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Jordan Spillane

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Higher Education in the United States:
The Role of the Federal Government in a Market-Based System

by

Jordan Spillane

Dr. Kimberly Loudermilk

Adviser

Interdisciplinary Studies in Culture and Society

Dr. Kimberly Loudermilk

Adviser

Dr. Mary Frederickson

Committee Member

Dr. Kelli Lanier

Committee Member

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Jordan Spillane

Dr. Kimberly Loudermilk

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Abstract

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Ahead of the 2016 U.S. presidential election, candidates on both sides of the political aisle have called for higher education reform. American voters, in turn, must decide the appropriate role for federal government in the U.S. postsecondary market. This paper addresses the issue by exploring theoretical microeconomic, empirical mesoeconomic, and inferential macroeconomic dimensions of American higher education. Analysis begins by establishing the rationale for market-based tertiary schooling and demonstrating the need for federal intervention, then considers historic and proposed strategies for regulation. Ultimately, a concluding section offers two actionable policy recommendations to correct U.S. postsecondary market failure.

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Contents

Introduction	1
Historical Context	2
Present Politics	6
Chapter One Microeconomics and the Rationale for Market-Based Higher Education	10
Demand	11
Supply.....	15
Equilibrium	17
Chapter Two Mesoeconomics and the Need for Regulatory Intervention	20
Externalities	21
Imperfect Information.....	24
Capital Market Failures.....	27
Self-Regulation	30
Chapter Three Macroeconomics and the Role of Federal Government	33
Tertiary Attainment	34
Price of Tuition.....	38
Student Debt.....	42
Conclusion	47
Recommendations.....	49
Extensions and Limitations	53
Bibliography	56

Figures

Figure 1	Perfectly competitive equilibrium	10
Figure 2	Profit maximization at $MC = MR$	16

Introduction

In his eighth and final State of the Union Address, President Barack Obama outlined several “big questions” the United States faces in the twilight of his presidency. One principle question, he explained, concerns the increasingly globalized and technological economic climate of the twenty-first century: “[R]egardless of who the next President is, or who controls the next Congress ... how do we give everyone a fair shot at opportunity and security in this new economy?”¹ The key, suggested the President, is a renewed commitment to the postsecondary education of our nation’s citizenry.

With this proposition, Mr. Obama echoed a sentiment now commonplace in the 2016 electoral race. To date, five candidates – three Democrats and two Republicans – have introduced comprehensive higher education reform proposals, each of which has edged the topic closer to the forefront of the campaign trail.² Despite wide variation in approach, candidates’ concerns have proven remarkably similar; from high youth unemployment to the burden of student loan debt, nearly all have pertained to the welfare of the U.S. economy.

As President Obama’s State of the Union Address and the 2016 presidential race demonstrate, American politicians have paid much attention to higher education this political season and have consistently framed the debate in economic terms. While not unprecedented, such postsecondary political

1. Barack Obama, State of the Union Address (speech, Washington, DC, January 12, 2016),

2. “To date” here refers to January 31, eve of the 2016 Iowa Caucus and closing period of this analysis.

discourse in an election year is certainly uncommon. To explicate higher education's ascent to the forefront of American politics, and the decisions American voters consequently face in the forthcoming election, we must consider the issue within a wider historical context. Doing so elucidates the politics of postsecondary schooling by demonstrating the centrality of market-based economics to the U.S. system of higher education.

Historical Context

In the second half of the twentieth century, the United States experienced a period of economic prosperity unparalleled in modern history. The postwar adoption of Keynesian economics, a philosophy of limited government intervention in support of free markets, quickly assuaged fears of a return to Depression-era hardships and restored Americans' faith in capitalist ideals. Public works programs, abundant credit, and reduced taxes fueled consumer demand in the early postwar years, and standards of living for Americans grew to the highest levels the world had ever known. In time, globalization and trade liberalization saw to the unraveling of central economic planning, and one by one, emerging economies of the world conformed to the new international market-based standard. Chief market proponent among all industrialized nations, the United States marched confidently into the twenty-first century with its national income representing more than a fifth of global gross domestic product.³

3. Anne O. Krueger, "The World Economy at the Start of the 21st Century" (speech, Rochester, NY, April 6, 2006), International Monetary Fund, <https://www.imf.org/external/np/speeches/2006/040606.htm>.

The latter half of the twentieth century also saw unprecedented advances in the U.S. system of higher education. Perhaps the most significant of all postwar Keynesian initiatives, the 1944 Serviceman's Readjustment Act (G.I. Bill) conferred a wide range of benefits upon returning WWII veterans, including cash payments for tuition and living expenses that allowed some 2.2 million soldiers to receive a postsecondary education.⁴ Two decades of innovation and expansion followed, and in 1964, the Johnson Administration's Higher Education Act extended need-based financial aid to the entire U.S. adult population. Fulfilling the vision of universal postsecondary access cast by Lincoln just one century earlier, the law allowed for Americans to become the most highly educated population on earth. Predominately market-based but propelled by government investments, the U.S. system of higher education was by the close of the twentieth century widely held to be the envy of the world.⁵

That the second half of the twentieth century was a golden age for both the U.S. economy and the U.S. system of higher education is no coincidence. In their 2009 publication, *The Race Between Technology and Education*, economists Claudia Goldin and Lawrence Katz suggest that, "Because the [twentieth century] American people were the most educated in the world, they were in the best position to invent, be entrepreneurial, and produce goods and

4. John Bound and Sarah Turner, "Going to War and Going to College: Did World War II and the GI Bill Increase Educational Attainment for Returning Veterans?" *Journal of Labor Economics* 20, no. 4 (2002): 785.

5. Ernest L. Boyer, "The Scholarship of Engagement," *Bulletin of the American Academy of Arts and Sciences* 49, no. 7 (1996): 18.

services using advanced technology.”⁶ Goldin and Katz attribute America’s postwar economic prosperity to the comparatively high educational attainment of its citizenry. Perhaps even more significant, though, is how well suited the character of American higher education was to the newly emergent global economy.

While reflecting the German research university’s dedication to scientific inquiry and the Oxbridge liberal arts college’s commitment to classical learning, the twentieth century U.S. multiversity was distinct among postsecondary institutions in the developed world in its utilitarian concern for the needs of society.⁷ When, as a by-product of globalization, the U.S. economy became predominately service-oriented, tertiary schools responded by providing vocational training to millions of young Americans. Such was the emergence of the world’s largest professional class, and the catalyst for an unprecedented surge in American consumer demand. U.S. postsecondary institutions of the twentieth century were also distinct in their market-based structure; unlike tertiary schools elsewhere in the world, investment in U.S. higher education simultaneously represented consumer expenditure. The American system of higher education and the U.S. economy were thus parties to a virtuous cycle of growth and expansion, and for some five decades, the two flourished together.

6. Claudia Dale Goldin and Lawrence F. Katz, *The Race Between Education and Technology* (Cambridge, MA: Harvard University Press, 2009), 2.

7. Derek Curtis Bok, *Beyond the Ivory Tower: Social Responsibilities of the Modern University* (Cambridge, MA: Harvard University Press, 1982), 1-14.

The interconnectedness of the U.S. economy and the U.S. system of higher education were not limited to periods of prosperity, however. As the first decade of the twenty-first century drew to a close and the Great Recession descended upon the United States, both faced dark hours. In the worst economic downturn since the Second World War, Americans experienced considerable unemployment and underemployment. Enrollment swelled as the poor U.S. job market led students to return or remain in school, but so did the price of tuition as politicians slashed postsecondary appropriations. The price of higher education rose most rapidly at exactly the time students were the least able to pay, and headlines the country over declared a crisis in American higher education.⁸

As with the Great Depression less than a century earlier, the Great Recession shook Americans' faith in free-market economics. Keynesian policies may have prevented a systemic collapse, but, in contrast to the postwar years, they did little to restore confidence in capitalism. Protests decrying the inequity of markets swept across the United States, and as millions joined in the refrain, "We are the 99%," government regulation swiftly advanced into market-based sectors of the economy.⁹ Against this backdrop, the U.S. system of higher education came into the crosshairs of the 2016 presidential election.¹⁰

8. Clayton Christensen and Michael Horn, "Colleges in Crisis: Disruptive Change Comes to American Higher Education," *Harvard Magazine* 7, no. 21 (2011): 1.

9. Most notably, the Affordable Care Act transformed the U.S. healthcare system.

10. Kimberly Hefling, "Colleges in the 2016 Crosshairs," *Politico* (2015), <http://www.politico.com/story/2015/08/colleges-in-the-2016-crosshairs-120881>.

Present Politics

The story of American higher education, then, is a story of market-based economics. Aided by investment from the Federal government, the U.S. system of higher learning became the envy of the world in the twentieth century and contributed to the most prosperous economic period in the nation's history. Now, in the wake of the Great Recession, that same system faces calls for transformation, for more government involvement. American politicians from across the political spectrum have responded to these calls with myriad reform proposals, continuously justifying their positions in economic terms. Ahead of the 2016 presidential election, then, American voters must decide: what role should the federal government play in the U.S. market for higher education?

Before turning to this question, we note that scholars have asked two similar questions in the past. First, since the advent of the discipline of economics, and particularly in the neoclassical era, economists have questioned the role of the federal government in markets generally. In the United States, perhaps no economist has written so prolifically nor so influentially on the subject as Judge Richard Posner, who argues that government should "intervene and correct, the best it can, serious market failures."¹¹ Widely accepted among economists of all political stripes, Judge Posner's theory of market intervention provides a strong foundation upon which this analysis is built.

11. Richard A. Posner, "Law and Economics is Moral," *Valparaiso University Law Review* 24, (1990): 166.

Second, educators have similarly questioned the role of federal government in higher learning. Derek Bok, former Harvard University President and prominent postsecondary commentator, has written extensively on the matter, and suggests the need for “government support ... [to uphold] the excellent reputation American universities enjoy around the world.”¹² Like Posner’s treatment of markets, Bok’s treatment of higher education stresses the necessity of federal intervention to ensure systemic health and prosperity.

Turning, then, to the question American voters face ahead of the 2016 election, our analysis represents the intersection of Posner’s and Bok’s analysis: we consider the role of federal government not simply in markets, and not simply in higher education, but in their meeting, in the U.S. market for higher education. Accordingly, this examination proceeds as follows:

Beginning with a theoretical, microeconomic foundation, Chapter One explains the rationale for market-based postsecondary schooling by examining the behavior of higher education’s two principal actors: students and institutions. Theory demonstrates how, within a competitive market-based system, both will employ marginal decision-making strategies to maximize their ends, thereby creating an efficient market equilibrium. When we relax the assumptions underlying perfect competition, however, the complexity of the American system of higher education signals the need for higher level analysis.

12. Derek Curtis Bok, *Universities in the Marketplace: The Commercialization of Higher Education* (Princeton, NJ: Princeton University Press, 2009), 197.

Chapter Two continues with an empirical, mesoeconomic assessment of the U.S. postsecondary market, and demonstrates the need for regulatory intervention. We consider three sources of higher education market failure – externalities, imperfect information, and capital market failure – and how groups of consumers and producers are disproportionately affected by each. Evidence suggests that the market partially self-regulates as groups organize to pursue their interests, but that market failure is only occasionally overcome. Ultimately, federal governmental intervention is shown to be necessary to promote economic welfare and mitigate the effects of market deficiencies.

Chapter Three employs an inferential, macroeconomic analysis to evaluate suggested governmental intervention in the U.S. market for higher education. Building upon the theoretical and empirical analyses of Chapters One and Two, Chapter Three addresses three higher education issues central to the 2016 presidential race – tertiary attainment, tuition prices, and student debt – and demonstrates each to be a manifestation of market failure. After reviewing previous federal intervention strategies, we consider how policies proposed by national policymakers might affect market outcomes in the future.

Finally, a closing section reiterates the central argument developed over Chapters One, Two, and Three – that the federal government should adopt policies to correct higher education market failures – and suggests the critical role of American voters in ensuring the future well-being of the U.S. system of higher education. To the intervention strategies offered by 2016 presidential

candidates, we add two actionable policy recommendations: investment in dual enrollment programs and subsidized secondary counseling. Lastly, we conclude by discussing the limitations of this analysis and proposing areas for future research.

Chapter One

Microeconomics and the Rationale for Market-Based Higher Education

To address the role of the federal government in the U.S. market for higher education, we must first establish the rationale behind market-based postsecondary schooling. Here, with the application of simplifying assumptions, theoretical microeconomics elucidates the behavior of higher education's two principal actors, schools and students, and demonstrates how markets enable each to maximize welfare through marginal decision-making strategies.

In its simplest form, microeconomics examines how rational, self-interested consumers and producers choose to allocate scarce resources. Microeconomic theory begins with the simplifying assumption of a perfectly competitive marketplace, where many buyers and sellers of a single good are "price takers," actors with too small a market share to influence market conditions. When consumer demand meets producer supply, as shown below in Figure 1, a market is said to be in equilibrium, and fixed price and quantity levels of the good prevail.

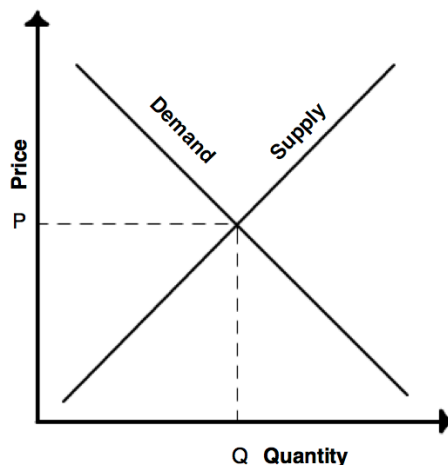


Figure 1. Perfectly competitive equilibrium.

As a first approximation, the market for higher education in the United States closely resembles this perfectly competitive marketplace. Each year, tens of millions of students (consumers) purchase credit hours from one of several thousand institutions of higher learning (producers), and because credit hours from a given school have many close substitutes, schools have little ability to influence market conditions. Likewise, because so many students seek credit hours, they too are price takers; no individual student has the power to affect the broader marketplace.

Assuming the market for higher education were, in fact, perfectly competitive, the demand for postsecondary credit hours by students in the United States would balance the supply of credit hours by institutions of higher learning, and equilibrium would result in a set number of students paying the market price for tuition. Though more simplistic than the actual market for higher education, this assumption of perfect competition allows us to examine the decision-making behavior of both students and institutions. These behaviors, in turn, provide important insight into the U.S. system of postsecondary schooling.

Demand

[Americans] agree that real opportunity requires every American to get the education and training they need to land a good-paying job ...

– Barack Obama

The standard, perfectly competitive microeconomic model described above raises a key question about the U.S. market for higher education: what

gives rise to consumer demand for postsecondary schooling? That is, why do students choose to attend college?

The first and most commonly cited reason for students to enroll in a postsecondary institution is to “land a good-paying job.”¹³ A large empirical literature has demonstrated unequivocally that in the United States, full-time workers with a bachelor’s degree earn significantly higher wages than those with a high school diploma alone. Over the course of a lifetime, the Federal Reserve estimates that this “skilled wage premium” amounts to an extra \$830,000 of income for the average college graduate. Thus, as the Fed concluded in its 2014 analysis of higher education, “the benefits of college in terms of higher earnings far outweigh the costs of a degree ...”¹⁴ But the benefits are not limited to earnings alone.

Extending the analysis beyond future wages, college graduates outperform their less-educated peers in nearly every other quantifiable measure of job-related well-being. A 2014 study released by the Pew Research Center suggests that in addition to higher earnings, a college degree is also associated with lower rates of unemployment, higher levels of full-time employment (as compared to part-time employment), and greater job satisfaction. Moreover, the study suggested, these disparities appear to be growing over time.¹⁵

13. Obama, State of the Union Address.

14. Mary C. Dale and Leila Bengali, "Is it Still Worth Going to College?," *FRBSF Economic Letter* 13, (2014): 1.

15. Paul Taylor et al., *The Rising Cost of Not Going to College* (Washington, DC: Pew Research Center, 2014).

Consumer demand for higher education cannot be explained by job-related considerations alone, however; non-monetary considerations also play a significant role in the decision-making process. Here, it is useful to differentiate between two types of costs and benefits: accounting and economic. Broadly, accounting costs and benefits are quantifiable and pertain to the exchange of money. Economic costs and benefits, by contrast, may or may not be quantifiable and pertain not only to money, but also to time and other valuable resources. To illustrate the point, consider a student who enrolls in one semester of college. If she pays \$10,000 for tuition, her accounting costs are simply \$10,000. Her economic costs, however, include all that she has forgone to attend school, including the wages she could have earned were she not in class. Consequently, most economists consider the greatest cost of attending college not to be tuition, but rather the opportunity costs incurred while enrolled in school.

Economic costs and benefits are particularly salient within the context of perfect competition, where prospective students have no control over the accounting price of credit hours. With accounting values held constant, economic considerations become magnified in the decision-making process. A prospective student may, for example, feel pressured by friends, family members, or societal norms in their decision to enroll in a postsecondary institution; they may feel compelled to attend a familial *alma mater*, or perhaps to attend the same school as a significant other. Or consider an elite student athlete, who must weigh the risk of injury playing at a collegiate level against the benefits of obtaining a four-

year degree. In each case, the cost-benefit calculus extends well beyond the realm of accounting.

In considering demand for higher education, it is also worth noting that college enrollment is not a one-time decision; students face different costs and benefits each new enrollment period. While previously incurred costs, or sunk costs, are non-recoverable and therefore irrelevant to the ongoing decision-making process, prospective costs and benefits remain pertinent and evolve with time. After attending one semester of school, for example, a student may become personally connected with peers and faculty. The prospect of continuing to develop these relationships would thus render the economic cost-benefit analysis fundamentally different from the initial enrollment decision.

Ultimately, with respect to both accounting and economic considerations, demand for higher education is a matter of marginal choice. That is, as utility maximizers with limited resources, students must decide whether enrolling in college is better than their next best alternative. Most U.S. students, given all monetary and non-monetary costs and benefits, decide that postsecondary schooling is, in fact, their best course of action after graduating from high school. Indeed, in 2014, the Bureau of Labor Statistics reported that 68.4% of high school graduates continued to enroll in some form of tertiary education.¹⁶

¹⁶ Lydia DePillis, "Maybe Kids Aren't Over College After All," *Washington Post*, April 25, 2015, <https://www.washingtonpost.com/news/wonk/wp/2015/04/21/maybe-kids-arent-over-college-after-all/>.

Supply

The federal government has focused most of its attention on the demand side of the education market ... it should also work on the supply side.

– Paul Ryan

When considering the market for higher education, the standard microeconomic model described above also offers insight into the behavior of producers, or the institutions that supply post-secondary credit hours. Like consumers, producers are considered to be rational and self-interested. Rather than seeking to maximize utility, however, they seek to maximize profit, defined as total revenue minus total costs. This may at first seem counterintuitive, as many postsecondary schools are, in fact, non-profit institutions. But consider the rationale behind this assumption: the more resources a tertiary institution has at its disposal, the better faculty it will attract, the more prestige it will enjoy, and the greater its pool of student applicants will be. In short, because resources beget resources, all schools, whether public or private, non-profit or for-profit, face a strong incentive to maximize profit.

The first step toward maximizing profit is it to maximize total revenue, the quantity of credit hours sold multiplied by the price of each credit hour. As noted earlier, because such a large number of schools offer credit hours, perfect competition dictates that each institution must simply accept the prevailing market price. Consequently, revenue maximization is solely a matter of selecting an optimal output quantity. That is, given the market price for tuition, postsecondary institutions must decide how many credit hours to sell in order to

achieve the highest possible level of revenue. Again, these are more simplistic than actual market conditions, but are helpful in understanding the role of marginal decision-making in efficient resource allocation.

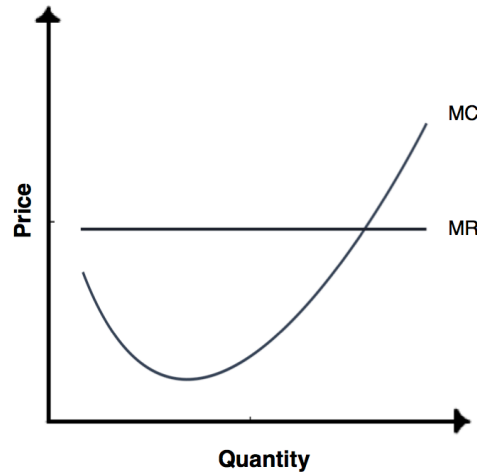


Figure 2. Profit maximization at $MC = MR$.

For a perfectly competitive postsecondary institution, profit is maximized where marginal cost (MC), the cost of producing one additional credit hour, is equal to marginal revenue (MR), the extra revenue generated by selling one additional credit hour, as shown above in Figure 2. To make the idea more concrete, consider an example of a school that offers a one-credit course in a classroom with a maximum capacity of fifty students. If the course has only forty-nine students enrolled, the cost of enrolling one additional student is negligible and easily exceeded by the additional tuition dollars collected. If fifty students are enrolled, however, enrolling one additional student would require adding another section, and the costs of compensating a second instructor would exceed the additional tuition dollars collected. In this scenario, then, profit is maximized when

exactly fifty students are enrolled, the point at which marginal cost equals marginal revenue.

In addition to maximizing total revenue, postsecondary institutions must also minimize total costs to achieve highest possible profits. As with any producer, colleges' total costs are comprised of both fixed and variable costs. Fixed costs, including wages paid to administrators and tenured faculty, do not change with output; whether enrollment is relatively high or low in a given year, fixed costs remain the same. Variable costs, including wages paid to adjunct faculty, are precisely the opposite; as the name suggests, they vary with the number of students enrolled. Here again, institutions face an important resource allocation decision.

Because fixed costs do not change with output, a school that hires predominately tenured faculty will experience a larger upside when enrollment is high, and a larger downside when enrollment is low. A risk-averse institution may therefore prefer to employ adjunct faculty, accepting the tradeoff between a lower upside and a lower downside. Indeed, recent years have seen a marked shift in the ratio of tenured to adjunct faculty across the U.S. system of higher education, which, among other explanations, may reflect general risk aversion among postsecondary producers.

Equilibrium

Within my first 100 days, I will ... expose higher education to the market forces of choice and competition ...

– Marco Rubio

Having considered supply and demand in the market for higher education separately, we now consider their intersection, the market equilibrium. Within the context of perfect competition, equilibrium represents the price and quantity levels at which buyers and sellers most efficiently allocate resources; at these levels, individuals maximize utility, and institutions maximize profit. The concept of marginal decision-making again demonstrates why this is the case.

If a student purchases credits in the market for higher education, she does so because, at the prevailing price, she finds the benefits of enrolling to outweigh the costs. Similarly, if the institution in which she enrolls agrees to provide her with credit hours, it does so because the tuition dollars it collects exceed the marginal cost of providing her education. Applying this logic to each transaction in which an individual purchases credits from a tertiary institution, we see the rationale for market-based postsecondary schooling: theoretically, when a voluntary exchange is permitted, marginal decision-making leads to an economically efficient equilibrium in the U.S. system of higher education.

As noted earlier, this perfectly competitive microeconomic model serves as a useful approximation of the U.S. market for higher education by allowing for the analysis of decisions faced both by individuals and institutions. Despite personal utility and marginal cost curves varying idiosyncratically, decisions are well represented. It is important, however, not to confuse conditions in this simplified model with those in the actual U.S. market for higher education.

Consideration of some of the assumptions underpinning perfect competition demonstrates the model's limitations.

On the demand side of the market, students are assumed to accept whatever single price the market sets for credit hours. In reality, however, students face different tuition and fee prices depending upon a variety of factors, including past academic performance, family resources, and personal demographics. Similarly, on the supply side of the market, the products offered by producers are assumed to be homogenous. This, too, is an oversimplification. Credits from a four-year, tier one research university, for example, cannot reasonably be compared with credits from a two-year community college. In short, while simplifying assumptions prove useful for analyzing the decisions faced by individuals and institutions, they also obfuscate important aspects of the market. A more nuanced analysis therefore requires moving beyond the scope of theoretical microeconomics, where we will see that educational outcomes are not as efficient as theory would predict.

Chapter Two

Mesoeconomics and the Need for Regulatory Intervention

The next step toward addressing the role of federal government in the U.S. postsecondary market is to establish the need for regulatory intervention. We begin by clarifying three concepts, “mesoeconomics,” “efficiency,” and “market failure,” then demonstrate empirically how sources of market failure disproportionately affect certain groups within the U.S. postsecondary market. Finally, we consider self-regulatory mechanisms and conclude that federal government intervention is necessary to maximize societal welfare.

While the discipline of economics is most commonly represented as binary, as either the study of microeconomics or of macroeconomics, it is perhaps better thought of as a continuum; much important economic activity occurs between the familiar micro and macro poles. In recent decades, economists have begun to use the prefix “meso” (middle) when assessing decision-making beyond the scope of individuals and firms, but below that of nations. Namely, mesoeconomics considers the behavior of groups within a given market.

Mesoeconomic analysis proves particularly useful in demonstrating how, outside of the context of perfect competition, enrollment outcomes in the U.S. postsecondary market are often inefficient. Here, and for the duration of our analysis, we judge “efficiency” on the basis of net societal welfare; if total benefits

derived from an economic activity exceed total costs incurred, we consider the outcome to be efficient.¹⁷ Significantly, we will see that outcomes often appear to be efficient from an individual's point of view, but ultimately prove to be inefficient for society.

Evidence suggests that inefficient outcomes, called "market failures," primarily stem from three sources: externalities, imperfect information, and capital market failure. We treat each in turn, and consider their respective implications for groups of postsecondary consumers and producers. While market failure is not limited to these sources alone, each demonstrates the need for regulatory intervention.

Externalities

In recent years, universities have made major strides to expand admissions for minorities ... Universities should continue to do so, expanding opportunity for everyone ...

– Ted Cruz

First, externalities are a key source of market failure in the U.S. postsecondary market. Externalities, either positive or negative, are benefits or costs resulting from some economic transaction that affect otherwise uninvolved third parties. Consider a student who pays tuition and fees to attend a postsecondary institution in exchange for training that betters her career prospects. She and the institution, then, are two parties to an economic contract. If in the course of her training she happens to become a more informed and

17. Formally, this is the Kaldor-Hicks definition of efficiency. Contrasted against Pareto efficiency, which stipulates that no outcome may exist in which one person is made better off without making someone else worse off, the conditions of Kaldor-Hicks efficiency are both less strict and more realistic.

engaged citizen, society, a third party, will also benefit from her education.

Though statistics fail to capture this subtlety, to the extent that American society values an intelligent and informed citizenry, it is in its best interest for students to receive such training. Because individuals do not factor the external benefits conferred upon society into their enrollment decision-making processes, externalities are prone to render resource allocations inefficient, a market failure.

Because postsecondary education is very often consumed in group settings – classrooms, campuses, and libraries – externalities have unusually significant implications for the demand side of the higher education market. Take two examples, one of a negative externality and one of a positive externality. If a student plays a video game on his laptop while an instructor is lecturing, he not only wastes his own time, but also the time of others around him inasmuch as his screen distracts them. By adversely affecting the education of his peers, the student's behavior represents a negative externality. Conversely, if during the same lecture, another student asks a question that helps clarify the course material, she not only benefits herself, but also those around her. In this case, her behavior represents a positive externality. In a sense, then, consumers are very much a part of the production process in the market for higher education; the quality of each student's education is highly influenced by their peers.

By the same logic, a diverse student body will create positive externalities within a community of higher learning, as students are exposed to new and different perspectives. The recent narrowing of an historic race gap in U.S.

postsecondary enrollment thus represents a movement toward more efficient resource allocation in higher education.¹⁸ Data collected by the U.S. Census Bureau suggest that there is still much room for improvement, however, as a substantial gap in graduation rates between groups still exists. On average, six-year graduation rates for first-time, full-time students at four-year tertiary schools are roughly seventy percent among students identifying as Asian; sixty-three percent among students identifying as white; fifty-two percent among students identifying as Hispanic; and forty percent among students identifying as black.¹⁹ While it is not easy to explicate this disparity between enrollment and graduation rates, institutions, and society more broadly, would benefit from ensuring positive externalities associated with a diverse academic body persist through graduation.

Externalities also play an important role on the supply side of the market for higher education, and particularly in the case of private, non-profit institutions, including more than 1300 bachelor degree-granting research universities and liberal arts colleges. At research universities, work done by faculty – often with the aid of students – offers compounding benefits to society. When research addresses the pressing problems of our time, as with the development of a new vaccine, society benefits in a direct, quantifiable way. By contributing to the general body of knowledge, moreover, research indirectly benefits society by leading to future developments and discoveries. The U.S. federal government

18. Ben Casselman, "Race Gap Narrows in College Enrollment, But Not in Graduation," *FiveThirtyEight*, April 30, 2014, <http://fivethirtyeight.com/features/race-gap-narrows-in-college-enrollment-but-not-in-graduation/>.

19. *Ibid.*

has long recognized these positive externalities, and since the middle of the twentieth century, has spent tens of billions of dollars annually subsidizing research universities.²⁰

Less recognized are the positive externalities resulting from a liberal education. By emphasizing the instruction of students rather than the development of new research, liberal arts colleges are often overlooked as benefactors of society. The problem, at least in part, is an inability to quantify the benefits of a liberal education, including social awareness, civic engagement, and political stability. Unlike research universities, most liberal arts colleges receive little or no investment from the federal government. This failure to recognize and subsidize an economic activity that confers tremendous benefits to society represents a distinct market failure in the U.S. market for higher education.

Imperfect Information

Unless we act now, more and more students will not be able to afford higher education at all, putting the American Dream even further out of reach.

– Martin O'Malley

A second source of market failure affecting postsecondary education in the United States is imperfect information. One of the key assumptions underlying perfect competition is that actors on both sides of the market have perfect information. In higher education, then, students are assumed to know and understand the exact quality of the education for which they pay, and the exact amount of utility they will receive from that education. Likewise, all information

20. Edward P. St. John and Michael D. Parsons, *Public Funding of Higher Education: Changing Contexts and New Rationales* (Baltimore: Johns Hopkins University Press, 2005), 22.

affecting schools' enrollment decisions is assumed to be known and understood exactly. While the assumption proves useful for understanding the decision-making processes of market participants, it is clearly unrealistic. Empirical evidence demonstrates that outside the context of perfect competition, imperfect information is a main source of market failure, and disproportionately affects some groups within the U.S. market for higher education.

According to a 2015 study by the Pell Institute, in the United States, more than three quarters of students from families with incomes in the top quartile earn a Bachelor's degree by the age of twenty-four.²¹ Conversely, the study found the same is true for fewer than ten percent of students from families in the lowest income quartile. While certainly not the only factor, imperfect information undoubtedly contributes to the educational disparity between family income groups. In most of the United States, primary and secondary schools are funded by property taxes. As families with lower incomes tend to live in communities that generate fewer taxes, children from low-income families are more likely to attend schools with limited resources. Schools in low-income communities, in turn, are less equipped to help students overcome the informational challenges associated with postsecondary application and matriculation processes. Such challenges are exemplified by the postsecondary financial aid application process.

To apply for federal financial aid, a prospective student must complete the Free Application for Federal Student Aid (FAFSA), a form with 130 questions

21. Margaret Cahalan and Laura Perna, *Indicators of Higher Education Equity in the United States* (Washington, DC: The Pell Institute, 2015), 31.

used to determine Expected Family Contribution. Once a completed FAFSA is received by the postsecondary institutions to which the student is applying, institutions begin the process of determining the amount of federal grants, work-study, federal loans, and institutional grants for which the student is eligible. Then, only after being accepted by the institutions, does a student finally learn how much financial aid they have been offered for the following academic year. Should they choose to matriculate, the student will repeat the arduous months-long process annually. The point, then, is that prospective students must overcome significant obstacles to learn the price of attending postsecondary school, and even then, will only be able to guess at the price of attending in future years. Particularly for students who rely heavily upon financial aid, this informational inefficiency is a vital source of market failure.

Institutions must also overcome imperfect information when making enrollment decisions. While application forms, test scores, and writing samples allow schools to learn much about an applicant, they do not solve all informational obstacles. Schools do not know whether information provided by a student is truthful or complete, and the sheer number of applicants renders independent corroboration infeasible. Furthermore, because prospective students often apply to more than one school, and current students are under no obligation to continue their studies, institutions must base production decisions upon imperfect estimates and projections. Such uncertainty inevitably leads to inefficient outcomes.

As with other sources of market failure, imperfect information affects each sector on the supply side of the market for higher education differently. With respect to educational quality, this particular inefficiency has proven advantageous to the more than 1300 two-year and four-year private, for-profit institutions in the United States. Despite an abysmal record of student success, for-profit schools are consistently among the largest and fastest growing in the country. The University of Phoenix, for example, has managed to enroll more than 190,000 students in the 2015-16 school year while maintaining a graduation rate below twenty percent.²² At least in part, the continued popularity of for-profit schools owes to prospective students' inability to verify advertised job placement and salary figures. Were students better informed, the U.S. postsecondary market could make significant efficiency advancements.

Capital Market Failures

The number of non-traditional students has been increasing dramatically on college campuses all across America ... these students face unique challenges as they pursue their degrees.

– Hillary Clinton

Lastly, inefficiencies in the U.S. market for higher education result from capital market failures. Capital markets play a vital role in market-based economies by connecting lenders with a surplus of funds to borrowers with a shortage of funds. Because the monetary costs of purchasing a postsecondary education – including tuition and fees, room and board, and school supplies – are

22. Apollo Education Group, Inc., Form 10-K, August 31, 2015. Apollo Education Group. <http://investors.apollo.edu/phoenix.zhtml?c=79624&p=irol-reportsannual>.

quite high for consumers, most depend on capital markets to finance some portion of their schooling. Similarly, because the monetary costs of providing a postsecondary education – including payment of salaries and benefits, the construction of facilities, and research and development – are also quite high for producers, most likewise depend on capital markets to finance some portion of their operations. When students or institutions are unable to borrow an adequate amount of money to achieve their postsecondary education goals, capital market failure leads to failure in the market for higher education.

Some segments of students are disproportionately affected by capital market failure. Older, non-traditional students, for example, face several distinct challenges in financing their education compared to their younger peers. Unlike students who enroll immediately following high school, the majority of whom borrow funds as “dependents,” many older students do not have the benefit of a guarantor to help secure loans. Consequently, those who are able to borrow at all are often not able to borrow enough to cover the entire cost of their schooling. Compounding the problem, older students often have more non-educational financial responsibilities than younger students, including children, mortgages, and car payments. With greater need and less borrowing power, the vast majority of non-traditional students must work at least part-time while enrolled in school.²³

Adult learners experience considerably lower postsecondary educational outcomes than traditional students, and, while it is certainly not the only factor,

23. Jovita M. Ross-Gordon, "Research on Adult Learners: Supporting the Needs of a Student Population that Is No Longer Nontraditional," *Peer Review* 13, no. 1 (2011): 26.

inadequate access to capital undoubtedly contributes. According to the National Student Clearinghouse, only forty percent of students who enroll in tertiary school after the age of twenty graduate within six years; six-year graduation rates among students who enroll before the age of twenty, by contrast, are closer to sixty percent.²⁴ As nearly forty percent of all undergraduate students in the United States are non-traditional, capital market failure represents one of the most important sources of market failure in higher education.²⁵

Capital market failure also affects some sectors on the supply side of the higher education market disproportionately. Public, non-profit institutions, including more than 1500 four-year state universities and two-year community colleges, are particularly affected among postsecondary producers. Heavily dependent upon state and local governments to finance their operations, public, non-profit schools often face funding shortages when politicians decide to cut higher education spending. Since the Great Recession, for example, state postsecondary expenditures have fallen by an average of twenty percent per student.²⁶

Public, non-profit schools are limited in their ability to respond efficiently to funding shortages compared to other postsecondary producers. Whereas for-profit schools may raise capital by issuing either debt or equities, and many

24. Doug Shapiro et al., *Completing College: A National View of Student Attainment Rates-Fall 2009 Cohort* (Herndon, VA: National Student Clearinghouse, 2012), 7.

25. Ross-Gordon, "Research on Adult Learners: Supporting the Needs of a Student Population that Is No Longer Nontraditional," 26.

26. Michael Mitchell and Michael Leachman, "Years of Cuts Threaten to Put College Out of Reach for More Students," *Center on Budget and Policy Priorities*, (May 2015): 1.

private, non-profit schools are able to draw upon endowment reserves, most public schools have little choice but to reallocate resources. Public schools have responded to funding shortages in recent years by raising the price of tuition and heavily recruiting out-of-state students. Tuition inflation, in turn, exacerbates capital constraints for non-traditional students who are overrepresented at public schools, and generally deters students from making otherwise efficient enrollment decisions.²⁷ To the extent that funding shortages result in these and other inefficient resource allocation decisions, capital constraints represent a significant source of U.S. postsecondary market failure.

Self-Regulation

I understand people's frustrations ... and frankly, under the First Amendment, people have the right to speak out ...

– John Boehner

By demonstrating empirically how market failures in the U.S. system of higher education result in inefficient educational outcomes for groups on both the demand and supply sides of the market, we have established the need for market regulation. Before turning to the role of government in correcting these inefficiencies, we must first consider market self-regulatory mechanisms. Indeed, many free market proponents maintain that self-regulation renders governmental intervention is not only superfluous, but actually harmful to well-being of a market. According to this school of thought, when groups within a market are adversely affected by some inefficiency, they will organize in pursuit of a common

27. "Nontraditional Undergraduates / Definitions and Data," National Center for Education Statistics, accessed February 6, 2016, <https://nces.ed.gov/pubs/web/97578e.asp>.

interest and bargain, protest, or lobby to affect change. Here, we consider two recent examples of such self-regulation in the U.S. postsecondary market: protest at the University of Missouri and the Occupy Wall Street movement.

In 2015, protestors at the University of Missouri held months-long demonstrations aimed at advancing causes of marginalized student groups on campus. Demands included: resignation of the University's president; increased hiring of black faculty and staff; funds to promote retention rates of marginalized students; adoption of diversity curriculum and training; and establishment of a campus social justice center.²⁸ With much national publicity and the support of school personnel and alumni, students saw nearly all of their demands met. As discussed above, because a diverse and inclusive student body creates myriad positive externalities, low rates of enrollment and attainment among minority student groups amounts to a market failure in higher education. In the case of the University of Missouri, marginalized groups organized in pursuit of their interests, and successfully bargained for policies to correct this market inefficiency.

Similarly, in the years immediately following the Great Recession, the Occupy Wall Street movement organized a "Strike Debt" campaign to promote the interests of student groups adversely affected by capital market failure. Organizing specifically around students who borrowed to attend for-profit institutions, protestors pooled resources to purchase and cancel \$3.8 million in

28 "Demands Presented to University of Missouri – Columbia," accessed February 24, 2016, <https://diversity.missouri.edu/timeline/lbc-demands-universityarchives74.pdf>.

student loans from debt collectors.²⁹ The demonstration marked the launch of a new interest group – The Debt Collective – designed to “bring debtors together so they can negotiate terms with creditors ...”³⁰ Here again, as capital market inefficiencies are a key source of postsecondary market failure, Occupy Wall Street’s campaign against usurious lending practices represented an effort to correct postsecondary market inefficiency.

While the University of Missouri protests and the Occupy Wall Street movement demonstrate that negatively affected groups do, in fact, organize to promote their interests, such self-regulatory mechanisms are insufficient to fully overcome market inefficiencies. Groups, and particularly large groups, are plagued by collective action problems, and only rarely succeed in achieving their wants.³¹ The allocation of scarce resources to organizing, bargaining, and lobbying efforts, moreover, represents a deadweight loss to society; were the market more efficient, those resources could have been used for more productive purposes. Market failure in the U.S. system of higher education, then, necessitates governmental regulation.

29. Blake Ellis, "Occupy Abolishes \$4 million in Other People's Student Loan Debt," *CNN*, September 17, 2014, <http://money.cnn.com/2014/09/17/pf/college/occupy-wall-street-student-loan-debt/>.

30. *Ibid.*

31. *Encyclopædia Britannica Online*, s.v. "collective action problem," accessed March 01, 2016, <http://www.britannica.com/topic/collective-action-problem-1917157>.

Chapter Three

Macroeconomics and the Role of the Federal Government

To briefly review, our analysis in Chapter One began by questioning the rationale for market-based postsecondary education. Developing a theoretical microeconomic framework, we saw that within the context of perfect competition, markets allow individuals and institutions to maximize their welfare by employing marginal decision-making strategies. While useful for examining the behavior of market participants, however, the assumptions underpinning perfect competition ultimately proved unrealistic, and the complexity of the U.S. higher education market necessitated higher level analysis.

Subsequently, in Chapter Two, empirical, mesoeconomic analysis demonstrated the need for regulatory intervention in the U.S. postsecondary market. Evidence suggested that externalities, imperfect information, and capital market failures lead to market failure and disproportionately affect certain postsecondary consumer and producer groups. Self-regulation, in turn, proved insufficient to overcome market failure, signaling the need for government intervention.

We now begin an inferential, macroeconomic analysis to address the role of federal government in the U.S. market for higher education. Macroeconomics, the study of economy-wide decisions and behavior, is perhaps the most familiar branch of the discipline; it is unsurprising, then, that the majority of public

discourse surrounding postsecondary schooling should take place at a national level, and that macroeconomic concepts and trends should be central to the dialogue. Here, we again turn our attention to the 2016 presidential election and higher education issues raised by politicians.

Since announcing their candidacies, Democrat and Republican presidential hopefuls have primarily focused on three higher education issues: tertiary attainment, tuition prices, and student debt. Building upon theoretical and empirical frameworks earlier developed, we see that these inefficiencies are directly correlated to externalities, imperfect information, and capital market failures respectively. Treating each in turn, we consider previous government intervention strategies and evaluate proposals for future intervention.

Tertiary Attainment

We all know that 12 years of public education isn't enough ... As a nation, let's make the same commitment to college education today that we made to high school education a hundred years ago.

– Joe Biden

Of thirty-four member OECD nations, the United States ranks twelfth in higher education attainment among twenty-five to thirty-four year-olds.³² Once the undisputed postsecondary leader of the developed world, critics argue, the U.S. now lags significantly behind its peers. Ahead of the 2016 election, politicians have proposed strategies for bolstering tertiary attainment levels, most commonly with the provision of universal public higher education. Before

32. Daniel de Vise, "U.S. Falls in Global Ranking of Young Adults Who Finish College," *Washington Post*, August 22, 2011, https://www.washingtonpost.com/local/education/us-falls-in-global-ranking-of-young-adults-who-finish-college/2011/08/22/gIQAAsU3OK_story.html.

addressing these proposals, we first consider the role of externalities and how federal policy has hitherto promoted postsecondary attainment.

Education, as with any good, provides diminishing marginal benefits to students. Consider, as an example, mathematics taught to children in primary and secondary school. Most children will find arithmetic to be of tremendous lifelong value, algebra to be of occasional value, and trigonometry to be of limited or no practical value. It follows that, as a society, Americans require children to master the first concept, demonstrate proficiency in the second, and maintain the third as an optional choice for those with interest. The same is true of most subjects, and in the first half of the twentieth century, Americans concluded that the costs of training most children outweighed the benefits after about twelve years.³³

Of course, this is not true for all children; for some, the benefits of additional schooling outweigh the costs well into adulthood. The question, then, is how to determine which young adults will continue to derive benefits from school beyond the secondary level, and which will not. Historically, American society has entrusted young adults and institutions of higher learning to make this determination jointly. Because the market for higher education is a voluntary exchange, students and schools are theoretically able to use marginal decision-making strategies to ensure students are optimally educated. But, as discussed previously, the U.S. postsecondary marketplace is not perfectly competitive, and

33. Michael S. Katz, "A History of Compulsory Education Laws," *Phi Delta Kappa Educational Foundation*, (1976): 21.

market failures often lead to inefficient outcomes. The basic argument of policy makers who advocate for additional tertiary education, then, is that market failures have resulted in an aggregate underinvestment in U.S. postsecondary schooling, and that encouraging additional investment would increase social welfare and economic well-being.

Indeed, as discussed in Chapter Two, because students and institutions only incorporate private costs and benefits into their decision-making processes, externalities associated with postsecondary education may render enrollment decisions inefficient from society's point of view. Recall, for example, one of the ways in which positive postsecondary externalities benefit society. Assume that an individual graduates from a tertiary institution and, because of the U.S. skilled-wage premium, earns \$800,000 more over the course of her lifetime than she would have otherwise. Assuming an average marginal income tax rate, she will pay some \$250,000 more in taxes, a direct benefit to society. When initially deciding whether to enroll in school, however, this benefit to society will likely not be a part of her decision-making process. Depending on the shape of her personal utility curve, then, she may decide against earning a degree. As discussed previously, if it so chooses, government has the power to influence her enrollment decision by providing an educational subsidy.

Historically, then, when the federal government has sought to increase postsecondary attainment, it has done so with educational subsidies. Since the close of the Second World War, for example, the United States federal

government has provided billions of dollars annually to encourage veterans to earn a postsecondary degree. Likewise, since the passing the 1965 Higher Education Act, the federal government has provided billions of dollars more to encourage the general U.S. population to earn postsecondary degrees. In 2013, through the G.I. Bill and Pell Grants combined, the government spent more than \$45 billion subsidizing American tertiary education.³⁴ Ahead of the 2016 presidential election, politicians have argued that these extant higher education subsidies are insufficient to promote optimal levels of tertiary attainment, and, most commonly, have proposed remedying the situation by providing universal, publically funded higher education to all qualified young Americans.

Universal higher education proposals are problematic for two reasons. First, publically funded higher education would create an incentive for many students to overinvest in postsecondary schooling. Presently, postsecondary subsidies are relatively small compared to the total cost of higher education; the maximum annual Pell Grant is \$5,815. Small subsidies encourage the enrollment of students for whom the costs of college just barely outweigh the benefits. Providing free public higher education – including the cost of tuition and fees, room and board, and school supplies, as several candidates have suggested – would amount to a doubling or tripling of current subsidies.³⁵ Such large subsidies, in turn, would encourage the enrollment of students for whom the

34. Susan K. Urahn and Thomas P. Conroy, "Federal and State Funding of Higher Education," *Pew Charitable Trust* (June 2015): 3.

35. Namely, Hillary Clinton, Martin O'Malley, and Bernie Sanders.

costs of college greatly outweigh the benefits. Facing few or no private costs, even the smallest of private benefits would encourage students to enroll; sensitivity to diminishing marginal returns would be dulled, and, in many cases, the costs incurred by society would exceed the benefits realized by students.

Second, according to consensus U.S. job growth estimates, by 2020, roughly thirty-five percent of American jobs will require a bachelor's degree.³⁶ As thirty-two percent of the entire U.S. adult population and thirty-four percent of adults ages twenty-five to twenty-nine presently have bachelor's degrees, mass subsidizing of four-year college would likely result in either unemployment or underemployment.³⁷ Estimates do, however, suggest significant growth in occupations requiring more than a high school diploma, but less than a four-year degree. Optimal tertiary attainment policy, then, would encourage enrollment in two-year programs, but not necessarily four-year programs. One such policy, investment in dual enrollment programs, will be addressed in the following chapter.

Price of Tuition

We are moving in exactly the wrong direction in higher education. Forty years ago, tuition in some of the great American public universities and colleges was virtually free. Today, the cost is unaffordable ...

– Bernie Sanders

36. Anthony P. Carnevale, Nicole Smith and Jeff Strohl, "Recovery: Job Growth and Education Requirements Through 2020," *Georgetown Public Policy Institute* (June 2013): 15.

37. "Educational Attainment," National Center for Education Statistics, accessed March 3, 2016, <https://nces.ed.gov/fastfacts/display.asp?id=27>.

Adjusted for inflation, average annual tuition and fees charged by U.S. postsecondary institutions have more than doubled since 1970, and policymakers have widely referenced “skyrocketing tuition bills” as evidence of the need for higher education reform.³⁸ While the trend is generally held to be problematic, there is little consensus among politicians regarding what exactly has moved prices so high or how best to affect change.³⁹ Beyond advocating for free public higher education, 2016 candidates have mainly addressed tuition concerns with vague pledges to “hold colleges and universities accountable for controlling costs and making tuition affordable.”⁴⁰ In the absence of meaningful proposals, we consider the effect of imperfect tuition information on postsecondary outcomes and how previous federal policies have sought to address the issue.

As noted in Part I, an individual will consider all private costs and benefits, both market and non-market, when deciding whether to enroll in postsecondary school. Ultimately, within the context of perfect competition, if net private benefits outweigh net private costs, a student will choose to enroll and pay the prevailing market price for credit hours. Outside the context of perfect competition,

38. Bernie Sanders, "Bernie Sanders on Education," accessed March 3, 2016, <http://feelthebern.org/bernie-sanders-on-education/>.

39. The most commonly agreed upon explanation for soaring tuition prices is state postsecondary divestment. The narrative is part truth, part myth. In absolute terms, public higher education spending is drastically higher today than at any time in the past. One scholar, Paul Campos, draws a comparison between U.S. military and postsecondary appropriations; compared to 1960, postsecondary expenditures are 10 times higher today, while military expenditures are only 1.8 times higher. In relative terms, however, per-capita postsecondary spending is lower today than in decades past, as higher education demand has outpaced growth in public funding.

40. Hillary Clinton, "The New College Compact," accessed March 3, 2016, https://www.hillaryclinton.com/issues/college/?wptouch_preview_theme=enabled.

however, prices vary idiosyncratically and, as noted in Part II, market failure may lead an individual to make an inefficient enrollment decision. In the U.S. market for higher education, imperfect information about the private cost of tuition – specifically the difference between “sticker price” and “net price” – is a key obstacle to efficiency.

The vast majority of U.S. postsecondary students do not pay official tuition and fee rates advertised by institutions (sticker price), but rather advertised tuition and fee rates minus scholarships and grants (net price). In his 2013 publication, *Higher Education in America*, former Harvard President Derek Bok explains how significantly sticker price differs from net price for the average U.S.

postsecondary student:

If one subtracts all forms of grant aid (not loans) from tuition and fees, the average amount (including fees) that students pay to attend a private four-year college drops from \$28,500 in 2011-12 to a net average of \$12,970. The average net cost at public four-year colleges falls from \$8,240 to \$2,490. At public two-year (community) colleges, the average grant award actually exceeds the average tuition, leaving slightly more than \$800 to help pay for room and board expenses.⁴¹

While sticker prices at U.S. postsecondary schools support the “skyrocketing” narrative espoused by politicians, net prices paid by the average college student tell a much different story. Yet, high sticker prices are not entirely inconsequential. For enrollment decisions to be efficient, they must be based upon net price rather than sticker price, and empirical evidence suggests that prospective students often fail to make this distinction.

41. Derek Curtis Bok, *Higher Education in America* (Princeton, NJ: Princeton University Press, 2015), 94.

In a fifteen-year study of all public U.S. colleges and universities, political scientists Steven Hemelt and Dave Marcotte found that on average, when institutions raised sticker tuition and fee prices by \$1,000, student enrollment declined by two and a half percent.⁴² Astoundingly, even in years when financial aid increased at a faster rate than sticker tuition and net price actually *declined*, student enrollment still fell. Data thus suggest that students do, indeed, make decisions at the margin, but are prone to base those decisions on imperfect information. On the whole, then, to the extent that high sticker prices deter students from making efficient enrollment decisions, imperfect information results in an underinvestment in higher education.

The most direct way to correct this inefficiency in the U.S. postsecondary market is to regulate tuition advertisement. The federal government could, for example, limit the extent to which institutions of higher learning offer discounts on published prices. But such a policy would severely inhibit schools' ability to price discriminate – to charge customers different prices based upon their ability to pay – and the loss of revenue from students who do pay sticker price would likely outweigh the gains from increased informational efficiency. An ideal policy, then, would promote students' understanding of sticker and net tuition prices without limiting schools' capacity to charge students different prices.

In 2013, the Obama administration attempted to implement such a policy with the launch of “College Scorecard,” an online tool designed to help

42. Steven W. Hemelt and Dave E. Marcotte, "The Impact of Tuition Increases on Enrollment at Public Colleges and Universities," *Educational Evaluation and Policy Analysis* 33, no. 4 (2011): 435.

prospective students “get the most bang for [their] educational buck.”⁴³ Offering data on every accredited postsecondary institution in the country, College Scorecard aims to overcome tuition informational inefficiencies by excluding sticker prices altogether, instead publishing only average net prices. While certainly an improvement, College Scorecard has key limitations. The program’s “cost calculator,” for example, fails to incorporate the single greatest determinant of net price, family income. And as roughly a quarter of U.S. households do not have Internet access, College Scorecard is necessarily restricted in its ability to reach prospective students, and particularly those from low-income households.⁴⁴ To adequately address tuition informational shortcomings, then, the federal government should adopt a more comprehensive approach. The following chapter will advocate for one such approach, investment in secondary school advising programs.

Student Debt

Student debt is a tremendous problem in the United States ... it's not fair. It's one of the only places, frankly, where our country actually makes money. And they make a lot of money. And that should not take place.

– Donald Trump

43. "Education Department Releases College Scorecard to Help Students Choose Best College for Them," U.S. Department of Education, accessed March 5, 2016, <http://www.ed.gov/news/press-releases/education-department-releases-college-scorecard-help-students-choose-best-college-them>.

44. Thom File and Camille Ryan, "Computer and Internet Use in the United States: 2013," *American Community Survey Reports* (2014): 2.

At nearly \$1.3 trillion, federal student loans represent the single largest class of consumer debt in the United States outside of home mortgages.⁴⁵ Some forty million Americans carry student debt, and more than half of voters between the ages of eighteen and thirty-four consider the issue a “major influencer” in supporting a presidential candidate.⁴⁶ Consequently, perhaps more than any other aspect of higher education, student debt has received sharp criticism from American politicians ahead of the 2016 election. The issue has also elicited several sensible reform proposals, including refinancing legislation for current borrowers and automatic income-contingent repayment plans for future borrowers. Before addressing these proposals, we must first recall how the risk of capital market failure in postsecondary education necessitates federal loan provisions.

Few consumer goods are so difficult to finance as a postsecondary education. Consider, for example, the challenges facing a lender in the U.S. market for higher education: prospective students rarely have a history of credit or collateral to borrow against; payment streams do not begin until years after a loan is generated; borrowers may defer payment for continued studies or federal service; and, in the event of default, credit hours cannot be repossessed, nor resold in a secondary market. Accordingly, as discussed in Part II, the federal

45. Janet Lorin, "Borrowers Fall Further Behind on \$1.3 Trillion in Student Loans," *Bloomberg*, accessed March 7, 2016, <http://www.bloomberg.com/news/articles/2015-08-13/borrowers-fall-further-behind-on-1-3-trillion-in-student-loans>.

46. Jen Mishory, "Highlights of Millennial Voters Survey Regarding the Cost of Higher Education," *Young Invincibles*, accessed March 10, 2016, http://younginvincibles.org/wp-content/uploads/2015/12/YI_Student_Debt_Polling_Memo.pdf.

government must provide or guarantee student loans to prevent capital market failure from leading to an underinvestment in higher education. The U.S. federal government has done this since passing the National Defense of Education Act of 1958, but with decidedly mixed results; according to the Department of Education, about twelve percent of student borrowers default on their federal loans.⁴⁷ At more than twice the average default rate of residential mortgages, data suggest the need for federal student loan reform.

Outstanding student debt represents one of the least contested areas of higher education reform among politicians. Since the onset of the Great Recession, consumer loan interest rates have been at fifty-year lows, and millions of Americans have refinanced their personal debts to achieve more favorable terms. Federal student loans, however, are one of the very few categories of personal debt ineligible for refinancing. In a recent speech given at Johnston State College, Senator Bernie Sanders captured the popular opinion of politicians on the matter: "It makes no sense that students and their parents are forced to pay interest rates for higher education loans that are much higher than they pay for car loans or housing mortgages."⁴⁸ Indeed, 2016 candidates widely agree that enabling borrowers to refinance their federal loans at current rates is common sense legislation, and such reform will likely be supported by whoever wins the November election.

47. "Three-year Official Cohort Default Rates for Schools," U.S. Department of Education, accessed March 7, 2016, <http://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html>.

48. Sanders, "Bernie Sanders on Education."

Several politicians have also proposed alternative systems for future lending, and among them, automatic income-contingent repayment plans demonstrate the most promise. Developed by Nobel laureates James Tobin and Milton Friedman, income-contingent repayment plans have become increasingly popular in developed nations over the past three decades and generally work as follows: When a student borrows from the federal government to attend postsecondary school, their debt is recorded by the Internal Revenue Service. After graduation, the IRS automatically deducts roughly ten percent of the borrower's earnings until the loan has been repaid in full. Thus, when a borrower's income is low or non-existent, she pays little or nothing, and when a borrower's income is high, she pays relatively more.⁴⁹ Beyond their simplicity, automatic income-contingent repayment plans are a particularly appealing means of addressing capital market failure because they eliminate the concept of default altogether.

Other politicians, noting the disproportionately high rate of default among students at for-profit schools, have suggested measures for increasing institutional accountability. One policy, for example, proposes expanding already severe sanctions against schools when their students' default rates reach a certain threshold.⁵⁰ While "putting colleges on the hook for student loans" may garner popular voter appeal, such legislation is likely to do just as much harm to

49. Bruce Chapman, "Income Contingent Loans for Higher Education: International Reforms," *Handbook of the Economics of Education 2*, (2006): 1435.

50. Maritin O'Malley has proposed that "aggressive efforts to prevent abuse ... should be expanded, to require colleges to meet accountability targets in recruitment, completion, and risk-sharing."

community colleges, which by and large maintain open enrollment policies.⁵¹

Alternatively, policies aimed at promoting graduation rates at two-year schools would be more constructive. Here again, dual enrollment programs discussed in the following chapter demonstrate much promise.

51. Tom Howell, "Senate Would Put Colleges on Hook for Student Loan Default," *Washington Times*, accessed March 10, 2016, <http://www.washingtontimes.com/news/2015/may/20/senate-would-put-colleges-on-hook-for-student-loan/?page=all>.

Conclusion

In the coming months, as the democratic process unfolds and, primary by primary, the United States advances toward the election of its forty-fifth commander-in-chief, Americans are likely to hear more about higher education than in any political season in U.S. history.⁵² As politicians heed post-Recession calls for market intervention and offer proposals to reform a system of higher education once held to be the envy of the world, American voters will continually face the question: what role should the federal government play in the U.S. postsecondary market? Analysis hitherto undertaken offers one simple answer: the federal government should adopt policies that correct higher education market failures.

Tertiary schooling in the United States is market-based, and like any market, its well-being depends upon the behavior of its participants. In an ideal world, a world where perfectly competitive markets were free from failure, marginal decision-making would lead students and institutions to optimal postsecondary outcomes. Such is the logic of market-based higher education; actors know themselves best, and are thus best positioned to maximize their own welfare. But this is not an ideal world. It is a world filled with externalities, imperfect information, and capital market failures, a world where postsecondary outcomes fall prey to market inefficiencies. Adversely affected groups may work

52. Sandy Baum and Matthew M. Chingos, "Evaluating Campaign Proposals," *Urban Institute*, (2015): 1.

to right these failures, but ultimately, social welfare depends upon governmental intervention.

The prosperity of the U.S. economy in the twentieth century owed to the prosperity of the U.S. system of higher education. The prosperity of the U.S. system of higher education, in turn, owed to the intervention of the federal government. And the role of the federal government, we know, followed from the will of the people. It was American voters, after all, who thrice elected the man behind the G.I. bill, and who, seeking to make ours a Great Society, authorized the Higher Education Act nine times in fifty years.⁵³ It was voters who empowered the federal government to subsidize in the face of externalities; to advise in the face of imperfect information; and to lend in the face of capital market failures. Behind every twentieth century federal effort to correct tertiary market failure, there stood the world's most highly educated voting populous.

Now, in the wake of the Great Recession, the fate of the U.S. system of higher education in the twenty-first century once again rests in the hands of the American electorate. To preserve and promote an efficient, prosperous system of postsecondary schooling, we must ensure that the federal government remains committed to correcting higher education market failures. In this conviction, we offer two actionable federal policy recommendations: expansion of dual enrollment programs and further investment in secondary school advising.

53. Thomas R. Wolanin, "Reauthorizing the Higher Education Act: Issues and Options," *Institute for Higher Education Policy*, (2003): 1.

Recommendations

First, as discussed in Chapter III, postsecondary externalities imply the need for additional U.S. tertiary attainment, and job-market projections suggest policies should specifically encourage enrollment in two-year postsecondary schools. Here, dual enrollment programs accomplish both objectives, while providing students with a wealth of additional advantages over traditional postsecondary tracks.

Dual enrollment programs are partnerships between high schools and local institutes of higher learning in which students earn both secondary and postsecondary credits simultaneously.⁵⁴ Like Advanced Placement (AP) and International Baccalaureate (IB) courses, dual enrollment initiatives promote tertiary attainment by enabling students to earn college credit before completing secondary school. Unlike AP and IB courses, however, they are not reserved for high-achieving students, and thus promote attainment among students who may not otherwise plan to continue their education. Indeed, state-level studies have shown that students who participate in dual enrollment programs are not only more likely to earn a high school diploma than those who do not, but also significantly more likely to enroll full-time in a two or four-year postsecondary program after graduating.⁵⁵

Beyond promoting tertiary attainment, dual enrollment initiatives also address issues of imperfect information that affect the U.S. higher education

54. Lauren Cassidy, Kaeli Keating and Viki Young, "Dual Enrollment: Lessons Learned on School-Level Implementation," *SRI International* (2010): 1.

55. *Ibid.*, 3.

market. As one study notes, “students who are able to take classes on a college campus learn about and become accustomed to the college environment ... [which] helps students feel more comfortable and less intimidated regardless of which college they attend after high school.”⁵⁶ Here again, dual enrollment programs prove advantageous over AP and IB courses, which are customarily taught in high schools rather than on college campuses. By offering the opportunity to sample academic and vocational courses at two-year community colleges or four-year public universities, dual enrollment programs equip students to make better-informed postsecondary decisions.⁵⁷

By circumventing capital markets, moreover, dual enrollment programs allow students to earn as many as sixty credit hours without accruing student debt. Funding approaches vary from state to state, but in most programs, students face either low or no tuition and fee expenses.⁵⁸ The Department of Education has recently taken steps to ensure that other related costs – including text books and transportation – are not prohibitive for students, and particularly students from low-income households. In the 2016-17 school year, the Department estimates that high school students will receive \$20 million in Federal Pell Grants to help with the private costs of dual enrollment.⁵⁹ Addressing

56. *Ibid.*, 2.

57. In fact, high schools often partner with more than one institute of higher learning, and many students take courses from both two-year and four-year postsecondary schools.

58. Cassidy, et al., "Dual Enrollment: Lessons Learned on School-Level Implementation," 13.

59. "Fact Sheet: Department of Education Launches Experiment to Provide Federal Pell Grant Funds to High School Students Taking College Courses for Credit," U.S. Department of Education, October 30, 2015, accessed March 1, 2016, <http://www.ed.gov/news/press->

externalities, imperfect information, and capital market failure, dual enrollment programs are perhaps the most efficient means of promoting tertiary attainment in the United States.

Second, to reduce the prevalence and severity of U.S. higher education market failure, the federal government should invest substantively in secondary school advisement. In the United States, the average public high school counselor is responsible for advising nearly 500 students, and often more in school districts with limited resources.⁶⁰ Consequently, more than half of all counselors, according to College Board's *National Survey of School Counselors and Administrators*, believe they spend an insufficient amount of time advising students on postsecondary decisions.⁶¹ Inadequate advisement, in turn, contributes directly to market failures. Imperfect information about the cost of attending postsecondary school and about navigating capital markets, for example, undoubtedly depresses tertiary attainment levels. Federal policy could address secondary advisement deficiencies in one of two ways.

First, the federal government could provide grants directly to school districts for the establishment and expansion of counseling programs. Though the government has provided such funding in the past, it has historically been insufficient to ensure schools reach the student-to-counselor ratio recommended

releases/fact-sheet-department-education-launches-experiment-provide-federal-pell-grant-funds-high-school-students-taking-college-courses-credit.

60. Michael Hurwitz and Jessica Howell, "Measuring the Impact of High School Counselors on College Enrollment," *College Board Advocacy & Policy Center* (2013): 4.

61. *Ibid.*, 7.

by the American Counseling Association (ACA), 250 to one.⁶² Problematically, in the wake of recent school shooting violence, high school counseling has been perceived as a gun-control issue and support for subsidies has been divided across party lines.⁶³ California Representative Barbara Lee's Student Support Act, for example, would provide sufficient funding for schools to meet ACA standards, but has not received support from a single Republican Congressperson.⁶⁴ Promoting secondary school advisement may therefore require more innovative federal policy.

To bypass Congress, then, the Department of Education could establish a phone-based advisement service to aid students with the postsecondary decision-making process. As noted in Chapter III, the Obama administration has attempted to provide a similar service with the online College Scorecard, but with has experienced mixed results; among other issues, limited student internet access has been a key obstacle to the program's success. Alternatively, as telephones are nearly ubiquitous among U.S. households, phone-based advisement would ensure greater access for students. While not directly addressing the shortage of high school counselors, such a program would be a

62. "U.S. Department of Education Awards More Than \$24.8 Million in Elementary and Secondary School Counseling Grants," Department of Education, accessed March 13, 2016, <http://www.ed.gov/news/press-releases/us-department-education-awards-more-248-million-elementary-and-secondary-school-counseling-grants>.

63. As in the case of President Obama's Comprehensive Schools Safety initiative, high school counseling subsidies have often been packaged with subsidies for increased security personnel and crisis management training. Consequently, proposals to support secondary counselors are frequently opposed by pro-gun factions.

64. Barbara Lee, "H.R.320 - 113th Congress (2013-2014): Student Support Act," The 113th United States Congress, accessed March 11, 2016, <https://www.congress.gov/bill/113th-congress/house-bill/320>.

valuable tool for mitigating the effects of inadequate advisement on the U.S. market for higher education. Together with dual enrollment programs and automatic income-based repayment plans, increased investment in secondary counseling is among the best federal government strategies for correcting U.S. postsecondary market failures.

Extensions and Limitations

In its emphasis on student, institutional, and federal government behavior, this analysis has deliberately excluded two additional higher education actors: faculty and administrators, and state governments. In the case of faculty and administrators, we have implicitly assumed that the interests of each are aligned with the interests of the institutions for which they work. By maximizing institutional profit, the logic goes, faculty and administrators are most likely to receive high salaries, promotions, and other non-monetary benefits like gratitude and prestige. In this way, faculty and administrators are assumed to act like employees and managers of private firms. Firm theory is not without its critics, and belief that employees and managers seek to maximize personal utility rather than firm profit is the basis of a large literature on “principal-agent problems.”⁶⁵ Still, however plausible or implausible the assumption may be, it is sufficient for the purpose of assessing federal government’s role in the market for higher education.

65. Sanford J. Grossman and Oliver D. Hart, "An Analysis of the Principal-Agent Problem," *Econometrica: Journal of the Econometric Society* (1983): 7.

State governments, conversely, represent a compelling area for further research. Beyond simply financing public institutions, many state departments of education have adopted strategies for overcoming capital market failures and promoting tertiary attainment that warrant closer investigation. The Georgia and Tennessee HOPE scholarships, for example, use state lottery revenues to fund the in-state postsecondary education of students with strong track records of academic success. The programs would appear to be rather regressive, as lottery patrons are overwhelmingly from lower-income households and students who receive scholarships tend to be from wealthier households. The social benefits of a better-educated state populous may, however, prove the policies efficient. In either case, analysis of these and other state government programs may prove beneficial in developing future federal higher education policy.

Finally, educational quality is a variable not well captured by economic analyses. Of those that do extend beyond the realm of costs and benefits, like Goldin & Katz's review of twentieth century U.S. education and technology, most simply quantify education in terms of attainment. By emphasizing the importance of non-market considerations like personal utility and democratic externalities, this analysis has sought to break from that trend. Still, to the extent that higher education has been treated herein as a commodity, as a means to an end rather than an end in itself, there is room for improvement. Indeed, to the extent that higher education is treated as a commodity in any form of public discourse, and particularly ahead of the 2016 presidential election, there is room for

improvement. Only when American voters consider postsecondary schooling both qualitatively and quantitatively will the welfare of the twenty-first century market for higher education be secure.

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