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America's College Promise: An Economic Evaluation of President Obama's Free Community College Plan

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AMERICA'S COLLEGE PROMISE: AN ECONOMIC EVALUATION OF PRESIDENT OBAMA'S
FREE COMMUNITY COLLEGE PLAN

By

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ABSTRACT

In his 2015 State of the Union Address, President Obama announced “America’s College Promise,” a plan to make community college free for all American families making less than \$200,000. In this thesis, I provide an analysis of the plan and provide an evaluation of its potential impact on the education attainment gap in the United States. I also evaluate the plan’s various components and assess its potential impact on community college student enrollment, completion, and transfer to four-year universities. Lastly, I offer recommendations for improvement.

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Introduction

In the United States higher education is one of the primary tools for social mobility as evidenced by the economic and social benefits of a college degree. According to the National Center for Education Statistics (NCES) the average annual salary for a college graduate is \$51,206 compared to \$27,915 for a high school graduate and \$18,734 for a high school drop out (National Center for Education Statistics, 2014). A college graduate will earn on average \$1 million more over a lifetime than someone with only a high school diploma. In addition to higher wages, college provides intangible assets such as cultural capital, a professional network, and an increased sense of self-efficacy for its graduates. On a macroeconomic scale, the education gap drives billions of lost GDP each year, on par with the effects of the last economic recession (McKinsey & Company, 2009). Thus, resources gained from higher education attainment influence the wealth accumulation of successive generations as well as the overall economic welfare of the nation.

To increase education attainment for all sectors of the population, the Obama administration recently unveiled a 10-year plan, entitled “America’s College Promise” to make community college free for all students with families earning less than \$200,000. The plan aims to increase student access and bridge the gaps in higher education. However, as with any government intervention plan, there are questions about its feasibility and impact. Namely, will the policy increase enrollment for disadvantaged students not already served by community colleges? Is the community college sector the correct channel to direct national resources to increase education attainment? Will the policy increase the quality of a community college education? Through an economic analysis of America’s College Promise and the costs and returns to education, I hope to address and evaluate these concerns in my thesis.

Research Methods

My thesis will consist of a literature review of existing scholarly articles regarding higher education access in America, the effects of human capital attainment on personal and national economic wellbeing, and the role of community colleges in the U.S. education system. The literature review will contextualize the need for the policy and the current conditions that it will operate in if passed. Then, I will use economic theory to predict the outcomes of America's College Promise. In this section I will use a demand side subsidy model to predict changes in the equilibrium quantity and price of a community college education. Next, I will use two analogous empirical examples, the institutionalization of universal secondary education and Georgia's Helping Outstanding Pupils Educationally (HOPE) to examine how programs like America's College Promise hold up to theoretical predictions. The impact of universal secondary education and Georgia's HOPE program have been extensively studied by economists. Thus, I will draw from this wealth of literature to construct a coherent analysis of how the policies to make conclusions regarding America's College Promise. Lastly, I will conclude with an evaluation of the policy by addressing the efficacy of each component of the policy based on my theoretical assessment and analysis of the analogous policies.

Literature Review

This thesis deals primarily with the larger picture of human capital attainment through education in the United States and specifically with government interventions to provide opportunities for such attainment. The success of these policies affects both the individual well being of citizens and America's economic position on the world stage. As I am examining the efficacy of America's College Promise there are several key areas of related literature that will inform my research. I want to address the following topics in my literature review to contextualize my paper: the state of the higher education in the United States, the impact of human capital attainment in economic growth, the current gaps in education between different socioeconomic groups, and the role of the community college system in the U.S. education system.

Higher Education in the United States: A Look at Enrollment and Cost Trends

The higher education landscape in the United States can be categorized into three main sectors, highly selective private colleges, state universities, and community colleges. For-profit institutions are also on the rise, but they are not subject to government aid so I will exclude them from this section of the literature review. A salient trend in all three sectors is increasing tuition prices, one of the main reasons that prompted the proposal of America's College Promise as the policy specifically aims to decrease the cost of attending community college. For highly selective private colleges, tuition increases generally arise from administrative costs to increase student support services, capital expenditure for new technology, and academic programming as many prestige rankings are based on spending per student (Ehrenberg, 194). Because these colleges enroll a very limited percent of the general population, the large majority from affluent families

who can pay the sticker price for their education, tuition increases in this sector will only minimally affect education attainment on a nationwide scale. In addition, they enroll a limited number of federal Pell grant recipients with lower to middle income students financing their education through college-funded scholarships. Moreover, the number of low-income students that are competitive for admission at these colleges is small (Bok, 100). As a result, despite the disproportionate media attention on selective private colleges, they cost very little taxpayer money and enroll a negligible percent of the population. Therefore, if the US is to achieve the goal of regaining their lead in educational attainment by increasing college enrollment at 3.5 to 4% per year, the additional college graduates must necessarily come from students who are not already enrolled in colleges from low to moderate-income families (Bok, 98).

These students are overwhelmingly enrolled in public universities and community colleges. For public universities, the 20% decrease in state funding between 1987 and 2011 has resulted in a marked shift of their student body compositions. State universities are enrolling higher income students from out of state and international students who can afford to pay full tuition. In fact, merit scholarships to attract these students rose three times as fast as need based financial aid between 1991 and 2008 (Bok, 100). As more would-be state school attendees are hit by rapid tuition increases in state universities, the third sector, community colleges, are seeing an influx in enrollment. The percentage of community college students from the lowest income quartile rose from 21% to 28% while the students from the highest income quartile dropped from 24% to 16% between 1982 and 2006 (Bok, 99).

Therefore, community colleges are an important sector to examine when looking at increasing educational attainment in the United States. From a funding perspective they spend dramatically less than the other two sectors to educate a student per year. Community colleges

spend \$9,000 per student yearly compared to \$14,000 from a public university, and \$33,000 for a selective private university. They also have more open admissions policies which means that they are accessible to a larger share of the population. Just as public universities' tight budgets have increased tuition for its students, community colleges are also disadvantaged from states' needs to balance the budget. While President Obama has increased the amount of Pell grants to help students finance their education, this has actually decreased the amount of net financial aid available to students as states give less funding because of the additional federal aid (Bok, 103). Community colleges, while the cheapest option and highest enroller of low-income students, have not fielded the best results. Currently, only 36% of students entering community colleges graduate with an associates degree or graduate from a 4 year university within 6 years (Bok, 103). If community colleges improved their graduation rates, they would be adding a significant chunk to the U.S. educational attainment total.

Inequality in the U.S. Education System

Of course, the challenge of educational attainment starts long before students reach higher education. The literature on secondary education in the United States suggests that eligible college students are dropping out in the education pipeline before they are reaching college age. For example, studies by Orfield & Lee (2005) and Kaplin (2009) underscore the detrimental effects of concentrated poverty and race in quality of education for K-12 students. Orfield & Lee argue that schools have become re-segregated since the landmark *Brown vs. Education Case*. Because socioeconomic status is so deeply linked with race in this country, a re-segregation of schools would mean increased variability in quality of schooling between White students and their Black and Latino counterparts. Their study of the Boston metro shows that

97% of the schools in the area with less than 10% white enrollment faced concentrated poverty while only 1% of schools with less than 10% minority enrollment faced the same challenges. More concerning is the fact that 50% of Latino and African American students are dropping out of high school (Orfield & Lee, 6). Even more than the race gap, the income gap affects academic success for high school students. In Orfield & Lee's study 18.4% less of the students from low-income districts graduated from high school than their wealthier counterparts. Furthermore, a study by the Rathburn, Wes, and Germino (2004) for the National Center for Education Statistics suggests that the education gap starts even before kindergarten, with some students possessing certain skills acquired even before they enter school (Rathbun et.al, 12). Those who possess skills for success in school and those who do not are often delineated by race.

Kaplin (2009) cites findings from a recent report by the Education Trust regarding the number of low-income high school students who choose to enroll in a four-year university. The report finds that low-income students are far less likely to attain a college degree. For example, only about 50% of all college qualified students overall matriculate into a four-year college while 80% of students of qualified students from a wealthier background matriculated. Similarly, more than 20% of the nation's highest achievers from low-income families don't make it to college while the same is true for only 3% of their wealthier counterparts (Kaplin, 23). When all is considered, there is a startling difference between the number of low-income students that obtain bachelor's degrees and their wealthier counterparts. 75% of students from the top income quartile will earn a bachelors degree by age 24 while only 9% of students from low-income families will do so by the same age. Thus, the existing literature shows that income level differentially affects higher education attainment more than other social factors. In addition, the

link between race and income level means that students of colors, especially African Americans and Latinos, are having the hardest time in obtaining a Bachelors degree.

Currently, colleges and universities are legally mandated to report race and ethnic composition of its students, but not the socioeconomic composition. Therefore, it's difficult to quantitatively gauge the diversity of economic backgrounds at elite institutions. However, many studies have used Pell Grants as a proxy for disadvantaged students. Data from the National Postsecondary Student Aid study shows that 90% of all Pell Grant dependent students come from families with incomes below \$41,000 and 75% of all Pell recipients come from families with incomes below \$32,000. In a 2000 study by Donald Heller of the most competitive higher education institutions, the percentage of Pell grant recipients ranged from a low of 0% to a high of 18.4%. This means that the overwhelming majority of college students at elite institutions do not come from low-income backgrounds.

Based on the available literature it seems that there are inefficiencies in the system for education attainment in the United States that prompt a need for federal policy. The low percentage of Pell Grant recipients at elite private universities coupled with the low academic achievement for Black and Latino youth in secondary education across regions suggests a broader trend of cyclical economic inequality that encapsulates all levels of education in the United States including the post-secondary level.

Community Colleges in the United States

Like many other educational institutions, community colleges are governed at the state level. They developed in the 1960s with the primary purpose of helping students gain skills that were important, but did not necessarily need a bachelor's degree, such as police officers, EMTs,

and accounting clerks (Rockefeller Institute of Government, 2). States also use community colleges as the main channel of remedial education for all grade levels. In fact, the number of Associates degree holders grew twice as fast as Bachelor's degree holders between 1970 and 2005, making a strong empirical case for the wide utilization and necessity of community colleges (Mullin and Phillippe, 9). An Associates degree, which is typically a two-year program, allows students to earn academic credit to eventually transfer to a four-year university to finish their Bachelor's degree. In fact, according to a report by the National Student Clearinghouse Research Center 45% of the students that obtained a Bachelor's degree in 2011 had previously enrolled in a two-year institution (National Student Clearinghouse Research Center, 2012). The private and public returns to just an Associates degree without completion of a Bachelor's is also substantial. For holders of Associate degrees, weekly income increases by 7% and unemployment decreases by 2.1% compared to Certificate holders. They also pay 8.5% more taxes than the previous education level (Mullin, Phillippe, 9).

Students also stand to benefit from earning a Certificate, which is a specialized training program with the goal of preparing students for employment in a specific sector rather than more schooling. The rise in median weekly income from earning a Certificate, measured by the results from the "some college" category in the 2010 US Census survey, was 13% compared to a person with only a high school diploma (Mullin and Phillippe, 10). In addition, Certificate holders also saw a 1.7% decrease in unemployment and an 18% increase in taxes paid. Thus there is a strong empirical case that community colleges serve as a valuable partner to four-year universities and employers in educating a student. Based on the increased taxes paid by successive levels of education attainment community colleges also serve as a valuable tool for increasing the government revenue and national economic wellbeing.

While the data points to a high aggregate utilization rate for community colleges, enrollment varies quite dramatically between states. For example, California and Wyoming both have a high of 45% enrollment while Indiana only has 12% enrollment. Tuition also varies greatly between the cheapest and most expensive states; California has an average tuition of \$674 per year in contrast to New Hampshire's \$5,614 (Rockefeller Institute of Government, 9). This relatively large variance in tuition and enrollment suggests that there is room for government policy to equalize the community college system across states. Not surprisingly, California, the state with the lowest tuition has a much higher enrollment than states like New Hampshire and Vermont, who have the highest tuition. It is also important to note that in many states with strong community college systems such as California and Wyoming, there is a history of accountability and commitment to send students onto four-year institutions so enrollment figures may reflect their quality as well as relative affordability (Erisman and Gao, 12). However, even with California removed, for the 10 next largest states, affordability, measured by community college tuition as a percentage of the state's median salary, and enrollment had a relatively strong correlation of 0.65 (Rockefeller Institute of Government, 8). Although tuition is an important determinant of enrollment in the more extreme cases and larger states, it doesn't seem to be the most prominent factor across all states. Researchers found that affordability and enrollment had only a 0.35 correlation when the variables were regressed for all states (Rockefeller Institute of Government, 9).

Thus, literature affirms that tuition plays a limited but not unsubstantial role in determining student enrollment as evidenced by the correlations between tuition and enrollment. The examined differences allow room for government policy to standardize enrollment rates across the nation, but also present challenges in the policy making process. A policy like

America's College Promise would have to address the varied effects of tuition on enrollment across all states.

Human Capital Attainment Effects on Personal and National Economic Wellbeing

In his 1961 seminal paper on human capital investment, economist Theodore Schultz underlines the previously overlooked importance of human capital for economic growth under a capitalist system. Although many economists at the time were resistant to studying human capital over the moral concerns of quantifying human value, Schultz found that much of the large gains in national income could not be explained with just increases in physical capital. His paper echoes Adam Smith in an inclusive definition of capital that encompasses "all of the acquired and useful abilities of all of the inhabitants of a country as a part of capital" (Schultz, 3). In the same vein, he commented that "laborers have become capitalists not from a diffusion of the ownership of corporation stocks, as folklore would have it, but from the acquisition of knowledge and skill that have economic value" (Schultz, 3). On a macroeconomic scale, economists routinely over-estimated the negative impact of wartime losses to a country's economic growth. Having been commissioned by the US government to participate in these studies, Schultz hypothesized that human capital was the missing component. By considering discrepancies in economic theory and empirical phenomena Schultz argued that capital in our economy represents more than reproducible capital such as money and equipment, but includes human beings' ability and skill.

Schultz' study notes multiple real world phenomenon in which education and income are correlated after controlling for other factors. He notes that workers in the South earn on average less than workers in the North and West because they are also on average less educated. Younger

men entering the workforce have a competitive advantage over their fathers' generation because they had on average twelve years of education while the previous generation had six (Schultz, 4). Shultz challenges the prevailing theory that states amassing a greater amount of reproducible capital in relation to its land and labor would use their capital more because of its large supply. However, empirical data at the time refuted the theory showing that capital usage actually declined as incomes increased. The discrepancy between the theory and empirical results implicated the limited scope of only including "reproducible capital" in the theoretical model. A theory that incorporates human capital could better explain the pattern of capital expenditure in relation to changes to income. That is, nations with higher incomes may be reducing capital investments in factories, but increasing their investments in education. Thus, factoring in investments in human capital could explain some of the discrepancy between theory and capital. Schultz estimated that the stock of education in the labor force rose about 8.5 times between 190 and 1956 while the stock of reproducible capital only rose about 4.5 times. Schultz used these figures to draw the conclusion that the relatively rapid gain in human capital stock explains about 36% to 70% of the rise in income to labor. He concluded that the decline in the income capital ratio was a signal that "human capital investment has been increasing relatively not only to conventional capital but also to income" (Schultz, 8).

Schultz early conclusions about the important effects of human capital investment led to the study of human capital as a branch of Economics. In a 1999 survey paper, Blundell et al examines the returns of education for the individual and the economy. Similarly to Schultz he defined human capital to be an investment decision in which individuals give up income for some expected future return. For the UK and other developed western nations, the current empirical research details an average gross rate of return for an additional year of education at

five to ten percent (Blundell et al, 4). In addition to the monetary returns on education, researchers also found that workers with higher levels of education were also more likely to participate in workplace training and other educational opportunities after their formal schooling. Further on-the-job training was found to be highly portable in that workers benefited from the training after leaving their current jobs (Blundell et al, 5). However, researchers noted that the returns on training, especially vocational training, flattened over time leading them to conclude that there are benefits to renewing training throughout an individuals life time. Despite this caveat, the positive rate of return on education and the self-sustaining component to human capital accumulation that suggests that investment in human capital is a valid tool for individual economic growth.

Individual investment in human capital has numerous positive spillover effects for the economy as a whole. Education produces a more employed population, which decreases crime rates and social welfare programs such as unemployment aid, in turn reducing taxpayers' burden. It also improves the democratic process, as citizens are able to make more informed decisions. The literature presents the Growth Accounting Model to justify the importance of education in Economic development. The model states that the relatively high rates of Economic growth cannot be accounted for with the rates of growth seen in the quantity of labor and capital, the traditional inputs in a production function. The "residual" remains unexplained even when reclassified as "technical change" or "efficiency." Thus, Economists conclude that the quality of human capital, more than the just the quantity of labor, plays a large role in Economic growth. In fact, empirical evidence shows that the increased rates of education in the labor force over the past fifty years accounts for about one-third of the overall growth in productivity in the United States (Griliches, 4). Under the Growth Accounting Model there are two main streams of

thought. One group of economists agree that the level of output depends on the level of human capital in the labor force, implying that countries who accumulate higher rates of human capital over time will also have higher rates of output. In this case, human capital attainment is directly linked with Economic development. Another strain of thought states that human capital is the primary source of innovation and increases an individual's ability for technological innovation and to adapt to change. This school of thought claims that education levels indirectly impact output by making technological and organizational changes possible (Blundell et al, 16).

America's College Promise

America's College Promise is President Obama's proposal to make two years of community college education free for qualified Americans. The plan was announced at the January 2015 State of the Union Address and is currently being proposed as part of the Fiscal Year 2016 Federal Budget. As the writing of this paper, Congress has not yet voted on that budget so the implementation of the plan remains to be seen. If implemented, a successful outcome would include the following: increased enrollment in Associate's Degree granting institutions by disadvantaged students that would not have been able to attend sans subsidy, higher quality community colleges as measured by academic courses that fully transfer to a four-year university or vocational programs that grant students' certificates in high-demand fields, increased student responsibility as evidenced by a GPA higher than 2.5 (The White House, Office of the Press Secretary).

President Obama's community college plan follows a number of historic, large-scale government subsidy plans. Most notably, it is being likened by the Obama Administration to the movement for free public secondary education in the pre-Civil war period, when a combination of federal and state level funding led to free high school education in all states by 1900 (Goldin & Katz, 145). The gains in education attainment from free and subsequent mandatory universal secondary education have been heavily researched by economists, especially in Massachusetts and New York where district-level subsidies for schooling since the early 1800's resulted in over 70% school enrollment rate for children aged 5-19. America's College Promise aims to emulate these results and expand on the current 42% college enrollment rate for the nation's 18-24 year old population (National Center for Education Statistics, 2014).

The plan will further impact non-traditional students, who are older, working, need remedial classes, or can only attend part-time who make up substantial percentage of community college students (The White House, Office of the Press Secretary). They serve 3 million full-time students and 4 million part-time students, giving enrollees the flexibility to engage in education on their own schedules (The American Association of Community Colleges, 2014). America's community college system serves the most diverse population of students compared to any other sector of higher education. As testament to their accessibility, enrollment in community colleges increased 16.9% during the Great Recession in 2007 and 2008 (Boggs, 2). Of the African American students that are enrolled in an institution of post-secondary education 45% attend a community college. That number is 53% for Latino/a students, 52% for Native American students and 45% for Asian/Pacific Islander students. In addition to their racial diversity, community colleges serve 47% of first-generation students that are enrolled in post-secondary education (National Commission on Community Colleges). Currently, community colleges are 50% White, 14% Black, and 21% Latino/a (American Association of Community Colleges, 2014). Blacks and Latinos/as are represented on par with their share of the aggregate U.S. population, thus demonstrating the established role that community colleges already play for students that are traditionally underrepresented in other sectors of higher education. Therefore, a policy targeting an increase in community college enrollment, graduation, and quality would indeed reach an economically disadvantaged demographic that needs human capital investment from the government.

The policy builds on America's relatively expansive community college system started as a movement in the early 1900's with the core idea of democratizing education. The first community college, Joliet Junior College, formed in 1901 as a joint effort between William

Harper, the president of the University of Chicago and J. Stanley Brown, the principal of Joliet High School, in order to expand education opportunities for local students. Community colleges were institutionalized when the Truman Commission changed the paradigm of post-secondary education from “merely being an instrument for producing an intellectual elite” to “the means by which every citizen, youth, and adult is enabled and encouraged to pursue higher learning” (President’s Commission, 1947). Historically, community colleges changed the idea that students had to “go away” for college and provided an accessible place of higher learning right in their hometowns. In fact, today 90% of the U.S. population lives a short commute from at least one community college. The regional nature of community colleges and the proximity of their students position them well to serve the local community. For example, Napa Valley College has an established viticulture program while community colleges on the gulf coast have developed petro-chemical technician programs (Boggs, 2).

With roots in the 20th century, America’s College Promise is based on a similar plan from Tennessee called the Tennessee Promise that offers a subsidy for a partial sum of community college tuition. Expanding of the Tennessee Promise, Obama’s plan seeks to inject \$1.36 billion to completely subsidize community college tuition to those qualified (Department of Education FY 16 Budget Request, S-149). The plan could potentially help up to 9 million community college students save an average of \$3,800 in tuition costs annually. Any student with an adjusted gross income of below \$200,000 would be eligible for the tuition waiver. The \$1.36 billion will provide about three quarters of the funding needed while individual states will provide the remaining one fourth. The fiscal partnership will be based on state accountability to criteria that include student enrollment rates, program completion, and transfer rates to four-year universities. Grant money left over from providing tuition subsidies will be invested in

increasing community college quality (i.e.: increasing program completion, graduation rates, and instruction quality), increasing affordability of four-year public universities, improving college readiness, and outreach and early intervention programs. Currently, the Administration has set a timeline of 8 years to implement the plan in all states (Department of Education FY 16 Budget Request, S-150).

This policy comes at a time of declining community college enrollment and poor program completion rates. Between Fall 2012 and Fall 2013 there was a 3% decline nationwide in community college enrollment, with a more marked decrease for students over 24 years old. The National Student Clearinghouse (NSC) reports that 40% of community college students complete their program within six years (Juszkiewicz, 3). When benchmarked against a 59% six-year graduation rate for full-time students at an accredited four-year university, the completion rate for community colleges falls short (National Center for Education Statistics). According to the American Association of Community Colleges, currently 58% of those attending receive some type of aid with state and federal grants, aid, and loans making up 69% of aid received. Community colleges serve a student demographic with 33% Pell Grant recipient students and 16% of students on Federal Work Study. It is worthwhile to note that Pell Grants are only a proxy for low-income students rather than a perfect metric because they capture students at the very bottom of the income bracket (below \$20,000 annually). The exact economic diversity of community colleges is uncertain. However, with an average \$3,347 annual tuition for public community colleges, it is almost three times cheaper than attending a public four-year institution (\$9,139). Therefore, it is not far-fetched to make the leap that community colleges are much more likely to enroll on average a lower income population. At least on the surface, Obama's

American Promise targets a population that is largely disadvantaged in the education attainment game.

Much like the movement for free universal secondary education that came before it, Obama's plan for free public community college education aims to increase the human capital of America's labor force by increasing enrollment, completion, and transfer rates in community colleges. It has been estimated that by 2020, 35% of jobs will require a bachelor's degree and 30% will require some college compared to the current 28% of jobs that require some kind of post-secondary education for entry (Bureau of Labor Statistics). These statistics suggest that the community college plan comes at a time when Americans need government investment in post-secondary education to help them enroll and finish degree-granting programs.

Theoretical Assessment

Supply Side: Policy effects on Supplier Quality

Broadly, the actors the market for higher education are the community colleges and universities who are non-profit suppliers of education and consumers, the students (and to some extent their parents). However, there are several economic distinctions in the market for higher education that makes it unique from regular markets of consumer goods. These economic distinctions can be used to understand some of the underlying assumptions of America's College Promise; especially in its role to incentivize supply side quality increases in community college educations.

One important difference between suppliers of higher education and suppliers of other consumer goods is the non-profit nature of educational institutions. Economically and legally, non-profit does not mean that colleges' revenues does not exceed costs, but rather that they face a "non-distribution" constraint. That is, unlike corporations, non-profits do not distribute their revenues to outside shareholders or beneficiaries. They essentially own themselves (Winston, 17). Thus, economists argue that they do not fully follow the profit-maximizing behavior of a for-profit firm. They must ensure that in the long-term revenues are larger than profits because they are budget constrained, not because the end-goal is to achieve the largest profits to distribute to shareholders. Institutions of higher education more close resemble "prestige maximizing" entities because their goal is the "pursuit of educational excellence" rather than the largest net income (Winston, 15).

A non-profit's adherence to ideological goals rather than profit goals is economically significant in the market for higher education because it reduces the risk to consumers of an opportunistic supplier. Information is relatively asymmetric in the market for higher education in

that suppliers will always have more knowledge of the quality of their product than the consumer, especially in the case of first-generation or disadvantaged students. Even in the case of students from wealthier families with parents who have gone to college, the returns on an investment in human capital cannot be fully observed until the individual goes on into the job market years later. And even then it is different from investing in other things such as the stock market because returns cannot be measured as capital gains or dividends. Economist Gordon Winston (1999) describes the nature of transactions in the higher education market, “education is typically a one-shot investment expenditure, a unique rather than a repetitive purchase, more like buying a cancer cure than groceries” (Winston, 15).

Therefore, the market for higher education has come to resemble what economists dub a “trust market” in which the suppliers’ utility is more than just a function of profit. This aspect of the non-profit market is key to minimizing the chances that suppliers will take advantage of buyers who are not fully informed (Winston, 16). Recall from the Policy section that America’s College Promise makes demands on community colleges to increase quality standards of classroom instruction and adopt new programs that help students earn their degrees faster, in exchange for the federal subsidy. Theoretically, for a profit-maximizing supplier of a typical consumer good, the incentive would only work insofar that the amount of the government subsidy is equal to or exceeds the increased costs that the firm would incur to increase quality. However, from the above economic assessment of non-profit firm behavior, the argument can be made that incentives from America’s College Promise will yield quality improvements beyond their dollar amount because community colleges derive utility from helping their students succeed.

Demand Side: Education Subsidy Effects on Enrollment

The demand side results of Obama's American College Promise can be modeled with microeconomic theory. The plan will offer a subsidy to colleges to pay for students' tuition so primarily takes the form of a demand subsidy although it is technically given to the supplier. Because the plan is a grant that will be replacing tuition that the colleges already receive as part of their revenue stream, it will not play a role in decreasing costs on the supply side. Under the assumptions of a perfectly competitive market, the downward sloping demand curve will meet the upward sloping supply curve at the equilibrium price and quantity. The plan aims to shift the demand curve out to increase the equilibrium quantity. Specifically, the policy aims to shift out the demand curve for groups that are not already enrolled, primarily mid to lower-income students. Assuming, that demand for a community college education is price elastic, the decreased net price for consumers due to subsidy, will increase the equilibrium of quantity demanded. In the ideal case if the demand for a community college education has price elasticity greater than one, a one percent change in price will result in an even greater percentage change in quantity demanded. Thus, America's College Promise has the potential to positively impact demand for a community college education.

The policy's affect on quantity demanded will also depend on the shape of the supply curve. If community colleges are not at capacity and the supply curve is relatively elastic, there will be room to accommodate a quantity demanded increase. Conversely, if the supply curve is perfectly inelastic, a change in price will have no effect on the quantity demanded. Empirically, the capacity of community colleges varies across states so it is difficult to sum up the shape of the aggregate supply curve. In states such as California, budget cuts and the popularity of community colleges as a gateway into four-year universities have resulted in decreased supply

capacities in recent years. In the Fall of 2010, 140,00 students were unable to register for classes due to budget cuts following the Great Recession (California Community Colleges, 2010). The supply curve in California's case would be relatively inelastic and a policy aimed at shifting the demand curve out would have no effect on equilibrium quantity. However, in states such as Indiana, where enrollment rate for community colleges is 14% of the college age population, there is room for a policy like America's College Promise to make an impact on quantity demanded. Thus these variations are worth examining to evaluate the overall potential benefits of the policy.

A 1999 study by Donald Heller on the effect of education subsidies by state takes into account these persisting state differences and sheds light on the disaggregated effect of education subsidies on enrollment. In his study of the effects of tuition and state financial aid on public college enrollment, Heller uses a fixed effects model to estimate the enrollment impact of aid by state. He uses data for public college enrollment including community colleges from the Integrated Postsecondary Education Data System (IPEDS) gathered by the National Center for Education Statistics (1998). In his model the dependent variable is enrollment rate in a certain state measured by the number of students enrollment in post-secondary education out of all 18 to 24 year population at a certain time (t). His independent variables are tuition prices in each state at time (t) and state need-based grant expenditures per 18 to 24 year old population in each state at a given time (t).

He controls for confounding variables resulting from differences in conditions between states by adding unemployment rate, state-fixed effects, year effects, and a parameter for the strength of the influence of the previous period. The state-fixed effects and year effects control for differences in regions by allowing different intercepts for each state away from the mean

intercept (i.e.: the Northeast has a longer tradition and greater supply of private colleges than the rest of the United States so they are likely to have less public college attendance, but not necessarily because of state financial aid policies).

For his model, changes in enrollment rates are expressed in percentage points while tuition is expressed in thousands of dollars. His findings for the effects of state grants and increases in college tuition for all races are significant at the .05 p-level (Heller, Table 4). In his comprehensive study of all public colleges in the United States as represented by IPEDS data, he finds that for all races a \$1,000 increase in community college prices is correlated with a 2.08% drop in enrollment rates. This comprehensive model suggests that there is room for a grant based policy like America's College Promise, but that policy-makers would have to take into account the differential impacts on states with varying capacities to absorb the outward demand shift.

Disaggregated Benefits of a Community College Education

As established in the literature review section, human capital investment has marked private and social benefits. More educated workers have lower rates of unemployment which translates to cost savings from paying welfare and unemployment compensation for the government. Cost of production for firms could also potentially decrease because of increased productivity from a higher skilled labor force. In addition to the cost savings, education helps improve the quality of the political process (McConnell et. al, 100). A more educated population may make better-informed choices that benefit society at large. Lastly, the benefits of education are transmitted to the next generation. Well-educated parents may be more likely to provide a healthy home environment for their children and encourage the next generation to also pursue an education (McConnell et. al, 100).

The government stands to gain a wider tax base for the government, which would make the initial investment a worthy one. Research shows that holders of a certificate pay 13% more taxes than holders of only a high school diploma. Holders of an Associate’s degree stand to pay 7% more taxes than Certificate earners while holders of a Bachelors degree pay 47% more taxes than the education level below. The chart below details the fiscal benefits of investing in higher education (Mullin & Phillippe, 8).

Highest Level of Attainment	Weekly Earnings (2011)		Estimated Annual Taxes Paid (2011)		Unemployment Rate (2011)
	Median	% increase from prior level	Amount	% increase from prior level	
Less than High School	\$451		\$4,679		14.10%
High School or Equivalent	\$638	41%	\$7,330	54%	9.40%
Certificate/Some College	\$719	13%	\$8,949	18%	8.70%
Associate's Degree	\$768	7%	\$9,435	8%	6.80%
Bachelor's Degree	\$1,053	37%	\$13,527	45%	4.90%

For individuals, a community college education includes many sub-components that America’s College Promise lumps together under the umbrella goal of “more education attainment.” Therefore, to sufficiently evaluate the potential benefits of the policy, it is worth examining the disaggregated returns to earning a vocational Associate’s Degree, an academic Associate’s Degree, a Certificate, or going on to earn a four-year Bachelor’s degree, all of which are categories of education offered by community colleges. In addition to the returns of earning a degree, it is also worth examining the costs of the failure to complete one of the above programs, a significant risk that the policy’s focus on enrollment does not sufficiently address.

In a comprehensive study of post-secondary vocational education and the sub-baccalaureate labor market, Berkeley economist W. Norton Grubb (1992) models the returns to the degrees of educational attainment under the various degrees of education attainment under “some college” census category. His study uses data from the fifth follow-up of the National

Longitudinal Study of the Class of 1972 (NLSC-72), one of the most comprehensive archives ever compiled about a single generation of Americans (National Center for Education Statistics). Grubb uses data from the fifth follow-up, when the students are 32 years old rather than data directly after post-secondary graduation to control for the relative instability of youth labor markets and to more accurately model the long-term wage effects of the varying degrees of educational attainment (Grubb, 226). In this way, his study also accounts for the lagged indirect benefits of degree attainment such as on-the-job training, which is only available after a student graduates and is able to secure a job.

Grubb estimates two linear form models with hourly wage rate and total wages earned from salaries and self-employment income as dependent variables. He uses dummy variables to measure which category of “some college” they fall under as independent variables. Unlike previous studies, the model also includes the binary variable “complete or incomplete” to measure predict the effect of failure to complete a program on wages. The study also controls for various confounding variables such as ability, measured by high school GPA and scores on aptitude tests, as well as parental income level, in various iterations of the model.

Grubb further disaggregates the results by gender and finds that for both men and women Associates degree increases hourly wages and total earnings, but by significantly less than a Bachelor’s degree. Unexpectedly, he finds that for men, a vocational certificate does not have a statistically significant impact on either hourly wage or total earning. This seems counterintuitive, but is consistent with the limitations of such a specific education. Vocational certificate earners must find jobs in the sector that they are specifically trained in, which reduces the average increase in wage across sectors because of graduates who face a limited amount of job sector opportunities. Most importantly, the Grubb study finds that for non-completers, “a

heterogeneous group of those who enrolled in post-secondary education but did not complete and credentials,” did not earn more than high school graduates (Grubb, 239). Thus, the enrollment-focused policy faces the risk of lower returns for students than predicted because of the net zero return for non-completers. These findings suggest that America’s College Promise would better serve its target population by focusing on quality over enrollment. Based on the relatively high returns to a four-year degree and the previously established “prestige maximizing” behavior of education institutions, I would argue that the policy would contribute most positively by allocating resources to increase four-year university transfer rates for disadvantaged students already enrolled.

Analogous Program: Universal Secondary Education

While the Economic theory predicts that Obama's America's Promise policy will increase the equilibrium quantity of a community college education for disadvantaged populations, the empirical results may be different from what theory predicts. As outlined in the previous section, there are many factors at play that cannot be encompassed in an economic model. To provide a prediction more grounded in reality I will empirically examine two analogous educational subsidy programs. These programs have similar components to the Obama program and will shed light on how government subsidies to education play out in the real world.

The first empirical case I will examine is the movement for free universal high school education at the beginning of the 20th century. The results of this movement could shed light on the possible success or failure of America's Promise because of the plans' similar scope and nature. In fact, America's promise has been marketed as an extension of America's universal high school education, designed to emulate the results of, "a movement that made high school widely available [and] helped lead to rapid growth in the education and skills training of Americans" (The White House Office of the Press Secretary).

Similar to America's Promise, the movement for universal high school education started at the state level with the state government in Massachusetts leading the charge. The United States recognized early on that their wealth as a nation would depend on human capital rather than physical capital. Thus there was a clear shift between the heavy investment in physical capital during the Industrial Revolution and the early 1900's where public policy targeted increasing the educational options for children regardless of station (Goldin & Katz, 11). America's economic leadership during the 20th century speaks to the benefits of the shift to large

investments in human capital. For example, by the 20th century the United States had the world's most educated population and started its reign as the world's largest economy (The White House). Moreover, public education institutions in the US rejected the idea of testing for ability or selection of the best and brightest. Policymakers believed that such a process would indirectly privilege children of education parents. In fact, the US education system was criticized throughout Europe for its allocation of public resources to everyone rather than just the "most deserving" (Goldin & Katz, 12). The clear rejection of ability based "meritocracy" as a means test for resource allocation is dissimilar to both Georgia HOPE plan, a merit-based scholarship discussed in the next section, and Obama's new plan. Unlike the GPA requirements of the two plans, universal high school education is not merit-based and this distinction will be important to note when comparing the programs.

Economists Goldin and Katz examined the effects of universal education to successive generations of native-born Americans to determine the success of the movement. They took data from the educational attainment of labor force participants at age 35, when the large majority of people had completed their formal schooling. From 1876 to 1951 native-born Americans were able to gain a total of 6.2 years in education. For example, someone born in 1951 was on average 6.2 years more educated than their 1876 counterpart (Goldin & Katz, 23). This means that Americans' education attainment increased at a rate of 0.82 years per decade. By the 1950's, the United States was able to enroll more than 70% of its youth in secondary schools while Europe lagged behind at below 20 percent for youth enrollment in its secondary schools.

Overall, in the one hundred year period between 1895 and 1975, education attainment for native-born Americans increased 5.27 years. Goldin and Katz found increased time in high school was responsible for 50% of the gains overall and 60% of the gains between 1895 and

1910. Similar to the Georgia Hope plan, educational gains for the African American population were far greater than for the White population. At the start of the century White students spent nearly twice as long as their Black counterparts in schools. The initial gap may have even been understated because of the quality of schooling varied widely between segregated schools. By the 1970s the time spent in school between Blacks and Whites had converged to about 0.8 years (Goldin & Katz, 26).

The researchers also looked at the differences of number of high schools across geographical areas to understand what factors affected individual choices to enroll in school and public choices to fund investment in education. Researchers found that at the time of the movement for secondary education, there were more than 130,000 school districts in the United States and state and federal funding to these school districts did not exceed 16% (Goldin and Katz, 719). Although, community colleges follow a different financing structure (an increasing proportion of its revenue is from the federal and state government) this is important because the structure of secondary education in the United States at the time of the paradigm shifted strongly resembles the local nature of community colleges today. As profiled in my literature review, community colleges are in a unique position to offer a community based education to its immediate geographical area. In fact that is what distinguishes it from four-year universities.

Goldin and Katz give a valuable framework for assessing the individual and public demand for community colleges by their work on human and social capital. In their human capital framework, an individual's choice get a high school education is simply a function of how much the benefits outweigh the costs. That is a student will choose to attend if $(E_2 / W_2 - 1) /$

$(1 + r) > (C + W_1) / W_2$ ¹The left hand of the question represents the returns to education, which is a function of the high school wage premium (E_2 / W_2), and the discount rate (r) while the right hand side represents the costs to education, which is a function of the direct costs, (C/W_2) and opportunity cost, (W_1 / W_2) of foregoing work to pursue an education. The simple models shows that demand for a high school education positively correlated with the high school wage premium and negatively correlated the costs to education and the discount rate. Their model implies that demand for a high school education is a function of family wealth and subject to some kind of income effect. That is, changes in quantity demanded will be affected by changes in the family income (Goldin and Katz, 694).

Goldin and Katz' model to predict individual choice in pursuing a high school education can be applied to assess demand for community colleges to address the question of whether price is a key factor for increasing low-income enrollment. Empirically, the data shows that the wage premium for higher level of education is at an all time high (college graduates will earn on average \$1 million more over a life time), which indicates strong returns for students who can use community colleges as a jumping off point to a four-year degree. The wage premium for an Associates degree while less than a four-year degree is not insignificant.² However, for lower-income families, we can assume that the discount rate (r) is relatively high because they face larger capital constraints. That is they face the challenge of borrowing to finance an education and at a higher interest rate. This indicates that some of their gains from the education wage premium would be offset by the higher discount rate. Thus, the right hand of the equation, $(C + W_1) / W_2$, representing cost, must be sufficiently decreased by policy to satisfy the condition

¹ E_2 = Cost of high school education, W_2 = Wages earned after graduation, r = Discount rate, W_1 = wages earned without a high school degree

² Disaggregated wage premiums by degree completed is discussed in detail in the Grubbs (1999) study in the theoretical assessment section

under which an individual will pursue an education. America's College Promise tackles the direct costs by making (C/W_2) essentially 0, leaving students with only the opportunity costs of pursuing an education. Because of the strength of the wage premium and the pronounced income effect that affects demand for education, it is reasonable to conclude that subsidizing the cost of attendance will attract more low-income students to community colleges.

After the initial rapid improvement in educational attainment, the rates for the last quarter of the 20th century slowed down notably. For example, a child born in 1975 had only a 0.5-year increase from their parents born in 1951 compared to the 2.18-year gain for the previous generation. Although there was a notable slowdown in education gains for the last quarter of the 20th century, universal secondary education seems to have had an overwhelmingly positive effect on educational attainment. Thus, the empirical results from universal high school education suggests that a similar structure in Obama's community college plan would positively affect attainment rates for students that would not have otherwise attended college.

Analogous Program: Georgia HOPE Scholarships and Grants

The success of the movement for universal secondary school eventually led to a slowdown in terms of generational gains in education. Eventually, most students that could be enrolled in high schools were already enrolled shifting the threshold for additional beneficiaries. Thus, my second example is a more modern comparison. The Georgia Helping Outstanding Pupils Educationally (HOPE) serves as an empirical analogue to what America's promise can do for higher education, the natural next step to a high school education.

The Georgia Helping Outstanding Pupils Educationally (HOPE) program was founded in 1993 in order to help academically successful students in Georgia access a post-secondary education (GACollege411). The background to the program's founding is very similar to that of America's Promise. In 1993 Georgia, like much of the South, lagged behind the rest of the country in terms of college enrollment for its college aged students. The plan was enacted by governor Zell Miller to remedy Georgia's education lag and provide an incentive for Georgia's talented students to remain in the state. The plan stipulates that recipients of HOPE money must be enrolled in a college, university, or technical college in Georgia. Thus, this provides a contained case study on the benefits of government subsidy programs, specifically one that is merit based. In the same way that America's College Promise aims to increase human capital attainment nationwide, the Georgia plan aims to increase human capital quality in the state.

The program is separated into two parts, the HOPE Scholarship and the HOPE Grant. The Scholarship primarily provides aid for students to attend four-year colleges and universities while the Grant financially supports students to enroll in technical schools, community colleges, and certificate programs in Georgia. The Scholarship is merit-based while the grant is not (Cornwell & Mustard, 79). Thus, I will focus on the empirical evidence from the HOPE

Scholarship because of its merit-based nature and proportionally larger share of state funding. Before the HOPE program, students in Georgia had only the option of federal need-based aid such as Pell Grants or Stafford Loans. In contrast, the HOPE Scholarship is a merit-based award for students that meet the following criteria: graduation from an accredited public, private, or home school program, and a 3.0 GPA in designated HOPE core courses (Cornwell et al, 760). To continue benefitting from the Scholarship students need to maintain a 3.0 average throughout their post-secondary studies. This is almost exactly like American's promise, wherein to retain eligibility for the subsidy students must maintain a 2.5 GPA. There has been no income restriction for the HOPE scholarship since 1995, making it comparable to America's Promise's high \$200,000 income restriction. Thus both programs encompass similar demographics, but it is important to note that the higher GPA cut-off for the Georgia HOPE program may be the source of pronounced differences in the students the programs serve as income and academic performance are highly correlated.

The HOPE scholarship covers in-state tuition, fees, and a \$150 book allowance for students that attend a public college or university in Georgia (Chen, 10). For students who chose to attend private universities in Georgia, the scholarship will cover \$4,045, a similar amount to what the scholarship would cover for public school students. Since its founding in 1993, the HOPE program has provided \$3 billion in tuition for more than 850,000 students. In addition to its impact in Georgia, the plan has also influenced a wide range of other similar state plans to increase college enrollment.

A 2006 study on the enrollment outcomes of the Georgia HOPE plan by labor economists Cornwell et al. sheds light on the program's benefits. Researchers used data from the National Center for Education statistics from 1988-1997 to compare Georgia's college enrollment after

the HOPE program treatment with a control groups of the 14 Southern Regional Education Board (SREB) states and the 5 states that border Georgia where there are no programs similar to HOPE to analyze how well the program was at sending students onto higher education. This comparison captures the number of students that go onto higher education that would not have done so *without* the HOPE treatment. Between 1993-1999 the program successfully awarded 721,246 scholarships and grants. Scholarships and grants were evenly split with 49.4% scholarships for degree granting institutions and 50.6% for community colleges and technical schools (Cornwell et al, 765).

The study finds that between 1993-1997, Georgia enrolled 5.9% more students than the SREB aggregate. This means that HOPE was responsible for adding 2,889 new freshmen per year to Georgia colleges (Cornwell et al, 763). Cornwell et al. also found that the increased enrollment was smaller for White students than for Black students. This difference was explained by the large presence of Historically Black Colleges and Universities (HBCU) in Georgia. In addition to the large number of HBCU's Georgia has the fourth largest Black population in the United States (Cornwell et al, 783). However, the relative success for Black enrollment may still point to the program's success in enrolling minority students because the White population still outnumbered Blacks in Georgia. At first glance, the research points to a largely positive outcome for the HOPE program. However, when the results are disaggregated the researchers found that the largest effect was on 4-year public and private schools with a 9% increase for public and a 13% enrollment increase for private schools. The estimated percentage increase for 2-year programs is "small, negative, and statistically insignificant" (Cornwell et al, 783).

Another study on the effects of the HOPE program on minority and low-income students expands on this issue. Data shows that for the class of 2000, 6,638 students or 33% of high

school students in Georgia do not meet the HOPE Scholarship GPA cutoff and are therefore not eligible for aid to attend four-year degree granting institutions. Of those ineligible students, 44.4% are Black while 29.7% are White and 24.2% are other races (Cornwell & Mustard, 93). These results are not surprising as multiple studies have found that family income and academic achievement to be positively correlated (and race and income are also heavily correlated in the U.S.). The researchers found that a one percent increase in the number of Black students in a high school was correlated with a 0.18 percent decrease in HOPE eligible students. This negative correlation was statistically significant at the 0.01 alpha-level. The paper found no statistically significant effects for an increase in Latino or Native American students. As expected when control variables were added such as quality of teachers, quality of peers, and number of families on free or reduced lunches race was not a statistically significant indicator of HOPE eligibility. That is to say, quality of schools and peers and family background are the most important determinates of eligibility for the merit scholarship. America's Promise, like Georgia HOPE, runs the risk of excluding the very people that it is aimed at because of its merit-based nature. On the other hand, researchers found that eligibility for the scholarship jumped from 48% to almost 65% in the six-year period between 1993 and 1999 (Cornwell & Mustard). This would suggest that the merit component has also helped incentivize higher academic achievement, which is also a possibility for America's Promise.

Policy Evaluation and Recommendations

America's College Promise essentially has three components that can be broken down by the goal that each stipulation of the policy aims to achieve: increasing enrollment for disadvantaged students, increasing community college quality, and increasing education attainment in the United States. Together, the three pieces aim to hold students, the colleges, and individual states accountable for community college success.

The first piece aims to increase the number of students enrolled and the program completion rate for community colleges through government aid while holding students accountable for their own success. Predictions from a demand-side subsidy model and Heller's (1999) model of the role of aid in college enrollment makes a compelling economic case for government subsidies to help disadvantaged students finance an education. Tuition affordability, although not the only factor, is significant in a student's decision to pursue post-secondary education. Goldin and Katz' (2000) model for students' reaction to capital constraints further supports the role of a subsidy like America's College Promise. Additionally, human capital gains from investment in education and the wage benefits of an Associates degree, explored in the literature review and theoretical assessment, make a compelling case for government intervention at the community college level.

While the economic case for the subsidy component of America's College Promise is strong, I would argue that the empirical realities mandate that the policy place an even greater focus on community college quality than simply enrollment. The number of community college students graduating with a degree, certificate or going on to enroll in a 4-year university within 6 years is relatively low, at 40% (Juszkiewicz, 3). Grubbs (1999) study finds that for non-completers, the wage benefit of a community college education is essentially 0. Thus, students

will only benefit from enrollment in community college if they go on to complete a degree. The same study finds that they stand to benefit even more if they go on to enroll in a four-year university. Thus, a piece holding students accountable for the quality of their own education is crucial to the success of the policy. However, the strict 2.5 GPA, while emphasizing quality, may limit the enrollment effects of the plan as evidenced by the analogous empirical cases of universal high school education and Georgia HOPE.

Proponents of universal secondary schooling were adamant that their system would be democratize education and refused entrance requirements such as IQ tests. However, there are several “merit” factors that would have impacted successful entrance into high school in the late 19th century that are worth examining. First, a student would have had to complete middle school (up to grade 8) for successful entrance to a high school, which would have been difficult in the early 19th century when compared to today’s standards. Data from the National Center for Education Statistics (NCES) shows that for the 1869- 1870 school year the average elementary school attendance rate was 59% compared to 90% in the 1979-1980 school year. That is elementary school students in 1870 attended on average around 59% of instruction days compared to an average of 90% in 1980. However upon closer examination, this factor would not have had as much of an impact on students past the 1920’s, by which all states had adopted compulsory education laws. Thus, this merit barrier would not have figured prominently into gains in education attainment that we see from universal secondary education and is not analogous with the merit requirement for free community college tuition.

An indirect “merit” threshold that high school students face is the correlation of high school quality with residents’ income (details about inequality in the U.S. education system can be found in the Literature Review Section). That is to say, a student’s level of access to a quality

education is limited by the unwritten “merit” of their family’s income. This type of “merit” cut-off, more so than the previous example, is closely analogous to the 2.5 GPA cut-off stipulated by America’s Promise. As illustrated in the Literature Review, wealthier students with more access to educational resources are more likely to do well in school. Thus, empirical studies in the literature review show that the GPA cut off in America’s College Promise may prove detrimental to enrollment from low-income populations who are less likely to be academically successful.

This empirical result is further reinforced in the studies on the analogous Georgia HOPE scholarship in the previous section. For example, a recent article by the Wall Street Journal found that seven zip codes in Georgia, with median incomes of \$100,000 above produced 10% of all Zell Miller scholarships, a type of merit scholarship within the Georgia HOPE umbrella that offers full tuition for its awardees, while representing only 3% of college age students (Riley, 2014). Additionally, the same article found that students coming from families from zip codes with a median income above \$50,000 were almost twice as likely to qualify for HOPE scholarships (Levitz and Thurm, 2012). This could prove problematic for America’s College Promise as the policy has a \$200,000 income cap, which would mean that middle class citizens could stand to benefit more than low-income individuals. Thus, the policy may not be reaching the sector of the population that would stand to benefit from the government subsidy the most. Therefore, the policy must find a way to reconcile its enrollment goals while still emphasizing the quality control piece from its merit cut off. Based on extensive empirical evidence for the detrimental effects of strictly merit-based aid I would argue that the key to quality improvement to ensure higher completion rates is in the next piece, incentivizing community college responsibility for quality.

The second piece of America's College Promise aims to increase community college accountability in providing a quality education for its students. Namely, the plan stipulates that community colleges must provide academic programs that fully transfer to four-year universities or offer occupational training programs for in demand jobs that will secure student employment after graduation with an Associates degree for a certificate. The college must also adopt "promising and evidenced-based institutional reforms" to ensure student success while enrolled. This piece is crucial in the policy's success because it holds community colleges accountable for helping students meet the merit requirements of their scholarships. It will also be instrumental in controlling for the large variation in community college quality across the United States. For example, the current transfer rate to four-year institutions for community colleges is an average of 40% with a standard deviation of 13%. Transfer rates range from a low of 5% in Hickory, North Carolina to 93% in West Covina, California.

Obama's plan cites Accelerated Study in Associate Programs (ASAP) from the City University of New York (CUNY) as a successful example of "promising and evidenced-based institutional reforms." The program is available to students pursuing an Associates degree from any of the nine CUNY colleges and is designed to help at least 50% of students graduate with an Associates degree within three years (CUNY). Currently, the program has a 48% graduation rate within three years, three times the graduation rate of comparison urban community colleges (CUNY). ASAP provides support for students in the program through smaller class sizes, a cohort of peers, bus passes, textbook subsidies, and personalized career development services. If America's College Promise can successfully incentivize colleges to adopt support programs like ASAP for disadvantaged students, the plan may be able to neutralize some of the drawbacks

from the merit cut-off by holding community colleges accountable for helping students maintain their scholarships.

Recall from the theoretical assessment that the structure of the market for higher education closely resembles a “trust” market. The non-profit suppliers are not exclusively driven by profit but also by providing an excellent education to their students. This has promising implications that incentives to community colleges may return more than the just the dollar amount of the investment.

The last piece of America’s College Promise aims to hold states responsible for the success of community colleges. States are expected to contribute around a quarter of the funding necessary to supply full tuition for all students. The purpose of this is to create buy-in for states so that they “commit to continue existing investments in higher education; coordinate high schools, community colleges, and four-year institutions to reduce the need for remediation and repeated courses; and allocate a significant portion of funding based on performance, not enrollment alone” (The White House, Office of the Press Secretary).

From the success of state and local involvement in the movement for universal high school education, this portion of the policy will be crucial to its success in tailoring programs to local needs. Thus, it is fitting that states and localities take responsibility for the policy’s success. As in the case of universal high school education, states such as California, Iowa, Kansas, and Nebraska, were able to eventually lead in universal high school education because they were agricultural areas “thickly dotted with small towns and villages” where the movement found the most support and where there were a large number of school districts compared to the population (Goldin & Katz, 701). This speaks to the importance of regional buy-in and the economic sustainability of investing in local resources that return to the community. The importance of

investing the local economy is also evidenced in the Georgia HOPE program, in which the scholarship was able to help academically successful students stay in in Georgia. As illustrated in both cases, success for local education institutes is highly dependent on local buy-in, which this policy correctly tries to incentivize.

Conclusion

America's College Promise is promising. The literature and examples from Georgia HOPE and universal high school education establishes a compelling role for federal educational subsidies. However, the plan is currently enrollment focused, which is supported by a strong economic case, but weakened by the empirical realities. The capacity for community colleges to absorb the projected demand increase and the low program completion rates will decrease the net positive effect of the tuition subsidy. Overall, the most promising aspect of the plan is its proposal to incentivize community colleges to adopt programs like CUNY's ASAP, to increase program completion rates. Quality improvements in the form of better classroom experiences and student support services will be key in closing the education attainment gap rather than enrollment. Lastly, although the literature supports community colleges as a useful channel for decreasing the education gap in America, the policy would make the most impact by focusing on supporting transfers to four-year universities, where they stand to gain the most by eventually earning a Bachelor's degree.

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