researchers refer to this as a staking market where only short-term ISAs seem to be utilized (Madonia & Smith, 2017). The investor and the player decide on the agreement for how much of the poker player's earnings will be shared in return for the lender's financial investment. If the poker player loses, then the investor does not make any earnings. If the poker player wins big, then the investor also wins a portion of the player's earnings. Madonia and Smith (2017) recruited participants from the largest online poker tournament website. As a result, they had a sample size of 97 participants. They tracked each player's performance in more than 96,000 tournaments. They recorded every transaction for up to two years when an investor covered the cost of tournament entry fees. The investor was then entitled to more than 50% of the poker player's eventual winnings. Analysis suggested that players who received an ISA performed worse than their non-ISA counterparts (Madonia & Smith, 2017). Further analysis revealed that approximately 20% of the weakening of performance was by players who leveraged an ISA for poker tournaments that, although provisional on entry fee, consisted of more talented opponents. The remaining drop in performance was attributed to decreased motivation inherent in ISAs. Although in this ISA market there was a reduction in performance, it is unclear whether these findings extend to an academic marketplace where income sharing is unlikely to exceed 15 to 20% of postgraduate income.

In order to test the potential of moral hazard in higher education, Leuven, Oosterbeek, and van der Klaauw (2010) conducted a randomized field experiment in which they offered a financial incentive to first-year college students who subsequently passed their first-year requirements. Although this study was looking at this issue from the perspective of how financial incentives impact academic achievements, their findings have strong implications and considerations for ISAs as well. Their study was conducted in the Netherlands and tested at six Dutch universities through their business and economics first-year programs. Their findings suggest that students do not respond to financial incentives overall. In fact, high-achieving students do better with financial incentives while lower-achieving students are actually simply not incentivized to change their performance. Findings from this study suggest that the moral hazard concern may be unfounded because students largely do not respond to financial incentives. Despite there appearing to be a subset of students who respond to financial incentives while in college, there has been no research conducted on how ISA contracts impact job selection and postgraduate study.

A final concern associated with ISAs is the legal and policy implications surrounding the investor and consumer. The regulatory marketplace continues to be a major unknown for ISAs. It is unclear how an ISA is treated in terms of its consumer protections, tax status, relationship to other forms of debt, and effects of bankruptcy. In 2017, Senator Todd Young of Indiana presented the Investing in Student Success Bill (S. 268, 2017) to Congress. The bipartisan bill authorizes an investor and individual to enter into an ISA, requires certain disclosures to protect consumers, would not allow the ISA to

be discharged in bankruptcy, and would require posttax dollars for ISA repayment.

Though the bill gained some initial traction, it has remained in the Senate sub-committee on finance for two years. However, this has not prevented some institutions from moving forward with ISAs.

Conclusion

Even as strides are being made in Congress to regulate ISAs, there is still a lot to uncover in order to understand if they are a viable option that more schools should consider. More needs to be known about the general structure of existing ISA models, the ideal student target market, and which universities might benefit from offering ISAs to their students. Moreover, it is critically important to understand if ISAs are actually an improvement over the existing options for funding education. Will they actually reduce overall postgraduate debt? Will student loans decrease but other forms of debt increase as reduction in wages prevents home buying and increases credit and car loans? Will ISAs actually make college more affordable by driving down tuition costs of schools whose graduates fail in the job market? Or will ISAs encourage tuition increases as institutions can generally guarantee some amount of repayment based on a student's postgraduate income? The purpose of this study is to fill a gap in the literature by exploring ISAs as an alternative mechanism for funding education. The study is designed to better understand the financial, organizational, and regulatory landscape of existing ISA models and aims to uncover which student populations and universities might benefit most from entering into an ISA contract.

CHAPTER 3: METHODS

As the total amount of student debt in the United States reaches an all-time high and college affordability is called into question, small segments of the higher education market have begun experimenting with ISAs as a new method for financing all, or a portion of, a student's college tuition. If ISAs have the potential to disrupt the student loan market, as some speculate (A. Friedman, 2017), then more needs to be known about the general structure of existing ISA models, the ideal student target market, early lessons learned from universities that have attempted ISAs, and whether ISAs are actually an improvement over the existing options for funding education. Furthermore, it is critical to understand the views of higher education finance experts regarding ISAs as an alternative mechanism for providing more affordable higher education for students and families in order to place the early lessons from ISAs into a larger finance context. However, to date, there have been no empirical studies conducted on ISAs in higher education.

This purpose of the study was to explore ISAs as an alternative mechanism for funding education. The study was designed to better understand the financial, organizational, and regulatory landscape of existing ISA models.

The following questions guided the research:

1. What is the impetus for colleges and universities to invest in ISAs as an alternative mechanism for funding all, or a portion of, a student's tuition?
 - a. What are the perceived benefits of offering ISAs as an alternative funding mechanism from the college/university perspective?
 - b. What are the unintended consequences considered by institutions?
2. What early lessons have been learned from institutions adopting ISAs?
 - a. Where do ISAs fit in the overall financial model of a college or university?
 - b. How do ISAs impact college affordability?

- c. For which student populations are ISAs most advantageous for funding all or part of their education and reducing long-term student loan debt?
- 3. What are the views of higher education finance experts regarding ISAs in providing more affordable higher education for students and families?
 - a. What segment, if any, of the higher education market would benefit most from offering ISAs as an additional or alternative mechanism for funding all, or a portion of, a student's college degree?
 - b. What is the current regulatory landscape of ISAs?

Research Design

The predominant method of analysis for this study was qualitative through a collective case study approach examining different ISA models (Creswell & Poth, 2018). Conducting a case study requires an empirical exploration of a current phenomenon using multiple and reliable sources of evidence (Yin, 2018). However, ISA models are still new and therefore have little to no data to reveal their outcomes once a student graduates from college. Thus, additional quantitative metrics were collected and analyzed concurrently to provide a more comprehensive analysis of ISAs.

Creswell and Poth define case studies as “a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems over time” (Creswell & Poth, 2018, p. 96). More specifically, the collective case study approach, also known as *multiple case studies*, is one in which the researcher identifies one issue to study and selects multiple cases in which to illustrate the phenomenon (Creswell & Poth, 2018). The collective case study method was ideal for this study on ISAs as it allowed for extensive exploration of multiple cases in their natural state (Hancock & Algozzine, 2017). Given the novelty of ISAs and their recent induction into the higher education finance market, little is empirically understood about their inner workings. According to Yin (2018):

The more that your questions seek to explain some contemporary circumstance (e.g. “how” or “why” some social phenomenon works), the more that case study research will be relevant. Case studies also are relevant the more that your questions require an extensive and in-depth description of some phenomenon.

The research questions guiding this study required in-depth descriptions of each institution, their ISA model, and the broader finance context. Therefore, the analysis of ISAs through a case study methodology provided a new and more complete lens through which to assess their structure and potential.

The case study approach was selected as the primary method of analysis for addressing the first two research questions. In order to address the third research question, in-depth, semistructured interviews were conducted with leading higher education economists and finance experts. These interviews sought to uncover their views regarding whether ISAs provide more affordable higher education for students and families. Interviews with thought leaders took place after the case study site visits and help in positioning ISAs in a broader higher education finance and policy context.

Participant Selection

The sites for this case study were selected based on their position in the ISA market. For the purpose of this study, institutions were selected from the colleges and universities currently investing in ISAs to assess how ISA models vary across the different segments of the higher education marketplace. Three distinct case studies are represented. The case studies include the following institutional profiles: one private, nonprofit, four-year university and two public, nonprofit, four-year Research I universities. Each ISA selected for this case study has its own unique model and is at a different stage, all of which are explored in more depth in the individual case studies.

The two nonprofit public institutions selected for case studies were the University of Utah in Salt Lake City, Utah, and Purdue University in West Lafayette, Indiana. Point Loma Nazarene University in San Diego, California, was selected as the third case study site. All three institutions were carefully selected based on their ISA model and the length of time their ISA has been offered.

Purdue was the first university in the modern era to attempt ISAs when it launched its ISA program in 2015. University of Utah (U of U) followed Purdue as another large public university to launch an ISA program. At the time of the data collection for this study, U of U's program remained in the very early stages of development and provides a helpful glimpse into the process of developing an ISA program. Point Loma Nazarene University is a small private institution that piloted its ISA program in spring 2018 and offered ISAs to students beginning in the 2018-2019 academic year. Detailed descriptions and important context about each institution are provided in the individual case studies, as well as a thorough analysis of each ISA program.

Leading Finance and Policy Experts

For the second phase of this study, interviews were conducted with leading higher education finance experts and higher education economists. Participants were selected based on their research and expertise in the field of education finance, policy, and economics. Their scholarly work includes a blend of economics, policy, and finance in American higher education, as well as a combination of institutional and public finance. The participants for this study were recruited by drawing on a strong network of higher

education professionals for referrals. Considering ISAs are such a new and emerging innovation, these expert interviews were a critical phase of the research in order to understand perspectives from leading scholars in the field. The interviews help to position ISAs in the broader higher education finance and policy landscape.

Interviews with William Zumeta, Sandy Baum, and Richard Vedder provide important insight into how higher education policy and finance scholars view ISAs. Zumeta is a well-regarded expert on issues related to economics and finance and is coauthor of the book *Financing American Higher Education in the Era of Globalization* (Zumeta et al., 2012). He holds a joint appointment as professor in the Evans School and the College of Education at the University of Washington. He formerly served as a senior fellow of the National Center for Public Policy and Higher Education and has been a fellow of the TIAA Institute since 2008 (Evans School, n.d.).

Baum is currently a nonresident fellow in the Education Policy Program at Urban Institute and professor emerita of economics at Skidmore College (Sandy Baum, n.d.). Her recent book, *Student Debt: Rhetoric and Realities on Higher Education Financing* (Baum, 2016), explores in detail the challenges with current discussions surrounding student debt in America.

Vedder, professor of economics emeritus at Ohio University, has contributed to the discussion of ISAs. In April 2018, Vedder published an opinion piece in *Forbes* titled “Reforming Federal Student Financial Assistance: Income Share Agreements” (Vedder, 2018). In the article, he discusses the potential positive and negative outcomes of an ISA model. He also testified before the United States Senate Committee on the Budget about

the current affordability issues in higher education (Vedder, 2014). Vedder is currently the director of the Center for College Affordability and Productivity (Ohio University, n.d.). These interviews shed additional light on the economic considerations necessary for potential widespread adoption of ISAs.

Interviews were also conducted with the following higher education finance and policy experts: William Doyle, associate professor of public policy and higher education at Vanderbilt University (Vanderbilt University, n.d.); Nicholas Hillman, associate professor of educational leadership and policy analysis at the University of Wisconsin-Madison (University of Wisconsin-Madison, n.d.); Robert Kelchen, assistant professor of higher education at Seton Hall University (Seton Hall University, n.d.), who wrote the book *Higher Education Accountability* (Kelchen, 2018); Lucie Lapovsky, principal at Lapovsky Consulting and former president of Mercy College (Lapovsky, n.d.); and David Tandberg, vice president of policy research and initiatives for the State Higher Education Executive Officers Association (State Higher Education, n.d.). These expert interviews provide a more complete and thorough exploration into ISAs.

Data Collection

The primary purpose of the case study method is to demonstrate an in-depth understanding of each of the three cases. In order to accomplish this, it was crucial to rely on many forms of qualitative data, which is the hallmark of a good qualitative case study (Creswell & Poth, 2018). Therefore, two data collection methods were utilized to develop in-depth cases. The first qualitative method in the data-collection process was the collection of detailed financial information on each institution as well as documents and

publicly available information about the ISA program at each site. The second data-collection method was to conduct semistructured interviews with higher education executives and administrators at each case study site.

The method of gathering important financial information, documents, materials, and general information allowed for a more complete representation of the existing ISA models in the broader institutional context. Many of the documents and informational material needed for the in-depth case study are accessible on the various websites for each institution. As a starting point, the following websites were reviewed at each of the three sites: offices of admission, financial aid, investor, donor, corporate, alumni relations, finance/budgetary, and legal. If the school's ISA fund has a publicly available website, then that information was also carefully reviewed. For the two public institutions, board reports that pertained to the long-term fiscal health of the institution and current budget documents were reviewed. Continuity across all cases was attempted in order to ensure reliability; however, the accessibility of publicly available information varied across sites. For instance, the University of Utah and Point Loma Nazarene University had limited publicly available information at this stage in their ISA development process. Additional publicly available information that were reviewed included news articles, press releases, and publicly available finance documents. Considering the impact of ISAs on a student's postgraduate success, employment data was a critical source of information. Thus, aggregated salary and graduate outcome data was examined by visiting each school's career center website to explore the various

postgraduate outcomes as reported by each institution. The quality of postgraduate salary data varied across sites.

Although some of the necessary material for this study was available online, not all of the relevant information was accessible and varied considerably across sites. Hence, various documents were collected from key stakeholders for additional evaluation. The documents collected for review included a range of the following, depending on the site: ISA contracts, financial modeling tools and techniques, finance and budget committee meeting minutes, ISA presentations, board meeting minutes, legal documents, and white papers or summaries about the program to date. These documents were critical in order to understand how ISAs fit into the overall finance model of the institution.

In addition to collecting and reviewing online information and other important materials, the study primarily relied on interviews as the main source for understanding the intricacies of ISAs as well as what strategies were implemented across the different market segments to account for challenges and how these strategies were developed and executed. A previous pilot for this study provided the general direction for participant selection. The primary sources to interview at each site included senior leaders and offices that are involved in the design and implementation of ISAs at each site. The primary decision makers regarding ISAs also varied across the different sites. The institutional decision makers who were interviewed included a blend of marketing, legal, information technology, and financial administrators who are heavily involved in their institution's ISA program. Additional interviews were conducted with other campus stakeholders such as financial aid officers.

Each site was visited during the course of the data-collection process in order to conduct in-person interviews. Prior to each visit, key steps were taken to prepare for a productive site visit. First, an exhaustive list of prospective stakeholders to interview was developed for each site, along with their contact information and a brief biographical sketch for contextualization purposes. Once the contact list was created, participants were contacted either by email or phone requesting to arrange a 30- to 60-minute interview, depending on the person's role and level of involvement in the ISA program.

Once the interviews had been arranged, a well-documented and well-thought-out interview protocol was developed in order to execute the interviews properly. To begin each on-site interview, the participants were versed on the broad nature of the study, the interviewer's role, and the intended audience for this study. Participants were asked to fill out a consent form and to indicate whether or not they agreed to being recorded. Finally, participants had the opportunity to ask any questions they may have had before starting the interview.

In order to assess the complexities and intricacies of the ISA model, a semistructured interview approach was followed to be able to ask important follow-up questions regarding unexpected or new information that may have been revealed during the interview. The questions were open-ended in nature to allow participants the freedom and flexibility to expand on their thoughts regarding what was being asked in the interview.

To begin, each participant was asked about both the short- and long-term goals of the ISA program. Participants were also asked a series of broad questions pertaining to

their role in the ISA development at their institution, then eased into more complex questions. The various interviews sought to uncover what was the impetus for investing in ISAs, the perceived benefits of offering them, and the early lessons learned from each of the sites to better understand how students were selected and what criteria were used to determine a student's inclusion or exclusion from entering into an ISA contract. The interviews provided important insight into which student population was the target market for each ISA model. It was also critical to ask participants how their target market is educated about ISAs to determine if it is the right option for their unique situation. In addition to the student data, key decision makers were asked a series of questions to better grasp how the ISA model was developed and what data were used to inform the development of that specific model. Legal and regulatory challenges at each site were also assessed, as well as how each institution experienced and navigated these regulatory challenges. It was also crucial to understand how institutions guarantee repayment from students and what they will do in the event a student does not pay. Some of this information was publicly available and therefore collected through the documentation collection method simultaneously; however, the specifics of the requirements were gleaned from the interviews themselves.

All interviews followed adherence to the protocol and were recorded, with permission from the participant, to ensure proper data collection. Those recordings were then transcribed verbatim. Participants were also given the choice of using a pseudonym to protect their anonymity.

The interviews with the leading finance experts followed a similar data-collection process and protocol as the case study interviews. The only major difference is that the expert interviews were conducted over a video-conferencing platform or telephone, as it was not feasible to travel for all interviews needed in this study.

Data Analysis

Once the interviews were properly transcribed and documented, they were critically and carefully analyzed to identify themes. Ravitch and Carl (2015) refer to the identification of themes as categorizing strategies and connecting strategies. To do so, the analysis began by capturing segments of data that seemed important or meaningful to the research (Ravitch & Carl, 2015). To identify these insights, the researcher drew on the literature review and the theoretical framework. However, because ISAs are so novel and lacking research, the coding process followed an inductive coding process in order to glean new insights that the literature alone did not provide (Ravitch & Carl, 2015). The inductive coding technique is often described by researchers as an “open coding” method. Utilizing the open-coding method, the categorizing process unfolded into three distinct categories: organizational, substantive, and theoretical (Ravitch & Carl, 2015). Organizational categories referred to the broad scope of issues and topics related to ISA models, which serve as bins for organizing information. Substantive categories are more descriptive and have more to do with participants’ beliefs, values, and feelings pertaining to the ISA model. Lastly, theoretical categories are situated into a more general or abstract framework of theory. Creating theoretical categories is described by researchers as being more representative of the researcher’s concepts or frame of thinking (Ravitch &

Carl, 2015). The combined method of analysis using interviews and document collection revealed important findings about how capital investment models for ISAs varied across the different segments of the higher education marketplace.

In addition to coding the interviews, the documents for analysis were also categorized, which helped to contextualize some of the key findings. Additional data analysis was needed to uncover which student populations and segment of the higher education market are benefiting or might benefit from ISAs. Therefore, in addition to conducting qualitative analysis, this study also drew on quantitative student data provided by the case sites and from the U.S Department of Education's Integrated Postsecondary Education Data System (IPEDS). IPEDS includes robust data in the following key areas: graduation rates, employment rates, average amount of loans borrowed, income, and loan default rates. Each site was also asked information about the percentage of students and families who borrow private loans and Parent PLUS loans to cover the costs of tuition, as well as the students who receive Pell Grants, merit-based scholarships and grants, and other forms of institutional aid. This study utilized descriptive statistics techniques to contextualize how each site's students and families finance their higher education.

Limitations of the Study

ISAs only recently have gained traction, and very little is known about their ability to lessen the financial burden of college education for students, which is the fundamental limitation of this study. Even with the examples presented through the case studies, the outcomes and return on investment for both the investor and student may not be known for several years. Purdue has the longest track record of any institutional ISA

model, yet its first cohort of ISA recipients is only just now graduating. Therefore, it is difficult to make long-term predictions based on these case studies alone. For any early adopters, there may be a biased trend toward a positive view of the activity. In this case, institutions that adopt ISAs may artificially tout their benefits while minimizing their drawbacks, especially as they have yet to begin receiving consistent revenue from such agreements and thus everything is still hypothetical. While there is no way to eliminate this bias, a significant portion of the study was dedicated toward analysis of the effects of ISA contracts and payment structures, which objectively assesses the current ISA landscape.

Validity and Reliability

Data reliability and validity is integral to arriving at reproducible conclusions regarding the value of ISAs. Techniques such as triangulation of methods and sources of data can be used to establish reliability (Creswell & Poth, 2018). The goal of the researcher in a qualitative study should be to seek understanding rather than attempting to convince readers of the efficacy of a certain phenomenon to ensure credibility, authenticity, and integrity in the research process (Creswell & Poth, 2018).

A key set of strategies was developed to ensure validity, following the recommendations of Creswell and Poth (2018). First, and perhaps most important, is the collection of multiple sources of data to corroborate evidence of the findings throughout the coding process. Another important element of validity is time spent at each site, which is why the face-to-face site visits to Purdue, Utah, and Point Loma were so critical to this process. By visiting the sites, it allowed for rapport and trust building. Participants

were also viewed as active collaborators in the research process, not just contributors. Trust and rapport were essential for participants to feel invested in the research process and involved in varying degrees beyond just being interviewed. Finally, the research collection and analysis process resulted in a detailed description of each case and provided further contextual descriptions to give proper attention to the audience's lens.

CHAPTER 4: PURDUE UNIVERSITY — BACK A BOILER

Introduction

When Mitchell E. Daniels Jr. joined Purdue University in 2012 as the institution's 12th president, it was a surprising decision to bring in this two-term, conservative, Indiana state governor to run a public university (Kiley, 2013). Daniels had never led a higher education institution, but he did appoint the governing board at the university that eventually selected him for the presidency. Some stakeholders in Purdue's community were skeptical about Daniels taking over the presidency, while others waited with guarded optimism to see how Daniels would shake things up, as he had been known to do in his political career.

Almost immediately after being inaugurated as Purdue's president, Daniels launched Purdue Moves (Daniels, 2013), a university-wide initiative with ambitious goals to tackle some of the grandest challenges facing higher education. The hope was that it would "place Purdue among the great academic institutions of the world" (Purdue, n.d.-h). One of the main pillars of Purdue Moves is to tackle college accessibility and affordability. When Daniels began his presidency, Purdue was on a 36-year trend of increasing tuition. Recognizing the negative impact tuition increases were having on college affordability, Daniels's administration broke the trend by instituting a tuition freeze in 2013 that now has been maintained for seven years (Purdue, 2018).

In addition to freezing tuition, one of the other major initiatives within the college affordability pillar was the launching of an ISA. At the time, ISAs were not widely discussed or attempted in higher education, but President Daniels recalled a paper from

the 1950s by economist Milton Friedman that outlined the possibility of a finance model for higher education that would capture the value of human capital. What started as merely a curiosity led to the launching of what is now called the Back a Boiler Income Share Agreement (Purdue, n.d.-a). Although ISAs have gained some traction in higher education, it was arguably Purdue that brought them to the forefront as a potential option for higher education institutions and their students. Purdue's Back a Boiler ISA represents an important case study for exploring the impetus behind launching an ISA program, as well as early lessons and challenges. Widely considered the pioneering example of an ISA (Purdue Research Foundation, 2018b), Purdue's Back a Boiler bears close examination for what it reveals about the inner workings of ISAs.

It is critical to begin the case studies with Purdue given that the Back a Boiler ISA will be referenced in the other two cases and that Purdue is furthest along in the development of its ISA. The Back a Boiler ISA functions as the unit of analysis for the case study and will serve as the primary focus. However, it is important to begin this case by exploring general information about Purdue, including a brief glimpse into its history, student population, and budget model. These contextual elements serve as an essential backdrop for understanding the broader lens of Purdue. The case study begins with the historical, student, and financial context and will culminate with an in-depth exploration of the Back a Boiler ISA.

Purdue University Context

In 1862, President Abraham Lincoln signed the Morrill Land Grant Act, "which turned over public lands to any state that agreed to use the land sale proceeds to establish

a college” (Purdue, n.d.-g). Three years later, in 1865, the Indiana General Assembly voted on a plan to establish its first state-run institution with the goal of teaching mechanic arts and agriculture to the people of Indiana. Lafayette, Indiana, just 60 miles from Indianapolis, was selected as the ideal location for the new university, and in 1869 Purdue University was established as Indiana’s land-grant institution (Purdue, n.d.-g). Today, nearly 150 years after opening its door to just six instructors and 39 students, Purdue is recognized as a premier public institution in the United States, boasting many top academic programs ranging from engineering to business to pharmacy (Purdue, n.d.-j). Purdue is categorized by Carnegie Classification as a doctoral institution with highest research activity (Carnegie, n.d.-b).

University Governance

Purdue is governed by a 10-member board of trustees, one of whom is required to be a graduate of the College of Agriculture (Purdue, n.d.-c). The Purdue Alumni Association elects three of the board members, while the other seven are appointed by Indiana’s governor, including one student. With the exception of the student trustee, all board members serve three-year terms and may be reappointed by the governor for successive terms. “Currently, the longest-serving trustee is Tom Spurgeon, who has served on the board since 2005” (Purdue, n.d.-c). Spurgeon has been a generous donor to Purdue; indeed, three facilities on campus bear his name: the Spurgeon Club at Mackey Arena, the Spurgeon Hall of Spirit in the Dauch Alumni Center, and the Tom Spurgeon Golf Training Center (Purdue, n.d.-l). Under Indiana state law, the Purdue University board is responsible for keeping the university in operation and may make all regulations,

rules, and bylaws in order to manage the university effectively (Purdue, n.d.-c). The board meets monthly, and its meetings are open for the public to observe. However, the board does not engage in public comment. The board works closely with the president and his cabinet. The Office of the President serves at the helm of the university.

In addition to the Purdue Board of Trustees and president, Purdue has an active university senate whose primary purpose is to serve as the governing body of the faculty (Purdue, n.d.-i). The Purdue University Senate comprises 102 members, which includes the president, the chief fiscal officer and chief academic officer, the chairperson and vice chairperson, four members from the regional campuses, one undergraduate student and one graduate student. The remaining 91 members are tenured, tenure-track, clinical, and clinical-track faculty members.

Undergraduate and graduate students also engage in university leadership through their respective governing boards. Purdue Student Government is a student-run entity that serves the student body (Purdue, n.d.-k). The Purdue Graduate Student Government serves as the advocate for the 9,795 Purdue graduate students (Purdue Graduate Student Government, n.d.).

Enrollment and Tuition and Fees

In fall 2018, there were 32,672 undergraduate students and 9,795 graduate students enrolled across Purdue's 13 schools and colleges (Purdue, n.d.-d). Enrollment has been steadily increasing since fall 2014 when there were only 29,255 undergraduate students enrolled. Fifty-five percent of students are from Indiana (Purdue, n.d.-d), with the next-largest group from the neighboring state of Illinois. In 2018, Purdue received

more than 50,000 applications. In fall 2018, Purdue's yield rate was 27% and its admit rate was 57.95% (Purdue, n.d.-d). The eight-year graduation rates of full-time, first-time, bachelor's degree-seeking students from the 2009 cohort was 77%, the six-year rate was 75%, and four-year rate was 47% (U.S. Department of Education, n.d.-j). For the past decade, Purdue's retention rate has remained between 90–92%.

The cost of attendance for full-time students during the 2017-2018 academic year was \$9,992 for in-state students and \$28,794 for out-of-state students (Purdue, n.d.-d). Compared to other institutions in the Big Ten Conference (Figure 4), Purdue lands on the lower end for in-state, with only the University of Iowa and the University of Nebraska charging lower tuition (Purdue, n.d.-d). Purdue is also on the lower end for out-of-state tuition, with just the University of Minnesota and the University of Nebraska charging less than Purdue.

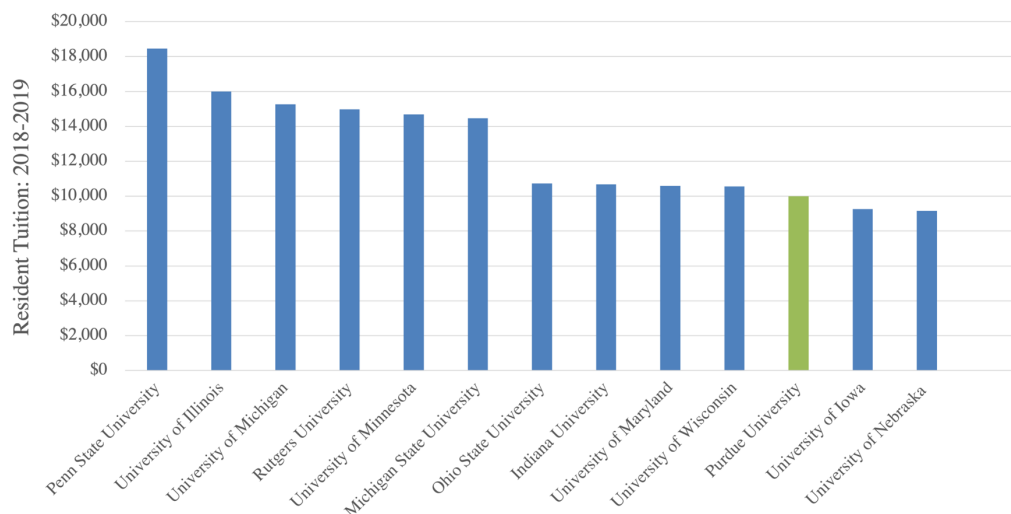


Figure 4. Resident tuition for Big Ten institutions for the 2018-2019 academic year. Adapted from <https://www.purdue.edu/datadigest/>

Budget at a Glance

Purdue derives its budget from five primary sources of income: tuition and fees, state funding, internal reallocations, sponsored funding, and private giving (Purdue, n.d.-e). During the past three years, Purdue's revenue has been fairly stable. In 2017-2018, total revenue was reportedly \$2,080,633,148 (Purdue, n.d.-d). Student fees, state appropriations, and grants and contracts are Purdue's three main sources of revenue (Purdue, n.d.-d). In 2017, Purdue's revenue from tuition and fees jumped slightly from the 2016 reported revenue—from \$747,010,819 to \$873,244,979—despite a tuition freeze being in effect (Purdue, n.d.-d). This increase in revenue from tuition and fees is likely due to the increase in enrollment. In 2018, Purdue's West Lafayette campus experienced a spike in applications with 12,000 more students applying in 2018 than in 2014, which allowed the university to admit 1,000 more first-year students than in 2014. Historically, appropriations has been the second-largest revenue source for the university; however, in 2016-2017, grants and contracts replaced appropriations as the second-largest revenue source and remained so during the 2017-2018 fiscal year (Purdue, n.d.-d).

According to the National Association of Colleges and University Business Officers, Purdue was ranked 38th in terms of its 2017 endowment market value compared to other colleges and universities in the United States (National Association, 2018). At \$2.24 billion in 2017, Purdue's endowment (National Association, 2018) ranks fifth in the Big Ten Conference, preceded by University of Michigan, The Ohio State University, Penn State University, and Michigan State University. In 2015, Purdue launched "Ever True: The Campaign for Purdue University," which set out to be the largest fundraising

effort in the history of the university (Purdue Research Foundation, 2017). By the end of 2017, the initiative raised more than \$1.73 billion, with \$351.9 million being received during 2017 alone, making it the first time in Purdue's 150-year history that gifts exceeded \$300 million for three consecutive years (Purdue, n.d.-e).

Expenditures have kept pace with revenue over time, which demonstrates that Purdue's finance model has remained relatively stable. In 2016-2017, Purdue's total expenditures amounted to \$2,011,792,243 (Purdue, n.d.-d). Like most colleges and universities, the largest expense was salary and wages, which amounted to \$873,244,979. Student aid is the fourth-largest expenditure. In 2015-2016, Purdue allocated \$192,312,769 to student aid, and in 2016-2017, the amount increased slightly to \$200,272,377. For full-time, first-time, degree/certificate-seeking undergraduates in 2016-2017, 66% received grant or scholarship aid, 16% were Pell Grant recipients, 15% received other federal grants, 34% were awarded federal student loans, and 14% were awarded other student loans (U.S. Department of Education, n.d.-j). Purdue is able to cover most of the cost of attendance for Pell recipients, and those students generally do not have to take out student loans. After accounting for scholarship and grant aid, the average net price of attendance in 2016 was \$12,117 (U.S. Department of Education, n.d.-j).

According to a senior administrator in financial aid, the majority of aid goes toward students in Indiana (L. Hertling, personal communication, October 9, 2018):

Well, we target most of our need-based assistance to our in-state students. We are a very strong believer that Indiana's money should go to Indiana students . . . and the other thing that we have found is that if we were to give our students from out-of-state \$5,000 or \$6,000, when your bill is \$43,000, are you really

helping them? We have found that \$5,000 or \$6,000 to an in-state student can help them a whole lot more than our out-of-state students. So, we primarily target that kind of money towards our in-state families.

Although 66% of Purdue students receive some form of a grant or scholarship, many students are left with a gap between their financial aid award and the total cost of attendance. As students and families struggle to pay for tuition, not just at Purdue but across the country, donors are becoming more aware of the need to fund scholarships or grants to help offset the cost for students and families. The vice president for advancement at Purdue Research Foundation explained that most donors want to give toward undergraduate students first and foremost, and it is often aimed at some way to help students pay for college (A. Noah, personal communication, October 9, 2018):

We have a lot of . . . donors that have an interest in supporting need-based scholarships. There are a fair number of alums who say, “You know, Purdue was hard and when I came here; I was not the student who got all As. I was the student who got Cs, and I did okay for myself. I graduated and went on and had a career and now I am in a position where I can give back.” And so, they tend to see themselves more in some of those students who have need and so . . . interestingly enough, it used to be when I was probably even in college, I could get a summer job and I could offset almost a large portion of my tuition. There is no way anyone could get a summer job now and in three months make enough to really make a dent. At best, they cover some of their books or maybe some of their food, bills, but they certainly cannot really touch a tuition bill. So, a lot of our alums are passionate about that and they want to help.

Purdue, like many institutions, is looking for ways to help students balance the rising cost of attendance. Students who have a gap in payment tend to fill that gap through the Parent PLUS loan or private loan market, both of which are known for having high, often unpredictable, interest rates. During the 2015-2016 academic year, Purdue awarded 2,492 Parent PLUS loans for undergraduate borrowing totaling \$40,507,693. In the same year, Purdue awarded 1,376 private loan awards totaling \$22,074,950 (Purdue, n.d.-d). The

private loan numbers do not account for students who sought out private loans without Purdue's assistance. Borrowing Parent PLUS or private loans primarily impacts students who land in the middle-income bracket. According to the associate director for the Division of Financial Aid at Purdue, if the student does not have the means to pay for college out of pocket, or if they are not Pell-eligible, then Purdue's first line of defense is always federal student loans, either subsidized or unsubsidized (L. Hertling, personal communication, October 9, 2018). Next, they may try to use a Purdue loan that has a flat 5% interest rate. Beyond that, if the student still has unmet need, they have historically turned to a Parent PLUS or private loan. However, now that the ISA has become an option, it is another alternative to fill a percentage or all of a student's payment gap.

The following sections will explore ISAs at Purdue. To understand the full scope of the ISA, it is critical to analyze what led to the creation of it, beyond its being a part of the Purdue Moves initiative, as well as conduct an in-depth examination of the inner workings of the Back a Boiler ISA.

Laying the Foundation for the ISA

On March 17, 2015, before ISAs came into existence at Purdue, President Daniels was invited to speak before the U.S. House of Representatives Committee on Education and Workforce and their subcommittee on Higher Education Workforce Training. His talk focused on the most critical issues facing America's higher education system. At that time, Purdue had already launched a series of affordability initiatives in what Daniels claimed in his written testimony was a "philosophical shift in how we budget" (Daniels, 2015a). Frozen tuition, discounted textbooks, and a decrease in the cost of room and

board were three of the most prominent affordability initiatives. Purdue also campaigned for a more financially literate undergraduate population, encouraging their 18 peer counselors to spread the word about the importance of making smart financial decisions.

In his written testimony, Daniels noted that “while the goals of affordability, accountability, and quality remain works in progress, Purdue is doing its part. We will continue to do so as a matter of permanent policy and not a one-time gesture” (Daniels, 2015a). He urged the subcommittee to reauthorize the Higher Education Act in order to “reduce the costs of higher education’s regulatory burden, simplify and improve financial aid, and create an environment more conducive to innovation in higher education.”

Among the many calls-to-action that followed his plea was a brief paragraph on ISAs in which Daniels wrote the following (Daniels, 2015a):

At Purdue, we are interested in programs that would allow investors, perhaps devoted alumni, to fund a college student’s education in exchange for a small share of the student’s future income. Such arrangements would create incentives for organizations to support students with mentoring and career counseling without putting tax dollars at risk. However, widespread use of income share agreements is not realistic without legal clarity and adjustments to the regulation of student data. Therefore, Congress should act to provide sufficient protections and regulatory guidance for investors, students, and borrowers interested in such arrangements.

Although ISAs were not a central focus of Daniels’s testimony, he received a number of curious calls and requests to talk about ISAs following the testimony (B. Edelman, personal communication, October 8, 2018), and a number of news outlets published articles in response to his mention of the ISA.

Following the hearing, Daniels approached a few of his Purdue colleagues to explore what it would take to launch an ISA. At the time, ISAs were not a mainstream

concept and few, if any, institutions had attempted them since Yale did so in the 1970s.

Daniels approached Purdue Research Foundation and the head general counsel to explore the possibility of launching this innovative finance model. Brian Edelman, current president of Purdue Research Foundation, recalls the initial conversation with President Daniels (personal communication, October 8, 2018):

So, when he invited the general counsel of the university and me in to talk about this, we agreed to work on the project, and then in the hallway we looked at each other and said, “What is an income share agreement?” It was really after that experience in Congress, and he [Daniels] wanted to see if we could make something of it. I think that was the motivation. And it really, then, is motivated by the worldview from a land grant university that President Daniels has had since day one at his administration here at Purdue, which is affordability. Not having increases in tuition and trying to keep fees low and housing expenses low . . . if this is a low-cost way to finance education, then let’s examine it.

Starting something new such as ISAs was certainly risky considering there were no guidelines, but Daniels wanted to explore the possibilities, as he had done with other Purdue Moves initiatives. Having a president who sought to traverse uncharted territories was critical for launching the ISA, as Edelman articulates (personal communication, October 8, 2018):

I think one of the most critical factors was leadership at the time. And by that, I mean that the president of Purdue University, Mitch Daniels, was willing for us to take risks, both from a business perspective and a reputational perspective. We talked about both. And we talked about it from the perspective of it being a startup, an experiment. And we had no idea if any students would be interested, and we had no idea if any financing sources would be interested in financing the program. So, on both of those two fronts, we had total uncertainty.

With Daniels’s ardent “go ahead” mentality, Edelman and the general counsel began exploring what it would take to launch an ISA. The goal was to establish the ISA program by the fall 2016 semester, which meant they had slightly less than 300 days to

put the right team in place, develop a model, figure out the legal and regulatory landscape, and find students who might be interested. The major request from President Daniels was “do no harm to students and do no harm to the university.” With that request, they set forth to develop the ISA program.

Developing Back a Boiler

Early on, the team envisioned an ISA that was partially funded by external investor capital. However, as a public university, Purdue is limited in its ability to provide assistance to the private sector. It was decided that Back a Boiler would be managed by the Purdue Research Foundation (PRF). The PRF was originally founded by a former Purdue president in 1930 to improve industry access to the university (Purdue Research Foundation, n.d.). It operates as a separate entity but in partnership with Purdue and is able to conduct business with private industry. PRF has its own board of trustees and its own C-suite of executives to run the day-to-day business operations. It is a nonprofit organization that manages investments, including the endowments of both Purdue and PRF, IP protection and technology transfer, commercialization and entrepreneurship endeavors, real estate, and funding research. The University Development Office, which manages private giving, also resides in the PRF.

Once it was decided where the ISA would be managed, putting in place the right team of people was another top priority in the early days before launching. The early team comprised the following senior leaders in the PRF: the PRF president, chief technology officer, chief finance officer, chief investment officer, chief marketing officer, and general counsel. The vice president of advancement also was involved in early

discussions but was not part of the core team developing the ISA program. The team consulted other entities across the university including enrollment management, financial aid, and career services.

Another goal early on was to assess the extent to which the financial aid office would be on board with the little-known concept of an ISA. Considering financial aid is on the front lines when talking with students, it was important to establish them as core members of the early team. David Cooper, chief investment officer at the PRF, puts it this way (personal communication, October 8, 2018):

Another theme you'll probably hear throughout your work, at least within the Purdue network, is this wouldn't have gotten off the ground without our financial aid office. The intimacy they have with the students, that relationship, they take it very seriously, as they should. They were a part of this team all along up front. They were skeptical, which was good, but they very much became big fans and adopters of this. When a student is coming in and thinking through options, they are always there. If they did not believe in it, they would not even put it out as an option. They were there to say, "Here is an additional option if you think this might be for you."

The financial aid team's skepticism was largely because the concept of funding a student's tuition in exchange for a percentage of their postgraduate income was so new. However, they came around to the idea when they understood that the goal was to provide options for students, and once they felt assured that the ISA program would not do any harm to them.

As the team embarked on developing the program, President Daniels wanted to make certain there was actual interest from the students. Would students find this new finance tool appealing? He also wanted to be sure there would actually be a funding model that could support the program. In order to assess the potential buy-in from

students, the PRF team and the financial aid office launched a survey, conducted focus groups, and interviewed students to assess what the potential response would be. The team also had conversations with student government to better understand student needs, as well as what their preferences might be for an ISA program. They asked questions of students and parents to assess their level of interest in ISAs and where they might fit in the overall financial aid portfolio. One of the original lessons learned during these conversations was students did not like the program's original name, which was called *Bet on a Boiler*, as students did not like the feeling that the institution was hedging its bets on the student's success. In addition to talking to students and families, the PRF team also discussed the ISA with potential investors given that it was thought at the time that external investors might be an ideal avenue for funding the Back a Boiler program.

While all of this research was happening back at Purdue, President Daniels was speaking publicly about the new ISA program that was being explored at his university as well as weighing in about college affordability issues more generally. In a written testimony to the Joint Economic Committee on September 30, 2015, President Daniels made the following comments (Daniels, 2015b):

Into this dismal picture, a glimmer of a better idea has appeared. Income-share agreements (ISAs), under which a student contracts to pay funders a fixed percentage of his or her earnings for an agreed number of years after graduation, offer a constructive alternative to today's private and PLUS loans, both as an option for new originations and for refinancing existing debt.

If we move forward, students who need more than they receive from the Stafford program, or who simply wish to avoid the hazards of traditional loans, could enter into an ISA. When they do, any loan debt they already carry could also be refinanced into the agreement if they choose, permitting them to graduate free from any private or PLUS loan debt. For students, the clear advantage is that their education payments will never be more than the agreed

portion of their incomes, no matter what life brings including unemployment, underemployment, and health issues.

Our exploration of the idea is consistent with our desire to guarantee that a Purdue education will be within the financial reach of every qualified student. We are willing to put all options on the table as we consider how to do that. Inevitably, some ideas will make a difference, and some won't; some will be practical, and some will be farfetched. I'm not ready to make any final statements about ISAs. But there is something very American and progressive about the idea that contrasts with the existing alternatives. Consider that with private and PLUS loans, access to higher education funding regressively depends on family wealth. With an ISA, family credit is irrelevant to one's worthiness to get funding. What matters is the future, and an individual's promise to work hard and pursue the American dream.

Around the same time of Daniels's written testimony, the original Student Success Act of 2015 was introduced to Congress (S. 2186, 2015; H.R. 3432, 2015). This legislation sought to provide a legislative and regulatory framework for the completely unregulated ISA market. The Student Success Act of 2015 was sponsored by Todd C. Young, a republican United States Representative from Indiana's 9th district (H.R. 3432, 2015), and United States Senator of Florida, Marco Rubio (S. 2186, 2015). In his written testimony, Daniels encouraged the legislatures to pass the bills:

I am grateful to Rep. Young and Rep. Polis for introducing HR 3432, the Student Success Act of 2015, as a bipartisan effort. This legislation will make it possible for us to test whether ISAs can give students a better deal than they now have. The legislation is needed because it will provide important protections for students and offer clarity for the ISA provider. It's also my hope that the final version of the bill will make it clear that ISAs should be dischargeable in bankruptcy, which will be an important distinction from the current offerings. Without this legislation, we will never see ISAs in use at a large scale; with it, we have a chance to do something real for students. I encourage the Senate to introduce and pass similar legislation to HR 3432, and to do it quickly. Legislative clarity will open doors to develop this option in a way that is not currently feasible (Daniels, 2015b).

Recognizing the legal and regulatory challenges of this undefined finance model, Daniels and Purdue were incentivized to support the legislative agenda or else encounter additional risk without a legal framework in place. Purdue has two lobbyists based in Washington who are lobbying for the regulation of ISAs, among other important agenda items for the university.

The rocky legal and regulatory landscape is one among many early challenges that Purdue faced in order to launch the ISA. There were many other unanswered questions that needed to be addressed beyond just the legal and regulatory concerns. How would the ISA be serviced? What is the appropriate pricing? What is the rate of return for the investor? How would the ISA fit into a student's financial aid portfolio? Who is the ideal student for an ISA? Who is the ideal investor? What protections need to be put in place for the student and the university? How should the ISA be communicated to students? The following sections will address these questions through a thorough analysis of the development of the Back a Boiler ISA and what early challenges and lessons the team at Purdue learned along the way.

Servicing the ISA

From the beginning of developing the Back a Boiler ISA, the PRF team was in discussion with various policymakers and sat on panels that focused on ISAs to make others more aware of Purdue's endeavor. Although higher education institutions had not yet entered the market for ISAs, conversations were happening around Washington, many of which with individuals who had formerly worked in the federal and private student loan market. The PRF released a request for proposal for managing the new ISA

and received six proposals from a range of startups looking to get into the ISA space. One of those proposals was from a small startup in Washington, DC called Vemo Education.

Vemo came into the market around the same time that President Daniels made a public declaration that Purdue would be exploring ISAs. Anticipating that ISAs might hit higher education institutions soon, a team of professionals came together that included a number of people from the financial services industry including the former deputy general counsel of Sofi, the former chief information officer for the U.S. Department of Education, as well as former Sallie Mae employees. Together, they founded Vemo Education. A number of the founding members had been in early talks with other finance services professionals about ISAs and their potential in higher education, so there was a natural timeline to launch their startup endeavor around when the request for proposal for Purdue's ISA was announced. Within a month of its founding, Vemo received the request for proposal from the PRF. They subsequently split off into two entities—one group that would be focused more on the student-facing side of ISAs and one that would be focused solely on the higher education institutions.

When the PRF received Vemo's request for proposal, it felt that Vemo knew what it was doing more than the other agencies that submitted a request for proposal. It was critical for Purdue to have expertise on the servicing side to collect payments from students after graduation, as the PRF legal team advised against servicing the ISA internally for fear that it could result in a conflict of interest. In retrospect, the program manager for the Back a Boiler fund and vice president of information technology for the PRF recalls the legal department saying something to the effect of "you wouldn't want to

have a person from Discover Card working in financial aid. That would be wrong” (M. Cartwright, personal communication, October 8, 2018).

Recognizing the legal barriers, as well as the sheer magnitude of setting up a servicing platform, the PRF decided to work with Vemo Education. Vemo would be responsible for developing the ISA model, in collaboration with the PRF, as well as providing all of the backend servicing required for managing and operating an ISA. To service ISAs, Vemo collects annual documents from students, manages the payments coming in, and also contacts students if they are not making payments. The PRF worked on the narrative, goal, and messaging to students while Vemo was responsible for the day-to-day operating of the ISA. In exchange, the PRF pays a servicing fee, which is based on the dollar amount of the contracts. A certain percentage of this fee is incurred while the students are still enrolled in school, once they are out of school, while they are in the six-month grace period, then finally once they are in repayment. The more ISA contracts Purdue enters into, the better it is for Vemo. However, the PRF team assures that this has not become a problem and has not gotten in the way of their mission and values.

Creating the ISA Model

One of the major early tasks for the PRF and Vemo was to develop the model for the ISA. Given that ISAs were still in their infancy, there was not a clear model in place for how much of their income graduates should share, what students the ISA would be available to, and whether or not there would be a difference in pricing based on a student’s major. Vemo Education, in partnership with the PRF, was responsible for

developing the model. Representatives of Vemo Education consulted with various departments across the university including academic affairs, career services, financial aid, and the different colleges to collect data that would help with trying to predict students' postgraduate behavior. These departments shared valuable data on students' experiences ranging from graduation rates to first destination outcomes to borrowing behavior.

In addition to the datasets provided by the departments, the team also used a robust database that Purdue makes publicly available called Purdue's Data Digest (Purdue, n.d.-a). All these data were used to show progression year-over-year to predict how much time it would take for students to graduate, how much money they would earn in their first few years after graduating, what percentage of students might not graduate on time, what percentage might stay in Indiana versus go elsewhere, and what percentage will graduate on time.

There were many possibilities for how the ISA could have been modeled. For example, all students could share the same percentage of their postgraduate income regardless of major, which means that a student who is making more money after graduation would pay less of a percentage of their postgraduate earnings than a student who earns less. Leveraging the predictive model developed by Vemo, as well as the lessons from the focus groups, it was decided that the model would account for variations in salary outcomes by major by having different income shares based on the student's anticipated salary range.

When the salary data were analyzed, the incomes naturally landed into distinct groupings; thus, it was decided to vary the percentages and term limits based on these buckets (M. Cartwright, personal communication, March 10, 2019). Initially, the model used six salary groupings during the first year and in the second year expanded to eight to account for more variation between majors. Subsequently, all majors were assigned to different anticipated salary groupings. For instance, on the high end of anticipated salaries is group one. The only major in group one is PharmD. For a senior majoring in PharmD, their income-share percentage based on a \$10,000 ISA would be 1.73% for 80 payment months. For seniors in the second grouping, which includes computer engineering and chemical engineering, their income-share percentage based on \$10,000 would be 2.57% for 88 payment months. Group eight comprises public health, English, elementary education, anthropology, and veterinary technician majors. For a senior in group eight who is funded a \$10,000 ISA, his or her income-share percentage would be 4.52% for 116 months. In addition to the income-share variations between majors, the ISA percentages and payment months also vary by academic year and funding amount. For instance, a junior in group eight would agree to an income-share of 4.97%. The variation in percentages based on majors and anticipated earnings was an important criterion for students. On Purdue's Back a Boiler website there is a convenient tool for better understanding the variations between majors. The tool provides predictions of the total amount a student would repay with an ISA based on his or her major and also presents a side-by-side comparison of a 7.6% PLUS loan and 10% private loan. Another

useful feature of the tool is it predicts a student's postgraduate, monthly payments for the length of their ISA term.

The following figures present three examples of ISAs with data retrieved from Purdue's publicly available ISA comparison tool in order to demonstrate the granularity and variation of Purdue's Back a Boiler ISA model. Three majors were selected for comparison purposes based on their ISA group. The figures illustrate the predicted total amount that would be repaid based on the student's income-share and payment months, as well as their predicted monthly payments. The first example is an elementary education major, which falls in group eight, the lowest anticipated earning category. For a senior majoring in elementary education who accepts a \$10,000 ISA at 4.52% for 116 months, they are predicted to pay a total of \$16,311 by the end of their payment term (Figure 5). When compared to a PLUS loan, the total amount repaid is expected to be more with an ISA than with a PLUS loan; whereas the student would pay slightly more on a private loan with a 10% interest rate. Predicted monthly payments are also calculated based on an anticipated starting salary of \$31,000 (Figure 6). The second example is an actuarial science major, which lands in group four based on the anticipated earnings for that major. For a senior majoring in actuarial science who accepts a \$10,000 ISA at 3.03% for 96 months, they are predicted to pay a total of \$15,466 by the end of their payment term (Figure 7). When compared to a PLUS loan, the total amount repaid is expected to be slightly higher with an ISA than with a PLUS loan and about the same

as a private loan with a 10% interest rate. Predicted monthly payments are also calculated based on an anticipated starting salary of \$54,000 (Figure 8).

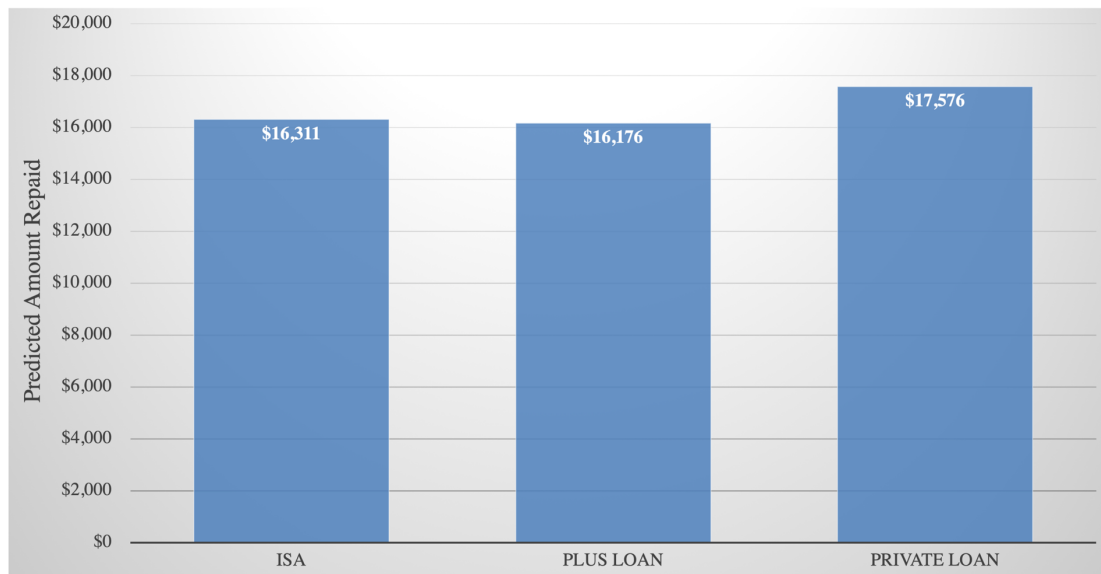


Figure 5. Predicted total payments for an elementary education major graduating in May 2019. Adapted from the “Back a Boiler Comparison Tool.”

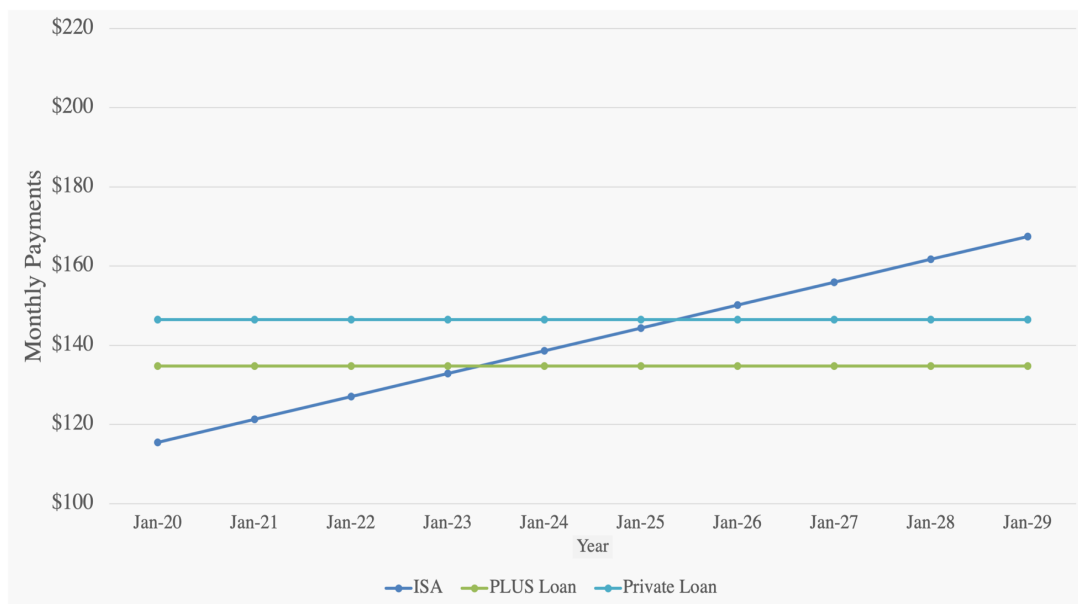


Figure 6. Predicted monthly pre-tax payments for an elementary education major that is expected to graduate in 2019. Adapted from the “Back a Boiler Comparison Tool.”

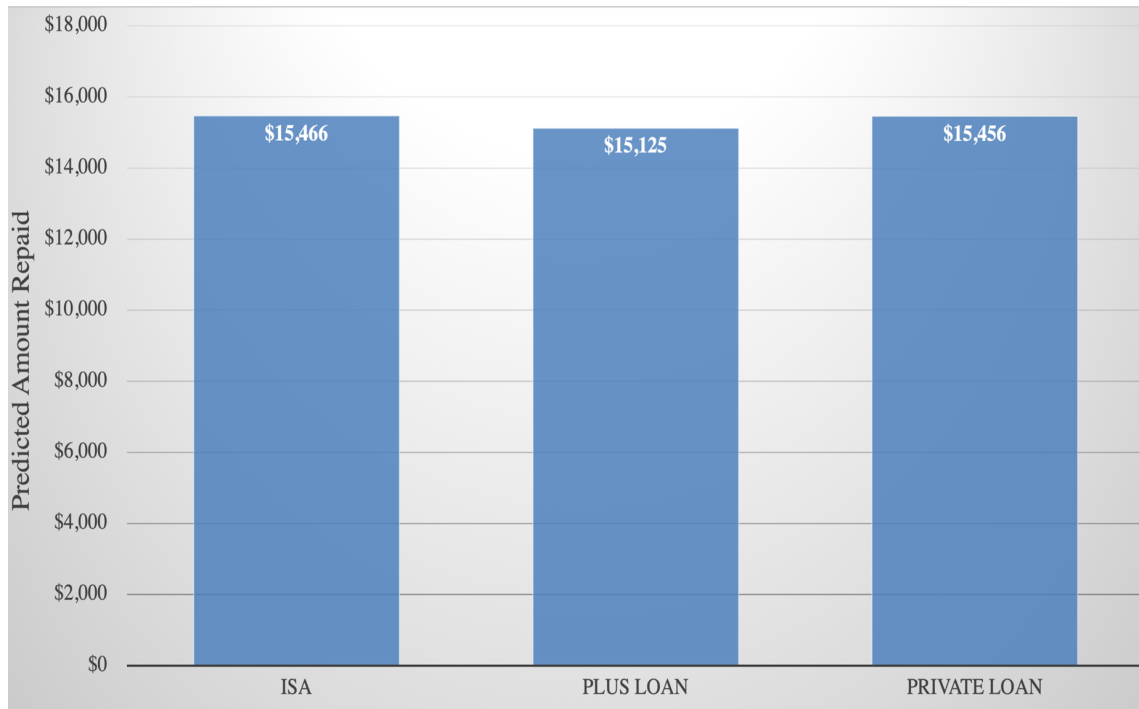


Figure 7. Predicted total payments for an actuarial science major that is expected to graduate in May 2019. Adapted from the “Back a Boiler Comparison Tool.”

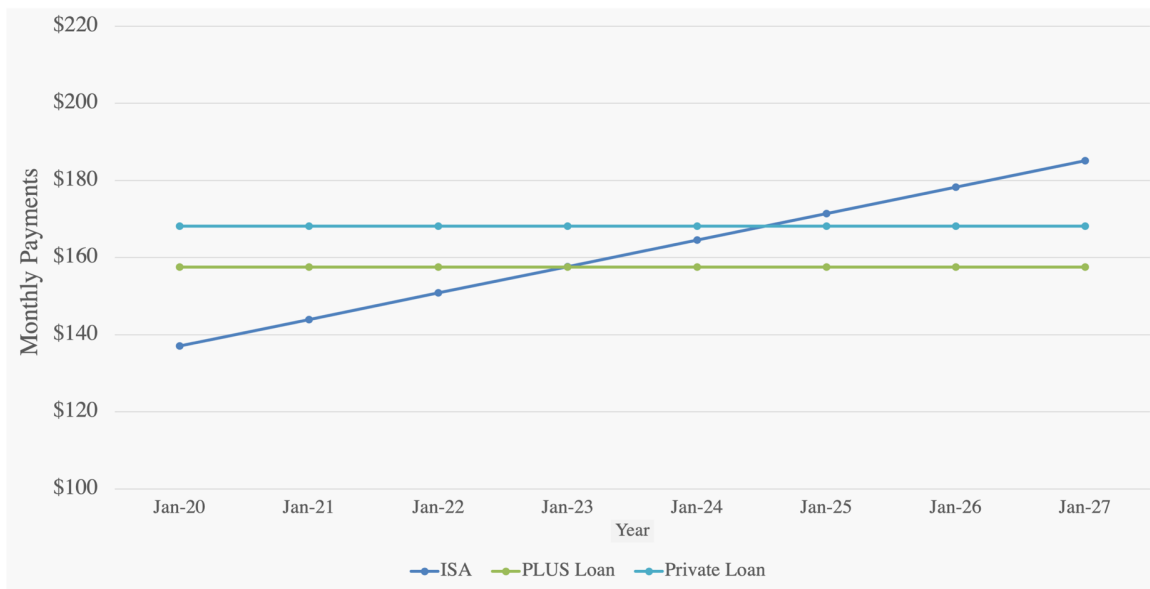


Figure 8. Predicted monthly pre-tax payments for an actuarial science major that is expected to graduate in 2019. Adapted from the “Back a Boiler Comparison Tool.”

PharmD is the final example and is in group one, which represents the major with the highest earning potential. For a senior majoring in PharmD who accepts a \$10,000 ISA she or he would agree to share 1.73% of their income over 80 months (Figure 9). The predicted amount repaid for the ISA based on the comparison tool is \$14,704, which is about the same as what is predicted when comparing the PLUS loan, and slightly less when comparing the ISA to a private loan with a 10% interest rate. Figure 10 illustrates the predicted monthly pre-tax payments for a PharmD major that is expected to earn a starting salary of \$112,000.

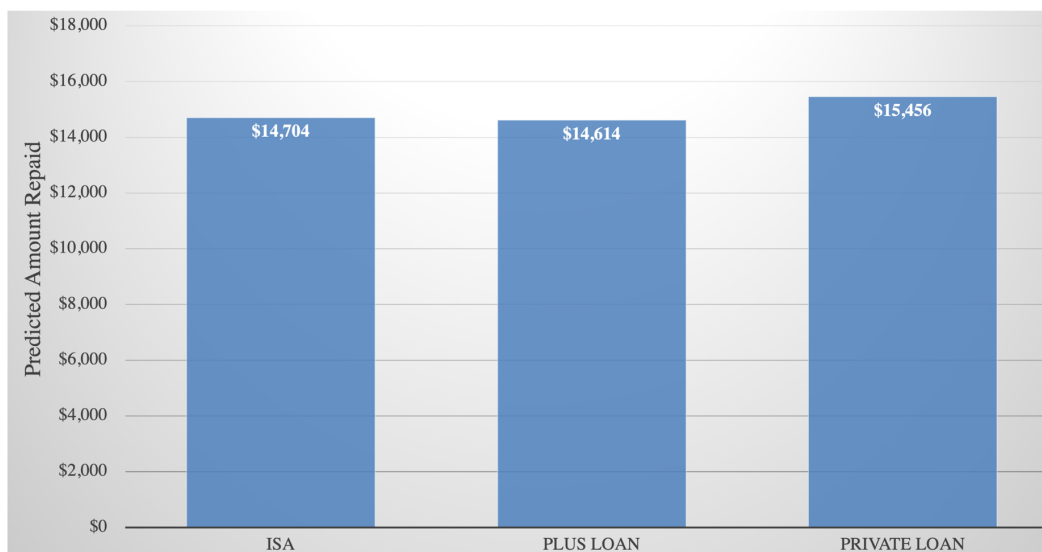


Figure 9. Predicted total payments for a PharmD major that is expected to graduate in May 2019. Adapted from the “Back a Boiler Comparison Tool.”



Figure 10. Predicted monthly pre-tax payments for a PharmD major that is expected to graduate in 2019. Adapted from the “Back a Boiler Comparison Tool.”

When using the comparison tool, it is important to ensure that the term limits for the PLUS loan and private loan are set to match the payment months of the ISA, otherwise the results will be skewed. Although Purdue’s Back a Boiler ISA comparison tool is helpful for better understanding the basics of the ISA model, there are some key assumptions in the comparison tool that are important to note. When predicting monthly payments, the model assumes that every graduate’s income will grow by 3.8%, regardless of major. This may or may not be the case, which will impact ISA repayment and a graduate may end up paying significantly more or less than what the model predicts. The tool also assumes that a graduate will pay a fixed monthly payment on the PLUS loan or private loan for all payment months. However, a person could choose to pay a larger percentage of their income to those loans, and therefore could end up paying them off faster. If a person decides to make smaller payments over a longer period of time, which

is how the comparison tool is modeled, then inevitably that loan will grow, and the graduate will likely pay more.

As the ISA comparison tool demonstrates, Purdue's model was developed in such a way where the risk premium is close to the same regardless of major. How Purdue has structured the model essentially makes it so that if a person makes more money than others in their respective fields, or ISA group, then those graduates will essentially subsidize the ISA for students in their field, as well as the fund in general, who may end up earning less than was anticipated. Therefore, the ISA is based on a person's income, relative to those in his or her field. If a student ends up earning the average amount for their field, that person will pay about the same on the ISA as they would on the PLUS loan over the same period of time.

In addition to the income-share percentages and payment terms, a payment cap was also instituted to avoid students having to pay back significantly more than the original funding amount. Purdue's ISAs are capped at 2.5 times the original amount borrowed. For example, a student who is funded an ISA of \$10,000, when he or she graduates, would never pay more than \$25,000. It is not anticipated that many graduates will reach that payment cap based on how the percentages are determined. There may be some graduates who earn significantly more than what was anticipated and predicted, and though those students may end up hitting the payment cap, it is unlikely that a significant number would reach the cap based on the predictive modeling. The model also accounts for payment terms, which is the amount of time in which students are expected to share their income. In the event that graduates reach the end of their payment term and have not

shared back the full, original funding amount by the end of the payment term, they would not be expected to pay anything additional even if the original funding amount has not been paid in full.

In addition to creating the ISA model, it was also critical to figure out where the ISA would fit in the overall financial aid portfolio of a student. With the tagline “This is not a loan, and you are not alone,” it was initially being explored as a possible alternative to all federal loans. However, after careful review of the financial aid options available to students, the PRF team and Vemo found that the ISA works best for students who have at least \$5,000 of unmet need. Often, students are filling that gap with a PLUS loan or a private loan. Purdue views the Back a Boiler ISA as an alternative to the Parent PLUS and private loans for students who have an unmet need gap in tuition. Currently, the model is benchmarked to the Parent PLUS loan. The chief investment officer of the PRF compares the ISA to the Parent PLUS loan in the following way (D. Cooper, personal communication, October 8, 2018):

I think where we landed on pricing, we continue to feel good about. That is, if you, on an expected basis, do the internal rate of return on Parent PLUS and Back a Boiler, you should be indifferent on an expected basis, or close to indifferent. Therefore, if you make a lot more money than what you are expected to, for your major and so on and so forth, then you probably are going to pay more. If you make less, then you are going to pay less than what you would with Parent PLUS. Then that gets into our tagline that when you need it the most, you pay the least, and when you need it the least, you pay the most.

While the ISA is a good alternative for some students, it may not be for everyone. For a student who is able to get a lower-interest private loan, then that may be a better alternative; nonetheless, for a student who has no other option but a higher-interest private loan or a Parent PLUS loan, then the ISA could be a good fit in his or her

financial aid portfolio. According to Leo Hertling, associate director for the Division of Financial Aid at Purdue, the ideal student for an ISA is described in the following way

(L. Hertling, personal communication, October 9, 2018):

The student that goes into it with their eyes wide open, that they have fully vetted all of the options that are available to them. They have done the credit screenings on the private loans; they have done the Parent [PLUS] loan check . . . or they have run the numbers to see if the parent loan is the better way to go. They have looked at the private loan to see what kind of interest rate they can get, and they can compare that to what the ISA contract is. That is the kind of student that I want taking the ISA. One that knows that this is the best thing for them, given their situation.

Hertling has been in financial aid for several decades, and he views the ISA as another tool in his toolbox to help students; he has not seen something else like it in his more than 30 years working in financial aid. Even though it may not be right for all students, it could be a good option for some. Brian Edelman, president of the PRF, thinks of the ideal ISA student in the following way (personal communication, October 8, 2018):

It is anecdotal, but I think the student that finds themselves in a position of needing funding and does not have a family with means . . . they have little income, but their family also has . . . whether it is because they have so many siblings, or just from a socioeconomic perspective, the family does not have a balance sheet or income that can afford really to fund anything out of pocket, and the student has needs. The student that really researches the agreement and understands it, what I have seen multiple times is the excitement about understanding that it is an forward-looking contract where there is an investment being made in the human capital that the student is investing in themselves and that investment is predicated on the future outcome of income. So, it moves them away from relying on others to finance their education and that is a reasonably complex level of understanding of the agreement . . . Financial aid was critical on our team, in terms of the attributes that we had that were so important. But our financial aid group will say that they are amazed at how many engineers do not really understand what they are signing up for when they sign up for debt, let alone [an] income share agreement contract.

In general, the financial aid office notices that not all students are financially literate and may not always understand the terms and agreements that they are abiding to with loans and other financial aid resources, so they knew it would be no different with ISAs. Thus, the team made it a priority to model based on need and also to rely on the financial aid team to meet with students to advise them and coach them in their understanding of what an ISA is and whether or not it is right for them. With the ISA model in place and the financial aid office on board, the next step was to figure out how the ISA would be funded.

Funding the ISA

Initially, the goal for developing the ISA was to make certain that there was interest from students and that it would be a fair financial option for them. At the same time, if students did seem to be interested in the Back a Boiler ISA, it was also critical to figure out how the ISA would be funded. Would it be funded through a third party? Through the Office of Financial Aid? From a donor? Or something else entirely? Reflecting back on the early conversations about how students' ISAs would be funded, David Cooper, the chief investment officer for PRF, recalls the following about students' financial risk (personal communication, October 8, 2018):

It makes sense. From a finance standpoint, if you think about the student trying to optimize their own personal capital structure . . . they have always had debt as an option in some form or fashion, but they have never had equity. If you are a small business or you are a large business, you are always wrestling with how much does my weighted average cost and how much debt and equity should I have for my capital structure of my business? Students have never had that piece. They have only had the debt piece. This gives them that option. Again, it is an option for them to look at to say, "Hey, I am transferring some risk here to a third party. Is that something that may be of interest to me, or do I want to hold

onto all that risk and just go 100% debt? Again, not transfer any of the risk to a third party and just take all that risk on myself?”

When you walk people through that, just that simple notion of this gives them another option. Students will ask us who should think about that, who maybe this is right for, who it's not right for. When you walk people through that, it really kind of clicks.

Early on, Purdue decided to use external financial capital to fund a portion of the ISA model. It was also decided that it was critical for Purdue to be a large investor in the fund because it was important to show students that Purdue is “putting their money where their mouth is,” so to speak, or putting “skin in the game.” It would be a statement from Purdue attesting that the university believes in its education enough that it is willing to put its money behind students. According to Edelman, president of the PRF, preliminary data would not come back for some time, until the first cohort graduated, so the investment was too risky for the endowment to take (personal communication, October 8, 2018). Instead, the university used money from a discretionary fund that Purdue’s president had in order to fund \$4.5 million of the first fund.

Another reason for Purdue to put money into the fund was because of its appeal to other investors. According to Scott Seidle, chief finance officer and treasurer for the PRF, it was critical that Purdue invest in the fund because one of the first questions people ask who invest in a venture capital fund is “can you tell me what the general partner has invested” (S. Seidle, personal communication, October 8, 2018). Thus, as the general partner in the fund, Purdue needed to be seen investing not only to raise student confidence in the concept but also for the livelihood of the fund itself. Without investing, it would look as if Purdue did not believe enough in the product to take a financial risk.

After Purdue put money in first, two additional investors entered the first fund with \$1 million each, totaling \$6.5 million dollars for the initial ISA fund. Those initial investors had an affinity for Purdue and were “friends of the university,” which meant that they were more willing to take a financial risk than someone with no affiliation. There are a lot of competing priorities at Purdue for capital, so it was a test to see if someone outside the organization was willing to make an investment.

After raising the initial fund, the PRF set a goal of raising a second fund of \$10 million. This second fund would prove to be more challenging, not only because of the amount needed, but also because the ISA was still so new that it was not clear how much the investors would make in return. The ISA is still in its infancy, so from an investor’s standpoint it is too early to tell if it is a good investment. Brian Edelman also noted that more investors were needed for the second fund because Purdue wanted to reduce the portion of investment, “both from an absolute dollars and percentage of total that Purdue was making” (personal communication, October 8, 2018). Moreover, because the initial discretionary fund was used for fund one, the PRF had to feel comfortable to work with the endowment and its investment process in order to continue investing in the second fund. The initial cohort data, despite some uncertainty, showed enough promise that the team at PRF felt comfortable using a portion of the endowment based on the initial outcomes they had observed.

In addition to the institution’s capital, more investors were needed for the second fund. Reflecting on who the ideal investor might be for the second fund, the chief

investment officer articulates it this way (D. Cooper, personal communication, October 8, 2018):

We think about it for our second fund in the same way in that those investors could be someone who has an affinity for Purdue and President Daniels and his initiatives, and just trying to keep cost down overall. It could be some portfolio, a public pension plan, or an endowment or foundation who has a social impact bucket within their investment portfolio or an ESG, environmental social green bucket, that finds this appealing from a social impact standpoint. Or it could be a not-for-profit who has a similar mission statement with furthering higher education. So those are kind of the terms in which we think that some investors at this point may be interested.

When talking to investors about their internal rate of return, the PRF uses the Parent PLUS as a guide. To account for the different investors and their risk appetites, the structure of the second fund is bifurcated into two tranches. For the senior tranche, the stated interest rate is 4.5%, and a junior tranche interest rate is 7% (Purdue Research Foundation, 2018). The second fund has been split in a way that might make it more appealing for various investors with different risks appetites to invest in the Back a Boiler fund. If the second fund reaches its goal of \$10 million, the hope would be that it would fund at least two full cohorts.

Despite there being more investors in the fund, David Cooper is confident that Purdue will always be an investor (personal communication, October 8, 2018):

I think if others come in and want to take a larger percentage, that is fine, but I think we will always be, at least I would be surprised if we are not always a significant [portion of the fund]. . . . And it is the same thing, right, that I expect to see when I'm looking at investments is, okay, what is the general partner putting in? What are you putting in of your own money? Because it gives an indication of how serious you are, the people that are closest to it and underwriting this, and who know this program the best. So, I think on multiple . . . for multiple, multiple reasons we will always be, and want to be, a significant investor in the Back a Boiler program.

In early 2018, the two funds combined had raised \$9.5 million in capital (Purdue, n.d.-a). Every dollar invested goes to funding an ISA for students. As students start making money, those shares of their income will help to support the fund. As of December 2018, the initial cohort of students started paying shares of their income, so more will be known in the coming months and years as to the viability of this funding model.

Measuring and Managing Risk

Each stakeholder is taking a certain risk by entering into the Back a Boiler ISA. Considering there are no federal laws that govern ISAs explicitly, the Back a Boiler ISA must work within the current legal and regulatory framework to ensure that it meets the current legal guidelines, even if not explicitly stated for ISAs. The Investing in Student Success Act, if passed, could provide the legal framework. In the meantime, the team used the bill as a guide for ensuring that the major risks inherent in this new finance tool were still legal and fair to the extent possible. It is important to explore the potential risks for each stakeholder group and what Purdue is doing to manage those risks for students, investors, and the university.

Student Risk

In the current model, there is a chance that graduates end up paying more back than was initially funded, or more than would have been paid back with a private loan or PLUS loan. Although this is unlikely, this is a risk the student is taking by entering into an ISA. Jonathan Kiely, a representative of an ISA servicing company, notes (personal communication, November 19, 2018):

Part of the reason for this is that those approaches require a balance that can be paid off earlier than the standard repayment or payment plan. With an ISA, there

is no balance, no interest rate, and no accrual. So, there *is* nothing to pay off early. Ultimately, you can think of an ISA as being a contract for an act (i.e., sharing one's income over a fixed number of payments), not an amount. This has two implications. First, there is no prepayment financial benefit with an ISA, whereas with a loan one can avoid accruing or compounding interest by prepaying early. Second, there is no financial penalty with an ISA from returning to school or leaving the workforce to start or support a family, whereas with a loan there is that penalty.

That implies a balance. There is no such thing as a balance on an ISA. So, for those people, we would say, "Hey, an ISA is not good for in your circumstances or with your goals. You should take out a loan because you are going to pay it out and not pay any interest. That is great. Do it. Here are some great loans . . . or other forms of financial aid. Talk to your financial aid office about the loans provided there for Purdue students. Sounds like an ISA is not up your alley, so it does not make sense for you to take one." So, there definitely are people who are in situations like that. It's not a panacea. It is not a one-size-fits-all option. However, ISAs are more versatile than most other forms of financial aid and can address many different types of problems or challenges. For Purdue, the challenge they wanted to address was . . . that students were taking on too much debt and it was lasting too long in their lives. So, they were concerned about that . . . the long-term impacts of high levels of debt and the delays in life experiences and milestones that can happen as a result.

To ensure students understand the risks of an ISA, Purdue instituted a "quiz" that students are required to take before they can accept one in their financial aid package. This was instituted during the second year of the Back a Boiler program because they found that during the first year, students did not seem to fully grasp how the repayments would be tied to their income. Every student is required to pass the quiz before they can accept an ISA award. Early results from instituting the quiz have resulted in more of the student population being knowledgeable about ISAs. The team and financial aid office are getting fewer questions on the back end that would demonstrate a student's lack of understanding about the ISA. A couple of examples of the types of questions that students used to ask before the mandatory quiz was implemented were: (a) What is my

principal balance? and (b) Can I pay the total balance of the ISA now? With fewer of these types of questions being asked, the university concludes that the students accepting the award have more knowledge about the ISA contract (M. Cartwright, personal communication, March 10, 2019).

Another risk that Purdue considered from the student side is how currently the local and federal tax considerations are not certain with ISAs. In the ISA contract, it makes it explicit that students must understand this important piece, and they also encourage students to consult with outside counsel to ensure they are getting proper guidance when it comes to how the ISA would be treated. The Back a Boiler contract attempts to safeguard the student and the university against any potential risk, but because there is no guarantee that students will review the contract thoroughly, the quiz will now be used as an additional step for ensuring Purdue has done everything it can to make sure students understand the ISA contract.

University Risk

One of the main risks to the university is the lack of federal and state laws for ISAs. The team consulted with PRF legal counsel, as well as outside counsel, to understand non-banking consumer finance, securities law, preferred lending laws, and commercial lending laws to ensure the program was in compliance in order to protect the university. Despite the fact that ISAs are not regulated, there are other protections currently in place that helped Purdue figure out how best to navigate the potential legal risks. Jonathan Kiely, a representative of an ISA servicing company, describes it in this way (personal communication, November 19, 2018):

ISAs are regulated as nonbank consumer finance, but they are not regulated specifically as ISAs. In addition, there is no case law to guide how disagreements are likely to be resolved. In the absence of regulation specific to ISAs, the Back a Boiler program based its consumer protections on Truth in Lending Act provisions (TILA), the Equal Credit Opportunity Act (ECOA), and other consumer laws and regulations. As such, if ISAs are explicitly added to such regulations, Purdue and the Purdue Research Foundation will have to make little to no changes in how they operate their ISA programs; they already comply with the content, layout, and timing of associated disclosures and contract provisions. And this is by design. So, all ISAs have to comply with nonbanking compliance, and there is a whole series of legislation on policy and guidance to that. That tends not to be highlighted, but it is there I will say that we are a strong advocate for clear and comprehensive consumer protections because that role is in our backgrounds (e.g., I worked for the GAO on higher education finance and think that the GAO continues to do excellent work) but also because consumer protections are critical in creating a sustainable and robust industry.

There should be consumer protections at various levels and people should be aware that those can be enforced at any given time. So, schools that are thinking about designing ISA programs without material consumer protections should beware, as they will likely be regulated out of existence.

There was one law in particular, which was developed by the Department of Education in the 1970s, that presented some limitations on Purdue's ability to market ISAs to students. From a business standpoint, the university had intended on marketing ISAs to students and families, but the legal counsel presented a case against doing so and instead suggested using language such as "communicate to students" instead of marketing. This came back to a time in the 1970s when financial aid professionals were being compensated under the table to guide students toward various finance options and were being called "preferred lenders." Purdue hired an outside law firm to analyze the regulations and law from the Department of Education perspective, and the analysis led the university away from its initial plans to market the ISA heavily. Marketing was eschewed because Purdue had a financial stake in the program's success and thus had to

confine itself to communicating it as an option. Purdue, for example, cannot place billboards all over campus with a Back a Boiler campaign, but it can send an email to students with a gap in payment and communicate the ISA as one option in their financial aid package.

Much of the ISA legal questions are still up for consideration, which presents a risk to the university. Therefore, it was critical for Purdue to leverage a strong legal team to navigate the complex legal terrain for something that is still so new. Beyond the legal risks, the university is also taking a risk that this program will not sustain itself, and in turn the university, and its investors, could lose money.

Investor Risk

Whether an investor is the university itself or from outside, it is risky because they are not certain what the cashflow will be for at least the next five years. It is also not certain yet as to whether or not there will be adverse selection if a student takes out an ISA knowing that he or she has no plans to work. The Back a Boiler contract protects against some aspects of this, so graduates have to prove that they are attempting to work. In other scenarios, payment would be deferred just like in a loan scenario. For example, if a graduate were to stop working to take care of his or her family, then payments would be deferred. Whereas, if a graduate was attempting to work but was having a hard time finding employment, then they would not be required to make payments during that period. In all these scenarios, especially so early on, it is hard for an investor to predict return on investment. The investors also do not have a say in which students are contracted for an ISA, so they cannot hedge their bets on one student over another.

Instead, they are investing in the pool of students. Thus, the investor is taking an investment risk; however, because of the bifurcated investment structure, the investor has some say in how much risk he or she accepts.

For each of the stakeholder groups—whether that be students, the university, or investors—there is some risk in entering into an ISA. However, the PRF team, in partnership with Vemo Education, attempted to set up the Back a Boiler program in a way where the risks would be clear to all stakeholders and the contract would be fair and equitable for all. In addition to managing risks, Purdue also had to consider what the response might be from various groups on campus and beyond. Considering the novelty of ISAs, the PRF team did not know whether or not the Back a Boiler program would be heavily scrutinized or welcomed; thus, there was also a reputational risk that the university was willing to take with the launching of the ISA program.

The Response

University Stakeholders

The response across the university was varied; some were very excited about the possibilities while others were skeptical or downright opposed to offering the ISA. When the financial aid staff was first introduced early on to the concept, they were one of the more skeptical groups on campus. Their skepticism was due in part to the concept being so new, and at that time there was not a national conversation happening in financial aid, or higher education, about ISAs, so the notion of sharing income felt strange and foreign. Leo Hertling recalls the initial reaction in this way (personal communication, October 9, 2018):

I would say at first there was some hesitation, some doubt as to whether or not this was the best thing. . . . We want to make sure that the students are taken care of first and foremost. So, that was our first, biggest concern. And I really think that the way that they have built the program—and at first I was very hesitant to say this—but the more I looked at all of the disclosures, and the more I looked at all of the preventative measures that they have put in place, like limiting it to 15% of the student's potential, probable income, looking at adjusting it based upon what degree program they are coming out from. We have done everything that we can in trying to make sure that our students are protected every step of the way and that they do make these decisions with open eyes. I think if it would have been any less than that, I would not be able to be comfortable talking . . . that I think it is a good program, and it is a valuable option for our students.

While financial aid was initially skeptical, the board of trustees for both Purdue and the PRF were eager to see Purdue trying something so new in financial aid. They have been supportive advocates along the way.

The group that was most resistant to the idea were the faculty. In October 2015, Edelman, president of the PRF, gave a brief presentation to the university senate. Many faculty members pushed back and were resistant to the idea of an ISA program, referring to it as indentured servitude. One faculty member even went so far as to write an opinion piece in the Purdue *Exponent* newspaper as a plea to students not to consider an ISA. In the article, he refers to students as guinea pigs. One portion of his letter refers to the ISA as a progressive income tax because of how it grows over time (Uhl, 2018):

This student financial assistance requires you to pledge a fixed share of your income for the first five to 10 years of your employment after graduation. Unlike government and private fixed-interest and dollar repayment loans, your repayment is open-ended and will rise with your income. No other financial instrument works like this. It is like an auto salesman saying, “Take the car now and we’ll set the price later based on your income.” While traditional fixed-payment loans take a fixed-dollar repayment and declining share of your rising income, ISAs take a constant share of your income and a rising dollar value. Your ISA will act like a progressive income tax.

The PRF team understood that because the ISA was still a new concept, it was bound to get some pushback. What they have found, however, is that the pushback often comes from individuals who do not have a deep understanding of what an ISA actually is in practice. Despite the pushback in the first university senate meeting, things have been relatively quiet on the faculty front ever since. In general, the PRF tends to get more questions and curiosities rather than university stakeholders outright detesting the program.

Students, Parents, and Families

The early interviews and focus groups revealed that students and families are interested in ISAs, or at least curious. The PRF team also presented ISAs to the student government and student councils, and the feedback was overwhelmingly positive from these students. Families tended to be a bit more on the skeptical side, particularly because ISAs are such a new way to finance education. Parents and families had the most questions early on and still do. Students, however, seemed to be curious and have the response that it may be right for some students; it may not be right for them, but they still wanted to see it as an option for Purdue students. The financial aid office aims to meet with students and families in person to discuss ISAs. As Hertling reflects back on discussions with parents and families, he recalls (personal communication, October 9, 2018):

Most of them are kind of curious because they have not really heard about it before. Some people think it is a great thing. Some people say, “You are putting my kid on the hook for somewhere between eight and nine and a half years with no ability to pay things off.” For the most part, they are trying to make themselves cheaper. In some cases it is, and some cases it is not, so I think the

best thing that we can do is give the family all the information that we have and then kind of go from there. So, let them decide.

Students who are already in an ISA contract speak highly of their experience and many want to share their experience. The PRF surveys students upon graduating to assess their experience overall with the ISA. The feedback has been overwhelmingly positive. The chief marketing officer of PRF, Cynthia Sequin, notes (personal communication,

November 14, 2018):

We have got a lot of students from sophomore, junior, and seniors who are in the program, speaking very highly of it. In fact, I would say that the first time I sent out a call for students who might be interested in talking to the media, I had like four who responded . . . I sent out the call about every fall. I sent out the call this year and I got more responses than I could really handle. I bet 50 to 60 students responded and said, “I would love to talk to the media about this.” These were students who were probably in the program as juniors, or maybe sophomores, and then they were becoming juniors and seniors this year. They were a little bit more familiar with it. That was a good thing. I think, in that regard, we can continue to reach out to the students . . . It's only the third year, so it's not doubling every year, but it is growing every year.

In general, parents and families are receptive, as are students. And, despite the marketing restrictions, the general consensus is that students are learning about ISAs and may find it to be an appealing alternative as the Back a Boiler ISA continues to grow.

Other Universities

Other universities have expressed interest in learning from Purdue, and the PRF team has been open to having discussions with other colleges and universities. The goal is that, by having these conversations, more institutions will launch their own ISAs to create a growing marketplace. The team also has been vocal at various higher education conferences in the hopes that ISAs will be more understood and considered by other institutions. Mary-Claire Cartwright, program manager for the Back a Boiler fund and

vice president of information technology for the PRF, has spoken to nearly 40 schools about the Back a Boiler program (personal communication, October 8, 2018). Despite the number of calls and talks, many people still have not heard about ISAs, so Purdue sees itself as a pioneer in the space. Although some of the schools that have consulted with Purdue have launched their own program, many are waiting to see how the first few years of payback transpire for Purdue.

Media and Outside Purdue

In addition to other universities, the Back a Boiler program also has garnered quite a bit of media attention. Articles in *The Economist* and *The Atlantic*—as well as many smaller publications at both a national and local level—have written about the development of Back a Boiler. Media attention was a goal that was set early on in the Back a Boiler ISA development. Given that ISAs were still novel, the PRF saw the media as an important piece of its development. Cynthia Sequin, assistant vice president of marketing and communications, recalls her initial approach to reaching the media (personal communication, November 14, 2018):

We did want to reach the media because we felt like it would be the best way that we could use to reach students and raise awareness of income share agreements across the country. What we did was we were very select. For example, prior to the launch, I went through a program called Focus, which is a program that Purdue University uses to find reporters who write about certain topics . . . What I did was . . . a Google search looking for reporters who had written about student debt, people who were higher education reporters who are experts in student debt. We did personal emails to those reporters with the news release. We also sent the news release out to the Purdue news service to all mainstream media, which included higher education reporters. When these reporters wrote about this, they made contact with us and I arranged interviews either with our president or with our lead on the ISA program.

The goal with reaching media was to increase awareness about ISAs with the hope of also reaching more students. The response was stronger on a national level, so some on the PRF teams view it as ironic that the program has gained more awareness outside of West Lafayette, Indiana. The team attributes their media success to the edginess of the program, as well as the reputation the university has with media outlets such as *The Wall Street Journal*, *The New York Times*, and *The Economist*. The combination of these factors may make the ISA an appealing topic for journalists.

Back a Boiler Today

After going through all the early challenges and lessons in setting up the ISA—from developing the model, to deciding how it would be funded, to navigating the risks and response—the Back a Boiler has distributed \$9.5 million to date and entered into 820 contracts with Purdue students since its launch in 2015 (M. Cartwright, personal communication, March 10, 2019). “Those students represent more than 120 unique majors. The top seven colleges represented are engineering, science, Polytechnic Institute, health and human sciences, liberal arts, Krannert School of Management, and agriculture” (Purdue Research Foundation, 2018b). Three institutional investors contributed to the first fund, resulting in a total of \$6.3 million raised. The second fund closed in October 2018 and raised \$10.2 million “with a total of 11 investors, including four institutional investors, one multi-strategy hedge fund, one family office, and five individual investors” (Purdue Research Foundation, 2018b). In 2017-2018, the Back a Boiler ISA was available for sophomores, whereas previously it was an option only for juniors and seniors. The average ISA per academic year is around \$12,000. However,

some of those are repeat ISA recipients, so the average per unique student is somewhere around \$15,000 to \$16,000 (M. Cartwright, personal communication, March 10, 2019).

One of the early surprises for the team has been that the breakdown of students by major looks similar to the student population at Purdue.

Each person on the Back a Boiler team has a slight variation in how he or she defines the ISA. For example, the vice president of information technology and Back a Boiler program manager describes ISAs in this way (M. Cartwright, personal communication, October 8, 2018):

I always talk about an income share agreement being what we would say, a forward-facing contract: always more equity contract than debt, where a student is agreeing to give a set percentage of their after-graduation income for a set period of time. And then the investor or investor fund is agreeing to give funds for that student to go to school.

I would say it is always on the student's potential, not on parents' balance sheet or FICO score. And would be, in comparison to many traditional loan products, would have lots of downside protections built into them. So, they are [ISAs], at the end of the day, there are still things that you probably are having to pay back, but they are . . . proportional to the income that you are making and then always have those downside protections built in.

Edelman, the PRF's president, defines it as "an element of equity in a student's capital structure. Where the student has sold a portion of future income for current financing today" (personal communication, October 8, 2018). The website makes clear what the intention is for the Back a Boiler fund (Purdue, n.d.-a):

Backed by the Purdue Research Foundation (PRF), the Back a Boiler-ISA Fund is an innovative new way to help make school more affordable for Purdue students. It's not a grant or a traditional loan—though students do make payments after graduating and securing employment. It's an opportunity to complete an education without worrying about interest rates.

Purdue's income share agreement (ISA) offers an alternative to private or Parent PLUS loans to fund a Purdue education which can be paid back with greater flexibility and freedom.

One of the important points highlighted on the website is that the ISA is not a loan. The difference between the ISA with Purdue, compared to a traditional loan, is that there is no interest rate, the original funding amount will never grow, and the student does not have to pay back the ISA if he or she does not meet an income threshold of \$20,000.

The criteria for entering into an ISA is that the student must be a U.S. citizen, be in good standing with the institution, cannot have any adverse credit actions on their credit report, and must be a rising sophomore, junior, or senior. In exchange, Purdue “invests in your success” through an ISA. The tagline “this is not a loan, and you are not alone” was an intentional way of saying to students, and the Purdue community, that the goal is to help students fill the gap when other financing options are limited.

Since launching the ISA program, the PRF has received several requests from graduates who entered into an ISA, asking to help with promoting the program. One graduate in particular, Andrew Hoyler, has been outspoken about the benefits of the Back a Boiler program, stating (“Andrew Hoyler,” n.d.):

It was looking like my first few years out of Purdue were going to be really rough, because my student loans would be so high. I would have had to live at home and work two or three jobs to avoid falling into even greater debt. Being accepted in the program meant more than words can describe because it shows that Purdue does care about their graduates. Receiving the funding helped me one, financially: because I was able to budget for things and two, emotionally: because I was able to look forward to the future.

The ISA helped Hoyler pursue his dream of becoming a professional pilot.

Manufacturing engineering student Melissa Gillbanks thinks of the ISA as a way to help

other students. She is quoted on the Back a Boiler website stating, “I know that my student loan bills will not pile up immeasurably and send me into unmanageable debt, regardless of my employment status,” Gillbanks said (“Melissa Gillbanks,” n.d.). “Plus, I get to help pave the way for future Purdue students. They will be able to pay for school without borrowing an incredibly large amount of money.” The Back a Boiler program has helped students such as Gillbanks and Hoyler with an alternative way to finance their education. Although the program is still in its infancy, the PRF team is optimistic about the sustainability of the ISA moving forward.

Pave the Way

Although the original impetus for the Back a Boiler program was to create an ISA fund from investor capital, there have been other unanticipated outcomes. One was a generous gift from a Purdue donor who wanted to give to the Back a Boiler fund. The donor is in his mid-80s and was not interested in investing in the fund; instead, he wanted to donate to the fund rather than invest with an expected return. However, the fund was not set up for donations. So in 2017, in partnership with the donor, the PRF created Pave the Way, which became the philanthropic arm of the Back a Boiler fund (Purdue, n.d.-f). This option would “pave the way” for other potential donors who wish to make a tax-deductible charitable gift to the Back a Boiler program. Pave the Way allows some students who enter into an ISA to share less of a percentage of their income with the help of the Pave the Way fund. In exchange, that student might agree to donate the remaining percentage back to the fund in what is referred to by Pave the Way as a “virtuous cycle.” The Pave the Way website provides the following example (Purdue, n.d.-f):

Without Pave the Way funding, a junior studying Aeronautical & Astronautical Engineering who takes \$10,000 through Back a Boiler will sign a contract indicating a legal obligation to pay back 3% of her income for 92 months upon graduation. With Pave the Way funding—made possible through the generosity of Purdue donors—the same student will be given the option to take up to 50% of the money needed through Pave the Way. In this example, if she were to take the full 50% through Pave the Way (in her case, \$5,000) along with the remaining \$5,000 she needs through Back a Boiler, instead of owing 3% of her income for 92 months, she will only owe 2.43% of her income for 92 months. She would sign a Back a Boiler contract, indicating a legal obligation to pay back 2.43% of her income for 92 months upon graduation. For the Pave the Way portion, she would sign a voluntary pledge indicating her desire to create a virtuous cycle benefiting future students. Students are encouraged to contribute a percentage equal to the amount by which their Back a Boiler income share percentage was reduced (0.57% in this example).

Pave the Way provides another avenue for individuals looking to become involved in Back a Boiler. Pave the Way is one example of the unanticipated outcomes that have happened as a result of the Back a Boiler ISA program.

Sustainability of the ISA Program

Determining whether or not the ISA program is sustainable will require some time to assess. Given that students are just now entering into repayment, it may be several years before the outcomes of the ISAs are fully understood. Purdue recognizes this and knows that it will take several years before the university will be fully aware of the sustainability of the program, if the program were to last that long. As students enter into payback, Purdue will inevitably face a new set of challenges such as whether or not students are paying back the expected income share that the model accounted for or whether students are struggling to pay back their ISA. Jonathan Kiely, a representative of an ISA servicing company, speaks about the anticipated challenges in the following way (personal communication, November 19, 2018):

I think that even though it has been a couple years, it is still relatively early in the evolution of what ISA programs can be and what problems they can solve. So, there are a couple cohorts that are now in their payment window, and they are starting to get a feel for how that works and the transactional part, but we have not had years of that. We have not had enough time for there to have been life that has happened. Like a death in the family comes . . . It just has not been enough months for that to have happened in most programs or disbursement cohorts. So, I think as we see something like an economic downturn . . . what happens when that happens? How is that going to affect the dynamics? Because part of the spirit of it is that the two parties of the contract are Purdue and its students, and so there is certainly this natural affinity. Purdue tends to graduate its students, and the students, when they graduate, tend to do well. So, they should feel good about each other. Is that affinity going to last through negative event, like a recession? That remains to be seen?

So, there are still lots of questions, and so I would say because of that—because we are still waiting for those kinds of things to happen to see how the different actors respond—instead of trying to incorporate every event into program design, they are saying “Let’s monitor, but let’s not make any drastic decisions. Let’s not respond to some noise that may have come up.” Maybe one cohort is a little odd or one particular cohort for a science major is a little off. Let’s see if that’s noise or if that’s actually a real thing. I’d say the attitude now is more monitoring than trying to build the perfect programs.

In addition to the potential variation in student outcomes, it is also likely that the original team may experience some changes in personnel that could impact the sustainability of the program. The PRF team holds an annual meeting with Back a Boiler as the focus, as well as frequent meetings throughout the year to assess the program and keep up to date. Those meetings will likely continue into the foreseeable future to ensure there is a coherent message shared with any newcomers to the team, which in turn will impact the sustainability of the model. The success of the model depends in large part on what happens in the next few years, so the focus right now is to continue raising money for fund two and to keep communicating ISAs as an option to Purdue students.

Conclusion

The Back a Boiler case illustrates what it takes for an institution to launch a novel ISA. Supported by the president and developed by a strong and collaborative team, Purdue's ISA fund would not have happened without the willingness to take a risk and embark into uncharted territory with a fervent commitment to college affordability and access. It is a case of determination in the face of several early challenges ranging from how to set up the model, to determining how it will be funded, to figuring out how to position the ISA in the current legal and regulatory landscape. The team had to find ways to communicate this new concept effectively to students, families, and key stakeholders, and the team is still uncovering new lessons along the way. The ISA remains a strong priority for the PRF and will have to remain so for the coming years to close the next fund and determine the viability of the ISA model. Purdue has helped push ISAs more into the affordability conversation at a state and federal level and will likely continue to be a pioneering force in this new ISA environment. In 2018, the Back a Boiler program was awarded the "Better Government Award" by the Pioneer Institute (Purdue Research Foundation, 2018a). Back a Boiler was selected as the top program among 80 other submissions for its innovative new method to help students pay for college. Thus, many have recognized Purdue as a pioneering institution in this regard, and it serves as an important case for exploring ISAs in higher education today.

CHAPTER 5: PLNU—POINT LOMA INVESTS IN YOU

Introduction

On December 31, 2017, *The Washington Post* published an article about income share agreements with the title, “A New Way Emerges to Cover College Tuition. But Is It a Better Way?” (Douglas-Gabriel, 2017). In the preceding year, the *Post* and other major news outlets had been publishing stories about ISAs as they gained traction at colleges and universities across the United States. This particular article in *The Washington Post* featured a small, private religious school in San Diego called Point Loma Nazarene University. The article began with the following (Douglas-Gabriel, 2017):

Nestled along the San Diego coastline, Point Loma Nazarene University is a world away from Wall Street. But the Christian liberal arts college is at the forefront of financial innovation.

Last fall, Point Loma began offering some of its 4,500 students money to pay for college in exchange for a percentage of their future earnings. The model, known as an income share agreement, requires colleges and students to take a chance on each other, a shared responsibility that attracted Point Loma.

The article referenced a few other private and public colleges that were exploring ISAs as an alternative method for financing a student’s college education. Point Loma’s senior vice president for finance and administration, George Latter, was quoted in the article stating, “It sends a message to the student that we’re in this with you, and unlike a grant, you have the prospect of these funds coming back in and creating a revolving form of financing” (Douglas-Gabriel, 2017). As a result of *The Washington Post* article, other education and policy-focused media outlets featured or discussed Point Loma in their stories about ISAs.

Although the media has focused some of its attention on Point Loma's ISAs, it is impossible to find a single mention of ISAs on Point Loma's actual website. Unlike some of the other schools that have implemented ISAs, which have their own website dedicated to the ISA, Point Loma does not mention it on their financial aid page, in their student handbook, nor on their advancement page. Despite the media attention, Point Loma has not been outspoken about the ISAs they offer. The small team that launched the Point Loma Invests in You ISA program has intentionally not marketed the ISAs at Point Loma, largely owing to the small nature of the program and limited funds. Point Loma has now entered its second year of the ISA, and while not as far along in their development as Purdue University's Back a Boiler, much can be learned from the school's impetus for launching the ISA and their early lessons. Point Loma's ISA also differs in many ways from Purdue's Back a Boiler, and thus is a unique case for better understanding the different ways to set up an ISA.

The following chapter will provide an in-depth exploration into the Point Loma Invests in You ISA. Point Loma is featured as the second of the three cases in this study because their ISA is the second furthest along in the development of its ISA. The Point Loma Invests in You ISA functions as the unit of analysis for the case study and will serve as the primary focus. The case begins with an overview of Point Loma, its history, enrollment, and tuition and fees, and a brief review of its budget and financial aid model. It is important to begin this case by exploring the context of Point Loma as this background will serve as helpful information for better understanding Point Loma and where the ISA fits within its mission, vision, and overall university structure.

Point Loma Nazarene University Context

Point Loma Nazarene University was founded in 1919 as a private religious, “faith-based” college (Point Loma, n.d.-c). The founder, Phineas Bresee, envisioned a liberal arts college in the Los Angeles area that would educate the whole person. He purchased land in Pasadena, California, to establish a university that was originally called Nazarene University. The name later changed to Pasadena College in 1919 and finally to Point Loma Nazarene University in 1973 when it moved from Pasadena to Point Loma, San Diego, where it resides to this day. Today, Point Loma offers bachelor’s degrees, master’s degrees, post-master’s certificates, and doctoral degrees. Point Loma is categorized by Carnegie Classification as: Master’s Colleges & Universities—Larger Programs (Carnegie, n.d.-a). Point Loma currently has more than 60 academic programs. It is a NCAA Division II school and is in the Pacific West Conference (PLNU Athletics, n.d.). Point Loma is one of eight Nazarene institutions in the United States, in addition to two Nazarene seminaries, which are owned by the Church of the Nazarene (Church of the Nazarene, n.d.).

University Governance

Point Loma Nazarene University is governed by a 23-member board of trustees that is self-sustaining and acts independently (Point Loma, n.d.-b). Three board members are considered trustee officers. The board “serves to promote and enhance the mission and educational purpose of the university through its programs and services” (Point Loma, n.d.-b). The Office of the President works closely with the Point Loma Board of Trustees, in addition to the president’s cabinet. On October 31, 1997, Bob Brower was

elected the 14th president of Point Loma Nazarene University (Point Loma, n.d.-d). The president also consults with the President's Advisory Board, which advises the president on a range of matters (Point Loma, n.d.-e). The president selects the President's Advisory Board members based on their expertise, and it helps shape the future of Point Loma. The advisory board comprises nine members.

In addition to the president and board of trustees, Point Loma Nazarene University is also governed by academic leadership (Point Loma, n.d.-a). The provost and chief academic officer serve on the president's cabinet. There are three vice provosts that serve in academic leadership positions: the vice provost for academic administration, the vice provost for assessment and institutional effectiveness, and the vice provost for graduate and professional services. In addition to the provost and vice provosts, each college has its own academic dean, which includes the dean of College of Arts and Humanities, the dean of the Fermanian School of Business, dean of the School of Education, and the dean of the School of Nursing.

Enrollment and Tuition and Fees

According to data reported to the National Center for Education Statistics, in fall 2017 there were 4,417 total students enrolled full-time across Point Loma's 71 areas of study (U.S. Department of Education, n.d.-i). Of those students, 3,100 were undergraduate students and 1,317 were graduate students. Seventy-five percent of students are in-state, 24% are from out-of-state, and 1% are from other countries. First-to-second year retention rates of first-time bachelor's degree-seeking undergraduate students was 89% in fall 2017. Compared to other private institutions in the Pacific West

Conference, Point Loma is fairly average in terms of enrollment. Notre Dame de Namur University is on the smaller end in terms of enrollment at 1,492 total students and 871 undergraduate students (Notre Dame, n.d.). Azusa Pacific is on the higher end of enrollment with 9,926 total students, 5,671 of which are undergraduate students (Azusa Pacific, n.d.). The most popular areas of study at Point Loma are business management, marketing, health professions, biological and biomedical sciences, and psychology. The eight-year graduation rates of full-time, first-time, bachelor's degree-seeking students from the 2009 cohort was 77%, the six-year rate was 75%, and the four-year rate was 63%. The total graduation rate for the 2011 cohort was 74% (U.S. Department of Education, n.d.-i).

The published tuition and required fees for full-time students during the 2017-2018 academic year was \$34,600 (U.S. Department of Education, n.d.-i). The total cost of attendance—including room, board, and other expenses—is \$49,844 for in-state, on-campus students, \$53,986 for off-campus and not living with family, and \$40,828 for off-campus but living with family, and \$41,614 for out-of-state, on-campus students. The average net price of attendance for full-time, first-time, degree/certificate-seeking undergraduate students who were awarded grant or scholarship aid in the 2016-2017 academic year was \$31,349 (U.S. Department of Education, n.d.-i). Point Loma's tuition and required fees is fairly similar to other private, not-for-profit schools in its conference, though on the slightly lower end. Azusa Pacific University's cost of attendance for full-time, first-time, degree-seeking undergraduates for the academic year 2017-2018 was \$37,506 and Holy Names University was at \$38,188 (U.S. Department of Education,

n.d.-d; U.S. Department of Education, n.d.-g) . On the higher end is Dominican University of California, whose cost of attendance for full-time, first-time, degree-seeking undergraduates for the academic year 2017-2018 was \$44,690 (U.S. Department of Education, n.d.-f). Although Point Loma’s tuition and fees are average compared to other institutions in its conference, when compared to the other Nazarene colleges and universities they are on the higher end of tuition (Figure 11).

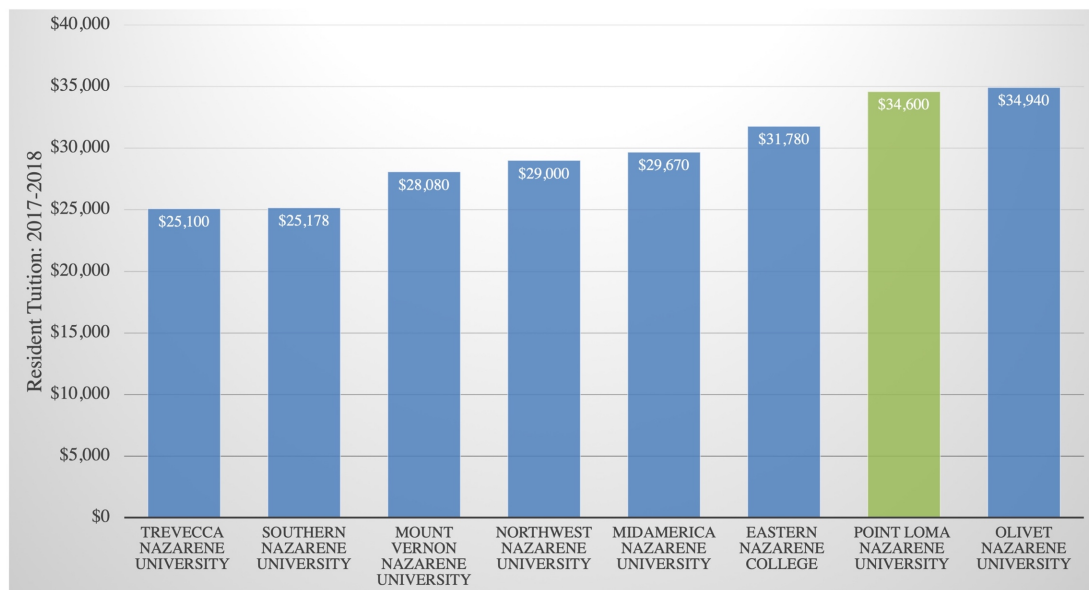


Figure 11. 2017-2018 cost of attendance at Nazarene colleges and universities for full-time, first-time, degree/certificate-seeking undergraduate students. Data retrieved from <http://www.nces.ed.gov>

Budget and Financial Aid at a Glance

Point Loma derives its budget from these sources of income: tuition and fees, private gifts, grants, and contracts, investment return, government grants and contracts, other core revenues, sponsored funding, private giving, and internal reallocations. In 2017, total revenue was reportedly \$136,986,543. In 2016, total revenue was reportedly \$124,232,786 and \$114,938,582 in 2015 (U.S. Department of Education, n.d.-i). Tuition

and fees constitute 84% of Point Loma's revenue, so—like many private institutions—Point Loma is very tuition-dependent. In 2017-2018, revenue from tuition and fees was \$114,079,655. The second-largest revenue source, which was private gifts, grants, and contracts, was \$1,819,000. Historically, tuition and fees has consistently been Point Loma's largest source of revenue.

According to the National Center for Education Statistics, in 2017-2018 Point Loma's total expenses amounted to \$135,191,402 (U.S. Department of Education, n.d.-i). The largest expense was instructional and academic support, which was \$36,277,894. Scholarships constitute 20% of Point Loma's expenses, which amounted to \$26,866,854 in 2017-2018. According to the report by the National Center for Education Statistics, for full-time, first-time, degree/certificate-seeking undergraduate students, 92% of Point Loma students receive any student financial aid, and 89% of Point Loma students receive grant or scholarship aid. The average amount of grant or scholarship aid was \$16,687 in 2016-2017. Twenty-eight percent of all undergraduate students received Federal Pell Grants, and 23% of full-time, first-time, degree-seeking undergraduate students received state or local grants and scholarships, and 89% of full-time, first-time, degree-seeking undergraduate students were awarded institutional grants and scholarships. Point Loma is on the low-end of Pell Grant recipients when compared to other Nazarene Universities. In addition to scholarships and grants, students also pay for their Point Loma tuition through federal student loans. In 2016-2017, 60% of full-time, first-time, degree-seeking undergraduate students at Point Loma borrowed federal student loans with an average loan amount of \$5,350 (U.S. Department of Education, n.d.-i). Despite having higher

tuition than other Nazarene colleges and universities, Point Loma has the second to lowest percentage of full-time, first-time, degree-seeking undergraduate students borrowing federal student loans (Figure 12). In 2018, 393 private loans were awarded to Point Loma students, representing 12% of all undergraduates. The average private loan amount was \$14,338 (S. Hansen, personal communication, March 7, 2019). In addition to private loans, in 2018 there were 534 PLUS loans for undergraduate students representing an average of \$18,512. One important thing to note is that there may be overlapping borrowers in each category.

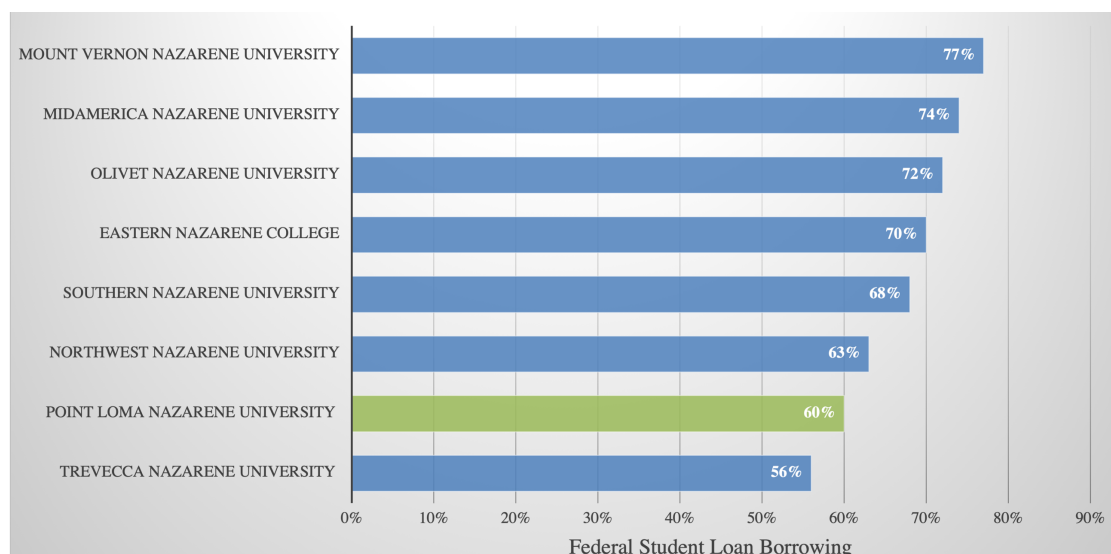


Figure 12. Federal student loan borrowing for full-time, first-time, degree/certificate-seeking undergraduate students at Nazarene colleges and universities in 2017-2018. Retrieved from <http://www.nces.ed.gov>

According to a senior administrator in financial aid, there are concerns that Point Loma students are taking on too much debt to pay for college. Her reflections on the cost of attendance and need for financial aid are as follows (K. Lapolla, personal communication, November 29, 2018):

It is definitely needed [aid] because it is more expensive to come to a private school. I think the process of it, of rewarding and letting students know, I think that part of it is good. It is just getting students to understand how the process works and why they are eligible for what they are eligible for, because I think people do not understand, “Well, how come we do not really make that much money, but we are not really eligible for much?” Explaining to them the calculation of the expected family contribution, how that is going to affect their aid and what that is going to give them.

There are all types of financial aid. We have merit scholarships. We have need-based money, which would be based on FAFSA. Loans, obviously, federal loans. We used to have Perkins, but those programs are shut down now. All kinds. There are other scholarships from the departments, from outside scholarships, stuff like that, lots of different ways to get financial aid. I think we try to bring in high-need students, too, just to fulfill those populations, but also because we have a certain amount of need-based money that is basically a discount to the students. . . . Those resources are really helpful for students who come from low-income families . . . to help them bridge the gap, but there is still a big gap, usually. It is helping students navigate, “Okay, what is that going to look like if you take out \$10,000, \$15,000 in loans every year.” Explaining that process to a student when they are 18, and even parents that take out PLUS loans every year for 30 grand. . . . They make it work, but it is just worrisome to think that that is the direction we are going. Just all this debt for students, and then they graduate from college and do not even go into their job necessarily [for which] they studied.

While a substantial portion of Point Loma students receive some form of scholarships or grants, there is still a significant group who are left with a gap in their ability to pay the full cost of tuition. Point Loma does not have many alternative options to help students fill that gap in payment. Before the sunset of the Perkins Loan Program, it served as one alternative to help students pay, but now that the program has dissolved, there are not many other solutions to offer to students. However, according to Sarah Hansen, an administrator in the Undergraduate Student Financial Services office, Point Loma is exploring alternative ways to help students pay, (S. Hansen, personal communication, November 30, 2018):

There are not many alternatives. The alternative, the only one we can see and that we are working diligently on is building the endowment base. That is the only thing we can see is filling the gap because it is not going to come from state and federal aid. So, there are even things that have happened, like the end of the Perkins Loan Program, which I was sorry to see it go, but not too sorry. Because the idea of the highest-need student, the only option to help them fill the gap is another loan. That does not sit well with me. I did not feel good about that. So not to have it anymore is actually a relief to me in some ways. It is not even something we can offer anymore. But that meant we need to start preparing what do we do then for students to help them fill that gap, because they do not have the resources for it.

Like many small private institutions that have modest endowments and rely on enrollment numbers and tuition and fee dollars, the issue of students not being able to pay directly impacts the university's revenue. Moreover, the more the institution has to discount, the more challenging it is to offer aid to more students. Despite receiving scholarships, grants, and loans, some students still face a gap between the amount of financial aid that the student receives and how much is still owed to the university. Students fill that gap in a variety of ways, either out of pocket, with a Parent PLUS loan, or with a private student loan. There are not many other alternatives.

In exploring options to help students with paying this gap in payment, Point Loma University developed the Point Loma Invests in You ISA program that, while small, is now in its second year. Although the ISA will not solve all of the problems for students, Point Loma sees the ISA as a good investment that may be a possible solution for some students. What follows is an in-depth exploration into ISAs at Point Loma Nazarene University.

Laying the Foundation for the ISA

Point Loma, like many institutions, has been exploring other financing mechanisms to help students with funding tuition. With the sunset of the Perkins Loan Program, there were not many other options to share with students other than private loans or the Parent PLUS loan. Then when Purdue University launched its Back a Boiler program, the senior vice president for finance and administration at Point Loma, George Latter, became curious about this new, innovative finance mechanism for helping students pay for college and whether or not it would work for Point Loma students (personal communication, November 29, 2018):

My introduction to them was . . . I began reading about what Purdue had done, and that was intriguing to me. This was at a time, three to four years ago, when we were just looking at are there alternative sources of financing for students. So, hearing about Purdue . . . with Mitch Daniels there, had been pretty much a leader in terms of just trying to add a lot of new things, add a new menu for higher ed. So, that was intriguing to me.

It was not long after Latter started following Purdue's story that he was contacted by Vemo Education, the same company that services Purdue's ISAs, to see if Point Loma might be interested in launching an ISA of its own. According to Latter, the reason Vemo approached Point Loma was because it had compiled a report on the university that included data such as financial aid needs, percentage of students who borrowed federal loans, and Point Loma's student loan default rate. Combined, the data revealed to Vemo that Point Loma might be a good candidate for the ISA. At the time Vemo approached Point Loma, Latter did not feel that they were ready, as they did not have a separate fund to finance the ISA program. Vemo recommended taking some of the institutional grant aid and converting it to the ISA program. However, Latter was opposed to this idea

because he felt it could be damaging to their recruitment efforts, as students prefer to have grant aid or scholarships rather than an ISA that would still have to be paid back after graduation.

Despite not having the capital to fund the ISA initially, Point Loma continued having conversations with Vemo. Latter and the financial aid team saw the ISAs as serving a clear purpose and being able to help some Point Loma students, especially those seeking ways to cover the gap in payment other than with high-interest private student loans or with a Parent PLUS loan. The other attractive piece of the ISA was that it might be a way to show the value of a Point Loma degree, according to Latter (personal communication, November 29, 2018):

Essentially, with federal student loans we do not get to say no to a student who is eligible for a loan. If they want to take out more loan, if they are eligible for more loan than they need to pay their school bill and use it for something else, we cannot stop them. So, should we really be on the hook for some of that? We cannot control that, or where there is no credit check done, and those kinds of things. But still the idea of institutions having some responsibility for the outcomes of the students makes sense and seems fair. So, the other attractive thing about the ISAs is that it does . . . if the school does have some skin in the game, if that student graduates and cannot get a job, then that student is not going to be able to pay back into the ISA or pay it back at a lower level. So, it is in our best interest to make sure that all of our students, whether they get an ISA or not, is a student that is being taught and shaped well and is going to be able to do well once they graduate.

Shortly after the initial conversation with Vemo, a benefactor of the university came forward with an interest in funding an ISA at Point Loma. The benefactor was familiar with ISAs and had an interest in helping pilot a small ISA program. Given that the funding piece was the only thing stopping Point Loma from implementing, the university

decided to accept the benefactor's gift of \$100,000, which would be enough to fund a small ISA program.

The decision to pilot the ISA was made primarily by the senior vice president for finance and administration, who then got approval from the president, the board, and the president's cabinet—all of whom were in total support of the new initiative. The senior vice president for finance and administration partnered extensively with the financial aid team, which handled the inner workings of the ISA program. The following sections will provide an overview of this development process and will address how Point Loma's ISAs are serviced, how the university went about creating the model, more of an overview of how it is being funded, what the risks are to the various stakeholders and how those risks are being managed, and finally the response from university stakeholders and beyond.

Developing Point Loma Invests in You

Servicing the ISA

In 2017, at the time that Point Loma's pilot was set to launch, Vemo Education had already been working closely with Purdue's Back a Boiler program. The suite of services offered by Vemo was appealing to Point Loma's team because the platform could handle the full lifecycle of the ISA from the time a student agrees to enter into it, to handling exit-counseling materials, and finally to the income verifications and subsequent collection of income shares from graduates. The income verification and payment process is cumbersome, and considering Point Loma has a small team in financial aid and in the

finance office, it was not feasible to service their ISAs internally, so Vemo was the obvious choice.

Although Vemo was the first option that Point Loma went with, the team is also open to other servicing platforms because it recognizes that Vemo is ultimately a business; the internal staff want to be sure that the service they are providing is beneficial for the university and ultimately for students, as an administrator in the Undergraduate Student Financial Services office articulates (S. Hansen, personal communication, November 30, 2018):

I think like any other business because they are selling a service, they are selling this great portal that is awesome. It is really user-friendly. It is good for students. Another thing that I look at is, is this going to be complicated and confusing? They are selling the service. So, I am sure they would like to have more customers, like anything else. I cannot promote something I do not believe in. So, I am not going to paint any rosy pictures about anything. So, I am not doing anything in cahoots with them. I am getting asked by the CCCU [Council for Christian Colleges and Universities] will you come and talk about it? So, I am going to tell them exactly what I think. There are other organizations doing it too, so it is not like we're beholden to Vemo.

Even though Vemo may not be the only company or organization handling ISAs, it has had experience working with other higher education institutions, which was also appealing to Point Loma. Given that Vemo already had a platform set up to manage the agreements, the time from discussion to implementation was just a matter of months. In addition to selecting the servicer, one of the other tasks was to create the ISA model that would be unique to Point Loma.

Creating the ISA Model

When the team began discussing the idea of launching an ISA, it decided early on that the terms needed to be fair for students. One of the unique features of an ISA

program is the many ways it can be modeled. Some of the major questions for Point Loma to answer in creating its model were: Would the income shares fall into a variety of ranges based on a student's anticipated earnings, or would the percentage be fixed regardless of major and earning potential? Which students would benefit most from an ISA? What would be the funding amounts for each ISA? Point Loma consulted with the ISA team at Purdue University to understand their terms and worked internally to map out a model for the first year. The team decided that this would just be a one-year pilot initially, to test the ISA on campus and determine if it would be possible to target students who they thought would benefit.

One of the early decisions Point Loma made was to only offer the ISAs to seniors. There were a few reasons why Point Loma administrators believed this student population made sense. In order to assess if an ISA is going to be sustainable, it is important to see what happens when a student enters into his or her payback term. If a sophomore enters into an ISA, it will still take another three and a half years for the program to even start monitoring its progress, whereas a senior will start making payments after the six-month postgraduate grace period. Daniel Reed, associate director of undergraduate financial aid, describes the rationale for selecting seniors (personal communication, November 29, 2018):

I think for Point Loma purposes . . . in specifying seniors . . . [we are] looking to start recycling those funds fairly quickly. So, we are not going to give it to a freshman at this point because it is going to be even longer before we see those funds come back to us. So, it is seeing it as kind of an investment into the future of this program, then I think it will keep on going down. So, right now, it is the seniors that meet the practical needs of this at the beginning of the program.

Knowing the pilot year was only going to be able to fund a small number of ISAs, the team strategically identified seniors as a more efficient way of assessing the program's efficacy.

Another reason for modeling the initial pilot for seniors only is because these students have reached the end of their time at school and already have paid a great deal of money toward their private school education. For those students who still have a payment gap in their senior year, Point Loma sees the ISA as an option to help students graduate when they are near the end. Though a student might be drawn to a private loan, Point Loma hopes this will provide a different way for students to cover that last portion of tuition before graduation, as Sarah Hansen, an administrator in the Undergraduate Student Financial Services office, explains (personal communication, November 30, 2018):

So, it is another option, especially with a first-gen[eration] family where, let's say, the parents could not afford to take out a Parent PLUS loan anyway. Maybe the student has already maxed out their federal loan eligibility, but there is still this gap there, that there is no place else. It really is the last Hail Mary. It is we want to get you to the end, and so we have done everything we can. It is what we hope will happen before the student takes out a private loan, because of the exorbitant interest rates sometimes they can get caught up in. So, we would say we hope that even the ISA would take that place too. Because there are some industrious students that may go out and find somebody that will cosign a private loan for them at 15%. But that would even be a student we would go back and say, "We're glad you were so industrious to find that, but here is a different option that is not going to be the same impact on you as a private loan." So, we hope to catch them before they do the private loan.

In addition to determining which students this would be available to, the team also needed to determine if the ISA would be modeled for specified majors or open to all majors.

They decided early on that the ISA would be available to all seniors, regardless of major. In an ISA, there is an incentive for the entity providing the funds to provide it for students who they know are anticipated to pay it back because of their high earning potential. However, Point Loma was driven by the philosophy that if they were to offer the ISA, it should actually help students first and foremost above institutional aspirations, as Hansen articulates (personal communication, November 30, 2018):

It was enough to say we are okay with the pilot program as long as there are some things that we care about. For example, it would be easy to say we are going to target certain programs because we know that there is a strong likelihood that they are going to get a good-paying job right out of graduation and be able to pay it back. But there was a missional part of it for us to that, especially in the first year, we did not want to do that. We wanted to say if we really believe in everything that we are offering to students, then that should not be part of the condition.

Aside from the requirements that a student must be a senior and could be from any major, the model also determined that a student must have a GPA over 3.0 and be in good standing with the university.

Once the team decided whom to target, the next step was to determine which seniors fell into the category of having unmet need. They pulled data on all graduating seniors in recent years and looked at how much was left over after their financial aid had been awarded. By assessing the gap in unmet need for students, the team saw that students tend to have a gap of between \$5,000 to \$10,000 in their financial aid package after accounting for federal subsidized and unsubsidized loans, scholarships, and grants. Rather than offer a variety of different ISA funding options, they limited the ISAs to either \$5,000 or \$10,000 awards for the pilot year to fill the unmet need gap. The team decided it would be easier and more straightforward for students if there was a fixed

percentage based on the ISA amount rather than varying the income share percentage based on anticipated earnings. It was decided that the percentage of income was 2% for the \$5,000 ISA and 4% for the \$10,000 ISA. When students meet with a financial aid advisor, they are shown a graph that outlines the total predicted repayment of an ISA and compares it to other loan options (Figure 13).

Fund Type	Borrowed Amount	Interest Rate	Fees	10-Year Total Repaid	Total Above Principal
ISA	\$10,000	n/a	n/a	\$12,240.00*	\$2,240.00*
Direct Loan	\$10,000	5.05%	\$106.60	\$12,757.21	\$2,757.21
PLUS Loan	\$10,000	7.60%	\$426.40	\$14,306.92	4,306.92
Private Loan	\$10,000	8.50%**	n/a	\$14,878.28	\$4,878.28
*Estimations based on a sample \$35,000 annual salary ** Based on an average Private Loan interest rate					

Figure 13. Point Loma Nazarene University’s Invest in You ISA compared to Direct Loan, PLUS Loan, and private loan. Adapted from the “PLNU Income Share Agreement” handout.

The goal was to keep the ISAs as straightforward as possible so students and families could better understand the terms. The team felt that having a model that varied the percentages based on anticipated earnings would only confuse the process. It was also important that the terms were favorable to the student, which was something that the benefactor who funded the first pilot insisted on, as discussed by senior vice president for finance and administration, George Latter (personal communication, November 29, 2018):

The benefactor kind of actually insisted on really favorable terms, not the kind of terms that would be sustaining in terms of the percentage of income and for how long. So, certainly one of the things that made it really attractive for this initial group of students is the terms were really good.

The benefactor's initial gift of \$100,000 was to be used for the \$5,000 and \$10,000 awards, and the individual, like the team, felt strongly that students needed to be the main focus of the ISA. With the servicer, model, and funding in place, Point Loma was able to pilot their ISA program in spring 2018 to start awarding for fall semester 2018.

Measuring and Managing Risk

Student Risk

ISAs present risks for both students and the university. Point Loma has attempted to develop its ISA disclosure statement in a way that helps with managing that risk and also with the goal of making sure students have the information needed to understand what they are undertaking by entering into an ISA. One risk to students is that they will not know what their monthly repayment will be once they graduate. In addition to the ISA, these students will likely have student loans to pay back once they graduate, which also require monthly payments. Students face the risk that the total amount of everything they have to pay back—when combining loan payments with the ISA payments plus living expenses—might outpace what they earn after they graduate. One way that Point Loma has attempted to help alleviate some of this risk is to cap the ISA repayments. If a student is funded a \$10,000 ISA, he or she will never pay more than \$14,000. Even though some students may overpay in the ISA arrangement, there is also the potential that graduates actually end up paying less than the original funding amount depending on what they earn after they graduate. Point Loma also decided that if a student makes less

than \$25,000, they do not have to pay any percentage of their income until or if they ever exceed the income threshold of \$25,000. Graduates can defer in the event that they want to stop working, for example to raise a family, or in the event that they return to school for further education. In such cases when a graduate defers, he or she may end up paying longer than the original payment term; however, the original funding amount remains the same.

Another risk to students is that at the time of entering into an ISA, they will not know how much they will be earning in 5-10 years. They could make significantly more than they anticipated, which would mean they end up paying more back to the ISA. However, they could also end up earning a lower income, which would mean they would pay less back to the ISA. If a student does not submit an annual income verification form, the servicer assumes there has been a 10% increase in that graduate's income. If that graduate did not actually have a 10% increase in salary, this will impact the amount paid back and will mean paying a larger percentage back to the ISA than their income may allow, which is another risk with the ISA.

To ensure students understand the risks involved with an ISA, Point Loma attempts to meet with every student who has been offered and is considering an ISA. The student might not follow up with the request to meet, but it is something Point Loma is doing to ensure that it is being transparent with students about the terms and agreements of an ISA. The university wants to make certain that students assess their personal financial situation to determine if an ISA is a good choice, as Hansen articulates (personal communication. November 30, 2018):

I wouldn't want anyone to do this and then be saddled with it later and feel a burden like that. I think, for the certain student, this is a great opportunity . . . it will be whatever the percentage is of their income and it was able to help them to get through, so they could have the life they wanted to have. But I believe . . . this is not for everyone. Private education is not for everybody, and I do not want anyone becoming encumbered by financial debt or financial commitments just to do this, just to have an ocean view, if that makes sense. Finding the right student for this program, who is going to benefit and not be burdened by it in the future is my measure of success.

The ISA may not be the best option for all students, so the financial aid team works to ensure students have options available to them, but also understand the implications of accepting what is being offered, including the ISA.

University Risk

The university also takes some risk in an ISA arrangement. There is the public relations risk described earlier in this section. Beyond that, some skeptics have argued that ISAs are indentured servitude, which is something the Point Loma ISA team has heard from various external entities. However, the university has assured critics that the ISA is modeled in such a way that is fair for students and for the university. Aside from the public relations risk, the other major risk to the university is that students are not able to, or do not, pay back their share of the ISA. By funding the ISA, there is an expectation that this will create a continuous cycle should the program continue. If, however, that does not happen, or at the rate of return that Point Loma predicts, then it may be better or more advantageous for students to use those funds for grants or scholarships rather than an ISA as ISAs expect something in return.

The Response

University Stakeholders

When the senior vice president for finance and administration initially introduced the pilot to the team as a possible student financial aid tool that Point Loma was looking into, most of the student-facing financial aid team were skeptical at first. There was confusion over whether or not the ISA was actually a good option for students, how it would be managed, what the terms would be, and how this might impact the reputation of the university. Some even described a financial aid culture that is slow to adopt new concepts, so naturally something as new as ISAs might make people confused or even wary at first. Hansen described her initial skepticism in the following way (personal communication, November 30, 2018):

For me, it was just another option that may not be for everybody. I am naturally a skeptic. So, in the beginning I was very, I don't know, this just sounds like a lot of these other kinds of programs. . . . Whether it is these loan programs that I'm not a huge fan of. But again, because it is loans. But I think what intrigued me about this one was I thought if I believe in the product that Point Loma is delivering, if I believe in the education that we are offering to students, then this is a way to test out that we should believe that they are going to be able to get jobs, get back to their communities, make a living. So, this is a good test of that to me. I'm really interested to see how this goes. And so, I was excited to try it, dip our toe into it and say let's see if this is actually good for students. Because . . . my primary concern is we say we deliver this product and education. Now we have a way to say we are going to base this program on your future earnings. Your ability to get a job enough to be able to pay this back, so that then kind of a pay it forward. Those assets may be able to benefit a student in the future. And it is going to take some time to see that return. But that is different than a grant and increase in the discount rate and saying you get the money and then that's the end of it. It is money that we do not ever see the return on the investment.

Although the team warmed up to the idea, most even excited by the prospect of having a new option to share with students with the Point Loma brand behind it, they all still

seemed to agree that they should start offering grants and scholarships as the first line of defense whenever possible over the ISA. They also agreed that the ISA would not be advertised on campus. When considering where the ISA fits into a student's overall financial aid package, the student financial services team views it in the following way (S. Hansen, personal communication, March 7, 2019):

The order in which we award aid is federal and state grant aid first, outside scholarships next, institutional scholarships next, subsidized federal loans, institutional need-based aid, federal work-study, and nonsubsidized federal loans. The ISAs were offered to graduating students who had exhausted all options for which they were eligible, and they were in danger of not graduating because they did not have the funds to pay off their balance (e.g., a student might not be Cal Grant eligible but still have significant unmet financial need). ISAs could be used to replace private loans they have taken, or before they took one, to help the student avoid high-interest loans.

With such a small fund, there was concern that if too many students became aware of the ISA option, the fund would not be able to sustain itself. When they reached out to students who might fit the ideal profile, they encouraged students not to advertise the ISA either, because they did not have a large enough fund to offer ISAs to a significant number of students. The team also explained to students that this first year was merely a pilot year. Therefore, it should be viewed as a testing environment for a small sample of students before deciding if the ISA could be made available to more students. The team received some calls from parents asking for clarification from the financial aid office about this new ISA option. Although they did not receive a lot of calls from parents or guardians, the ones who did call were skeptical at first. However, once the ISA was explained to them in more detail, they felt more confident, many even encouraging their student to agree to the ISA. The goal in the pilot was to make sure

students who were entering into an agreement understood the terms, so students were encouraged to talk to parents and family members, legal counsel, and accountants. As an administrator in the Undergraduate Student Financial Services office, Sarah Hansen fielded a lot of the calls, which she describes here (personal communication, November 30, 2018):

So, we would have parents call us and ask for samples of it [the ISA] . . . And pretty much if they went through that much effort, they ended up receiving one of them. So, it is still early. Those folks that we awarded them to last year are just now entering the repayment period. So, we don't know much about how it is looking yet. But based on that, based on what we realized was this is not something you just put out flyers or anything like that. We want to make sure they really understand what it is they are getting into because although it is not a loan, it is still a repayment that they are going to be making based on their future earnings. So, it is important that they know what it is that they are doing.

As an example, I had a student who had a zero EFC [Expected Family Contribution], had tons of scholarship, but still had this gap. Scheduled to graduate, and I found out afterwards already had the promise of a job for one of the big three, big four accounting firms. So, was really excited about [the ISA] . . . and was already telling me how he had figured out that he would pay down his loans first and just do the minimum they needed to on the repayment for this ISA because it would make more sense to pay down the ones that they had higher interest rates on. They had already figured all that out themselves.

Transparency was the ultimate goal to ensure students agreed to the ISA only if they felt it was the best option for them.

Response from External Entities

After the program had launched, Vemo approached George Latter, the senior vice president for finance and administration, about needing a school that would be open to being interviewed for *The Washington Post*. Latter agreed to be interviewed as a favor to Vemo and was surprised when Point Loma was the opening paragraph. The article, which was referenced at the beginning of this case, featured Point Loma (Douglas-Gabriel,

2017). As a result, Point Loma has been getting a lot of calls from other universities, news outlets, and higher education organizations looking for information about ISAs. According to Latter, he thinks the calls from other universities reveal that others are interested but may be a couple of years behind in terms of implementation. Thus, they are following universities such as Point Loma to see what their programs reveal. The institutions that the team has spoken to have a variety of reasons for being interested in the ISA, as noted by Hansen (personal communication, November 30, 2018):

There is a lot of interest and curiosity about this. I have never seen anything like it. I have already been invited to speak on two panels. One for the state of California's independent college group, and then one for the CCCU. All the Christian colleges. Everybody is looking for other options for students. Some are looking because of Perkins replacement; some are just looking. Anything they can do to help with the affordability for students. So, I don't think it is the answer for every student, and time will really tell how it is working with Point Loma.

The phone conversations and news articles have been mostly positive. Some have asked about whether or not this program qualifies as indentured servitude, but overall there have not been any major criticisms or naysayers. By launching this new finance tool, there was a public relations and branding risk, and had the response been less positive, the ISA could have resulted in unfavorable outcomes for the university.

Point Loma Invests in You Today

After the initial pilot year, Point Loma decided to fund a second year of the program, this time using \$200,000 from an unused fund. As of December 2018, Point Loma had issued ISAs to 15 students. Students who agreed to an ISA came from a variety of majors ranging from nursing to business to art history, religion, and ministry. What surprised the team is the diversity of majors that were represented in their initial

ISA cohort, which reflects the diverse range of majors offered at Point Loma, as Hansen describes (S. Hansen, personal communication, November 30, 2018):

It is still fairly new, so I cannot give you examples. I can tell you that once it was all said and done, that I went back, and I looked at what the majors were of the students that got it. That makes it even more interesting to me to see how this is going to play out over six years, because we have nursing majors. We have business administration majors; we had a biology major. We had a music in ministry major, who is probably not going to be able to rub two nickels together is my guess. That is what I am excited about is seeing . . . I got to know the students. I got to hear the stories of need that they had. I got to see what happened when that need was met in a very unique way. And that was the benefit to me as a financial aid administrator was no matter what the regulation, the law, all of that, that we have to follow those moments when we actually know that this might have been an answer for this student to finish up and get their degree. I know what it felt like as a parent when that burden was lifted. If we figured out how to fill that gap, that's my favorite part about this whole program.

The reason the diversity of majors surprised the team is how the ISA is tied to anticipated earnings, which is connected to a student's major choice. Thus, they were curious if this would only be of interest to students in a subset of the majors offered at Point Loma, but it seems to be appealing to a range of students. Point Loma decided to continue the ISA program into a second year and fund only \$10,000 awards, so in 2019, 20 students would have the option to agree to the ISA. The team is still conducting the outreach internally to seniors who have an unmet need gap rather than publicize the ISAs.

Considering Point Loma did not have investors who were expecting a rate of return, it was primarily concerned about making sure the program met the needs of students. In 2017-2018, 15 contracts were awarded, five \$10,000 contracts and 10-\$5,000 contracts. The response from those students was positive, and nearly every student who

met with a counselor to discuss ISAs subsequently ended up signing one. Combined, the results revealed enough success for Point Loma to establish a second fund.

The second fund was financed entirely by Point Loma with no outside investors or benefactors. There was a small university fund that had idle money and was not being used for anything else, so that capital was used to fund the second year of the ISA program in the amount of \$200,000. With the university absorbing the full cost of the program, it also means it will receive the full benefits of students sharing their income, which has the potential to create a revolving fund that will help the ISA program grow. Although the university is also providing aid to students via scholarships and grants, the unique difference in an ISA program is that the institution will see a monetary return on investment, as described by Daniel Reed, associate director of undergraduate financial aid (personal communication, November 29, 2018):

The idea is that it is almost like an institutional loan program . . . it is funds coming from the school, but it is with the anticipation that it is going to be coming back into the school. So, as opposed to other kinds of institutional aid where we were scholar-shiping [offering scholarships], we are discounting tuition, and those are not funds that we see back, this is something where we are using our own school's funding. So, we are making that kind of investment, but we are seeing it come back as well and to recycle it into this fund that we can then send more out. So, I think, that has been part of the conversation on the national level as far as, where Perkins was kind of similar where the school had some investment into that fund. The federal government has invested in that fund and then as repayments came back in and you share some back to the federal government and then you keep coming to school to be in that recycling fund. So, this cuts out the government side and just has the school, which will be that recycling fund.

The important consideration for Point Loma and others that are launching ISAs is that the fund will recycle only in the event that students are employed. With the ISA program now in its second year, the team is also looking to the future to assess what it will take to

continue the ISA beyond the second year. There is an expected return from the students based on their income share, so that capital will feed back into the fund. Although the program likely will remain small, funding around 20 awards per year, the senior vice president for finance and administration sees a promising future for the ISA program at Point Loma (G. Latter, personal communication, November 29, 2018):

So, I think my hope is that, without looking too far out, that next year we could allocate another \$200,000 to do another 20-\$10,000 awards for next year's seniors, and do that for at least three or four years, and hopefully do that indefinitely. Then if we, through gifts or other sources, if we could grow that so that we could make it available for more students, I would be interested in that. I do not see us doing anything other than seniors for quite a while for several reasons. One is just [there are] not enough funds to do that . . . I mean, one of the things that is nice about doing seniors is hopefully getting the money coming back in sooner rather than having to wait two, three years for a student to graduate to begin paying back. I think the other is you are really getting a student at a point where the finish line is in sight, and so these students are really motivated to finish.

The other thing we are trying to really emphasize with these students is [to] kind of use the expression “pay it back to pay it forward.” Trying to get these students to understand that really is important even though this is not a legal obligation like a federal student loan is, if they do not pay that back, then those funds are not available for future students to get the same benefit, and we will see how that plays out at the time. Yeah, again, hoping to at least extend it for three, four years, and hopefully beyond that so we can actually get to the point where there is enough money coming back in from repayment to fully fund each year as students get to that level, and hopefully be able to enhance that through donations.

At this time, Point Loma sees a promising future for the its ISA programs, and is even considering having donors donate to the ISA fund. Determining if the ISA program remains will take several years to assess as it will take time to evaluate repayments and whether or not the program is sustainable. In the meantime, the Point Loma Invests in You ISA is likely to continue into a third year and beyond. The team has decided that it will continue

to conduct targeted outreach to potential students rather than market or publicize the ISAs. The first cohort of ISA recipients entered repayment in December 2018.

Conclusion

Point Loma's ISA gained public awareness when it was featured in *The Washington Post*. Since then, the team at Point Loma has received requests to sit on panels, speak to other universities, and has been featured in other news stories. Though it was the initial outreach from Vemo Education and the benefactor that sparked the launch of the ISA pilot, Point Loma's ISA program serves a clear purpose of providing an alternative for students who have a gap of unmet need during their senior year. With the sunsetting of the Perkins Loan program, the financial aid team has welcomed the ISA, though skeptically at first. After one year of being funded by a benefactor, Point Loma was pleased with the success of the ISA pilot. During the pilot year, Point Loma offered \$5,000 or \$10,000 ISAs based on the typical gap in unmet need. During the second year, only \$10,000 ISAs will be awarded from a fund of \$200,000. Though the program is small, Point Loma is considering expanding as it learns more from the first few years of graduate payback. This Point Loma Invests in You ISA case is of critical importance for looking at ISAs, as it provides a different perspective compared to the two large, Research I institutions in this study. As more private institutions consider launching ISAs, it is important to understand some of the key differences between the ISAs at private versus public institutions.

CHAPTER 6: UNIVERSITY OF UTAH—INVEST IN U

Introduction

On Friday, September 21, 2018, Ruth Watkins was inaugurated as the University of Utah’s 16th president. Prior to becoming president, Watkins had been the provost of academic affairs at Utah and was well respected across the campus by faculty, staff, and students. In her inauguration speech, Watkins spoke of Utah’s commitment to building “on its legacy of innovation, discovery, and delivering outstanding value for higher education and health care” (University of Utah, n.d.-d). Her commitment to students was clear in her desire to make a University of Utah degree more affordable and easier to complete. She spoke emphatically about the need for a 21st-century education that would be transformative in ways similar to the impact that the GI Bill and Morrill Act of 1862 had on education. One of the surprising announcements she made during her speech was the development of a novel finance tool:

One strategy now in the works here at the U is an innovative Income Share Program that will use donor investments and institutional funds to help thousands of our students cross the degree finish line in a timely manner—getting them into the workforce or on to their next step more quickly and earning increased wages.

Our vision is a self-perpetuating fund that students who graduate will contribute to, ensuring the success of those who follow and those who follow them and the next round of students and so on. This innovative idea, designed specifically by U staff for U students, is made possible by creative and generous investors who are working with us to fund this transformative “Invest in U” program, allowing students to pay today’s tuition with tomorrow’s earnings.

At the time of President Watkins’s inauguration, few people at the University of Utah were aware that it had been developing an ISA program. However, the ISA had been under development since summer 2017.

President Watkins started exploring ISAs as a potential option for Utah students when she was still provost and had been following Purdue University's Back a Boiler ISA. She put together a small taskforce from across the university to explore possible ideas to help students pay for school, and ISAs were on the list of potential options. The team decided ISAs were the ideal option for students, but the story about how this was decided, and the early lessons learned along the way are timely for understanding an institution's impetus for launching an ISA, as well as what it takes to implement it. The University of Utah ISA case study is the final case in this research study and is opportune considering its ISA program was still under development at the time of the study, thus many of the challenges and lessons were still being uncovered.

The University of Utah's ISA program launched in January 2019; however, the backstory on what it took to develop, who needed to be involved, and the critical decisions that needed to be made provide a valuable lens for understanding ISAs from an institutional perspective. The chapter begins by providing an overview of the University of Utah, its governance, enrollment, and tuition and fees, as well as its budget. Next, the case will discuss the program development, creating the model, how the ISA will be funded, and where the ISA stands today.

The University of Utah Context

The University of Utah, although a public institution, has a history that is deeply rooted in the Church of Jesus Christ of Latter-Day Saints (LDS) (University of Utah Sesquicentennial, n.d.). When the Mormon pioneers arrived in the Salt Lake Valley of Utah in 1847, one of their first major goals was to develop a university. The leaders had a

deep commitment to education and established what was then called Deseret University in 1850 (University of Utah Sesquicentennial, n.d.). A leader in the LDS church was appointed as the university's chancellor, and the initial classes were held in people's homes and in the Salt Lake City Council House. Despite the strong desire and aspirations to create a thriving university, the economic hardships of the time made it difficult. In 1869, the economic downturn began improving as had the university's relationship with the federal government. It also began making improvements when the board of regents hired a new president, John. R. Park, to take over the vision of the university. He toured universities across Europe to understand their curriculum and organizational structure. Nearly a decade later, the university was able to purchase a new building and site thanks to appropriated funds from the Territorial Legislature. A few years later in 1892, the Territorial Legislature requested funds from the U.S. Congress for a grant in order to purchase land to establish a new site for the university. Another major development that year was the decision to change the name from Deseret University to the University of Utah (University of Utah Sesquicentennial, n.d.). In 1894, the University of Utah moved to the eastern side of Salt Lake City to 60 acres of land at Fort Douglas, which had been granted by the U.S. Congress (University of Utah Sesquicentennial, n.d.).

Today, 169 years after opening its doors as Deseret University, the University of Utah (U of U) is a thriving university that boasts many top programs and is recognized as the state's flagship university. U of U is recognized among the top 50 research institutions in the country and boasts Rhodes Scholars, Nobel Prize winners, MacArthur Fellows, and Pulitzer Prize winners (University of Utah Sesquicentennial, n.d.). With

total research expenditures of more than \$600 million in 2018, U of U is recognized as a Research I University. The Carnegie Classification of Institutions of Higher Education (Carnegie, n.d.-c) regards U of U in the category of doctoral universities with very high research activity and as a four-year, large, primarily nonresidential university. U of U remains in the state capital, Salt Lake City, and is recognized as the oldest and largest higher education institution in the state of Utah.

University Governance

The U of U president serves as the institution's chief executive officer (University of Utah, n.d.-e). There are two senior vice presidents who oversee academic affairs and health sciences, as well as 10 vice presidents who oversee all administrative activities of the university. Senior vice presidents and vice presidents report to the president and provide special reports in their specific functional areas. There are also three primary university governing boards: board of trustees, board of regents, and academic senate.

The 10-member board of trustees has primary responsibilities of overseeing and ensuring efficient and effective operation of the university. The board approves U of U's annual budget, as well as all university policies (University of Utah, n.d.-b). The governor approves eight members of the board of trustees, which also requires consent of the Senate. Board members serve four-year terms with the possibility of extending for a second term. The ninth member of the board is the president of the Utah Alumni Association, and the 10th is the president of the associated students of U of U. Non-appointed, *ex officio* board members serve for the full term of their positions with the Alumni Association and Associated Students of U of U.

The board of regents serves as the primary governing body for the Utah System of Higher Education, which comprises eight public colleges and universities, and includes U of U (Utah System, n.d.-a). There are 17 members who constitute the board, all of whom are Utah citizens and appointed by the Utah governor. Eight of the members are previous institutional trustees from each of the public colleges and universities, eight are at-large, and one is a student regent (Utah System, n.d.-b). The student regent serves a one-year term, while the other 16 are appointed for six-year terms. The board of regents is responsible for a range of activities—most crucially, setting policy, approving institutional missions, evaluating and selecting institutional presidents, submitting a higher education budget request to the governor and state legislature, and reviewing programs and degrees (Utah System, n.d.-b).

Faculty have a strong voice in university affairs as well. Their role is internal versus external. The U of U Academic Senate serves as the voice for the faculty in “all matters of educational policies including requirements for admissions, degrees, diplomas, certificates, and curricular matters involving relations between colleges or departments” (University of Utah, n.d.-a). The University Leadership website makes clear that the academic senate is “integral to the shared governance of the university” (University of Utah, n.d.-e). The academic senate comprises faculty from across the university in a range of disciplines, all of whom are elected by the faculty. There are seven ex-officio members, one of which is the president, and seven senate officers. In addition to faculty, there are also student senators elected to the board (University of Utah, n.d.-a). The senate handles all matters concerning requirements for admissions, diplomas, degrees,

certificates, educational policy, and curricular issues that involve multiple colleges or departments.

In addition to these three governing entities, there is also the president's cabinet and the President's Leadership Council (University of Utah, n.d.-e). The cabinet meets weekly and consists of senior leaders from across the university; their membership is determined by the president. The President's Leadership Council includes leaders from across the university, and they meet quarterly.

Enrollment & Tuition and Fees

In fall 2018, there were 24,743 undergraduate students and a total student population of 32,994. The number of students enrolled at U of U has been steadily increasing during the past few years. Compared to fall 2014 enrollment, when there were 23,907 undergraduate students enrolled, there has been a 3.5% increase in enrollment (Office of Budget and Institutional Analysis, n.d.). According to the Office of Budget and Institutional Analysis, the 2016-2017 first-year retention rate at U of U is 91%. First-year retention rates from 2013 to 2017 have remained between 88% and 91%. In 2017, 73% of undergraduate students were full-time and 84% were residents of the state of Utah. According to the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS), the bachelor's degree graduation rates of full-time, first-time, bachelor's degree-seeking undergraduates from the 2009 cohort was 28% within four years, 64% within six years, and 76% within eight years. Utah has the lowest four-year graduation rate of any other school in the Pac-12 conference and is also lower than comparable public institutions across the country (U.S. Department of Education,

n.d.-l). Similarly, its six-year graduation rate is tied for lowest at 64% alongside Oregon State University and Washington State University (Figure 14).

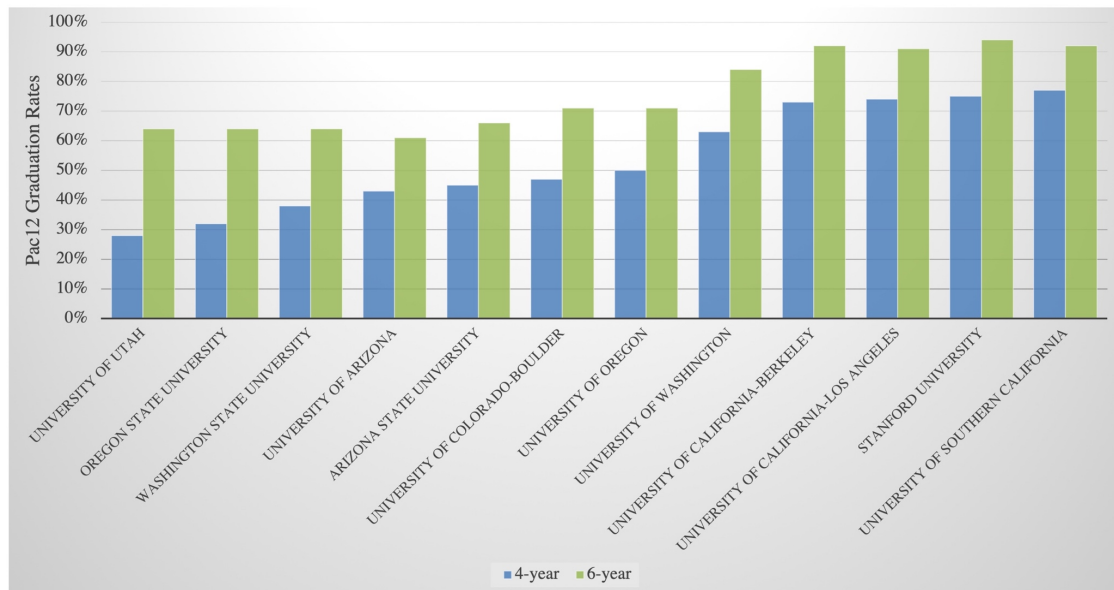


Figure 14. Graduation rates of universities in the Pac-12 Conference. Retrieved from <http://www.nces.ed.gov>

Their eight-year graduation rate is also on the lower end in comparison with other Pac-12 schools. When compared with a different conference, the Big Ten, Utah's four-, six-, and eight-year graduation rates are lower than all schools in the Big Ten conference (U.S. Department of Education, n.d.-e).

U of U has the lowest in-state tuition of any school in the Pac-12 conference, and its out-of-state tuition ranks on the lower end as well (Figure 15). Published tuition and fees for in-state students during the academic year 2017-2018 was \$8,884 and out-of-state was \$28,127 (OBIA, n.d.). As a comparison, the University of California–Berkeley's in-state tuition is \$14,170 (OBIA, n.d.). The second-lowest tuition in the Pac-

12 conference is Arizona State University–Tempe, which charges \$10,792 for in-state students. When adding other expenses such as housing and books, the total cost of attendance for in-state students at U of U was \$23,673 and \$42,916 for out-of-state students.

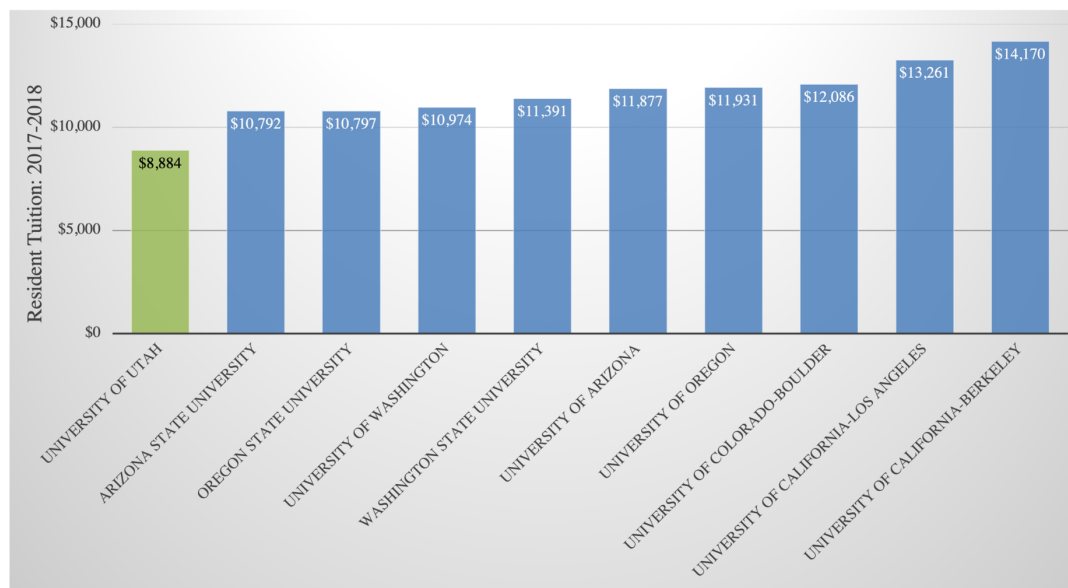


Figure 15. Resident tuition rates of universities in the Pac-12 Conference. Retrieved from <http://www.nces.ed.gov>

In order to address the low graduation rates, President Watkins established a “Strategic Student Success Agenda,” which was released in 2018. The plan outlined key ways in which the institution seeks to improve student success outcomes. One of the major initiatives is to improve the six-year graduation rate. Notably, U of U’s six-year graduation rate has improved from five years ago when it was just 58.7%. The goal with the agenda is to improve the six-year graduation rate to 75% (University of Utah, 2018a)

Budget and Financial Aid at a Glance

U of U’s total net position for year-end 2018 was \$5,567,486 (University of Utah, 2018b). The primary source of revenue come from patient services, sales and services,

grants and contracts, auxiliaries and others, and tuition and fees. Tuition and fees were their fifth-largest revenue category at \$347,902 for year-end 2018 (University of Utah, 2018b). Revenues from tuition and fees increased 6.2%” from 2017-2018, which the U of U attributes to increased enrollment numbers and thus the increased contribution to the university’s budget (University of Utah, 2018b). Overall, the university’s operating revenues increased from the prior year across many revenue sources. The value of U of U’s endowment at the end of fiscal year 2018 was \$1.02 billion (University of Utah, n.d.-c), which lands in the middle when compared to other Pac-12 universities. As a comparison, the University of Washington’s value of endowment at the end of fiscal year 2018 was \$3.4 billion (University of Washington, n.d.), which was on the higher end of schools in the Pac-12 conference, and Oregon State University was at \$592.8 million (Oregon State University, n.d.).

Operating expenses for the university also increased in 2018 (University of Utah, 2018b). The hospital accounts for a significant portion of both revenue and operating expenses. Hospital expenses for the year ending on June 30, 2018 amounted to \$1.8 billion. Student aid amounted to \$2.8 million of the operating expense budget.

According to the National Center for Education Statistics, full-time, first-time, degree/certificate-seeking undergraduate students receiving any student financial aid was 85% in 2016-2017 (United States Department of Education, n.d.-l). Seventy-seven percent of students received grants or scholarship aid with the average amount of aid being \$7,990. Twenty-seven percent were federal grant recipients, 22% received the Pell Grant with the average aid being \$3,556, and 5% received other federal grant aid.

Compared with other public institutions in the Pac-12 conference, U of U is on the lower end of the percentage of Pell recipients. University of California Los Angeles has 30% Pell recipients at the higher end, and University of Colorado–Boulder on the lower end at 15% (U.S. Department of Education, n.d.-h). In addition to federal grant aid, 71% of U of U students received institutional grants and scholarships, with the average amount of aid being \$6,131 (U.S. Department of Education, n.d.-l). The university increased its scholarships by 77.4% over five years (University of Utah, 2018a). In 2012-2013, students received a total of \$28,518,123 compared to the total scholarships in 2016-2017, which amounted to \$50,599,073. Total financial aid dollars awarded also increased over five years by 115%. In 2012-2014, total financial aid dollars amounted to \$254,830,972 compared to 2016 –2017, which was \$284,053,781.

Despite the increase in student financial aid, students still report finances as their greatest challenge in completing their college degree (University of Utah, 2018a). In the 2018 Student Success Agenda, college affordability remains a key focus of the institution for the coming years and is on the president’s agenda as a critical issue to address as an institution. The agenda outlines the following (University of Utah, 2018a):

Finances should not be a barrier to education. And yet, for students with good academic standing, finances are the most frequently reported obstacle to enrollment and/or persistence.

The U offers a high value education relative to Pac-12 and Big Ten institutions. Among this prestigious group, we are known for providing quality outcomes at a lower overall cost.

And while we take pride in this measure, we remain committed to staying ahead of this curve by increasing financial support to our students. Even with limited resources, we are improving our student award models to provide more individualized and precise support. Through a strategic and collaborative

Students First effort across campus, we are engaging students where they are and giving them the financial tools they need to persist.

These critical issues such as affordability and students' views toward finances seem to have a direct impact on retention and completion (University of Utah, 2018a). In order to assess the completion trends to determine how to make improvements, U of U analyzed trends to predict student markers of successful outcomes. As a result, U of U has developed a plan for helping students graduate in a timely manner. The data reveal that students need ways to cultivate early successes, build momentum in the classroom and beyond, have a positive in-classroom learning experience, and receive guidance earlier on in their time at U of U (University of Utah, 2018a). The report predicts that each additional year beyond the four years significantly increases the cost of tuition at Utah. For example, U of U estimates that if a student takes five years to earn the degree, the combined opportunity and tuition costs amount to \$60,000, at seven years the total cost amounts to \$108,000, and finally at 10 years the total cost amounts to \$176,000 (University of Utah, 2018a).

In addition to the actions being taken at an institutional level, the state is also making strides to improve college affordability. Overall, the state of Utah is fairly affordable when compared to other states, owing in large part to the low cost of attendance at state colleges and universities (Institute for Research on Higher Education, 2016). However, “low levels of need-based financial aid and steady increases in the amount of family income required to pay for college put the future of affordable higher education in the state at risk” (Institute for Research on Higher Education, 2016). In 2019, a bill was introduced in the Utah state legislature that could make significant

improvements to the state's college affordability. If passed, the law would replace the state's current system of merit-based scholarships and instead offer students "unable to afford a college education two years' worth of tuition and fees at state universities, colleges and technical schools" (Deseret News editorial board, 2019). H.B. 260 Access Utah Promise Scholarship Program passed the House Education Committee and awaits governor's action (Deseret News editorial board, 2019; H.B. 260, 2019). If passed, this law could significantly impact college access and affordability for students who are attending state institutions in Utah, including U of U.

In conjunction with the efforts happening at the state level, U of U, like many institutions, is attempting to have more skin in the game by helping students pay for college and making it more affordable overall. The final page of the Student Success Agenda, under the heading "The Path to the Future," outlines three tactics aimed at improving U of U's timely degree completion. Highlighted as the first tactic of the plan to put *Students First* is what is referred to as innovative models of financial assistance (University of Utah, 2018a):

We will pilot an income share program through which the U invests in students to accelerate their progress across the degree finish line. The model will use university resources, with donor investment, to help students pay today's tuition with tomorrow's earnings.

The university's ISA program, which launched in 2019, took more than one year to develop. The following sections will explore in more depth the impetus to launch the ISA program; the process for developing it; the response it has received thus far; an exploration into the risks that the university, students, and investors are taking by entering into an ISA; and, finally, the next steps of this ISA program. It is important to

note that this case study and the development of Utah's ISA program were happening concurrently. The case is presented with data that were up to date and valid at the time of collection, between September 2018 and December 2018; however, there have been many modifications made to the ISA program that occurred after the data-collection process.

Laying the Foundation for the ISA

In the state of Utah, students tend to avoid debt when possible and are generally debt-averse. A study conducted by the Institute for College Access and Success in 2018 that used a combination of data on student debt from the class of 2017 reveals Utah students' general aversion to student loan debt. Data were collected using IPEDS and data from Peterson's undergraduate financial aid and undergraduate databases. In this study, Utah ranked 50th—the lowest state in terms of the percentage of students with student loan debt (Institute for College Access, n.d.). The state of Utah is exploring ways of improving college affordability at a state level. As outlined in the previous section, a subset of students who attend U of U have similar aversions to debt. The president and her cabinet hypothesize that this could be one reason why students are not completing their degrees in a timely manner, as articulated by the project manager for the ISA (E. Hadley, personal communication, October 16, 2018):

So, if you look at student debt, Utah students rank last in the country. There is a strong culture of debt aversion in Utah. Students do whatever it takes to not take on debt. Part of that is due to the LDS [Latter-Day Saints] culture of fiscal responsibility and not saddling yourself with too much debt. We see this cultural phenomenon play out in the fiscal conservatism of the state. Our state budget is very healthy and robust. The state budget is balanced, and we have a robust rainy-day fund. There is simply an overall culture that you do not get into debt; rather, you work more jobs to avoid taking on debt. So much that it can become

detrimental where students would rather stop out and go work at a restaurant and wait tables for a semester than go into \$2,000 worth of debt. We still have the lowest tuition rate in the Pac-12 and the value of our degree is actually really high, but students just won't take out debt and it prolongs their time to completion . . .

I have not looked at all of the data on this, but I would venture to guess that there are not too many institutions where the eight-year graduation rate actually stays the same or even increases compared to the six-year rate. Usually, graduation rates drop off after that six[th] year, but ours stays steady and even slightly increases because our students start and stop school to work because they just refuse to take out debt to pay for school. That was a huge driver to say, “Okay, our students are debt-averse. We know there is on average this \$14,000 unmet need where they need that to pay for school, but they just will not take out debt. So, is there something else we could offer them to entice them to get the financing they need to stay in school and to avoid this start-and-stop and prolonging their graduation?” That is literally our focus here. It is all about how do we get more students to graduate in a more timely fashion. Everything that we do focuses on that mission— accelerating timely completion.

U of U is not using the ISA as a way of funding all of a student's tuition at this time.

Instead, it is being used to fill a gap in a student's tuition. The hypothesis is that students are quitting school because they are resistant to taking on debt yet still need additional funds to be able to pay for school.

College affordability and college completion have been a university concern for some time. Before President Watkins took over, she served as Utah's provost. In summer 2017, she approached a center on campus called the Sorenson Impact Center to do some research on alternative funding options that could help students with the gap in unmet need. The Sorenson Impact Center is a “think-and-do tank” with a focus on data science, policy innovation, impact investing, and thought leadership (Sorenson Impact Center, n.d.). A small team at Sorenson began looking into funding options for students, which is when the team first started considering ISAs. They had heard about Purdue University,

and several other ISA companies such as Lumni, Upstart Financial, Make School, and Learners Guild. Purdue's model was appealing for several reasons, but first and foremost Purdue's "this is not a loan and you are not alone" tagline spoke exactly to the kind of impact this new funding tool needed to have at Utah.

A small taskforce was established to explore alternatives to help with college affordability and college-completion problems. In addition to the team at the Sorenson Impact Center, senior-level administrators in enrollment and finance also became involved. A senior administrator of enrollment management conducted interviews with students at U of U and also sent out surveys to explore the ISA as a potential option. The way the ISA was described to the students she talked to was that U of U would be "investing in you" with the idea that the ISA would be paid back after a student graduated (K. Pearson, personal communication, October 15, 2018). The student response was overwhelmingly positive. When asked why they preferred the ISA over a traditional loan, the general consensus was that it was the concept of U of U acting as an investor in their success—in this case, a financial investor. Katie Pearson, a senior administrator of enrollment management at U of U, describes these conversations here (personal communication, October 15, 2018):

I had one Hispanic student—most of her family spoke Spanish—and before she started college, she said her family sat her down and they said, "You will not take out a loan. If we have to work three jobs, you will not take out a loan." And so I said, "Okay, what if I said to you, though, I see in your financial aid package that we have not met your full cost of attendance. How are you paying for everything?" And she talked about working and that sometimes she takes less hours. So I said, "What if the University of Utah said we believe in you, we know you're a great student, and we want to help you to graduate, and we want to help fill that gap and we're going to give you \$7,000. By giving you \$7,000, that will get you through to completion, you will pay us back a certain portion of

your income, 3-to-5%. I'm not sure what that would be at this point, but how would you feel about that?" And the student said, "I would seriously consider that." And I said, "Why? Why would you consider that and not a loan?" And she said, "But you just said it wasn't a loan." She said, "You said you were investing in me." And I went, "Okay, how would you feel about paying that back, because no, it's not a loan, but you would be paying back money based on a certain part of your income." And she said, "But what if I couldn't find a job?" And I said, "There are things where if you make under \$20,000 you don't pay it back, but we would check your income every year, and you'd pay back a percentage."

Almost every student had that reaction, but it was the way that I said it, because one of the things they talked about was somebody believing in them, the university investing in them to get them through to completion, and these students said, "We're at the end of our graduating, we see the benefit of a college degree. So if you could give us that money, that would help us meet our goals and then we could pay that back to help other students." I think it was also the pay-it-forward piece as well.

In reviewing the student feedback, Pearson found that it was *how* the ISA was being communicated to students that made it appealing. By not calling it a loan, students seemed eager to know more based on the notion that it was an investment in their future success. The feedback was shared with the ISA taskforce and it, combined with the other research conducted by the team, resulted in the ISA being proposed to the provost as the recommended program for alternative funding. Based on the positive feedback from students and the appeal that the ISA was not seen as a loan, the provost decided to support this initiative and asked the team to go about developing an initial pilot with the goal of launching in the spring semester 2019.

Developing the Invest in U ISA

Developing a new ISA program for U of U would require setting up the right team of people, creating the model, determining how to price the ISAs, for whom the ISA would be available, how it would be financed, and determining where and how the ISA

would be serviced. Early on, a team of students formed a working group led by the ISA program manager, and this group created the name “Invest in U” and the tagline, “Pay today’s tuition with tomorrow’s success.” The team at Sorenson Impact Center served as consultants for the project and provided recommendations for how the ISA should be modeled and funded. Given that the ISA involves many constituents from across the university, the rest of the team needed to be representative of the university as a whole. Debra Blum, a financial administrator for U of U, describes the early development process and who from the university needed to be involved in the ISA from the beginning (personal communication, October 16, 2018):

So, a team perspective. When you come up with a new concept like this or any concept that is going to touch students, you have to look at who all does this touch and involve? So, it involves students, so you're going to have to get your student services side. It is financial aid; you need financial aid in the room. You need to have legal in the room. You need to have finance in the room. You need to look at how do you model this out. You need to look at having your marketing in the room to talk about how you are going to market this. You need to have your public relations people in the room to say how is this going to . . . if suddenly this shows up as a headline in the newspaper, how is that going to work? So, it is a pretty big team. What you’re trying to do with any project is think about where is this touching, where are the impacts, what are the opportunities here . . . and then that kind of tells you who needs to be involved.

Early on, the small team tasked with leading the ISAs consulted with a range of people from across the university whose expertise was critical. The team’s perspectives informed many aspects of program development. As another large Research I institution, Purdue University also served as a critical resource in the early development stage. Purdue’s Back a Boiler program, though distinct in many ways from the Invest in U ISA, was a helpful guide for the U of U team. One of the major challenges for early adopters of ISAs is that there are not many models developed from which institutions can learn.

Purdue, being the first to tackle the ISA and some of the legal and regulatory challenges, served as a helpful resource for U of U as it developed its model, wrote the contracts and disclosure statements, and determined the financing of the ISAs. What follows is an in-depth exploration into U of U's ISA program at the time of this study's data collection, what the team learned along the way, and what the next steps are for the Invest in U ISA.

Creating the ISA Model

One of the team's first tasks was to develop the ISA model. To do so, they needed to determine which students might benefit most from the ISA, how the ISA would fit into their overall financial aid profile, and to decide what the terms and agreements would be for those students. As a starting point, the task force began by consulting the legal and regulatory framework and looking at what Purdue had done with its model. Considering that the legal and regulatory framework for ISAs is still under development and somewhat unknown, the team decided it would be most productive to align with what other schools offering the ISAs were doing in order to appear as a united front. Elizabeth Hadley, U of U's project manager for the ISA, reveals what they considered when developing the ISA model (personal communication, October 16, 2018):

Given there is not a regulatory framework for it right now, we have been very strategic in looking at what Purdue has done and essentially trying to align ourselves with them. You can see it through the American Enterprise Institute, their lobbying efforts, and everything that they are doing. Purdue is the first mover, and we are the second mover of traditional universities launching an ISA program. Purdue, in concert with Vemo, have put forth a lot of effort in a regulatory space. We've been told the DOE [Department of Education] is probably not going to pay attention to ISAs for a while because they are a drop in the bucket of the \$1.5 trillion student debt market, which I think is probably true unless there is a bad press story in *The New York Times* or something. We have tried to align our model and program design with Purdue, knowing that they are two years into their program and have put in a lot of time and effort into

developing things. It will be helpful for universities to work together. Our program is a pilot program, which is really important, that we frame this program as a pilot.

Albeit the team consulted Purdue's model, there are some things that make Utah's model and its development distinct from Purdue's. One important distinction is that Purdue outsourced the development of their model to Vemo Education, whereas U of U developed its model entirely in-house through the university team, which included leaders from the president's office, finance, enrollment management, financial aid, legal, and the Sorenson Impact Center.

The financial model itself, which is a series of Excel spreadsheets, is essentially used to predict future cash flows of the ISA (R. Mack, personal communication, October 17, 2018). In essence, U of U needs to determine and anticipate which students might benefit from the ISA by looking at their predicted earnings, as well as when they may be able to start making their repayments. This process included an in-depth look at the anticipated earnings of a student. The data in the model represent a variety of variables and inputs such as a major's expected graduation rate, anticipated earnings based on the major, student behavior, and the number of students in a given major. The model also was used to predict the number of graduates per year as well as how the actual repayment might unfold as students graduate. The anticipated earnings category is the key to the entire economic model, according to Hadley (personal communication, October 16, 2018). The model can predict, to the best of its ability, which majors are most likely to graduate students who will enter graduate school. That fact impacts repayment because those students will not be working for those years. In addition, the model can flag which

students are most likely to pay back the ISA based on their anticipated earnings and which graduates may struggle to make reimbursement based on income. It was also decided that the ISA would have a tiered structure based on those earnings, similar to Purdue's Back a Boiler ISA model. Robert Mack, a managing director for the Sorenson Impact Center, describes the structure (personal communication, October 18, 2018):

The model is an Excel spreadsheet, well, multiple Excel spreadsheets that, the way they have looked at it, they have worked with Purdue for understanding how they look at it. We have three basic classes of students, so you have business/computer science, engineering students that are more likely to earn more out of college or right out of college. There is a middle class of students and then you know kind of the classic liberal arts/arts majors that are less likely to find jobs and less likely to get higher-paying jobs right out of college. They have taken these three classes of students and put probabilities around them based on Utah state averages or national averages, depending on how they look at it, for what repayment is likely to look like and then made some guestimates about how many students for each class would actually take these and therefore how long does it take to get repaid and how much capital do you need to be able to effect.

In order to conduct the predictive modeling, the team utilized data from a variety of sources. The first is the Utah System of Higher Education (USHE), which collects employment information for the state. The database of employment information includes any person employed in the state who is paying employment tax. From this dataset, the team that developed the model was able to see what some graduates who stayed in the state were actually doing after graduation. Another important data source is the school's First Destination Survey, which captures where U of U students end up after graduating—whether that be additional schooling, employment, volunteer work, traveling abroad, and so forth. Last, the team ran a report using data from the Clearing House database to determine which students graduated and subsequently attended graduate

school. The combination of these three data sources was used to create the inputs for the ISA model.

Once the model had been built, the next step was determining which students would be qualified to enter into an ISA with the university. Based on the economic modeling, it was narrowed down to 18 majors that would be the focus of the pilot. In addition to the 18 majors, students also needed to be in their senior year. Katie Pearson, a senior administrator of enrollment management at U of U, explains the rationale behind this decision (personal communication, October 15, 2018):

Well, one of the things we were working on is that we do a lot of front-loading in financial aid, and the front-loading usually lasts for two years. What is supposed to happen is by us centrally front-loading the first two, the student would be getting into their major and the colleges would help pick up because they have a large number of scholarships at the college level. That is not happening, and we are seeing at that point in time students are leaving. Our first-to-second-year retention is 90%, and it dramatically drops after that. So, one of the things we said was this could be an opportunity at that point to get them from sophomore to junior, junior to senior, and to graduate. That is where we know we need to focus a bit more attention and quite frankly some additional support.

I will say your typical engineers tend to stay, whether they drop less hours, they are the ones that did not stop out altogether. Some of your humanities are the ones who tend to drop out, and so what we said was we want this to help across the board, but specifically we know some of those majors are going to be critical. This would be critical targeting, and I think that is why we are spending some time now, if we were to run this program right now and do it this way, how many students would we get? What majors would they be from? How would we then narrow down the population? I want it to be data-informed, and I want to make sure we are reaching the right population that we will have maximum benefits.

At this stage, it was anticipated that the majors and targeted student population will remain the same throughout the pilot, and the offerings might expand should the ISA continue after the pilot concludes.

Although the model had been established with the expected number of students, earnings, and outcomes in mind, there were some initial challenges with the model and input data, which means that there is no perfect way to predict the ISA model. Part of the challenge is predicting student behavior once they graduate. The other risk is lack of reliable data. Much of the data relies on students who stay in the state of Utah after graduation, but there is not a reliable way to determine if a graduate leaves the state and what his or her earnings might be. Brandon Carlson, a director for the Sorenson Impact Center, was on the team that created the model for the ISA; he describes some of the challenges in the following way (personal communication, October 24, 2018):

The challenge with that dataset is, one: it is self-reported, so there are all cover-ups that come along with self-reported data. Two: a lot of it is couched in the context of plans and not in actual reality, so it is possible a student is planning to go seek a full-time position in engineering, which is what their major is, and ends up taking a different course. The survey does not capture that actual state of the world where the student ends up doing something different. The third challenge with the survey is knowledge rates were really low. We only had, of all the students that are graduating, we only had information on about half in terms of what their plans were. For those who responded, we only had information on salaries and actual positions for maybe a quarter or less of the student bodies. It was great information at the start that got us in the right direction, but we were seeking something a little deeper.

The team went into the ISA development with an understanding that there would be a certain degree of uncertainty whenever trying to predict the future state of how things.

In addition to creating the model, the team also needed to consider how students would come to know about the ISA as a possible finance option. It was decided that the students interested in an ISA would need to meet with a financial aid advisor first. Students would be encouraged to exhaust all federal resources first, such as grants and loans, and only use the ISA to fill the gap if there were one. The ISA will not be

marketed to students as a primary funding option. It is benchmarked from the direct, federal, unsubsidized loan for undergraduate students, which has a fixed interest rate of 5.05% on or after July 1, 2018, and before July 1, 2019 (U.S. Department of Education, n.d.-m). Elizabeth Hadley, U of U's project manager for the ISA, explains the basis for benchmarking the ISA in this way (personal communication, October 16, 2018):

Purdue benchmarks off of the Parent PLUS. Our benchmark is the federal unsubsidized—because our students are paying for their own school. Many do not have parents paying. It doesn't make sense to compare our ISA to something if parents are not paying for their kid's school here. You are talking about a mostly middle to lower SES [socioeconomic status], and families . . . You do not have the parents with the trust funds that come in and pay for their children's tuition, so that benchmark does not make sense for our student population. It makes sense for us to benchmark it against private loans and the federal unsubsidized, which also means we probably . . . have to charge a lower percentage rate on average than perhaps Purdue and others do to make it make sense for our students.

Similar to Purdue University, U of U plans to have a six-month grace period for students once they graduate but plans to cap repayments at 2.5 times the amount funded. U of U used the Investing in Student Success Act as a guide to develop their terms and agreements for the ISAs to ensure they are in total compliance should the federal legislation pass. In addition to capping students' amount of payback on the ISA, they also planned to cap the amount of expected starting salary at 15% of a graduate's expected starting salary. The institution is using these approaches as safeguards to avoid having the student be saddled with more payback than they are able to afford with their postgraduate income.

Funding the ISA

In addition to modeling the student side of the ISA, the team also needed to determine the funding model. The Sorenson Impact Center also was involved in the development of the funding model, as it was decided early on that a portion of the fund would come from external investments. The funding model has evolved dramatically and went through several iterations; at the time of this study's data collection, it was still under development. In the beginning, many questions needed to be answered about how the fund would be structured. Where would the money come from? If they were to use investment funds, who is the first payer? In other words, who would put their money into the fund first and therefore bear the most risk? Who is the second payer? In this case, the second payer would basically only put money forward in the event that certain conditions were met, such as students paying back what was predicted, or a certain number of students graduating, which is why it is less risky for the second payer. The second payer also would help scale the program should funds be needed to grow the program beyond the first payer's fund.

The initial pilot fund is \$6 million, which is a combination of donor, investor, and university capital. In a gift scenario, the donor does not see a return from that donation except the benefit of a gift in his or her tax returns. In an impact investment, however, the donor may get a minimal rate of return from their initial investment. With an impact investment, the focus is on the social impact and not the financial return. When talking about why it was decided to treat this as an investment rather than a gift, Mark Weaver,

senior administrator for institutional advancement at the U of U, noted the following (personal communication, October 16, 2018):

I think that was that we decided to look at it that way rather than a gift fund because I think that we didn't have somebody there going to say, "I'm going to give you this much for a gift. Do whatever you want to do with it." Had more willingness from our donors to do this in the form of kind of like a social impact fund and looking for some kind of a return because they're looking for something that is perpetual.

Well, we are pursuing gifted funds all the time, for scholarships. I mean we raise about \$18 million a year in scholarship funds. So, we are soliciting hundreds and hundreds, probably thousands of people for gifts to scholarships. We're very good at it. People are very generous at it. So this is additive. This is something new and different. And for sophisticated donors and people of wealth, it has this new dimension to it that is relatively new but has some appeal to people.

Weaver describes these investors as "people of means and wealth that are used to charitable giving and who have both a philanthropic impulse and a business savvy that would want to do good while they are doing well" (personal communication, October 16, 2018). The concept of social impact investing seemed appealing to early investors, who are also be donors of the university already and have the capital to fund other university initiatives such as the ISA. Investors expect they may the money back that they invested, and they would anticipate a small premium for the risk they are taking.

Despite there being an expected return, it may be unlikely that the investor will see a big return on investment in the early stage of the ISA because it is a pilot and therefore difficult to predict the outcome with any certainty. Robert Mack, a managing director for the Sorenson Impact Center, does not see the U of U ISA model as an investment; instead, he sees it as philanthropy, as he describes here (personal communication, October 17, 2018):

The pilot is definitely philanthropy over investment. There is an expectation of return, but that return is not market-based. The goal for the pilot is to get enough data that we can then make it be a true investment. For me, I do not view putting money into something and just expecting metrics back to be an investment. I view that just as smart philanthropy, and you cannot use the word smart, but I view it as smart philanthropy. If you are making an investment, you should be getting a reasonable rate of return back. That is not really the expectation for these particular [investors], for the pilot phase. Again, the goal would be when you really get into the model if what we truly believe could happen in terms of repayment occurs, there are enough economics to be able to attract outside investors into the ISA pool and be able to scale this massively, right. Capital to fund the program is not an issue if we get the data back that we think there's just a ton of risk on the pilot because we have no idea what the data is, right.

Eventually, should the predictive model do what it is supposed to do, then the team envisions growing the fund beyond the \$6 million and expanding to a wider pool of investors.

The investors in this fund are primarily family foundations that have a pool of funds specifically dedicated toward social impact investing. Although the rate of return is still to be determined, Brandon Carlson says that investors are looking for a “PRI investment [program-related investment] their returns are capped around that rate. The ten-year T [treasury] note is the next-best option for the investors. It makes sense as a benchmark to peg the return to” (personal communication, October 24, 2018). At this stage, the investor may expect to see a return on the principal alone, but probably not much more beyond that, according to Mack. If the investor did not have a more philanthropic mission, then it is likely that he or she would expect a significantly larger rate of return (R. Mack, personal communication, October 17, 2018):

If we have a high degree of certainty that you are going to get repaid, then it is above what the U.S. government is going to charge, but it is probably in the 6-to-8% range, right. If there is much more variability and we find out that depending on what type of students end up taking on the ISA in any given year,

you are buying into a given year as opposed to an overall pool, then maybe that gets into the teens or something. A lot of the ISAs that are being taken on right now are in the early stages. For me to go into this transaction right now as an investor, I would expect something around 20% return. Currently . . . in the pilot phase this thing is straight-up risk and I would want to be compensated for that. That is why you need a philanthropic [angle], you know.

The reason the investors are expecting their principal back and not more is because it was framed to them as an experiment that might yield a higher rate of return than expected in the long run, so the investors at this stage are expecting much less of a return than the 20% referenced above, likely equal to or lower than the 10-year treasury rate (about 3% or less). In the current iteration of the ISA, at the time of data collection, the university planned to put in their capital second, which is why the investors are taking on the initial risk. The reason the investor is bearing most of the risk is by being the first payer; the second payer will not enter the fund until there are certain metrics from the students. The university capital will be utilized only once there are certain repayment metrics or “trigger events” that signify the need for additional funds, such as graduation rates, expected payments, accurate prediction of anticipated earnings, and so forth.

Once it was determined how the ISA would be funded, the team also needed to determine where those funds would be managed. Based on recommendations from the general counsel, there will be a completely separate LLC entity called the Invest in U ISA. The U of U board approved the Invest in U ISA fund in 2018. There will be a managing board for the LLC, which will include the executive board and some other individuals. Much is still unknown in terms of the funding model. The team needs to determine the exact rate of return and finalize some of the investor agreements before proceeding.

Servicing the ISA

In order to run an ISA, U of U needed to determine how the ISA would be serviced. With an ISA, there are front-end processes such as awarding the ISA, determining how much will be allocated, the terms of the agreement, and a place for students to accept that award. There is also extensive processing that takes place once a student graduates, such as annual income verification, skip tracing, and communicating important deadlines to students with an ISA. There are various companies that have recently entered the market to act as an ISA servicer, but U of U initially decided to see what it would take to service the ISA on its own. Elizabeth Hadley describes the rationale (personal communication, October 16, 2018):

We always knew we could use a vendor if we needed to, but the thought that we should see if we can build the servicing on our own so we have our own autonomy and can drive the agenda. We were reluctant that if we turn it over to a vendor, then the vendors are driven by their investors, and you set up different dynamics where you don't quite have the control as you do as in-house.

You can also see scenarios where if schools are just like, “Hey, we are going to do this and leave it up to vendors.” The vendors motivations are to their investors, as opposed to the student. I think you can probably gather from this that we were careful to ensure that everything we did put the student at the center. It is still a big question mark with our conservative, student-centered model how this will actually work out. Our modeling pencils out, even with really conservative assumptions, and we are hopeful the pilot will be a success.

Despite the goal of building the in-house servicing platform, there were many hurdles that needed to be overcome in order to build a platform that could manage the size and complexity of the ISA.

The first step was to assess the current platforms at U of U to see if anything could be repurposed for the ISA. The income-accounting software could not handle the

magnitude of the ISA, and Hadley made it clear that it would not be effective to run the fund off this model. The Perkins Loan software also was considered as a possible tool to use; however, because Perkins is a loan, there is a principal and interest that accrues, and the student will always pay the same amount each year. With an ISA, the graduate's income might change each year, which would require verification and also would impact the percentage of payback to the ISA fund. The Perkins software did not have the capacity to manage the ISA. After a few months of troubleshooting various options, it became clear that the software would likely need to be developed from scratch, which at the time was estimated to cost around \$1 million. The team went to Vemo Education, whom they had talked to early on, for a general market assessment and quote about how much the fees would be. They were surprised that the amount quoted had increased since the last conversation, according to Elizabeth Hadley (personal communication, October 16, 2018):

Essentially over \$3 million for an \$8-million fund. If you are sitting in my shoes, that requires us to shift the cost to the students, and we were not willing to do that. I am not willing to shift the cost to students, because then it does not make sense for the students. This is where running an in-house model is really important, that you can still control all the variables. Also talking to a lot of our investors who are very savvy financing people. The complexity of running the backend piece cannot be overstated, because you have the income verification piece. And, you've got skip tracing which requires a team to track down people and continually service the accounts. You've got a population that's increasingly doing more entrepreneurial things, so getting the W-9 or the . . . not the typical 1099 IRS filings becomes really difficult. The servicing and collections of ISAs is very high-touch and expensive. The thing that these vendors do not tell you up front is that after a certain time in default rate, they kick it out to collections regardless. So you've got to pay them a hefty fee, plus there is additional cost to send to collections on the backend.

The investors initially urged the U of U to find a way to manage the ISA internally and encouraged them to turn to state resources. The Utah System of Higher Education has a group called the Utah Higher Education Assistance Authority (UHEAA). The UHEAA is an educational consultancy in the state that services approximately \$12 billion in loans per year, which includes all student loans in the state, in addition to some federal loans. At the time of data collection, the system was not nimble enough for the ISA, though there were talks that they may transition certain pieces over to UHEAA if the program were to scale beyond the pilot (E. Hadley, personal communication, October 16, 2018).

At this early stage in the development process, the team was trying to see if it could build something on the backend for the pilot project. Choosing to service the ISA internally potentially adds more questions than it would if there was a servicer. For example, the team needed to figure out how to conduct income verifications while also taking into consideration that this may be invasive once the student graduates. Elizabeth Hadley outlines the various verification methods in the following statement (personal communication, October 16, 2018):

So, the ideal is to get their yearly IRS tax documents and then set the monthly payment and do automatic bank pulls through an ACH [automated clearing house] system, right? Because that's the cleanest and the easiest. I know from our Utah people about 70% will be like that, but that other 30% is where it is going to be high touch. So, we are still trying to decide, this is actually really interesting. This is what I have figured out from the vendors. There are basically three ways that they do income verification. The most aggressive folks do three things. They do the IRS, they do self-reporting, and they have an API, which is an application online, when you sign up with your bank account that API can actually go in and look at your deposits in your bank account. So, they are verifying using artificial intelligence to crawl into their bank accounts. That, to us, is somewhat concerning. And we would likely not go with a vendor that does

that. Yeah, you can imagine the story on that, right? So, the less aggressive do the self-reporting and the IRS. And then the simplest model is you would just do the IRS data. So, we are still trying to decide how much of the self-reporting versus the IRS. Our investors think we should just straight up do the IRS and just make it simple.

The income-verification piece is one dimension of a very cumbersome backend process. In addition to this question, the team also had to consider what might happen if it built a system and the ISA does not succeed, then it would be out the money invested for a system that may only work for ISA processing. Ultimately, at the time of data collection, the plan was to build the system internally, but that was still being decided.

Next Steps

At the time of data collection for this study, there were several critical next steps for the development of the ISA program. With the ISA set to launch in 2019, the team was still in final conversations about some aspects of the model, such as finalizing percentages based on the income tiers, determining the caps on repayment, and writing the final disclosure statement for the pilot. The funding model also needed to be finalized and key decisions made as far as the rate of return for the investors and who will be the first money in and second money in. Last, it needed to be decided where, how, and by whom the ISAs will be serviced.

Once all the pieces are in place, it will take some time before starting to see any results from the ISA program. It will take approximately six months after graduation for repayment to begin, so it will likely require, at minimum, approximately 15 months before graduates start paying back to the fund. Once data start coming in, the model may need to be tweaked in order to better predict outcomes.

Measuring and Managing Risk

Thus far, this case study has outlined some of the risks inherent with an ISA. One of the major risks to all stakeholders is the lack of regulatory clarity surrounding ISAs. Although there are some legal safeguards in place to manage some of the risks, U of U recognizes the importance of understanding the risks for each stakeholder and attempting to manage them by setting up the right contracts and ensuring the model is sound and fair for students, the university, and external investors.

Student Risk

Students who agree to take on an ISA are taking a personal financial risk in the sense that they do not know what their income will be after they graduate. They could end up paying more than anticipated should their income end up being higher than expected. The financial aid office is requiring that all students who are considering an ISA meet with someone in their office who is familiar with ISAs to discuss the potential risks. The office also will encourage students to meet with a tax professional given that the tax implications are also a potential risk for the student. Luke Ellis, an associate general counsel at U of U and advisor to the ISA project, describes the tax implications in this way (personal communication, October 17, 2018):

I think the tax treatment, how these are going to be treated by the IRS, is risky to the students, just because I think it is pretty clear how it is handled in the proposed federal legislation, but we just do not know how it is going to be treated by the IRS if there is no legislation in place. One of the big risks, I think, for students is that, well, if you receive, say, \$20,000, and you are not a high enough income earner that you pay less than what we gave you. . . . Well, let's say they pay back \$18,000 and then their obligations are expired. There's a \$2,000 gap there, right? They did not repay it, so will that be an income event for the students in the final year of the contract that would be taxable? So now you have a situation where . . . the student is already a low-income earner

because they didn't pay it all back, and now they have a big tax bill at the end of the term of the agreement. It is a risk that we just don't know what's going to happen there, so we'll advise students that that can happen. We don't know if it will happen. You can kind of plan . . . there are ways, under the tax code, where . . . you have something called an open transaction where you don't know the value of it, so you may . . . if you claim that, it is a potential that you will not have to claim that gap at the end.

At this stage, because there is not clear legislation, the ISA will not show up on a graduate's credit report because, at this point, it is just a contractual agreement. However, if the ISA is treated as a debt instrument by the crediting agencies, then it could show up as a debtor-creditor loss and, in that event, might show up on a graduate's credit report. In this event, the debtor would be the student, and the creditor would be the university.

One other implication for students owing to the lack of regulations is that it is not clear whether or not the ISA could be discharged in bankruptcy because there are no provisions for ISAs under the current bankruptcy codes. This will depend, in part, on how they are viewed. If ISAs are simply contractual agreements, then this would have different legal implications than if they are a debt instrument. The university will take strides to ensure that students understand these implications and also has built the program to minimize these risks for students, as described by Brandon Carlson, a director for the Sorenson Impact Center (personal communication, October 24, 2018):

We were very intentional in the way that we [had] done the major mix to include groups at all anticipated income levels. Because our ultimate goal was to get students to graduate and not to have a very lucrative ISA program. That is the main way we thought about minimizing the risk of bad press. We have also been really, really intentional about—and really direct about—the way that we're marketing this to students. Understanding that potentially the financial literacy of the average undergraduate student, 21-year-old person maybe is not super, super high. This is marketed in such a way at the U that risks and benefits are clear. It is clear that you are offsetting some of your risk and if you do not earn, if you end up not having a job, or you are working part-time, or earning less than

the floor threshold that you do not have to pay back. At least at that time. And it is also made clear that if you do well, you may end up paying back more than you used in the ISA. Just being very careful about how it's marketed and how it's talked about. Avoiding any possibility that this is, or appears to be, predatory.

The university is doing all that it can to ensure students are aware of how this ISA will be treated, but some are concerned that this could be a psychological burden to the student given the difficulties in predicting the amount the student will pay back. The financial literacy of college-age students also was brought up as a concern multiple times by multiple individuals. Although the university is doing a lot to help with this challenge, this, of course, is a risk because the student may not fully understand the implications of the ISA as described in this section. The university is then taking on a risk of bad press in the event that students are displeased with the ISA. There are other risks for the university as well, especially since the U of U is considering managing the ISA internally.

University Risk

One of the major risks to the university is that students may not meet the minimum threshold income. In U of U's ISA program, the minimum income threshold is \$20,000. If a larger pool of graduates falls under that threshold than was initially predicted, then the university's ISA fund would be impacted by a lack of revolving resources. One of the appealing aspects of the ISA is that there would be the potential for a perpetual fund that, one day, could potentially be self-sustaining and help other students go to college. However, if graduates are not paying back the anticipated amount, this could impact the institution.

There are also policy implications that vary from state to state. This would also depend on how the ISA is treated and its legal implications for the university. There is a chance that ISAs are treated as securities, which, because the university is acting as an investor, could mean they could be impacted by securities law. The Utah Department of Commerce, Securities Division describes securities law as follows (Utah Division of Securities, n.d.):

Most people understand that stocks and bonds are securities and know that special laws apply to securities, but many do not realize that Utah law defines “securities” much more broadly than just stocks or bonds. A security also includes items such as promissory notes, limited partnership interests, LLC interests and oil and gas partnerships.

In fact, a security can be any transaction in which one person gives money to another with the agreement that the money will be returned with a profit. Such arrangements are deemed “investment contracts” and are also defined as securities in Section 61-1-13 of the Utah Uniform Securities Act. Securities regulators have even taken actions against promoters who were offering interests in pay phones, Internet kiosks, orange groves, and worm farms.

It is best to assume that any plan where someone invests money with the hope of receiving a profit due to another person’s efforts is a security.

Given that it is not clear whether or not they will be treated as a security, this is also a risk that the university is taking on because it could end up with legal issues. One of the ways they are protecting the university is through the establishment of the Invest in U LLC, where the money for this program would be managed. The U of U also chose to outsource some of its legal guidance to an entity with expertise in securities law because there are additional exemptions in securities law that go beyond the expertise of the legal team at the university, as Luke Ellis, an associate general counsel at U of U, describes (personal communication, October 17, 2018):

Again, that is a way to kind of place the risk in a separate entity that is not the university, even though the university owns it. If the university is the only entity putting money into the fund, I think you can run it in and out of the institution itself. To the extent that you have outside investors, I think having a separate entity is key, because then the agreements between the investors are with that separate entity, and you made clear in the documentation that you are not going to come after the university. Any recourse you would have would be against this separate entity, so that you are not digging into funds from the university itself. Like, you cannot get into the university's purse; you can only get it from whatever is couched in that entity. So, all the legal relationships between the investors and the students are with this separate entity.

Setting up an LLC is one example of how U of U is protecting itself and the student. The institution is doing all that it can to ensure that students take seriously the financial implications of entering into an ISA, as this could have implications later in the program as well. U of U consulted with Purdue University and its general counsel and will use similar language in its disclosure statement, according to Ellis (personal communication, October 17, 2018):

I think we will take the same kind of path that Purdue took. If you look at their ISA, their tax treatment is like an entire page. It takes up a lot. Unfortunately, because we are legal counsel for the university, not for the students, we cannot advise the students. We cannot act as their attorney, so we do advise them to get outside advice, which nobody is ever going to do, because nobody ever does, right? I mean, would you if they say, "Hey, you want this money to help you with your education, but you should go talk to a lawyer about it or a tax professional." Are you going to do that? Probably not. That is an additional cost. So, that is kind of tricky. I think the education piece is going to be really important for the students and we have stressed that all along, but when they come in to talk about these or they come in to sign their agreements, this needs to be a conversation that happens. That is, we just do not know how they are going to be treated. Now, if you are anticipating that you are going to be a high-income earner, it is probably not going to be a problem. Kind of the reason it is tricky right now is there are laws in place for loan forgiveness that say if you do not pay back all of your loan, then you will not be taxed on it. But that is by law. There is a statute out there that says that. With these [ISAs], there is nothing. So, we would hope that by the time students start repaying or fail to repay at the end, that they would be treated similar to a loan forgiveness. That would be the hope.

Even as the university is doing all that it can to follow legal guidelines, there are simply not a lot of guidelines in place for ISAs. Hence, the university bears the risk in this case and a lot will depend on what happens at the federal level with the Investing in Student Success Act, as well as at the state level. Some of the same implications and risks apply to investors as well; because investors are also part of the ISA program, the university needs to consider their risks as well.

Investor Risk

The investor risk is similar in some ways to the university risk. Of course, students might not pay back at the anticipated rate and, as a result, the investor does not get the rate of return back, or potentially even the principal. The university will do everything it can to try to make sure students pay, but that is part of the risk in any scenario where up-front funds are provided with an expected return. There may still be a gap, and it will take several years before the institution will know whether the program is successful. It is also not entirely clear what the regulations will be for the investors, which is a risk they are taking according to Robert Mack (personal communication, October 17, 2018):

Back to the same thing with the students, right? So, investors are the same way if there is not clarity around how these are going to be treated. So, the two biggest risks from an investor standpoint: number one, is do they get regulated in a strange way? And especially with what the government has done with student debt. That makes an investor nervous, right? All of a sudden, the government comes in and goes, you know what? These ISAs, I know they are different from student debt, but you do not have to pay them back either. Do not worry about it. So, as an investor, you are going to be nervous about that. I think the second piece that is very real—if you do any looking at all on this—is press getting a hold of it and saying that you as an investor are being usurious towards students. And you are going to find the one student who was poor who ends up getting a good job. Not the one, but you're going to find a student. I am a

journalist. I find a student who was poor who gets a job at J. P. Morgan, ends up getting a million-dollar bonus and has to pay back, hits the three times cap in a year and a half. And, therefore, that is a 100% rate of interest or something like that. And you're going to have it be the front page and say, oh, ISAs are bad, and that's going to be paid for by the people that are currently selling student loans. So, that is the other thing that I would be nervous about as an investor.

According to Mack, there are some scenarios and the “possibility that ISAs could be more usurious than a standard student loan but also understand that the set of circumstances under which that happens, for a full population of people, is really, really difficult to actually happen” (R. Mack, personal communication, October 17, 2018). The situation could result in a positive outcome for the investor as well because of making an investment in a student's future. The university has ensured that the terms and agreements are not predatory to students but rather are fair and equitable, and that students are required to, or encouraged to, meet with a financial aid advisor to ensure they know the full picture of the ISA. The hope is that, with these approaches, the ISA will not appear predatory and thus not as much of a risk to the investor.

The Response

One of the big questions or considerations that comes up when thinking about the risks with ISAs is the potential public relations outcomes as a result of launching. Since President Watkins made the announcement in September 2018, there had not been a significant response to the team or the president's office. The enrollment and financial aid department held focus groups and interviewed students, and the response they received was a general curiosity and interest in the Invest in U ISA. However, because the ISA program had not launched yet, the university, students, and general public were not fully aware of the program's development process or the inner workings of the ISA. Elise

Abbott, an administrator in the Office of Scholarships and Financial Aid, describes the communication plan at this stage of the development process (personal communication, November 21, 2018):

Right now, no students have been informed, except for hearing about the president's vision coming forward, and what is going to be coming down as an option. We are getting some questions about it, but when we are ready to launch the product in spring, we will send email communication to students letting them know about the product. We will have a university website about income share agreements. The email communication will be targeted with a few touchpoints for the students, and for a student that expresses interest in the ISA, it will then trigger an email from our financial aid counselor to set up an appointment with a student to come in and talk about that. We will then have an in-person conversation with the student about the income share program before it would ever get posted to their account.

The plan was to ensure that communication is transparent and clear to students once the ISA was to be rolled out in early 2019. In general, the feedback from students has been positive.

Some members of the team fielded questions from parents when they presented the ISA concept to the parent association. The parents seemed to have more questions and concerns than the students when it came to the ISA. The parents wondered if students would pay the same amount as one another and how the percentage of payback would be determined.

One of the surprising and exciting things that the team discovered was that the concept of an ISA may not be too foreign a concept for people in Utah who are part of the Church of Jesus Christ of Latter-Day Saints. Mark Weaver, senior administrator for institutional advancement, describes a similar finance tool offered by the church called the Perpetual Education Fund (personal communication, October 17, 2018):

Within the Mormon church, when the pioneers in the 19th century were coming to Salt Lake City from Scandinavia, England, wherever they were coming from, one way they funded themselves to get across the country was something called the Perpetual Immigration Fund. The idea was, they had their way paid and then when they got here, they paid back the fund that paid them so that the people that followed them could come. That was the Perpetual Immigration Fund. The LDS church had, a few years ago, done something similar called the Perpetual Education Fund. Same idea, you get your education paid for, you get your job, you pay back. So, this was not a foreign notion within some parts of our alumni donor database. Those who come out of the LDS tradition were familiar with this idea, and it resonated because of that. Now, not everyone that is donating is LDS. It is not a church issue, but it is something that was not unfamiliar. The question was, how might it fit comfortably in our environment here and how could we be realistic and careful about the fiscal risk and who bears the fiscal risk, because there is to be a return on investment? You know how they work. The university is assuming the risk, but assuming it's a tolerable risk because in the meantime you're using funds that would otherwise help scholarship or get students through, as I understand it.

Although U of U is not directly affiliated with the church, the student population comprises many students who identify as Mormon. Beyond that, donors, families, and outside constituents may also be part of the Mormon Church. The Perpetual Education Fund is something that is well known in the LDS church, according to those interviewed. The Perpetual Education Fund is essentially an ISA, so those affiliated with the church have some understanding of, and comfort with, the notion of a perpetual fund.

Though the ISA had not received much of a response from on-campus constituents at the time of data collection for this study, it has received some response from individuals outside the university. Other institutions in Utah have reached out to U of U with a general curiosity about the ISA. However, the concept of an ISA is still new, and many are puzzled by it, as Mark Weaver, senior administrator for institutional advancement, reflects on how he reacted when the ISA was initially presented to him (personal communication, October 17, 2018):

It took me a long time to understand it. I was bamboozled, I was puzzled, I was confused. I did not get it, I guess. Well, is it a gift? Well, no, it is not a gift. Well, what is it? And, you know, it was like when the first person from England that stumbled across the platypus duck in Australia, what is this thing? What is it? So, initially it was just comprehending it, understanding it. When I finally understood it, it was like, ah, okay, I get it. And frankly the reason I finally did get it was what I mentioned a minute ago. I know how the perpetual immigration fund is, I know what the perpetual education fund is, okay, that's what it is. But with wrinkles.

Similar to Weaver's reaction, the team anticipated that the ISA would be somewhat confusing for various constituents and stakeholder groups given its novelty, and thus developed a communication plan for all stakeholders.

Conclusion

U of U's Invest in U ISA program is an important case study for understanding the process of developing such a program. Driven by a new president who wants to help students find a way to pay for college and the university's goal of having students complete their education, the ISA is one tactic that could help students pay for a portion of their college education. Following Purdue's lead as the second large, public, Research I university to launch an ISA program, much can be learned from this case that could inform state, federal, or institutional policy for those exploring ISAs. U of U had a lot of decisions to make before launching in 2019, so this case study should be revisited by future research after the launch of its ISA program.

CHAPTER 7: ANALYSIS AND DISCUSSION

In the past few years, colleges and universities have begun piloting ISAs as an alternative way to help students pay for all or a portion of their college tuition. Students are given funds to pay for their tuition in exchange for an agreed-upon percentage of their postgraduate income for a prespecified length of time. If a student lands a low-paying job, he or she owes less, or perhaps nothing at all. If the student lands a higher-paying job, he or she would owe more. Ideally, this model creates a link between postgraduate student earnings and college or university tuition reimbursement (Figure 16). Although the concept of ISAs is relatively straightforward, implementation can vary widely based on how the ISA is constructed. ISA programs can apply the same percentage and duration

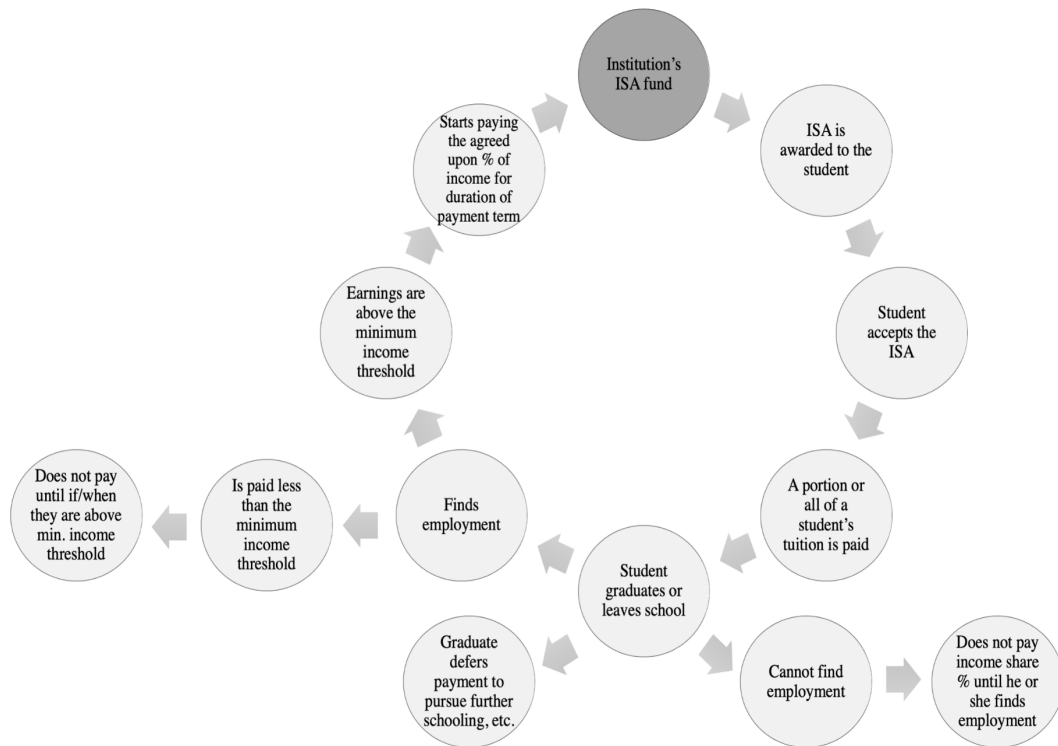


Figure 16. The cycle of income share agreements. Once an institution sets up an ISA fund and begins offering ISA awards to students, the ISA cycle begins.

equally to all students, or they can have variable percentages and durations based on a student's choice of major and his or her anticipated earning potential. The source of funding for the ISA also varies. Even though ideally the college or university assumes some of the financial risk in the arrangement, other funding sources have been pursued, including external investor capital and/or major gifts.

The primary purpose of this research study was to examine three distinct ISA programs at three different universities in the United States—one private, the other two public. The primary research questions guiding the study were: What is the impetus for colleges and universities to invest in ISAs as an alternative mechanism for funding all or a portion of a student's tuition? What early lessons have been learned from institutions adopting ISAs? What are the views of higher education finance experts regarding ISAs in providing more affordable higher education for students and families?

Purdue University's Back a Boiler, Point Loma Nazarene University's Point Loma Invests in You ISA, and University of Utah's Invest in U programs are powerful cases for uncovering important lessons about ISAs in higher education today. As the three case studies reveal, the ISA programs are relatively similar, with some critical variation in why the programs launched in the first place, the implementation process and early lessons, how the programs are modeled, the relationship with the servicer, how the ISA is funded, and the perceived risks and unintended consequences by institutional stakeholders. After careful examination of the three individual cases and unique context of each institution, the following analysis was conducted in order to provide a more

comprehensive overview of the early development of ISAs within three distinct institutional contexts.

It is also important to place ISAs in the broader higher education finance landscape. As a supplement to the individual cases, additional interviews were conducted with a subset of leading higher education finance and policy experts. The expert interviews sought to uncover perspectives from subject matter experts regarding where ISAs fit in the ongoing affordability discussion, the benefits and drawbacks of them, and their future in higher education. Findings from these interviews reveal the views of higher education finance experts regarding ISAs as a potential tool in providing more affordable higher education for students and families.

The experts for this study were selected based on their area of expertise in order to explore varying perspectives from the field. Sandy Baum is a nonresident fellow in the Center on Education Data and Policy at the Urban Institute and professor emerita of economics at Skidmore College. Her areas of expertise are on college pricing, college access, student aid policy, and college affordability. Lucie Lapovsky is a former president of Mercy College who now owns a consulting practice that leverages her knowledge and expertise in higher education finance and governance. William Zumeta is a faculty member in the Evans School of Public Policy at the University of Washington and former senior fellow at the National Center for Public Policy and Higher Education. Some of his research areas focus on higher education finance, policy, and accountability. Richard Vedder is a distinguished professor of economics emeritus at Ohio University and is director of the Center for College Affordability and Productivity. David Tandberg is the

vice president of policy research and strategic initiatives for the State Higher Education Executive Officers Association (SHEEOA). Robert Kelchen is an assistant professor of higher education in the department of education leadership management and policy at Seton Hall University and concentrates his research on a variety of areas such as college rankings, program evaluation, student financial aid, and accountability. William Doyle is an associate professor of public policy and higher education in the department of Leadership, Policy, and Organizations at Peabody College of Vanderbilt University and was previously a senior policy analyst at the National Center for Public Policy and Higher Education. His research investigates the impacts of higher education policy at the state level, as well as the study of political behavior and how it relates to higher education. Finally, Nicholas Hillman is an associate professor of educational leadership and policy analysis at the University of Wisconsin–Madison. Hillman’s research focuses on the ways in which policies affect college access.

The fundamental purpose of this chapter is to synthesize the themes discovered from analyzing the three cases in combination with the perspectives of finance and policy experts. This chapter will discuss the cross-case themes within the broader context of higher education finance and policy.

ISAs as an Affordability Instrument

With the rising cost of obtaining a college education, an important question has been raised for the individual and society as a whole. Is college a worthwhile investment? Students are also becoming savvier about determining which colleges provide a valuable return on investment (Carnevale et. al., 2011). Increasingly, the value of a degree is based

on labor market outcomes and how various college degrees fare in the labor market (Carnevale et al., 2015). Albeit other factors may contribute to an individual's college choice decision, the question of employability is gaining focused attention. When the cost of education has risen faster than the rate of inflation and more than any other consumer good, students must ask themselves whether or not the benefits outweigh the costs (College Board, 2018). The knowledge-based economy and labor market has called for a more educated workforce, making college degrees a valuable market commodity for employers (Brown, Lauder, & Ashton, 2012). Therefore, obtaining a college degree has been demonstrated to result in more positive individual outcomes than having a high school diploma alone (Carnevale, Smith, & Strohl, 2010). Still, it is important to question whether or not college is worth it and what actually makes a college investment worthwhile.

Linking the Value of Education to Labor Market Outcomes

Though there is considerable debate as to whether labor market outcomes should serve as a helpful tool for assessing the value of a college degree, it has increasingly become a metric through which students and families are determining college investment decisions (Carnevale et al., 2011). Human capital theory provides a helpful framework for linking the value of education to one's labor market outcomes. Some strongly support human capital theory as a framework for assessing productivity and labor market outcomes, but others are strongly opposed to the idea that a college degree has any bearing on postgraduate outcomes and instead insist that an individual's innate skills and personality are what makes them productive, not education (Tan, 2014). Despite the

debate surrounding the benefits and drawbacks of human capital theory, the model is important for assessing the link between college affordability and labor market outcomes. For students who invest in a college education and subsequently face a large amount of loan debt, the only way that taking on that debt makes financial sense is if that individual has job prospects suitable for paying off that debt. It is within this human capital theory framework in which ISAs are best positioned for discussion.

Much of the research that has been focused on the finance of higher education has “been drawn from the broad theoretical framework of microeconomics” (Scott-Clayton, 2018). Human capital theory is often presented as a useful framework for understanding the potential return for one’s pursuit of higher education. When human capital theory was originally proposed (Becker, 1964; Mincer, 1958; Schultz, 1972), it posited that a person’s investment in higher education would produce an economic financial return, improved career success, and benefits to society. The original framework of human capital theory presumes that individuals use rational decision making to make investment decisions about pursuing higher education (Paulsen & Smart, 2001, p. 56). Human capital theory has been used to inform policies and practices within higher education such as the mass movement toward granting access to higher education based on the notion that human capital and economic productivity are improved with a more educated workforce (Carnevale et al., 2010). More recent literature has expanded on human capital theory to account for the complexities of individual decision making about an individual’s investment in higher education (Blaug, 1976; Glomm & Ravikumar, 1992; Paulsen & Smart, 2001). Becker also sought to expand on his earlier work and focused on

knowledge and productivity skills as the basis for human capital theory; he later accounted for other critical influences such as the social environment as well as individual behavior and characteristics (Paulsen, 2001, p. 56). In essence, human capital theory was the first of its kind in microeconomics that attempted to demonstrate whether the financial investment of attending a college or university was valuable based on the individual's internal rate of return.

To date, there has not been a central agreement or any comprehensive tool for measuring the value of a college degree. Even as the value of learning and developing better citizens who benefit society are certainly components of a student's overall college experience, the ability to measure these quantifiably as positive outcomes has thus far been unsuccessful (Bok, 2008). Research has shown that students are investing in their learning with an expected internal rate of return on their investment (Carnevale et al., 2011).

ISAs are a financing tool for investing in human capital. The utility of an ISA is in tying the cost of education to one's earning potential and human capital. With an ISA, the value of a student's education is tied to his or her postgraduate earning potential. Thus, students who do not fare well in the labor market pay less for their education, and those who fare better pay more. For instance, if a student does not meet the minimum income threshold of the ISA, he or she would not be required to pay back any percentage of postgraduate income.

The recent launch of ISAs at Purdue University, Point Loma Nazarene University, and University of Utah coincides with a national conversation focused on college

affordability. Growing concern over student loan debt and the rising cost of education has forced institutions to consider alternative ways to help students pay for a college degree and invest in their postgraduate success. All three schools in this study are focused on making college more affordable for students and providing additional options to pay for school. All three institutions discussed college affordability at length and view ISAs as a college affordability instrument. However, none of the schools view the ISA as the sole remedy for the challenges surrounding college affordability. Instead, the schools are placing the ISAs within a broader college affordability strategy. Purdue University, with its Purdue Moves initiative, has frozen tuition, decreased the cost of books, and decreased the cost of room and board. University of Utah launched its Student Success Agenda in 2018, and one of the central pillars is aimed at improving college affordability. The ISA is just one affordability strategy within a broader affordability initiative at U of U. Though not as formal an initiative as Purdue and U of U, Point Loma is also seeking ways of improving college affordability and views the ISA as one tool and an option for a subset of degree-seeking undergraduate students.

The three institutions are primarily focused on helping students who are at high risk of not performing well in the labor market or who are at high risk of defaulting on their student loans. The implementation of ISAs is aimed at reducing the risk of students defaulting on their loan debt, of not being able to pay back loans, and the risk that loans grow faster than an individual's ability to pay them down. The institutions are not overly concerned about graduates who are going to make significant amounts of money; those are typically students who do well in the labor market. There are guardrails in place,

though, with each model to ensure graduates do not drastically overpay. There is less of a concern about the graduates who are overpaying on their education but have the means to do so. Although the graduate may end up paying more back on the ISA, he or she is still performing well in the labor market. The institutions are primarily concerned about the students who cannot pay on their loan, do not make a suitable wage, and struggle to keep up with loan payments. Each of the institutions has instituted a minimum income threshold: graduates who do not earn a wage that is above the threshold simply do not have to pay. In this way, the ISA serves students when they need it the most—when they are either not able to secure employment or in the event that they have a lower-than-anticipated salary.

Both Purdue and U of U have developed a model that would account for variation in income by fluctuating the income share percentages and/or term limits based on anticipated earnings, while Point Loma's ISA is modeled so that students pay the same percentage for the same amount of time, regardless of major. The challenge with creating a model with the level of granularity as Purdue's ISA is that it reduces the progressive nature of an ISA because the graduate who majored in elementary education who makes significantly more than the average anticipated salary will actually pay more for his or her education than the PharmD graduate who made \$112,000 because of how it is structured. One problem with approaching the ISA in such granular detail is it may inadvertently end up punishing lower-income individuals. If they happen to do better in their field, they will pay more overall because of how the ISA is structured. On the other hand, the granularity of Purdue's model may reduce the concern that higher-income-

earning individuals would avoid the ISA because of how it is structured. If those students end up earning significantly more than anticipated, it may be financially advantageous for the fund and presumably for future students.

Point Loma's model is designed in such a way that students agree to the same percentage and term limit regardless of major. Although this approach may be less beneficial for the students who expect to earn more, because they will end up paying more back than their lower-earning peers, the straightforward nature of the model may create an income redistribution that allows the fund to be sustainable. ISAs favor those students who might struggle to pay back and disadvantages the individuals who are doing well. As discussed, however, this depends largely on the model and how it is designed.

Risk and Return as an Assessment of Affordability

One of the salient findings from analyzing the three cases is that though institutions view ISAs as a college affordability initiative, the institutions do not necessarily view ISAs as a tool for making college less expensive. Instead, ISAs become a college affordability instrument because they are de-risking one's investment in college. When a student enters college, that student does not know how well he or she is going to do after college. If a graduate does not do well after graduating, the ISA accounts for this potential risk, and an education is inherently less expensive. For those graduates who end up earning significantly higher income than the ISA model anticipates, even though they may pay more on that ISA, they are eliminating their potential risk for default. The ISA makes college more affordable because it eliminates the unknown risk that is inherent with other debt instruments. With student loan debt, there is the risk of defaulting and

having the loan grow significantly faster than one can pay it off, which negatively impacts at-risk students and those who are not doing well in the labor market. There is also the risk that by not paying on student loan debt, a graduate's wages could be garnished at 15% until that loan is paid off, which could add a significant number of years to the loan (U.S. Department of Education, n.d.-b). In the event that a graduate's loan reaches the point of wage garnishment, it in essence becomes a very expensive ISA, and yet that graduate's loan still grows, and his or her wages are being garnished. The fundamental focus for each of the institutions was to find a way for students to de-risk their college investment. They are not necessarily attempting to make college less expensive; instead, they are talking about de-risking college as a tool for measuring value. If a graduate does not get a return on investment, as their personal return decreases, their investment goes down. Thus, an ISA reduces a graduate's downside risk and, in this way, serves as a college affordability instrument.

Criticisms of ISAs as a College Affordability Tool

Albeit institutions view ISAs as an affordability instrument and method of de-risking one's financial investment in college, critics of ISAs argue that these agreements will do very little, if anything, in making college more affordable for students. There are a number of critiques that arise when considering ISAs in the context of college affordability. One major criticism of ISAs is that they are simply a loan by a different name and calling them something other than a loan only confuses students and lacks transparency. Another criticism of ISAs is that these arrangements are overcomplicating an already complicated system. Finally, some critics wonder if ISAs are actually a viable

way to reduce risk for students. Proponents, on the other hand, would argue that though ISAs may not be the cure-all solution to the challenges of college affordability today, these agreements show considerable promise and should be considered and explored further.

A Loan by a Different Name

A natural question emerges when considering ISAs in the broader higher education finance landscape: how is this arrangement any different from other finance options currently on the market—more specifically, a loan? There are many differences between a standard loan and an ISA. First, a loan is a debt that must be paid back to the lender regardless of one's earnings. In the event that an individual cannot pay it back, the interest continues to accrue so the loan amount is always growing unless payments are under control. Furthermore, defaulting on student loans has serious consequences. With an ISA, however, the original funding amount always remains the same. There is no interest on an ISA. If an individual is unable to make payments owing to poor labor market outcomes, the ISA model accounts for such circumstances and the individual simply does not pay if he or she is under the minimum income threshold. Similarly, when an individual faces economic or financial hardship, the ISA would never require more than the original percentage of the agreed-upon share of income. In the event that an individual faces other unexpected costs such as medical bills, the fact that the percentage remains the same could be problematic. However, the fact remains that the ISA funding amount never grows, unlike a loan. The individual case studies revealed that the institutions are attempting to provide an alternative for students whose options would

otherwise be private loans or a Parent PLUS loan, or the student would have to come up with other financial means for closing the gap in payment. Even as the terms might vary considerably between different private loan options, and in some cases may be a better deal for the student, that student does not know how he or she will perform in the labor market. In the event that the person is unable to make monthly payments, the private loan could grow significantly and become unmanageable. Thus, an ISA takes away some of the inherent risk in knowing that it always will be tied to postgraduate income.

When considering ISAs as alternatives to loans, Richard Vedder weighs in on what he views to be the importance of finding alternatives for the Parent PLUS loan market and cutting down on federal spending, and he views the ISAs as a potential tool for doing so (personal communication, January 28, 2019):

I have advocated the federal government cut down on some loans that are arguably not that critical from the standard of broader social wellbeing. Do you really need to subsidize loans to parents of students, the PLUS loans, for example. . . . Should we put limits on the period of time that a student can borrow from, a student from low academic performing background, who is not doing very well in school? Do we keep lending to them for the fifth year, the sixth year, etc.? We do have some limits, by the way. Maybe we ought to tighten those limits to minimize the federal exposure and then let ISA pick up some of the slack, if you will.

Sandy Baum also expressed the need for creating finance options as alternatives to Parent PLUS loans and the potential benefits of ISAs in this regard (personal communication, January 11, 2019):

I think whether a Parent PLUS loan is better or further student borrowing is better is going to be a very personal decision for families, but I mean, I am certainly worried about parents who take Parent PLUS loans and who we could predict will never be able to pay them back. I would certainly rather have the students have the additional responsibility than have parents who are in that situation have it. So, I think that is a really good thing . . . I mean, not for all

families, but there are many families for whom it would be better to do this than to take a Parent PLUS loan.

When comparing ISAs to current loan options, many experts raised an important question, which was how ISAs are any different from the currently available income-driven options provided by the federal government. There were consistent concerns raised that this ISA option has many similarities and may in fact be similar, or even the same, to other options currently available, as Baum articulates (personal communication, January 11, 2019):

Well, I mean, there are a couple of things. One, I think that it is really important to look at income share agreements in the context that . . . we have income-based repayment for federal student loans. So, the idea that somehow a program that you repay based on your income is novel, is a novel idea, is just not true. That is the way many people pay their loans. And two, even though it is not called a loan, it is a loan. If you take this money, it increases the amount of money you will owe when you graduate. So, I just feel like framing this as “Here is a way you don't have to borrow money. You will not be in debt. You will just have an income share agreement and have to pay a share of your income” is just a misleading way to think about this.

There are students for whom federal student loans are not sufficient, that they cannot scrape together the money to fill in the gap and they need to find money someplace, and for some of those students, this is a source of funds that may well be better than the alternatives available to them. So that is fine. I mean, there is nothing wrong with this as a source of funding per se. But what is wrong with it is making students think, “Oh, this is great. I don't have to borrow money. I just have an income share agreement.” Because it really is an additional loan, and the income-based part of it is very important as it is for federal student loans.

Other experts drew analogous comparisons to Baum and articulated that ISAs are similar in many ways to current income-driven repayment loan options. Lucie Lapovsky, for example, articulated that she is “not completely clear on how they differ from the old income contingent loans. They strike me as very similar. They just have a different

name” (personal communication, January 15, 2019). However, Lapovksy also shared that she thinks ISAs are a good idea and could be appealing to a number of students.

Considering the consistent comparisons of ISAs to the currently available income-driven options, the topic warrants additional discussion and exploration.

Income-driven repayment options have been available for borrowers since around 2009 (U.S. Department of Education, 2018a). Currently, student loan borrowers have a few options available to them for income-driven repayment. PAYE, which stands for Pay As You Earn, calculates repayment based on whatever the difference is between 10% of a person’s income and 150% of the poverty line. Under PAYE, an individual would never pay more than what he or she would pay on the standard 10-year student loan repayment plan for subsidized loans. PAYE is only available for individuals who demonstrate economic hardship (U.S. Department of Education, 2018a). In 2015, the government released REPAYE, or Revised Pay As You Earn. REPAYE is available for individuals regardless of economic hardship and is available for all income levels (U.S. Department of Education, 2018a). Under REPAYE, individuals pay 10% of their discretionary income for 10 years and face the possibility that they pay more than the standard 10-year plan. A spouse’s income is also factored into the repayment amount. Under both plans, the government pays 100% of the interest accrued on the loan during the first three years, and for REPAYE participants the government pays additional interest after the three years. Another option is income-based repayment (IBR), with monthly payments that usually are at around 15% of a person’s discretionary income, divided by 12 (U.S. Department of Education, 2018a). There is also income-contingent repayment (ICR),

which is the only of its kind available for Parent PLUS loan borrowers (U.S. Department of Education, 2018a). With an ICR, an individual pays the lesser of either 20% of his or her discretionary income divided by 12, or the amount that person would pay on another repayment plan that has a fixed monthly payment over 12 years.

Though there are some obvious nuances between these primary income-driven repayment options, they are indeed relatively similar to an ISA with some important distinctions. First, the terms are the same across plans regardless of an individual's employment outcome. The value of an ISA is in tying the cost of a person's education to his or her anticipated earning potential in the labor market and accounting for the variation among individuals. At its core, there is not much difference between an ISA and an income-driven repayment option that has a fixed end date. However, the current loan options made available through the federal government are considerably longer than any existing ISA models. ICR is similar but may not favor the borrower, while an ISA reduces an individual's risk, so the government offers a fixed-income contingent loan that in general lands around 10% for 20 years, whereas an ISA tends to be around 10 years. In their current forms, the ISA may be a more affordable option not just in a de-risking environment but in an actual affordability environment. Another critical difference is that with income-driven repayment options, individuals are forgiven their remaining balance. With the current options, ISAs are simply absolved after the term limit concludes. Although forgiveness sounds promising in theory, forgiveness carries a tax burden. In the event that an individual's loan is growing because his or her payments are too low, that individual will still have to pay taxes on the remaining loan regardless of the original

amount borrowed. In this way, saying a loan is forgiven is somewhat misleading. ISAs are absolved after the term limit ends, yet it is important to note that there is still some uncertainty surrounding the tax implications. Robert Kelchen provides a helpful summary of the distinction between the ISAs and income-driven loan options (personal communication, January 29, 2019):

So, for most federal student loans, you can choose to do a standard payment plan over a 10-year period, or you can tie payments to your income with part or all of the balance being forgiven after a set number of years. So, [with] an ISA, you are paying based on your income with whatever . . . “balance” is remaining forgiven at the end of the agreed-upon period. And they do not keep track of how much you owe under an ISA, with the exception of, if you hit that cap that, say, Purdue has, at two-and-a-half-times funding. But they do not worry about collecting any remaining balance after the period of time, and there are no issues with forgiven balances being taxable. But at least in terms of first principles, ISAs are fairly similar to federal student loans with income-driven repayment.

Some Students End Up Paying Significantly More with an ISA

Though ISAs theoretically have the potential to reduce postgraduate default rates, they may increase overall payments by more financially productive students, thereby increasing the aggregate financial burdens facing students. Having higher-earning graduates pay more is one of the ways ISAs are financially sound for institutions to pursue, as they will include those who will pay more than the actual cost of their education. As described earlier in this section, ISAs benefit graduates who are either low-income earners in the labor market, especially those graduates who are below the minimum income threshold, or no-income earners who cannot find employment. Even as some of the models presented in this study, Purdue and Utah, account for income variation among graduates, there is a probable chance that for graduates who earn a higher postgraduate salary, they end up paying more back to the ISA fund. Some have

questioned whether or not this is an equitable model for paying for college education, as noted by Baum (personal communication, January 11, 2019):

Well, I mean, I just do not think that the other students should be on the hook for it. I mean, if you think about it, the most affluent students would not have to borrow at all. Then they are not on the hook for students who do not make it. So, I do not see why those people participating should be on the hook, and of course there is a whole selection bias problem because students will not participate if they think they are going to end up being on the hook for others.

. . . If you think you have a good chance of having to pay back more than you borrowed, then you are not going to do this. You could try to get a regular loan if you are in that category.

Baum raises an important concern, which is that the ISA model does, in many ways, serve as a subsidy for lower-income earners. For the ISA fund to be sustainable, there would need to be a diverse pool of graduates from a wide range of income levels. In its ideal form, ISAs will cause redistribution where higher-income-earning students will help pay for lower-income-earning students. There is the potential problem that students who know they will be in higher-income earning brackets, students who are smart, are in technical degrees, and hard-working may avoid ISAs. ISAs might certainly become a more attractive option to students who are not as hard-working or expect to earn less or choose majors with less than ideal postgraduate job prospects. This inherent dilemma within ISAs may make it very challenging for universities to maintain because, at its core, an ISA does not make school more affordable for all students; it only makes college more affordable for a subset of students. However, an interesting finding from the analysis is that at both Purdue and Point Loma, where graduates have now started making payments, those interviewed were surprised by the diversity of majors. Given that ISAs might be a more attractive option for students who anticipate earning less, you might

expect to see a larger percentage of students in majors with lower anticipated earnings. However, Purdue and Point Loma reported that the ISA has served students from across the university.

Though it may still be the case that ISAs could eventually become a more appealing option for students who anticipate earning less, if there is volatility in the economy, there is the chance that this volatility creates uncertainty for all wage earners, which is another benefit of an ISA. With a loan, graduates will still need to pay off their balance regardless of the current economy. With an ISA, if a graduate ends up losing his or her job or takes a lower-paying job, the ISA protects against this downside risk in a way that a loan simply does not. In scenarios where the ISA models predicted earnings, the model may not account for recessions or economic downturns; however, the ISA would be less harmful than loans for graduates regardless of their earnings in this kind of environment.

There is undoubtedly a group of students who will pay more for college with an ISA than they would have had they gotten a loan. However, this may result in a positive outcome by being somewhat progressive in that the ISA shifts financial burdens onto higher-wage-earning individuals and away from lower-wage-earning individuals. Albeit ISAs are fundamentally a more libertarian view of how to fund education, personal investments by the individual have a secondary effect of being a highly progressive tool of redistributing finances from high wage earners to low wage earners and helping offset their cost, resulting in a positive outcome for low income earners. Lapovsky highlights

the potential benefit for low-income students in discussing who might benefit from an ISA (personal communication, January 15, 2019):

I think a variety [of students], certainly low-income students who are gapped will without a doubt be able to benefit the most. And who . . . tend to be the most debt adverse. I think students . . . may let more parents off the hook, which I think too many of them are already feeling that it is not a responsibility to support your children's education the way I think in earlier days people were more into that. But, you know, I think any student who can give them more options, we can make available, and the more ways we can provide up front the cash for students to go, the better [off] we are.

From what is known about student loan borrowers today, this is a valid point for consideration, which is that students from wealthy families are less likely to take student loans because they may be able to pay the total cost of tuition out of pocket. Therefore, ISAs, like student loans, may be more appealing and fit into the financial aid portfolio of middle-class students. For those middle-class students, they may have better alternatives than the ISA, as Nicholas Hillman points out (personal communication, February 5, 2019):

I think even a middle income, middle earning . . . middle of the road kind of student who either is going to make a lot of money in their future—but they are also probably not going to be in poverty—I think that this student probably has the most to lose by doing an ISA because they might end up paying more than what they would otherwise if they were eligible for an income-driven repayment or loan forgiveness option . . . different federal loan programs.

I think . . . you probably won't be interested, or if they do participate probably would be more better off than if they'd participated in your standard loan program in the first place, but I don't think I know for sure. The one thing about loan aversion that I can't put my finger on, I think that there's that conversation within the ISA community where some folks will say "this is not a loan, this is a very different financial instrument than a loan" and so maybe if that's true people who are loan averse might be more inclined to take these on than a standard mortgage-style loan.

Hillman draws comparisons between ISAs and currently available federal loan options. However, many low- and middle-income individuals are left with a gap in tuition after exhausting their grants, scholarships, and federal student loans (Walizer, 2018). In addition, having a high unmet financial need gap has been demonstrated to threaten persistence and completion for low-income students (Choitz & Reimherr, 2013). With few financing options to fill that gap, students often turn to high-interest private loans, or parents take on additional debt through the Parent PLUS loan program. Hillman makes an important point, though, in considering whether ISAs are a better alternative to current federal loan options. For low- and middle-income students, though they may end up paying more, they are reducing their downside risk of not knowing how they will fare in the labor market. Even if they end up paying more than their peers, there is the assurance that they have a job and income. Although it might not be the best deal, or most affordable option, still they have a job and their risk decreases, as Vedder articulates in the following quote, which speaks to the de-risking nature of ISAs (personal communication, January 28, 2019):

The students who are in majors which have a good track record in terms of providing vocational opportunities for students are obviously going to get a lot of bang for the buck from getting their degree. Which benefits, if it is done right, benefits both the student and the lender, the investor, the company. For example, I would think MIT chemical engineering or petroleum engineering graduates would be . . . safe to invest in, in some fashion. They are almost certainly going to graduate. The graduation rates are very high at that school. They are going to make beginning salaries in the very high five digits, \$70, \$80,000 yearly, and in some cases over \$100,000 a year with a bachelor's degree. They are going to do very well. Now, they may pay back more than the tuition, than the amount of the subsidy provided by the investor. But what the heck? They are getting a job—and they are getting a good job—and it's going to be successful. It would be a win-win for both the investor and the student. The students . . . who are in majors that are likely, based on historical experience, to lead to low-paying jobs

after graduation, maybe social workers, maybe school teachers, maybe fine arts majors, artists, majors in drama, music. These are fields, by the way, which I think are beneficial to society. I am not denigrating these fields, but the graduates don't make much money. And if the school prices things in a blanketed way, where everyone is . . . paying back the same number of years, and they are paying back the same interest rate and all that sort of thing, those students that I just talked about are going to get a pretty good deal in the sense that they are not going to pay back very much money relative to what they are received to begin with.

ISAs may indeed make college more expensive for a subset of students, but they make it less expensive for students who need it the most. Furthermore, they eliminate the downside risk for students who have no way of predicting how they will fare in the labor market.

ISAs Complicate an Already Complicated System

Although institutions are utilizing ISAs as an alternative funding source, primarily to private loans and Parent PLUS loans, critics wonder if ISAs obfuscate an already complex system. These ISAs may be a better alternative for some students, but there are concerns that an additional tool will only confuse students further, which may lead to predatory approaches by the institution or investors. The topic of college affordability is nuanced and somewhat convoluted. For students, there are many options available to them, evidenced by the earlier section discussing other debt instruments; however, few of the already existing options are really getting at the college affordability issues facing the country today, as William Doyle aptly describes (personal communication, January 29, 2019):

We have got one really big problem and a bunch of solutions that are dealing with the symptoms of the problem and not the issue itself. The big problem is costs are going up. College costs are going up. They are going up faster than income or other consumer goods and that gets translated into higher college

prices. And so, everybody is scrambling to deal with this issue of prices. The prices are the symptom of the cost and then the loan burden is just an additional symptom of the underlying issue, which is the increase in cost. I don't see any way in which ISAs deal with the cost. In fact, if anything, they take the cost as given and just try to figure out a way to deal with the obligations that are incurred by the students by virtue of the price. So then . . . most of our history with this is most of the time when we put in these different programs to help with the issue of the price, they can help for a while, but they can't keep up. . . . Will this work? If it works at 2.5% of income, will it work at 5%? Will it work at 10% of income? If the costs continue on their upward trajectory, I don't see how this, again, this is kind of a different critique, and this is much more directed at the institutions themselves. That I do not see that these do much of anything to solve that underlying issue. That said, in the short term, there's a decent amount of loan aversion. It's paradoxical given everything that I just said, but for the individual student, they should probably, like most of the time, the students should borrow the money, they are going to be able to pay it back. They are going to be able to get a high enough earning that it is a reasonable decision to borrow the money. If this is a way to induce more students into an alternative arrangement for repayment, great. That is fine. It is not a solution on the scale of the problem that we've got, in terms of college cost, but in no way would I advocate banning them or saying not acceptable. It is just not enough.

The ISA program may be one additional option, as Doyle articulated, but it may not be enough to make a meaningful impact on the issues of college cost and affordability.

Others seem to think that ISAs are a potentially helpful instrument to add to the financial aid toolbox, as David Tandberg shares here (personal communication, January 25, 2019):

I think it gets to what we were talking about is the fact that it is an index to future income. That makes sense to me. And so, it is another tool in the potential financial affordability toolbox. And particularly in higher cost institutions where available means of financial aid perhaps is not covering the full cost, it is another option for overcoming the initial cost barrier. It is just another tool, another way of financing higher education . . . that helps minimize the initial cost, even though there are costs potentially after graduation.

Well, I think where the connection is, is with some states attempting to tab as one of their performance indicators, labor market outcomes of their graduates, right? And it depends how you do it. I guess if the question is, are they employed? Yes or no? That is one thing. The other is, how much are they making? Which then becomes a more difficult concept, because we want everyone to make a decent income, a life-sustaining wage. And we want them to

be able to repay any student loans, beyond that what do we care, right? And it is so relative to the student's original goals, and area of employment. And that becomes really difficult, because our labor market returns are not necessarily directly correlated with what is in the public interest, necessarily. So, like I said earlier, some of the public good employment areas, like social workers, teachers, etc. that do not necessarily make the really high salaries. So, I get a little nervous when we start talking about return on investment, labor market outcomes, measured by salary, or income. I think that is really complex, aimed and not necessarily suited to simplistic measures.

ISAs therefore might not be the panacea, but they serve as a helpful alternative for a number of students who otherwise would struggle to find methods of payment. If ISAs are to scale and reach widespread adoption, there is the potential that they will become a good option for lowering the price of college because the price with an ISA is determined only after a student graduates or leaves school.

The critique that ISAs are complicating an already complicated system is a critical topic for exploration. It is important to consider whether or not college affordability instruments are becoming a paradox of choice for students. With so many choices, which one is actually the better option for the individual and where do ISAs fit in the equation? It is crucial for institutions that are launching ISAs to be transparent and have strong consumer protections to ensure these agreements are not predatory to students. Hillman describes one possible consumer protection that could help in making ISAs more transparent (personal communication, February 5, 2019):

I would also want to offer some alternatives [showing comparisons of ISAs to other financing options]. I found that Purdue has a website where you could see what your payment would be under some of the other loan programs. That is a very positive thing, and I would want to be sure that that it is not just available, but that students are going into these arrangements very clear headed, and not just in terms of financial literacy but also in terms of [transparency] from the backend, what they're losing by entering into these negotiations or sacrificing other [options] that are available in federal programs. . .

Although ISAs may be entering an already complicated higher education finance environment, there are ways to make them more transparent through some of the approaches described in the individual case studies. All three schools have a comparison tool that they make available to all students considering ISAs, and Purdue and U of U have a public comparison tool. Purdue has also implemented an ISA quiz that students are required to pass before they can enter into an agreement. This quiz is meant to serve as a protection for the student, so the student understands the implications of accepting an ISA.

Summary

As the value of a college degree is increasingly being called into question, students and families are asking themselves whether the cost of obtaining a college degree outweighs the potential benefits. With increasing pressure to produce good outcomes, while also making college more affordable, institutions are turning to ISAs as a potential way to link the value of education to labor market outcomes. Human capital theory is a useful framework for discussing ISAs as it fundamentally ties a person's labor market outcome and financial return to an individual's education. Considering the emphasis on financial investment and labor market outcomes, ISAs are a direct extension of human capital theory. Institutions are utilizing ISAs as a college affordability instrument, yet they are not necessarily using ISAs to drive down costs. Instead, ISAs serve as a method of de-risking a student's college education. Critics of ISAs as an affordability tool do not see it as anything new or different from a loan, though there are some stark differences that were discussed in detail in this section. Others argue that an

ISA will drive up costs for a subset of students, which is an accurate assessment. If students do not do well in the labor market and do not have sufficient income to make payments, then they do not have to make payments and their ISAs are absolved at the conclusion of their term limit. If students do well in the labor market, they may end up paying more back than the original ISA funding amount and may even subsidize other students in the ISA fund; however, they are still doing well, and they are protecting their downside risk at the outset. Finally, ISAs have been critiqued for adding complexity to an already complex system. Though it is accurate to say that the current landscape for higher education finance is complicated and nuanced, if no attempts are made by institutions to find alternative ways to help students pay for college, then they may be saddled with burdensome debt and an income that may be insufficient to meet their educational outlays.

The Balancing Act of Institutional Accountability

With growing public concern over the quality of higher education and the rising cost of obtaining a college degree, various stakeholder groups have begun developing methods for holding institutions more accountable for their performance (Deming & Figlio, 2016; Kelchen, 2018). As the value of a college degree is arguably more in question than ever before, the notion of accountability is an increased area of focus for policymakers, taxpayers, accrediting agencies, even external entities from the private sector. Despite the amplified pressure on institutions to improve outcomes, there has yet to be an agreed-upon set of metrics for holding such institutions accountable (Deming & Figlio, 2016). Further complicating the matter is the segmented nature of the higher

education market and the varying performance challenges facing institutions in different sectors (Zemsky & Shaman, 2017). For example, the community college sector is being pushed to improve completion rates, whereas institutions in the elite segment of higher education are being pressured to improve access and decrease costs. Finding one accountability tool that produces the right set of incentives for the entire market of higher education is not only challenging but borders on being impossible. Despite the inherent challenges of creating a universal accountability tool, market forces are at play that are forcing institutions to demonstrate outcomes that are important to various stakeholder groups.

With loan defaults and delinquencies being driven by increased tuition costs and poor outcomes in the labor market, there has been an increase in policy proposals “aimed at incentivizing schools to reduce their student loan default rates” (Webber, 2017, p. 1). Policies range from eliminating financial aid programs at schools with default rates above 40% for one year, or with a three-year default rate of 30% (Webber, 2017). Making institutions ineligible for federal aid seems to be the more widely supported proposal; however, the concept of risk sharing, though more recent, has also gained some attention at the policy level. The basic concept of risk sharing would hold institutions accountable to the individual student, and institutions would be required to pay a penalty or a portion of overall student loan debt in the event that the institution produces high default or delinquency rates on federal loans (Webber, 2017). These risk-sharing models may push institutions to reconsider funding models; however, the models have not received widespread support or implementation.

An example of an accountability method that has had some traction is the move by some states to implement performance-based funding (Dougherty, Jones, Lahr, Natow, Pheatt, & Reddy, 2016). In 2017, there were 35 states that had adopted various models of performance-based funding, which links funding to outcome metrics such as completion and graduation rates (Fain, 2017b). Performance-based funding as a method of accountability has received support at the policy level, including the U.S. Department of Education (Dougherty et al., 2016). It is one example in recent decades of an accountability method where funding is tied to institutional outcomes. Metrics for performance-based funding typically include completion of certain courses, student persistence and degree completion, and first-destination labor outcomes. Some models of performance funding give bonuses to schools that perform well while others determine allocations to institutions based on their performance (Dougherty et al., 2016). These performance metrics closely parallel financial incentives in the business world. Advocates argue that institutions of higher education will strive for performance improvements if resource allocation and funding is at stake (Paulsen & Smart, 2001). One broad question to consider with performance-based funding is whether or not institutions of higher education can actually learn and adapt to meet certain performance standards (Dougherty et al., 2016). This may be hard to achieve given the internal debate about what constitutes a good and effective education.

In addition to state accountability policies, there also has been a recent shift toward viewing students more as consumers, which in turn holds institutions more accountable to outcomes; however, some arguments claim that consumer-driven

competition does not work in social-service organizations such as colleges and universities (Paulsen & Smart, 2001). Consumers make decisions about where to invest and over time those decisions, when expanded to scale, produce a dynamic marketplace that responds to the consumer. The federal government has attempted to help with making prospective college students more educated consumers through metrics-based tools and reports. The College Scorecard, which was developed by the U.S. Department of Education in 2015, is one such tool (U.S. Department of Education, n.d.-a). It is a repository of data for more than 7,000 higher education institutions in the United States. Through this tool, potential consumers of education are able to access information about such metrics as student loan debt, percentage of students receiving federal loans, students' ability to pay down debt, and overall cost of attendance, among other data points.

In addition to examples of formal accountability methods such as performance-based funding, college report cards, and rankings, there are also examples of informal accountability models. Newspaper stories, social media posts, or online student forums are examples of informal accountability models (Kelchen, 2018). These informal methods serve as an external market force that requires institutions to be acutely responsive to matters of public relations, especially when faced with the rapidity of today's information-sharing and technology-driven economy.

Agency Theory

The aforementioned accountability models intend to incentivize institutions of higher education to produce good outcomes, though there is some debate as to their

overall effectiveness and inherent challenges. As the examples demonstrate, there are many forces at play when it comes to holding institutions accountable. Institutions will respond to the incentives that they deem to be most valuable. The notion that institutions will respond to the incentives that best suit them is not a foreign concept. In fact, much of economic theory is based on notions of incentives in order to improve overall production. A valuable framework for understanding the theory of incentives for institutional accountability in higher education is the principal-agent model (Kelchen, 2018). Agency theory is the framework through which many accountability models are designed. Perhaps the most straightforward way of contextualizing agency theory in higher education is to use performance-based funding as an example. The principal—in this case, the federal or state government—holds the agent—in this case, the college or university—accountable for meeting certain performance metrics in exchange for a financial incentive. Principals are challenged by this model in that they have imperfect information about the agent and cannot guarantee that the agent is performing to the level or standard expected. For example, while the federal and state governments (principals) may have certain metrics and data that higher education institutions are required to report, institutions (agents) will often report the bare minimum that is required (Laffont & Martimort, 2009). However, these institutions often have much more robust data on the intricacies of their student bodies, and they may not be willing to share such information, especially in the event that it may produce a negative reaction. In this example, economists would refer to institution's data-withholding behavior as an example of

adverse selection or moral hazard, which is when the agent skews the incentive model for personal benefit.

One of the inherent challenges of accountability incentives in higher education is that by not having a universal mechanism for holding institutions accountable, and instead having disparate forces at play, all tugging at the institutions toward their metric of accountability, the institutions (agents) will naturally choose which one(s) best suits their needs. Institutions are likely to behave by their own volition and will continue to abide by external accountability metrics and the principles that are most advantageous for their mission and goals or financial solvency (Kelchen, 2018). As previously described, it may be impossible to develop an accountability model that works for all systems of higher education given the segmented and complex marketplace.

In the corporate world, competitive market forces hold businesses accountable simply by the competitive nature of the free market (Smith, 1776, 2014). The theory of the invisible hand, originally coined by Adam Smith, in a basic sense, claims that external market forces drive industry change (Smith, 1776, 2014). Bad actors are naturally driven out because they are unable to compete. As Deming and Figlio (2016) explain:

When questions arise about improving accountability, an economist's first instinct is often to ask why "the market" cannot provide sufficient accountability among providers. However, as economists have long recognized, education is an industry where the power of consumers to ensure quality by choosing among alternatives is often quite limited.

In an ideal world, a marketplace exists where students can actually see the value of the degree from various institutions so they can make informed decisions that improve their

human-capital potential. This competition would eventually eliminate bad actors in the system or hold them more accountable to their student's postgraduate success and their ability to pay without being saddled with debt and without a job. With an ISA, there is the potential to assess the monetary value of a degree, and if ISAs scale to other institutions, there could be the potential that the value of degrees based on job outcomes can be assessed across segments of the market.

Institutions Having Skin in the Game as a Method of Accountability

Even though the current methods of accountability may not be the answer to holding institutions more accountable to the financial burdens placed on students, they represent an increasing shift in pressuring institutions to demonstrate their value to students, families, and society as a whole. Increasingly, however, economists are expressing the importance of institutions having internal "skin in the game" on the matter of accountability (Deming & Figlio, 2016, p. 50). ISAs are one example of an internal accountability tool that in the individual case studies were developed by the institutions themselves and are based solely on a student's job outcome. The fundamental goal of an ISA is to make institutions of higher education more accountable for the rising cost of education. An ISA is attempting to tie the high cost of education to the student's ability or inability to produce effective employment outcomes. If the student is unable to obtain employment, the institution does not generate revenue from that student. At the most basic level, when an institution is not accountable to employment outcomes and a student's ability to pay their tuition without being burdened by enormous debt, the institution feels the impact. Applying principal-agent theory to ISAs, the university

becomes the principal and the student becomes the agent. Some of the similar moral-hazard concerns are raised with ISAs in that agents (students) may be inclined toward their own personal incentives, even if that impacts institutional finances. Albeit there may be resistance to the idea that measuring the success of a student's college experience should be tied to job-outcomes data, attempts to avoid such metrics means avoidance of reliable outcome data that might hold institutions accountable for making college more affordable for students.

A major theme that emerged from the individual cases when analyzing the impetus for launching ISAs was the push for these institutions to have more “skin in the game” and to be held accountable for students' postgraduate success. Unlike federal or private student loans where the university does not feel the impact if a student struggles to pay back what he or she borrowed, with an ISA the institution bears the financial burden if their students do not fare well in the labor market. The three institutions in this study view the ISAs as a way of demonstrating their commitment to student success by investing in a student's future through this financial arrangement. For instance, at Point Loma, the financial aid team was acutely aware of the need to show the value of a PLNU degree. Many spoke about the rising cost of higher education, especially at private institutions, and they referenced a missional component of ensuring students are able to pay their educational outlays. Similarly, at Purdue University, the team spoke at length about their vision of using ISAs to show the value of a Purdue degree; and, in the event that it does not produce its intended outcome, the institution may need to revisit some of its core offerings. In terms of accountability, the focus of the ISA is who is on the hook if

a graduate does not do well. In this way, theoretically, ISAs are fundamentally different from any other instrument because at its core, when run in its idealized form, the university does not receive a return until the student is making money in the workforce. The ISA is a method of assessing the value of a degree from that particular institution in ways that a loan program does not fully demonstrate. This makes the university accountable for the length of the ISA. In the event that underperforming students land jobs that are not well paid, the university will feel that because the university is now getting a lower return for those students' degrees. Though the ISA model is only demonstrating the monetary value of the degree, the three individual case studies revealed how this was a critical motivator for adopting the ISA program.

Institutions demonstrate their investment in students through other means as well, such as through grants or scholarships; however, none of these methods produces the kind of link to postgraduate earnings that an ISA does. With grants and scholarships, the institution provides the funds as an institutional expenditure and does not expect a return on investment. With an ISA, however, the sustainability of the fund relies on seeing a return; hence, if institutions want to ensure their ISA becomes a revolving fund, then their graduates must perform well in the labor market. For U of U and Purdue University, they are also dealing with investors who are expecting a return. Thus, they are incentivized to ensure their graduates are faring well in the labor market; otherwise, their investors may be displeased. The institutions in this study see the ISA as a direct way to assess whether they are delivering on their commitment to student success and creating internal accountability through the implementation of the ISA. Institution-led implementation of

ISAs removes almost all of the external bureaucracy inherent in other accountability methods.

Criticisms of Using ISAs as a Method of Accountability

The implementation of ISAs raises other critical questions about accountability: would institutions change if an internal tool that they created does not meet certain trigger events, such as students not getting jobs or high-paying jobs? Would the program lead to improved employment outcomes overall? Would the school put more money toward services that support these initiatives the ISA strategically is trying to target? Even though ISAs are still new in higher education and it may take some time to fully understand their efficacy as an accountability tool, it is still important to discuss some of the early critiques of ISAs as a method of institutional accountability.

ISAs Will Not Impact Institutional Accountability

Although ISAs represent a move by institutions to hold themselves more accountable to students' postgraduate success, there is concern that the ISAs will only last as long as the program produces effective financial outcomes. It is still not possible to predict what will happen until schools are further into repayment of ISAs, but there are some cues that may signal how the ISA will impact accountability. If the ISA is truly acting as an accountability tool for the institution, then adjustments may need to be made to certain internal services if certain signaling events are not met. However, there is the concern that the ISA will not actually serve as an accountability instrument or that the institution will simply absolve the program if certain trigger events are not met, such as students not being able to pay back to the fund, or students not earning what was

anticipated. Principal-agent theory suggests that it is natural in any kind of financial arrangement where there is a financial incentive that there may be unanticipated outcomes, and some agents may not behave as predicted because human behavior is hard to predict (Laffont & Martimort, 2009). Though it may be true that some graduates do not respond as anticipated, the hope would be that the institutions continue the program if they truly view this as an accountability tool. However, there is some question whether it is plausible that an institution would continue offering an ISA if this type of scenario occurs. Doyle makes the following statement regarding incentives and organizational learning with regard to student employment outcomes (personal communication, January 29, 2019):

Well, the idea of accountability for employment outcomes. It sounds great. I am, again, all for it. . . . I am coming away from the outcomes-based funding at the state level, a Tennessee program, and these other programs that are implemented to some degree in a number of other states. If you offer incentives for an institution to do something that it knows how to do, that is it has the institutional knowledge, it will do that. . . . Institutions definitely follow incentives, provided they already have the procedural knowledge to do it, but if it is something, they do not know how to do. . . . They are pretty good at . . . how to get students in the door. If you say, "Well, offer them these kinds of classes," they can offer those kinds of classes. Institutions can do that. If you say, "graduate more students," and they do not know how, then you are not going to get any movement towards that goal. You can't assume that learning will be part of that process of accountability. I just do not see any evidence that that happens. So it is the same kind of question here. It is like were the institutions already, because they did not have any incentive to make sure that their students have decent employment, they were not doing that? They had procedural knowledge that they were not acting on because they did not have the incentive? Maybe. Otherwise . . . they probably do not know how to do that. I am skeptical that these incentives will somehow get them to the place where they will say, "Oh, now, we are going to make sure that our students have good employment outcomes and then after we have learned that, we are going to implement it." Maybe. Like I said, I understand the logic of it. I am skeptical about the middle part of it because of what we are seeing in some of the other areas.

Skeptics of ISAs as an accountability tool question whether institutions can alter certain behaviors or offerings if they learn that what they are offering does not produce the intended outcomes.

Other concerns also have been raised regarding the scalability of ISA programs. The central criticism is that for ISAs to truly work, they would need to reach economies of scale where the risk pool is diverse enough that it would offset the bad actors in order to sustain the fund. Though it may be true that ISAs will only be truly effective when scaled, the ISA programs presented in the three individual cases, and others that have launched ISA programs, are a helpful experimental test run for ISAs in higher education. With any new program, it is common—and some would argue that it is even shrewd—to start on a smaller scale. It may be unrealistic to think that any university at this stage of ISA experimentation would use large sums of money to test such a novel tool. However, the question remains whether, if it does not produce a viable financial outcome for the university, and in some cases for the external investors, the programs will continue. If programs do not endure when faced with adverse selection or poor return on investment, then it may be an indicator that institutions are actually not as interested in being held as accountable as they may claim.

Another layer of the criticisms regarding ISAs as an accountability tool is that institutions only want the good public relations as a result of implementing something so new and do not actually want to be held accountable, as Nicholas Hillman describes here (personal communication, February 5, 2019):

So here's the skeptic in me . . . I think that it is probably PR optics, it is what they can say in the media. . . . In any case, it is [PR] political optics to make it

look like you are doing something about a really obtuse and opaque problem . . . Some people are quick to say there is a student debt crisis, and I'm of the mindset that you have got to pinpoint the problem before you ever want to call attention to a crisis.

The analysis produces some evidence that institutions are interested in the potential public relations benefits of an ISA; however, findings from the cases did not reveal that public relations or marketing was their primary driver. For any institution that is launching something so new, there is the added risk that the PR could be negative. Although the old adage “any PR is good PR” may apply here, these institutions view bad PR as a risk and were willing to take the risk in order to try something new and innovative.

It is still early to know for certain the viability of ISAs as an accountability tool; however, the analysis reveals some early and important findings that serve as potential indicators of the level of accountability that the institutions are willing to withstand. Both U of U and Purdue are using external investor capital to fund a portion of their ISA program. In both cases, the institution needed to make decisions about who would be the first payer—the institution or the investor—and thereby bear the most risk. As the second payer, institutions would need to determine whether they want to put their capital toward the fund in the event that certain trigger events are not met. Purdue decided to be first payer, and U of U, at the time of data collection, was leaning toward being the second payer. Some of the administrators hypothesize that the program may simply end if certain trigger events were not met, though they were not certain, and it is still too early to determine. The institutions are attempting to protect their downside risk to some degree, which may be a marker as to their willingness to be held accountable. In the event that

the ISA program is not as successful as it aimed to be financially, and the institution is unwilling to contribute its capital as a result, how accountable is that institution truly to the ISA and students? Even the most proactive institutions that are pioneering the use of ISAs for financing tuition are still relatively risk-averse financially.

Considering the complexity of economic investments and the inherent individual motivations that they produce, it is reasonable that some would question their utility as an accountability tool. Still, the fact remains that institutions are attempting new ways of financing education, and proponents of ISAs view these attempts as a step forward toward improving levels of financial accountability in higher education, as Vedder articulates in the following quote (personal communication, January 28, 2019):

One of the things I like about ISAs is there is nowhere in higher education finance in the loan programs where there is any skin in the game. The universities can make loans to all kinds of unqualified students with dubious future prospects both academically and financially, and they make these loans knowing full well that if the student doesn't graduate, if the student in fact defaults on their loan, the colleges don't pay for it. The taxpayers do, and one of the advantages of ISAs, a huge advantage of ISAs . . . is this skin in the game concept. And so, when the schools themselves are involved, I think it is kind of neat. The schools are saying, "We have faith in our students. And to have faith in our students we have to of course have faith in our ability to make our students good and make them worthwhile and make them successful." And so that, to me, is one of the neat things about ISAs.

Institutions may still operate on a small scale with their ISA programs, but the fact remains that these schools are putting some money toward financial experimentation, and many see this as a necessary move in the right direction for the future of higher education finance. As the individual case studies revealed, it will take several years before the institutions start seeing the results of their ISA pilot programs. Purdue has begun receiving payments, but it is still too early to understand fully the scope of the ISA

program. Therefore, it is premature to make any empirical assumptions as to the efficacy of ISAs as a way for these institutions to have “skin in the game” and serve as a financial accountability instrument.

Accountability Leads to Deviation from the Core Mission of Higher Education

When considering ISAs as an accountability tool, there is the criticism that institutions are not actually held accountable, as the previous section outlined.

Additionally, there is the concern that institutions are held accountable but, as a result, they change behaviors in a way that deviates from their mission: for example, eliminating majors that are known to have lower earning potential, or emphasizing job outcomes over learning, or making financial investments in job training that decreases financial resources from other important institutional offerings. As mentioned previously, although it is still too early to know the empirical outcomes of such concerns, it is valuable to ponder the possible outcomes when discussing the notion of institutional accountability. The following quote by David Tandberg (personal communication, January 25, 2019) is representative of one of the central concerns about what he sees as the potential outcomes of focusing attention on labor market returns:

Well, I think where the connection is, is with some states attempting to tab as one of their performance indicators, labor market outcomes of their graduates, right? And it depends how you do it. I guess the question is: are they employed? Yes or no? That is one thing. The other is: how much are they making? Which then becomes a more difficult concept, because we want everybody to make a decent income, a life-sustaining wage. And we want them to be able to repay any student loans, beyond that what do we care, right? And it is so relative to the student's original goals, and area of employment. And that becomes really difficult, because our labor market returns are not necessarily directly correlated with what is in the public interest, necessarily. So, like I said earlier, there is some of a public good employment area, like social workers, teachers, etc. that do not necessarily make a really high salary. So, I get a little nervous when we

start talking about return on investment, labor market outcomes, measured by salary, or income. I think that is really complex, aimed at not necessarily definitive to simplistic measures.

Tandberg makes a compelling point that merits further exploration. In the event that an institution's ISA program reveals that students are getting low-paying jobs, the institution will in turn not get as high a return on investment. If an institution does not produce the kind of expected return but still decides to keep the ISA program running, one hypothesis is that the institution may decide to invest in job training resources or eliminate majors that are not producing good returns in the labor market. As a result, there are concerns that this could deter some students from entering into careers that serve the public good such as education or social work. The institutions in this study all reported that their primary interest is in helping students when they need it the most, regardless of major or expected economic return. However, for an ISA to be sustainable, there needs to be a portion of high earners in the pool; otherwise, the program will not be sustainable, so the concern raised above is a valid concept to consider. Albeit the three institutions in this study do want to help students when they face the possibility of not being able to pay back and therefore needing help the most, as the principal in this situation, the institutions are driven by their own financial incentives and the desire to increase their revenue from the ISA program through the agents—the students.

However, the alternative may in fact be far worse. When a student comes out of college with significant student loan debt, there is little incentive for a student to pursue a public service job. There is one example of an incentive-based loan program for students considering entering public service professions, but that program has been demonstrated

to have abysmal results and only 1% of applicants have actually received loan forgiveness (Turner, 2018). The federal government received a total of 60,000 complaints from borrowers who were expecting to have their student loans forgiven for entering into a public service profession, only to find out that the Public Service Loan Forgiveness program is actually quite unforgiving (Turner, 2018). Furthermore, even for the 1% that did have their loans forgiven, their loans are not truly forgiven: there is still the tax burden required on the forgiven amount. Student loans may have adverse consequences for students entering into traditionally low-paying professions, and if that graduate has a significant amount of student loan debt, he or she could end up paying low monthly payments while their principal balance continues to grow. With an ISA, the risk of loan growth for low-income earners is entirely diminished. A student can enter into a social service profession and know that his or her payments over the term limit will only be based on their annual income and the agreed-upon income share percentage. As principal-agent theory demonstrates, the agents in this case will behave based on their own desires and motivations even if it has a negative financial impact on the principal. Just because an institution may put resources toward job outcomes, that does not necessarily mean it will drive students toward higher-paying jobs. If that student is oriented toward a public service profession, then the ISA may actually be a better option when compared to the alternative. In the end, the student has the flexibility to choose. The student has the same choice with a loan, but with the latter may be choosing to have years of indebtedness that could be eliminated with an ISA.

Institutions that launch ISAs also may be inclined to offer them for specific majors that are expected to produce a better return or have a high number of employed graduates. By preselecting majors, this could be a way of distorting the market for extracting money in a realm that is more predictable for the institution. While Purdue and Point Loma made their ISAs available for all majors, U of U has pre-selected its majors based on certain criteria. In the short term, during the pilot phase of the ISA, this selective approach may be understandable considering the experimental nature of ISAs at this time. However, if U of U were to keep the model the same for only a preselected subset of majors, over time it may call into question the level of accountability to students whose majors are not expected to produce the expected returns. The concern is that the institution will be accountable but will alter the model or behavior in such a way that enhances its outcomes. Proponents of ISAs as an accountability tool view them as a potential signaling tool for institutions and students, as articulated by Kelchen (personal communication, January 29, 2019):

I think it helps on accountability. Even though the university probably is not bearing that much risk in the grand scheme of things, it's a great mechanism for signaling that the college can show that we are investing in our students, and that if they do not do well, we end up eating part of the loans.

And that is similar to some of the conversations going on in Washington right now, about risk sharing on federal student loans. And there is a fair amount of policy interest in D.C. about providing a clearer regulatory framework for ISAs, at the same time there is discussion on risk sharing.

Despite the criticism of ISAs, many of the experts see these ISA arrangements as a potentially viable method for signaling to institutions where their level of accountability should be focused. In the current ISA market, institutions may be inclined toward

offering these agreements to certain majors. The goal would be that for true accountability in the future, the institutions would make it available to all majors regardless of the expected return this will produce for the institution.

Summary

Today, higher education faces increased scrutiny as to the value of obtaining a college degree. As a result, higher education stakeholders have developed formal and informal methods of holding institutions more accountable for their performance. However, there is yet to be an agreed-upon set of metrics that constitutes what it means to have a quality education. Some claim institutions of higher education are intended to create well-rounded citizens while others argue that it is imperative that students have a job after they graduate and not be saddled with debt. Methods of accountability take many forms, from the more formal accountability tools such as performance-based funding, to informal methods such as public relations and social media. Regardless of the formality of the instrument, many have argued that institutions are under more scrutiny than ever before to demonstrate their performance. Economic theory, namely agency theory, is a useful framework for understanding financial incentives and what, if anything, can produce institutional, performance-based changes. Even as many of the accountability methods have been from external stakeholders (principals), the institutions (agents) are beginning to invest their own level of accountability to demonstrate that they have skin in the game. ISAs represent one way for colleges and universities to hold themselves potentially more financially accountable to students. Under an ISA arrangement, the institution becomes the principal, and the agent becomes the graduate.

Agency theory is helpful for understanding that students may enter into lower-paying professions or simply choose not to work, which becomes a moral hazard for the principal who is financially invested in the success of that entity.

Critics argue that ISAs will not actually hold institutions accountable; instead, institutions may just choose to get rid of the program if it does not have the expected financial benefits. Another critique of ISAs as an accountability instrument is that institutions would be held accountable, but that level of accountability would result in their deviating from the mission of higher education and focusing on job outcomes as an institutional imperative. However, proponents of ISAs see this as a unique accountability tool that may be better than the alternatives. Unlike other financial investment models for financing tuition, such as student loans, ISAs benefit those graduates who may end up in lower-paying fields. Furthermore, the institution is jeopardized if the graduates are unemployed or underemployed, whereas in a loan scenario the institution may not feel the effects of student indebtedness in quite the same way. It will take time before it can be fully understood what level of accountability these ISAs will produce. The institutions in this study are experimenting as pioneers in this space, and their results will provide insights into this broad theme of where ISAs fit in the accountability discussion.

Disruptive Innovation for Social Change

Considering that the previous sections have described the ways in which ISAs have the potential to help with college affordability and institutional accountability, it is plausible to explore the possibilities of ISAs disrupting the higher education finance market. Many have called the current student loan market a crisis, declaring the need for

a new method of helping students finance their college education (Turner, 2018). In February 2019, a new congressional bill was introduced that would link all student loan payments to the borrower's income and would automatically deduct payments from their monthly paycheck (Kreighbaum, 2019). Though not an ISA, this bill has many features that are similar to ISAs and may be representative of the public's desire for a financial innovation that could tackle the loan market. Do ISAs have the potential to be the disruptive force that some say the system needs? Are they here to stay? Or will ISAs fade into the background as a momentary fad in the history of American higher education? Albeit it is still too early to say for certain, the cases, as well as perspectives from finance experts, provide some helpful cues about the future of ISAs in higher education.

Disruptive Innovation or Momentary Fad?

ISAs have been described as a new finance mechanism that has potential to make a significant impact on the higher education finance market, while others have argued that ISAs are nothing more than a flashy fad falling short of reality (Farr, Hornung & Morgan, 2019). In order to explore the extent of ISAs having staying power, it is important to position the discussion in a broader framework focused on innovation. The final section of this analysis utilizes Clayton Christensen's *disruptive innovations* as a construct for further discussion (Christensen, Raynor, & McDonald, 2015). By positioning this analysis within the disruptive innovation framework, it may be plausible to make some valid predictions as to the future of ISAs in higher education. Disruptive innovation is a term coined by Clayton Christensen and is one of the more widely credited frameworks for understanding innovations that spark transformation, disruption,

or sustained change in a market. Predominately used in the business world, the theory also has been applied to social services industries such as education and health care (Christensen, Baumann, Ruggles, & Sadtler, 2006).

Though ISAs may be touted by some as innovative or novel, simply being deemed as having such qualities does not guarantee any traction in the higher education market. There are many innovations that are revolutionary but not actually disruptive. When ISAs were first introduced in the 1950s, it was a revolutionary concept but not disruptive or transformative. At the time, the concept was described in the literature by an economist but did not have any traction until the 1970s when Yale attempted to adopt ISAs, as was described in earlier chapters. Still, even after Yale's attempt, ISAs did not reenter the market until recently. Part of this can be attributed to market readiness. At the time ISAs were originally described, the higher education finance market may not have been in need of a new mechanism for financing, or perhaps Yale's model was not scalable. Why then have ISAs recently started gaining traction? As the previous sections described, this may be due to institutions of higher education recently being willing to try something new and their desire to make getting a degree at their institution more affordable. Institutions are also claiming it as an accountability tool. The modern ISA comes at a time when there is societal pressure for new finance options, but will these ISAs actually disrupt the market? There are two requirements for innovations to be considered truly disruptive: (a) the disruptive innovation serves a less-demanding customer base that may be in need of a cheaper, better alternative than their other options; and (b) the disruptive innovation actually creates a new market (Christensen et al., 2015).

Disruptive innovations are also iterative and take time to evolve rather than happening at a fixed point. Disruptive innovations are described as taking place on a small scale to begin with before upscaling the market. The articles describing disruptive innovations also introduces another type of innovation, which is known as sustaining innovations (Christensen et al., 2015).

Sustaining innovations make improvements to already existing products or markets, which may be seen as better from the lens of the customer. The improvements made to these sustaining innovations can either be significant breakthroughs or subtle improvements, but no matter the magnitude of the improvement, they all increase profits from the organization's most profitable consumer base.

Disruptive innovations, on the other hand, are initially considered inferior by most of an incumbent's customers. Typically, customers are not willing to switch to the new offering merely because it is less expensive. Instead, they wait until its quality rises enough to satisfy them (Christensen et al., 2015, p. 6).

Studies have shown that using "disruptive innovation" as an analytical framework is a useful method of assessing which innovations will succeed, though the concept also makes it clear that disruptive innovations do not always succeed and instead may be driven out by other market forces. Though the disruptive innovation context is helpful for understanding the origins of the term, when applied to social industries it becomes an even more valuable construct for assessing ISAs.

Catalytic Innovations for Social Change

Recognizing the limitations of disruptive innovation in the social sector, Christensen developed a model specifically for applying disruptive innovation for social change through what is referred to as *catalytic innovations* (Christensen et al., 2006).

Catalytic innovations are specifically targeted at social change. With disruptive innovations, change is most likely to come from external entities and new players who enter the market to drive out or directly compete with the entrenched players in the market, and the social sector is no different. Entrepreneurs have started using ISAs in recent years, which may be the new force that adds dynamism to the market. These external sources are involved in ISAs, in addition to the established players who are also attempting ISAs, as was described in the individual case studies. The disruptive innovation concept applies five qualities that define a catalytic innovation. These five qualities will serve as the analytical framework for assessing whether the use of ISAs in higher education is a catalytic innovation (Christensen et al., 2006). The five qualities for catalytic innovations are: (a) scalability and replication; (b) meeting the needs of a subset of students; (c) simpler and less costly than alternatives; (d) generating resources; and (e) often ignored or disparaged.

Scalability and Replication

The framework demonstrates that catalytic innovations “create systemic social change through scaling and replication” (Christensen et al., 2006). As was described earlier in the section, this scaling effort takes time and may not happen rapidly. Instead, there is incremental change over time. Early adopters of ISAs, as described in the case studies, have developed ISA models that are unique to their own financial situation and student needs. However, they have aligned their models to the proposed federal legislation as a way to ensure alignment across the sector, while also making it easier for other institutions to replicate their model. Publicly available disclosure statements,

comparison tools, and communication tools are another way in which the institutions that have adopted ISAs are attempting to make them replicable with the ultimate goal of widespread adoption. Purdue is a good example of this given its numerous efforts to educate the industry about ISAs through webinars, conference talks, panels, and other means. Even Point Loma, the smallest of the three schools, has engaged in public discourse on the topic of ISAs by speaking at conferences and consulting with other institutions in its sector, though there are no attempts to market ISAs internally on campus. U of U received guidance and consultation from Purdue and subsequently launched its own ISA program. Although it may take time for ISAs to reach economies of scale, and it may never happen, these early indicators serve as important cues that potentially signal a promising trajectory for them.

Meeting the Needs of a Subset of Students

The second quality of catalytic innovations requires that “they meet a need that is either overserved (because the existing solution is more complex than many people require) or not served at all” (Christensen et al., 2006). Currently, the options for higher education finance are very limited. Students need to pay for college, but if they do not have the financial means to pay in full using their own out-of-pocket capital, they turn to student loans. In the event that there is a gap of unmet need, there are limited options for filling that gap. Given the lack of financial options on the market, the student loan market may fall in the category of overserving a subset of the higher education market. Purdue is attempting to provide alternatives to the Parent PLUS loan and private loans. Point Loma created the ISA program to help seniors who have a gap in unmet need that previously

might have been bridged using a Perkins loan. Finally, U of U is attempting to use the ISA to help students who have traditionally been debt-averse and thus may be more inclined toward accepting an ISA over a traditional loan. Each of the schools in the study is attempting to provide financing alternatives for a subset of its students. Therefore, ISAs fall into the category of meeting the needs of a subset of students whose options are currently limited yet there is still a need.

Simpler and Less Costly Than Alternatives

Catalytic innovations “offer products and services that are simpler and less costly than existing alternatives and may be perceived as having a lower level of performance, but users consider them to be good enough” (Christensen et al., 2006). Although there are some signals that indicate that ISAs may be less costly and simpler than the alternatives, it is simply far too early to know for certain. This may be one area within the catalytic innovation framework where ISAs fall short, or it may only be applicable for a subset of the students who partake in an ISA arrangement. In each of the three cases, there were various strategies employed to assess the student perspective on ISAs. Purdue conducted focus groups and surveys, as did U of U. Point Loma conducts one-on-one financial advising for students who are considering an ISA. A central finding across the three cases is that students generally are intrigued by the ISAs and view them as a better alternative than some of the existing options. For students who did not see the personal benefit of an ISA, many said they could see the benefits for other students. Although some other loan options may be more cost-effective for a student, depending on how the ISA is modeled, there is a level of interest among student communities at the three institutions in this

study that demonstrates a potential viability in the market. The ISAs may be more cost-effective and simpler for students given the direct tie to income. For students who are expecting to overpay, the risk may outweigh the benefits, which in turn may result in being considered “good enough” for that individual because he or she still landed in a well-paying job. For students who end up earning less than they anticipated, the ISA may end up being less costly than the alternative.

Generating Resources

An additional element of a catalytic innovation is that “they generate resources, such as donations, grants, volunteer manpower, or intellectual capital, in ways that are initially unattractive to incumbent competitors” (Christensen et al., 2006). In each of the three cases, donors or investors came forward with a particular interest in the ISA model; some even influenced the development of the model itself. Point Loma was exploring alternative financing options when a benefactor came forward with an initial gift to pilot an ISA program. U of U and Purdue leveraged investor capital and institutional funds to finance their ISA programs. A benefactor came forward for Purdue’s Pave the Way fund and wanted to create a philanthropic component of the ISA, which led to the development of the Pave the Way Fund. This external financial capital is one of the unique features of ISAs, which is that they generate resources and interest from external entities in a way that arguably has not been seen before. Unlike scholarships or grants, with ISAs the investor or institution receives a return if the student performs as predicted in the labor market, which in turn creates a revolving fund if students do well, especially in the event that they pay more back than anticipated. There is a link between a student’s success and

the fund's success, which is attractive to a variety of financial sources described in this section and earlier cases.

Often Ignored or Disparaged

The final requirement of a catalytic innovation is that “they are often ignored, disparaged, or even encouraged by existing players for whom the business model is unprofitable or otherwise unattractive and who therefore avoid or retreat from the market segment” (Christensen et al., 2006). As with any new product that enters a market, there is naturally going to be some level of skepticism toward that new concept. In most industries, transformative change occurs when there is a dynamic marketplace with many players all competing to produce new innovations that disrupt the market. Without this dynamic and competitive environment, key players establish norms and rules and subsequently control or monopolize the marketplace. These monopolistic landscapes are not easily identified and are often maintained through soft barriers that are difficult to quantify. Still, the result is the same—a marketplace devoid of real competition and innovation. The American higher education system behaves much in the same way as it has for decades, with many of the same norms and values that are deeply rooted in its spirit of tradition, history, and prestige. Thus, any new innovation that threatens to disrupt that tradition may in turn be ignored or disparaged. In fact, the disruptive-innovation theory makes a point about higher education being somewhat of an anomaly and was identified as an industry that historically has resisted the forces of disruption (Christensen et al., 2015, p. 10). This final quality of catalytic innovation serves as a helpful transition

into a discussion about some of the criticisms about ISAs as a catalytic or disruptive innovation.

Future of ISAs in Higher Education

Critics of ISAs view these instruments as a technological innovation that will do very little to solve any of the real finance challenges facing higher education today. ISAs might merely be a public relations or marketing campaign, they could very well result in no institutional accountability, or they might merely be a fad. Fads are temporary and do not last beyond the moment in time in which they exist. Catalytic innovations cannot be a moment in time; they must develop over time to produce sometimes subtle, incremental change in a market (Christensen et al., 2015). In this way, critics who say ISAs are a fad would not view them as a catalytic or disruptive innovation. William Doyle draws an important comparison between ISAs and the Silicon Valley subculture of creating innovations that already exist (personal communication, January 29, 2019):

I do not know if you have seen this kind of stuff where in Silicon Valley, they will reinvent societal institutions that have existed for hundreds of years. . . . This is not hundreds of years, but they will say, “We want a vehicle that will pick up a bunch of people all at once and drive them from preselected point to preselected point.” And it is like, you have invented a bus. Or, “We are going to have a place where young people can live, and a lot of the routine tasks will be taken care of for them, and they can kind of engage with each other socially.” It is like, you have invented a dorm.

And with ISAs, it's like, okay, you have just invented progressive taxation with redistribution for higher education. This is . . . reenacting on a small scale in a really elaborate way what we should be doing at a societal level through policy. The idea would be that we pay for people to go to college, and their earnings increase as a result, and they get taxed, and the people who make more get taxed more and then we pay that back into the system and do the same thing for the next generation. We had that for a long time, and it worked reasonably well. Then that is obviously broken down. We have reinvented something that we already had but doesn't look as promising as what we had previously.

Doyle points out in his quote that ISAs may be doing something that society should be doing anyway, but on a very small scale. The concept of disruptive innovation describes catalytic innovations as beginning on a small scale and serving a niche market first before the possibility of expanding (Christensen et al., 2015). Furthermore, catalytic innovations do serve a purpose for a subset of the population that are not being served otherwise. Even as Doyle makes a compelling point that ISAs might simply be another example of a Silicon Valley-type invention that makes something that already existed more palatable for consumers, that is exactly how disruptive innovations are described. The analysis of the cases, outlined earlier in this section, revealed some compelling comparisons between ISAs and catalytic innovations where there is the potential that ISAs could disrupt a portion of the higher education finance market, though perhaps not the whole.

Many of the experts interviewed view the ISAs as serving a small but important role in the future of higher education finance. Each of the institutions in this study also did not view ISAs as taking over the entire student loan market. Instead, they view these instruments as targeting a portion of the market initially and serving a small percentage of students. Institutions did not consider the ISAs as a good option for all students, but for some students the ISAs are a better option than the alternative, which is the third quality of a catalytic innovation.

Sandy Baum (personal communication, January 11, 2019), who earlier in this chapter described her concern that these are no different from income-contingent loans, also said that she thinks ISAs “could be an interesting and significant addition to work with financing”; however, she also does not think ISAs will “fundamentally change the

way people pay for college.” Robert Kelchen’s quote describes ISAs as a catalytic innovation that will help a subset of students whose other options may be worse (personal communication, January 29, 2019):

So, the big thing is: it is another financing option that can help students cover full cost of attendance. And it provides insurance against a bad outcome in the labor market. Because right now, not every student qualifies for PLUS loans or for private loans, because private loans are based on creditworthiness, and PLUS loans are based on an adverse credit history that is somewhat tied to creditworthiness. While ISAs are not tied to creditworthiness, they are tied to what they think you [students] will end up making in the future. So, I think it is just another financing option that very few people are going to choose instead of the standard federal loans, but instead of PLUS loans or private loans, that is where the market is. . . .

I think they have a potential to play a modest but important role. Right now, it is less than 10% of students who take out private loans for college, and that is the type of audience that will probably be more interested in an ISA. The question then becomes: how stable are these ISAs over time, and how much are colleges willing to expand them, until they figure out how big the adverse selection issue ends up being?

The final question raised by Kelchen is one that many are asking about the future of ISAs in higher education. It is too early at this point to draw any clear predictions about where ISAs will be five or 10 years from now. Only time will tell how these ISAs play out in the market of higher education finance. However, when applying the framework of disruptive innovations for social change, it is clear that ISAs fall in the realm of being a catalytic innovation. They may start out serving only a niche market of Parent PLUS or private loan borrowers; however, this is a market in need of some other options.

There is certainly the possibility that ISAs do not have any significant impact on higher education finance and make very little improvements, or they may show considerable promise. Some have raised concerns that the market of higher education is

far too segmented, and ISAs might simply remain a niche part of the college finance market. Regardless of what happens with ISAs in the future, many of the experts are excited that institutions are trying something new and that another option now exists for students. Furthermore, one important finding from analyzing the case studies was that none of the financial aid officers at any of the three sites could recall a time when something new like ISAs had been introduced in the financial aid world, with some even stating that they had been giving out loans for decades because that has been the only option. The lack of new options may be due to the reluctance in higher education more broadly to attempt new innovations, as Lucie Lapovsky describes (personal communication, January 15, 2019):

I think people are just “anti” anything that is new, exciting, different . . . I mean, especially if they are in [the] higher ed space. I think it is great we have these things. We have got to change if we are going to survive in higher ed. One of the problems with higher ed is we have not had the best financing mechanisms. We buy a house . . . [which] you can get a 30-year mortgage on. You buy an education that, given how long we are living today, is good for 30 to 50 years. And there is no reason you cannot theoretically spread it out over that time or relate it to what we are going to make in terms of income over our lifetime. With the ISAs, if you can pay it back more quickly, that's good.

Although a lot is still to be learned about ISAs and their future in higher education, the launching of these instruments has sparked discussion and debate as to their efficacy. Time will tell with ISAs, and in the immediate future the institutions in this study will continue experimenting.

Summary

The launching of ISAs in higher education as an innovative finance tool has generated considerable debate. Many have argued that ISAs are nothing novel and are

just a rebranding of already existing options, a flashy public relations marketing campaign and merely a fad. Others view ISAs as a financial instrument with significant potential. Applying the disruptive innovations framework for the social sector, it was discovered that ISAs meet the five qualities of what the concept describes as a catalytic innovation: (a) scalability and replication; (b) meeting the needs of a subset of students; (c) simpler and less costly than alternatives; (d) generating resources; and (e) often ignored or disparaged. Though, it is still too early to know for certain if ISAs are simpler and less costly than alternatives. Despite the finding that ISAs might be deemed a catalytic innovation, the framework also makes clear that some innovations may be disruptive or catalytic but have no staying power. Currently, ISAs serve a very niche population of students at a small number of institutions. At this point, it will still be several years before it is known whether ISAs become a significant option for financing higher education and if they are better than the alternatives. The institutions that have launched ISAs will continue to be important sources of knowledge in exploring their efficacy in higher education.

Conclusion

ISAs are an innovative new finance tool that are being implemented in colleges and universities across the nation. Though still in their infancy, ISAs offer a unique method of financing that ties postgraduate income to tuition reimbursement. This research study investigated three distinct approaches for launching and managing an ISA program. The individual cases revealed several important early lessons in launching ISA programs. In each instance, schools initially attempted to develop internal tools and

platforms for managing their ISAs. However, in most instances the complexity of ISA agreements drove institutions to contract with an external entity for ISA servicing. Critical to the long-term success of an ISA is developing an accurate economic model for determining the terms of the ISAs, how long graduates pay, and the income threshold and payment cap. Differences in model selection across the institutions resulted in moderate differences in how the ISA is modeled. Though, in theory, ISA funding should exclusively come from within an institution's budget if the goal is to maximize institutional accountability, two of the institutions sought private investor capital to offset their risk. The two institutions that used significant external capital committed significantly more time toward ISA promotion to both existing and potential students. The regulatory landscape of ISAs continues to be an issue that has yet to be resolved. Accordingly, each institution aligned its programs to the proposed federal legislation so that, if passed, their programs would comply. Ensuring strong consumer protections to provide safeguards to students was of utmost importance for all three institutions in this study.

The three institutions were primarily driven by the notion of college affordability. However, it was evident from this analysis and discussion that institutions did not necessarily view ISAs as a way to make college less expensive. Though it is true that ISA students with lower postgraduate income will pay less for their college education, that was not the primary impetus for beginning an ISA program. Instead, all three institutions primarily viewed ISAs as a tool for reducing the risk of loan default or loan underpayment. None of the institutions in this study viewed the ISA as a complete

replacement for the current federal loan options or grants and scholarships. However, U of U views the ISA as a tool for students who are simply averse to all student debt options. Both Purdue and Point Loma view the ISAs as an alternative to Parent PLUS loans or high-interest private loans aimed at students who have an unmet need gap after accounting for federal loans, scholarships, and grants.

A key feature of ISAs is that they provide a market-based approach for dealing with university accountability. Institutions view ISAs as a way to demonstrate a commitment to graduate outcomes by linking tuition reimbursement to a student's postgraduate income for a period of time. Before ISAs, these universities might have had very little knowledge or understanding of how their graduates were faring in the labor market five to 10 years after graduating. Now, with the ISA programs, the institutions are acutely aware of a graduate's progression in the labor market, and there is a direct impact on the university if a graduate does not pay back. The essence of an ISA is that when students do not get a well-paying job, the university gets paid less for tuition. As a result, if the ISA does not produce the kind of desired outcomes for the university, the goal would be that they adjust services and resources to support students in improving postgraduate success.

Despite this in-depth research study, ISAs in higher education are still in their infancy. There is much to learn about ISAs. Considering the lack of research, there are many potential avenues for future research. Finding the appropriate pricing model for investors and students and how to model the ISAs appropriately is critical to their long-term success. A deeper exploration into the legal and regulatory landscape of ISAs is also

critically important given their novelty and current lack of legal clarity. Future studies might also follow these early adopters to see whether ISAs have a direct impact on institutional accountability. There would be additional benefits if the graduates from these early ISA programs could be tracked for the duration of their program to explore the extent to which the ISA helped or hindered their college experience. Additional research on the funding models of these ISA programs with institutional investors would help in understanding the ISA as a potential investment model. It is likely that ISAs are going to be around for the near future. These early institutional adopters of ISAs will continue to be a critical source for understanding the implications of ISAs. Only time will tell if ISAs have the possibility of significantly impacting higher education finance. However, it is evident from this study that ISAs show considerable promise.

APPENDICES

Appendix A: University of Pennsylvania Informed Consent Form

Title of the Research Study: A CASE STUDY EXPLORATION OF INCOME-SHARE AGREEMENTS IN HIGHER EDUCATION

Protocol Number: 831375

Principal Investigator: DIANE EYNON, UNIVERSITY OF PENNSYLVANIA GRADUATE SCHOOL OF EDUCATION, 3700 WALNUT STREET, PHILADELPHIA, PA 19104; 215-573-8072; EYNOND@UPENN.EDU

Submitter: LAUREN SCHACHAR, UNIVERSITY OF PENNSYLVANIA GRADUATE SCHOOL OF EDUCATION, 3700 WALNUT STREET, PHILADELPHIA, PA 19104; 206-979-4839; LMS@GSE.UPENN.EDU

You are being asked to take part in a research study. Your participation is voluntary which means you can choose whether or not to participate. If you decide to participate or not to participate there will be no loss of benefits to which you are otherwise entitled. Before you make a decision, you will need to know the purpose of the study, the possible risks and benefits of being in the study and what you will have to do if you decide to participate. The researcher is going to talk with you about the study and give you this consent document to read.

What is the purpose of the study? The purpose of the study is to explore income-share agreements in higher education. This research is being conducted as a part of the requirement for the Doctorate in Higher Education Management University of Pennsylvania's Graduate School of Education.

Why was I asked to participate in the study? You are being asked to participate in this study because you are at a college or university with an income-share agreement model, or you are at a college or university that is considering creating an income-share agreement program for students, or because you are considered a thought leader in the field of higher education economics and finance.

How long will I be in the study? Your participation in this study will take approximately 60 minutes for the first initial interview. In addition to the interview, I may wish to follow up with you by email to clarify any responses to the interview questions and to ensure accuracy of the researcher's interpretation of your responses.

Where will the study take place? You will be asked to meet at a designated location on your campus for a confidential interview. If we are unable to meet on your campus, then the interview may be conducted via phone or video conferencing.

What will I be asked to do? You will be asked a series of questions, approximately 10-15 in total. All questions will be related to your role, your department, and the income-share agreement model on your campus. If you are not involved directly with income-share agreements, you will be asked about your views toward income-share agreements more broadly.

What are the risks? There are no anticipated risks associated with this study. As a participant in this study, you may request to receive a copy of the summary findings upon completion of the research study.

How will confidentiality be maintained, and my privacy be protected? The researcher confirms that all presentation and publication materials will ensure your confidentiality. Upon your consent with this study and with your interview being recorded, the interview will be recorded and transcribed for research purposes. However, your recording will remain completely confidential and will only be played by the researcher directly involved in the project and the transcription team. The audio recordings and transcriptions, with names redacted, will be kept in a secure location. All audio recordings will be deleted upon completion of the project.

Who can I call with questions, complaints or if I'm concerned about my rights as a research subject? Should you decide to participate in this study after reviewing this consent form, your participation will remain completely voluntary. If you are asked any questions during the interview that you do not wish to answer, then you have the right to decline the question and not respond. If at any point during this study you have questions or concerns regarding your participation, please contact to the primary researcher listed on page one of this form. If this person cannot be reached or if you would like to talk to someone other than those working on the study, you may contact the Office of Regulatory Affairs with any question, concerns or complaints at the University of Pennsylvania by calling (215) 898-2614.

If you have any questions or there is something you do not understand, please ask. You will receive a copy of this consent document.

I have read this form and agree to participate in this study: ☐ Yes ☐ No

I consent to be audiotaped during this study: ☐ Yes ☐ No

I would like a pseudonym to be used in place of my name: ☐ Yes ☐ No

Signature of Subject: _____

Print Name of Subject: _____

Date: _____

Appendix B: Standard Interview Protocol for Institutions

1. Describe your role as it relates to the ISA program.
2. How would you describe what an ISA is for someone who is not familiar?
3. What conditions and circumstances led to the development of the ISA?
4. What is Purdue attempting to achieve with this ISA? What is the impetus for creating it?
5. Was there a pilot phase? If so, what were the outcomes? If not, how come?
6. What has surprised you so far as you've gone through the process of developing the ISA program as it has been running for a few years now?
7. What have been some of the most important early lessons you have learned in creating a new financial mechanism for students to pay for portions of their tuition?
8. What have been the major challenges in launching the ISA?
9. How was it decided that an ISA was the ideal way to use ____ (grant, investment, gift, endowment) funding? What models did you consider and subsequently follow for establishing an ISA?
10. Do you think of ISAs more as philanthropy or as an investment?
 - a. Who is the ideal investor for ISAs?
 - b. Who are the students who can benefit?
11. How do you know if the model is sustainable?
 - a. What are the risks associated with the model you chose?
12. Where will the capital come from to fund the ISA program in the future, especially during the time it takes for graduates to start paying back?
13. Currently, what percentage of the student population are you targeting with your ISA program? What percentage of ISA holders also have federal, private, or parent plus loans? How might I find out about those loan amounts?

14. What percentage of students can be offered an ISA currently?
15. What are your expectations for growth? What are the next stages now that this has been offered to _____, _____, and _____ student populations?
16. What are the risks to offering ISAs to underperforming students signing up for an ISA?
17. How is the ISA program being managed?
18. How do you market the ISA?
19. What are some of the anticipated challenges in the coming months/years?
20. What else would you like to share about income share agreements that we may not have addressed today?

Note: In addition to these interview questions, a few additional interview questions were asked based on the individual's role. For example, the general counsel was asked about the legal and regulatory framework, risks, and so forth. The financial aid director was asked about where the ISA is positioned within a student's overall financial aid portfolio. While some secondary questions varied based on the individual's role, the primary questions were drawn from this interview protocol, and the interviews followed a semistructured interview approach.

Appendix C: Interview Protocol for Experts

1. In terms of your experience in financing higher education, or in thinking about how students can pay for college generally– could you provide some reactions to these ISAs?
2. In what ways specifically, if any, can ISAs help students in the future in thinking about college costs?
3. Which students would benefit the most from ISAs?
4. Which student population would not benefit from an ISA?
5. How does this fit in the framework of federal or state financial aid programs?
6. Can you please provide some perspective as to how these programs might help these particular institutions, in this case two publics and one private?
7. Are income share agreements more suitable for a particular institutional type?
8. If you were the CFO at these institutions, what would you want to know before proceeding on a venture?
9. To what extent (if at all) will these programs or others that are similar be a significant part of how we fund higher education in the future?
10. Is there anything else that we haven't talked about?

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