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**Attaining the American Dream:
Racial Differences in the Effects of Pell Grants on
Students' Persistence and Educational Outcomes**

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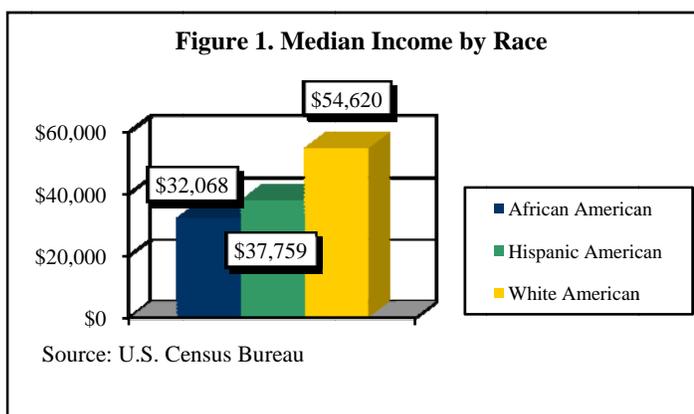
**Attaining the American Dream: Racial Differences in the Effects of Pell Grants
on Students' Persistence and Educational Outcomes**

Lamont A. Flowers, Ph.D.

INTRODUCTION

Expanding access to higher education is one of our nation's top priorities. Accordingly, legislators and policymakers are attempting to balance budgets while continuing to support parents in their efforts to send their children to college. However, due to impending federal pronouncements and fiscal negotiations pertaining to student financial aid, parents, students, and campus administrators must develop creative ways to ensure barriers to a college education are mitigated, especially among low-income and racially diverse populations. Moreover, due to historical and contemporary social and economic conditions, many underrepresented and low-income students face challenges in terms of financing their college education (Steinberg, Piraino, & Haveman, 2009; Yeager, Nelson, Potter, Weidman, & Zullo, 2001).

In light of today's economic climate, much of the country's attention is focused on the state of financial markets and the creation of jobs. As recent protests against Wall Street suggest, these issues are extremely contentious and may require comprehensive strategies to address the underlying conditions that lead to wealth disparities. While economic issues affect all Americans, African Americans and Hispanic Americans are severely impacted by the concomitant effects of low wages and high unemployment. Recent data from the U.S. Census Bureau (DeNavas-Walt, Proctor, & Smith, 2011) show that African Americans and Hispanic Americans earned substantially less than White Americans in 2010. As illustrated in Figure 1, the median income for African Americans was approximately \$22,000 less than that of White Americans. These income distributions clearly show that income inequalities are prominent in American society. They also suggest that policies which seek to address these disparities are profoundly needed.



Racial income inequality in America is quite extensive. Comparing the ratio of African American and Hispanic American median incomes to that of White Americans reveals that African Americans and Hispanic Americans earn 59% and 69%, respectively, of the median income of White Americans. While these ratios raise an important issue about race and income, they only tell half of the story. Data from Figure 2, which provides

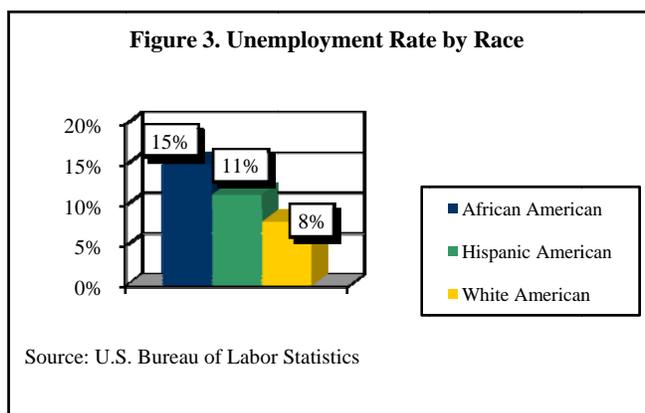
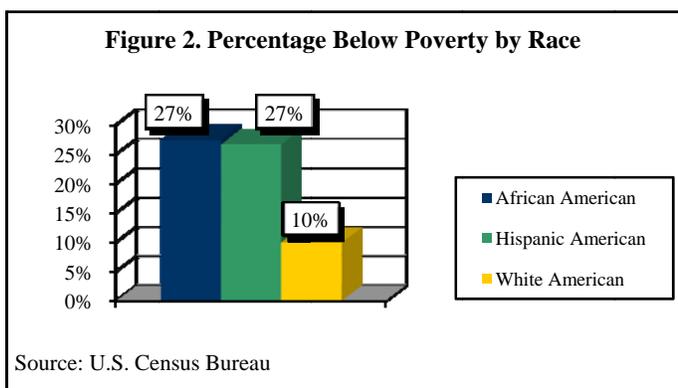
more information about this issue, highlights the relationship between income and poverty. These data indicate that a substantial number of African Americans and Hispanic Americans are below the poverty line when compared to White Americans. Given that federal student financial aid programs are primarily designed to support low-income Americans, the relative percentages of African Americans and Hispanic Americans below the poverty line should be factored into the Pell Grant appropriations policy debate.

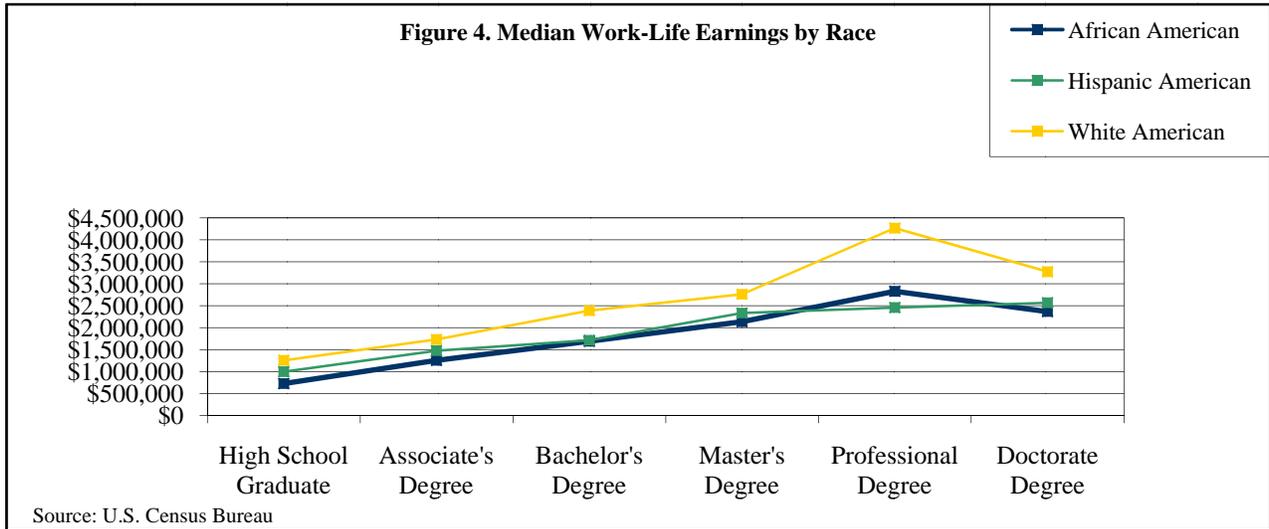
To expand the discussion on racial differences in income, recent data from the U.S. Bureau of Labor Statistics (2011) highlights unemployment rates by race. As shown in Figure 3, the unemployment rate for African Americans and Hispanic Americans was substantially greater than that of White Americans in October, 2011. These data attest to the persistent economic inequalities

experienced by African Americans and Hispanic Americans relative to White Americans. To remedy this problem, conventional wisdom and research (Becker, 1993) suggests that the way to a better financial future is to pursue higher education.

Data from the U.S. Census Bureau (Julian & Kominski, 2011), as shown in Figure 4 suggests that this conventional wisdom may not be entirely warranted. More specifically, data showing estimates of work-life earnings for African Americans, Hispanic Americans, and White Americans reveal a stark and unflattering trend present in the American workforce with regard to racial differences in income by educational

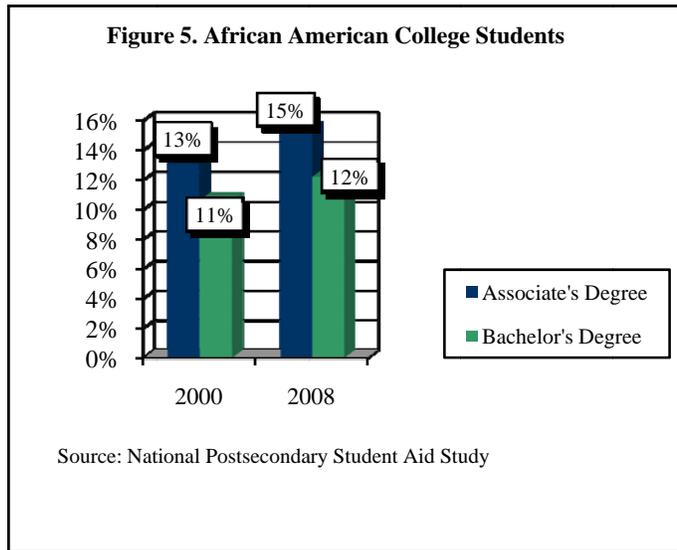
attainment. The data show that African Americans and Hispanic Americans are expected to earn less over their lifetime than similarly educated White Americans. Even at the highest level of education (Master's Degree, Professional Degree, and Doctorate Degree), income disparities exist by race. Despite this information, more and more African Americans and Hispanic Americans are seeking a higher education.





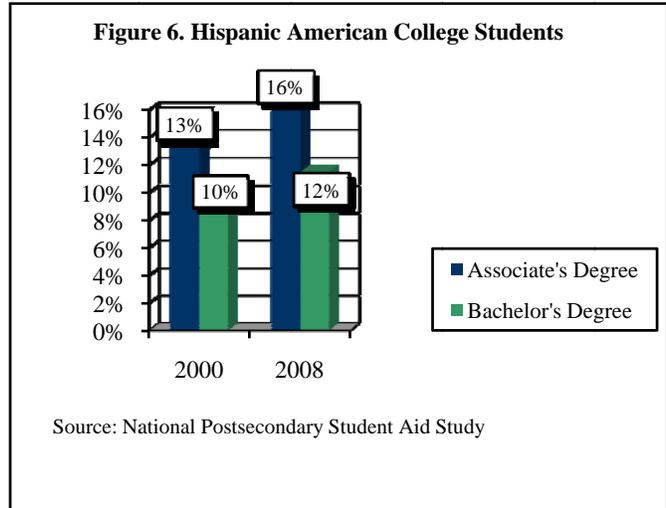
College Enrollment among African Americans and Hispanic Americans

Despite data and research indicating that African American and Hispanic American students may be less likely to attend college when compared to their peers from other racial groups (Perna, Rowan-Kenyon, & Bell, 2008), current data show that African Americans and Hispanic Americans continue to embrace higher education because of its potential to increase their income and expand their horizons. The belief that the pursuit of education can lead to personal and financial advancement is rooted in human capital theory which is based on the



empirically-supported proposition that educational attainment influences labor market outcomes (Becker, 1993). Because human capital includes knowledge and abilities that an individual can obtain and cultivate, this theory has been used to explain college attendance pursuits among Americans for many years., Many Americans are pursuing a college education to secure a better future. Moreover, it appears that the current economic conditions have motivated many low-income Americans to enroll in college with the goal of obtaining a degree. To support this contention, as shown in Figures 5 and 6, the percentage distribution of African Americans and Hispanic Americans attending college has increased.

Regarding college enrollment, the economic climate has not deterred African Americans and Hispanic Americans from pursuing a college education. Data from the 2000 and 2008 National Postsecondary Student Aid Study show that the percentage of African American and Hispanic American students pursuing Associate's degrees increased by 2% and 3%, respectively. The data also showed that the percentage of African American and Hispanic American students pursuing Bachelor's degrees increased by 1% and 2%, respectively. The increase in the number of Associate's degrees is particularly interesting and suggests that African Americans and Hispanic Americans are working to pursue educational credentials that lead to employment opportunities as well as future educational attainment.



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These data clearly show that African Americans and Hispanic Americans are pursuing college degrees and that the percentage of students from these populations will likely increase in upcoming years. Given that African American and Hispanic American college students are more likely to have lower incomes when compared to White Americans, federal student financial aid policies are needed to support these students to ensure equal access to higher education. The Pell Grant program is one such federal program designed to provide financial support to families and college students based on financial need.

THE PELL GRANT PROGRAM

Pell Grants have been designed to assist low-income students in pursuing a college education (Rubin, 2011). As such, the factors used to determine the specific amount of the Pell Grant award are based primarily on a family's ability to contribute financial resources to cover the costs of obtaining a college education (Mahan, 2011; U.S. Department of Education, 2010).

The primary purpose of the Pell Grant program is to provide financial resources to students and families to assist them in paying the costs of attending college. While there have been modifications to the program over the years (Curs, Singell, & Waddell, 2007; Rubin, 2011), the aim of the Pell Grant program is to increase the number of students who attend college by lowering the amount that students and families have to pay for tuition, housing, and the other costs of attaining a college education (Perna, Rowan-Kenyon, & Bell, 2008). Given the purpose of the Pell Grant, its particular mission and impact on low-income college students, continued funding of this program is paramount. As such, since the enactment of the Higher Education Act of 1965 and its accompanying Title IV provisions, which later included the funding of the Pell Grant program (Curs, Singell, & Waddell, 2007; Mahan, 2011), many low-income students have been enabled to pursue a postsecondary education as well as an opportunity to pursue the *American Dream*.

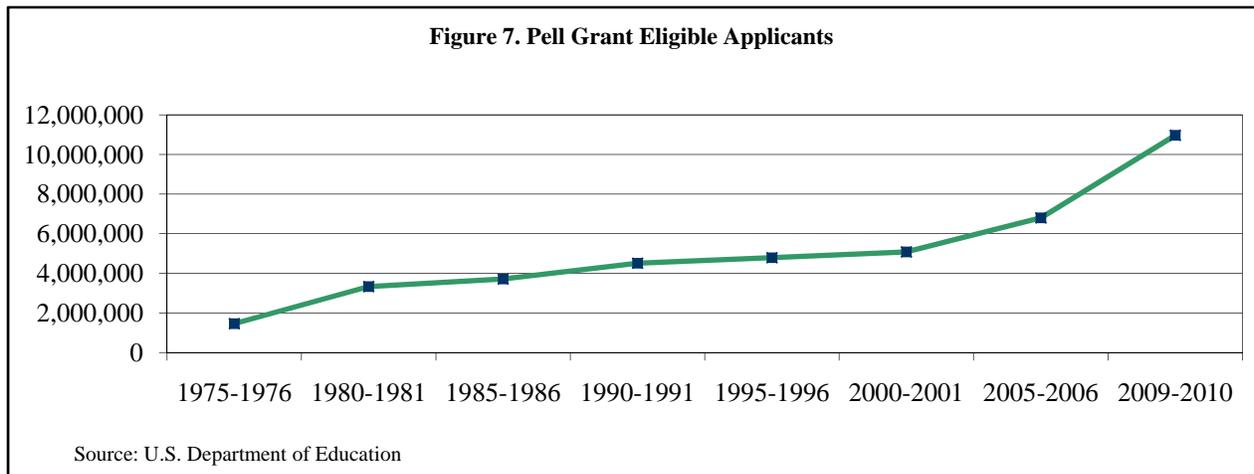
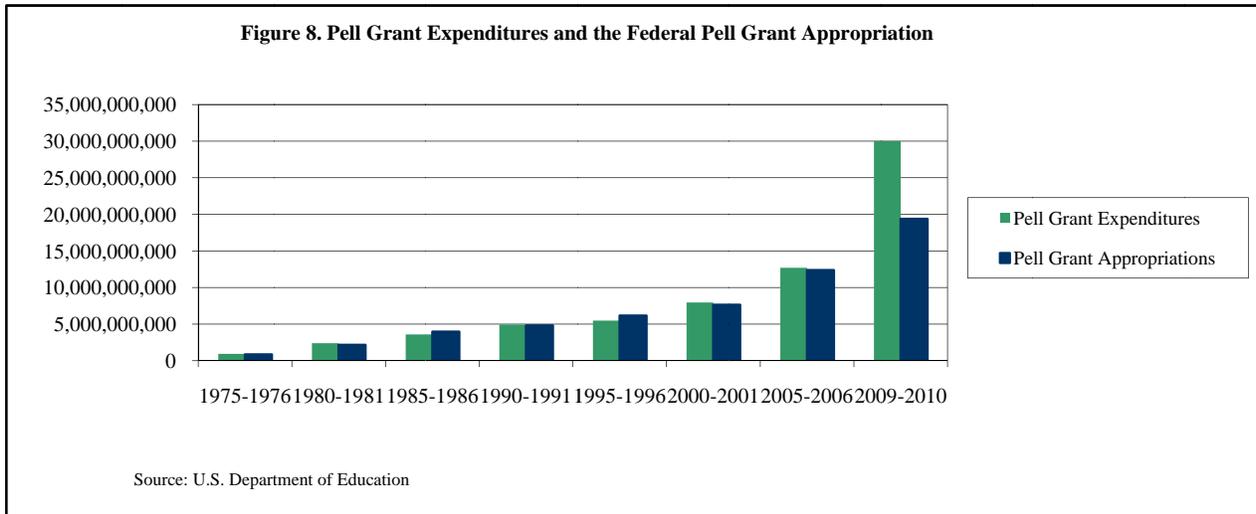


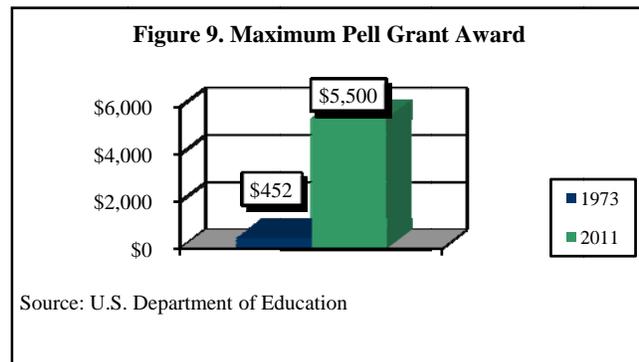
Figure 7 shows that since 1975, the number of applicants eligible for federal Pell Grants has increased by more than 600%. These data also show that many Americans are benefitting from the Pell Grant program. It also demonstrates the staggering growth of this program and why some legislative action may be needed to ensure that proper funding mechanisms are in place to manage the program in the future. Figure 8 clearly illustrates that for many years, the cost of the Pell Grant program has outpaced its appropriations, resulting in major funding shortfalls. Furthermore, data from Figure 9 shows the increase of the maximum Pell Grant award between 1973 and 2011. As a result of the Pell Grant program's budget issues and the concomitant impact of the political climate, policymakers have focused their attention on Pell Grant reform.



Given the aforementioned income and employment data for African Americans and Hispanic Americans, it can be argued that policymakers should not only work to maintain the existing benefits of the Pell Grant program but also to develop strategies to fund the Pell Grant program at even higher levels. However, current proposals are being discussed to eliminate and curtail the funding of Pell Grants despite the likelihood that reduced funding for the Pell Grant program would potentially be detrimental to many low-income African Americans and Hispanic Americans seeking a college education.

Purpose of the Study

The purpose of this descriptive statistical analysis is to explore the relative impact of the Pell Grant program among African American, Hispanic American, and White American college students. The impetus for this study is based on national data and research findings from the scholarly literature describing racial differences in income and employment. Additional justification for this study



is based on the view that the most effective approach to improve the American economy requires a grass-roots level developmental growth strategy in which several sectors of the labor force are enhanced through skills acquisition, educational attainment, and job creation (The White House, 2009). As a result, studying the impact of Pell Grants may shed light on the importance of this federal program in enhancing labor market outcomes for African American and Hispanic American college students. Another goal of this descriptive study is to yield information for policymakers, university administrators, student affairs professionals, and parents to

increase the likelihood that African American and Hispanic American students have the necessary opportunities to complete a college degree and achieve success in the American workforce.

In addition to the study's connection to the economy, the national importance of this study is also magnified by President Obama's *American Graduation Initiative* which seeks to increase enrollment of college students in the current decade as well as provide aid to community colleges that may be used to enhance institutional resources, retain students, graduate students, and prepare its graduates to enter the workforce (The White House, 2009). According to President Obama, "Through this plan, we seek to help an additional five million Americans earn degrees and certificates in the next decade" (The White House, 2009, ¶ 3). Because a considerable number of African American and Hispanic American college students attend community colleges (Horn & Nevill, 2006; Provasnik & Planty, 2008), this descriptive study is relevant and timely.

According to the National Center for Education Statistics, African American and Hispanic American students are expected to comprise approximately 30% of the total college student enrollment by 2018 (Hussar & Bailey, 2009). This projection further supports the need to study the impact of federal student financial aid policies on African American and Hispanic American students' completion rates. Furthermore, this study seeks to inform federal policy regarding Pell Grant appropriations in light of the expected growth in college enrollment and the potential to ignite our ailing economy (The White House, 2009). Moreover, by studying higher education's most financially-needy beneficiaries, perhaps it may be possible to learn better ways to allocate scarce resources to ensure that all students are prepared to enter the job market and contribute to America's global competitiveness. Toward that end, another aim of this study is to use national data from a recent longitudinal survey to determine the extent to which Pell Grants impact persistence and other educational outcomes for African American, Hispanic American, and White American college students.

REVIEW OF THE LITERATURE

As Posselt's (2009) analysis of presidential discourse reminds us, the Pell Grant program is an outgrowth of President Lyndon B. Johnson's initiatives. As such, major aspects of the Higher Education Act of 1965 were crafted to enhance educational opportunities for American citizens who may have been previously unable to pursue a higher education because of family income and the costs of college attendance. Therefore, from its genesis in the early 1970's with the funding and implementation of the Basic Educational Opportunity Grant program (Curs, Singell, & Waddell, 2007; Mahan, 2011; Rubin, 2011), Pell Grants have served a significant number of Americans and enabled students from low-income and diverse racial backgrounds to pursue a college education.

The Fiscal Year 2012 Budget Summary demonstrates a continual commitment to support parents in their efforts to send their children to college (U.S. Department of Education, 2011a). Moreover, approximately 41 Billion dollars are being requested to support the Pell Grant program. Additionally, Pell Grant reform ideas have focused on enhancing the operational efficiency of the program. One of the major proposed enhancements to the Pell Grant program would prohibit students from receiving more than one Pell Grant in an academic year. While these and other cost-saving enhancements may not be desirable among all policymakers and stakeholders, given the rising costs of the Pell Grant program, changes to the program may be needed in some form.

Using institutions as the unit of analysis, Steinberg, Piraino, and Haveman (2009) examined the relative importance of state and institutional factors on the percentage of Pell Grant recipients at postsecondary institutions. One interesting finding from their study was that the percentage of low-income families in a particular state directly influenced the percentage of students who had Pell Grants at the public institutions in the state. This finding resonates with other research and shows that Pell Grants serve as a powerful resource for low-income families whose children attend public institutions. With the potential growth of the population of low-income families in upcoming years, the Pell Grant program may have to expand as opposed to detract in order for public institutions to meet the needs of low-income Americans.

To address the role of federal student financial aid policy, as it relates to the government's role in funding the Pell grant program, statistical findings from the present study are intended to highlight the educational impact of Pell Grants for diverse student populations. While several studies have established a baseline of research evidence pertaining to the effects of Pell Grants on students in college (Rubin, 2011; Steinberg, Piraino, & Haveman, 2009; U.S. Department of Education, 2011b), additional research is needed to further understand the importance of Pell Grants in diversifying the nation's postsecondary student population and improving underrepresented students' educational outcomes. Thus, the purpose of this commissioned

paper is to examine the extent to which Pell Grants enable and support the nation's most vulnerable college students in their quest to complete a college education.

Based on a multivariate analysis, Rubin (2011) found that Pell Grant eligibility did not impact college student enrollment outcomes. This finding suggests that any policies designed to lower the maximum or average Pell Grant award that students receive will most likely lead to a reduction in the number of low-income students who enroll in college. Chen and DesJardins (2010), using national data of beginning college students, explored the extent to which financial aid impacts college dropout outcomes by race. Their longitudinal analyses indicated that college dropout behavior is influenced by the availability of need-based grant funding for minority students. More specifically, controlling for students' precollege characteristics and academic experiences, it was shown that having a Pell Grant affected minority students' likelihood of dropping out of college. In summary, it was also shown that the size of the Pell Grant awarded played a role in influencing minority students' drop-out behavior.

Martin and Paulsen (2005) found that the amount of grant aid first-generation students received positively influenced their persistence and retention in college. This finding is because many first-generation college students are African American and Hispanic American. Thus, this study provides additional evidence concerning the importance of need-based student financial aid such as Pell Grants. Mahan (2011) noted that Pell Grants are designed to provide a baseline funding opportunity for families. Thus, with Pell Grants serving as an initial funding source, it is understood that families and students should seek other federal programs and other non-federal programs to fund a college education in order to compliment their family's college funding portfolio. In this regard, Mahan noted that among Pell Grant recipients, approximately 13% of the students did not have any other type of federal financial aid. This statistic further reinforces the concept that the current amount of the maximum Pell Grant awarded to students still leaves students and families in need of financial assistance, hence providing another reason why perhaps the maximum Pell Grant awarded to students should be increased.

METHODS

Utilizing data from the 2004/2009 Beginning Postsecondary Longitudinal Study (Cominole, Wheeless, Dudley, Franklin, & Wine, 2008; Wine, Cominole, & Caves, 2009), descriptive statistical analyses were employed to compare the educational impact of Pell Grants on African American, Hispanic American, and White American students. The 2004/2009 Beginning Postsecondary Longitudinal Study (BPS:04/09) is a nationally representative, longitudinal study designed to measure the impact of a wide-array of personal and demographic factors, institutional differences, and postsecondary experiences on educational and career outcomes (Radford, Berkner, Wheeless, & Shepherd, 2010). Consistent with the base-year sample design, the first follow-up data collection re-surveyed base-year students to obtain information pertaining to their academic experiences and educational outcomes (Cominole et al., 2008; Wine et al., 2009). Thus, “The second follow-up, BPS:04/09, monitors students’ academic progress in the 6 years following their first entry into postsecondary education and assesses completion rates in 4-year programs” (Wine et al., 2009, p. 3). For the present study, degree attainment refers to students who completed a certificate, Associate’s degree, or a Bachelor’s degree. To complement the quantitative data analysis, previous research studies on this topic were also analyzed to explore the philosophical and foundational concepts that may serve to advance financial aid policy reform. Previous research was also synthesized to generate financial aid policy recommendations with the intent to expand opportunities for racially and ethnically diverse students.

Research Questions

Previous research is quite consistent on the general impact of student financial aid and suggests that student aid in the form of grants serves to impact low-income students’ decisions to attend college as well as their ability to progress toward a college degree. In light of the scant information about the role of need-based aid in the form of Pell Grants for African American and Hispanic American students, this report sought to answer four important questions:

1. Are African American, Hispanic American, and White American students who receive Pell Grants more likely to graduate from college than their peers who do not receive Pell Grants?
2. Are African American, Hispanic American, and White American students who receive Pell Grants more likely to major in a science and engineering field than their peers who do not receive Pell Grants?
3. Are African American, Hispanic American, and White American students who receive Pell Grants more likely to earn better grades than their peers who do not receive Pell Grants?
4. Are African American, Hispanic American, and White American students who receive Pell Grants more likely to obtain a higher income than their peers who do not receive Pell Grants?

RESULTS

As shown in Figures 10 and 11, dependent and independent African American and Hispanic American students are more likely to be low-income when compared to White American students. While a substantial amount of research literature exploring student outcomes has been encouraging and suggests that obtaining financial aid may positively influence important student outcomes (Pascarella & Terenzini, 2005), the descriptive research literature has not adequately explored the role of Pell Grants on students' educational outcomes for African American, Hispanic American, and White American college students. In terms of the research that does exist related to this topic, in many instances the studies are based on multivariate analyses employing complex statistical designs that might be too complex for the average reader who is attempting to understand the role of financial aid on student outcomes. Thus, the analytical design in this report employs percentages as the primary mode of analysis. This method was deemed appropriate in light of the intended audiences for this report. In summary, the analyses in this section should enable the reader to have a clear and cogent grasp of the potential effects of Pell Grants for African American and Hispanic American students.

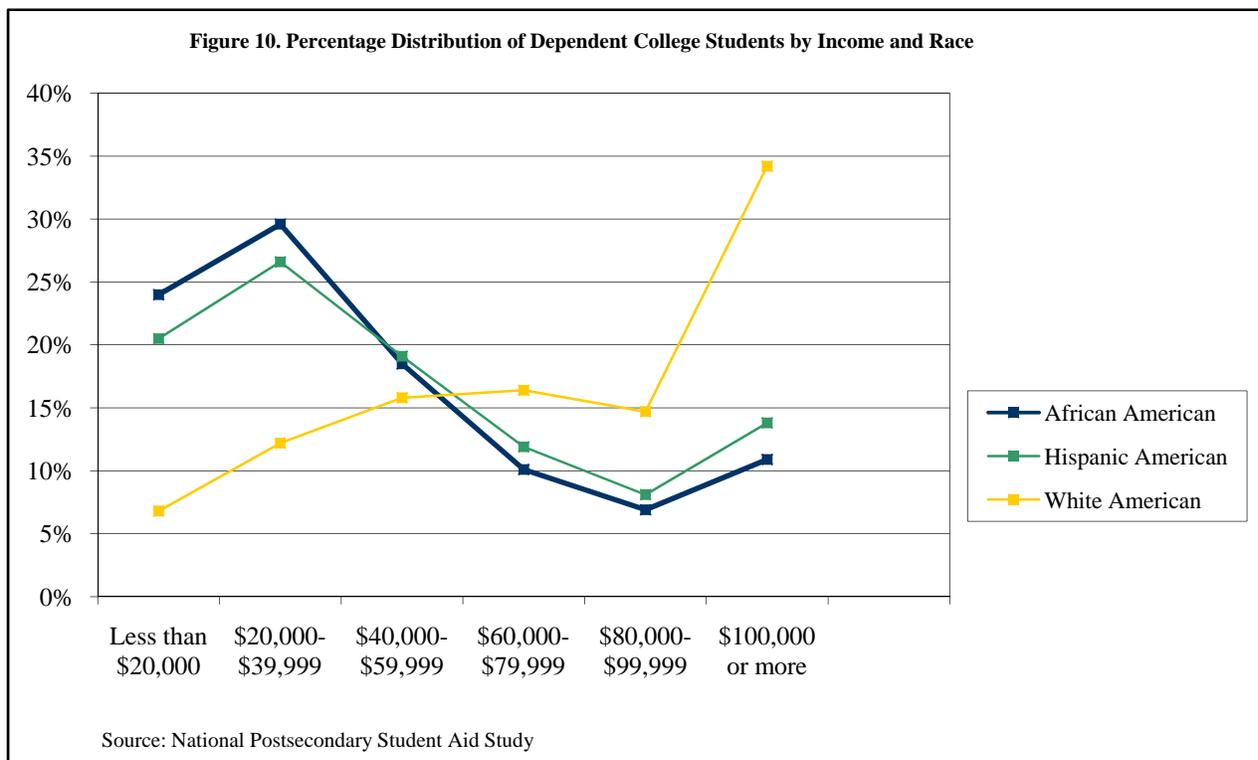


Figure 11. Percentage Distribution of Independent College Students by Income and Race



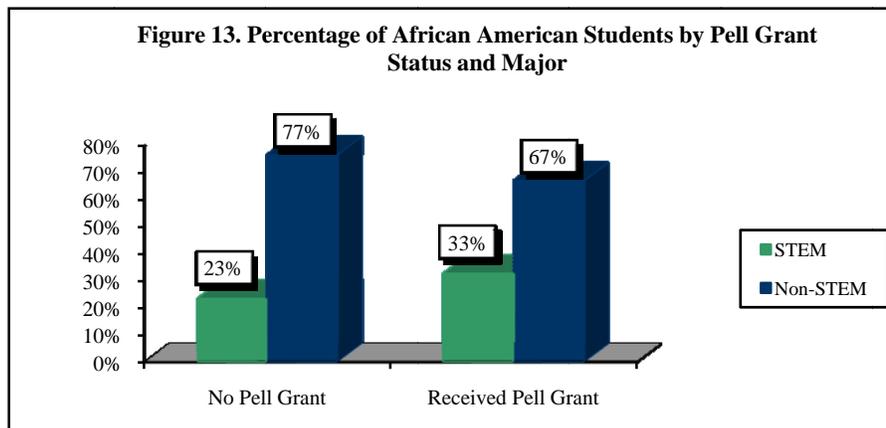
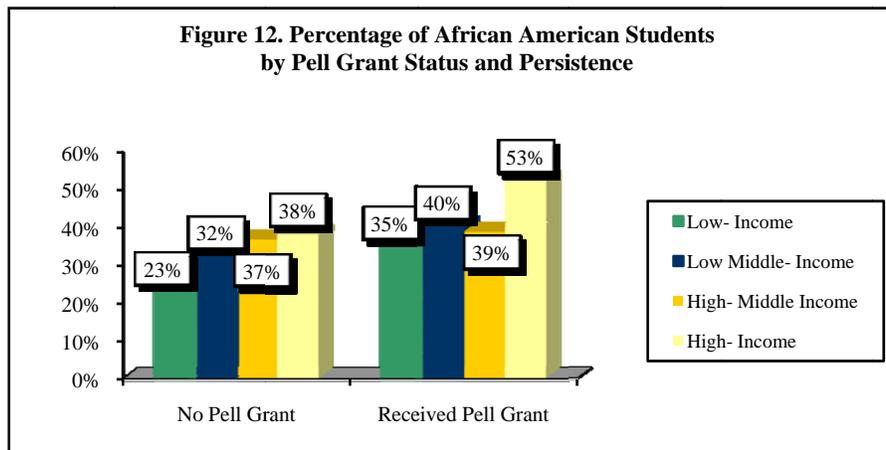
African Americans

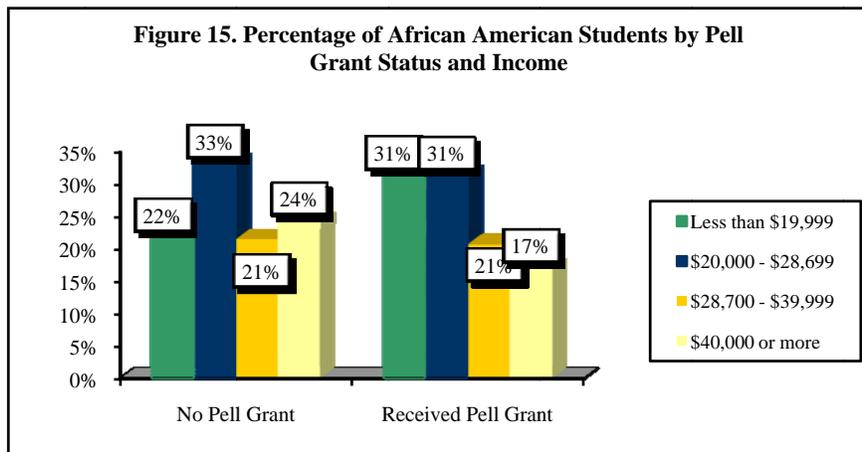
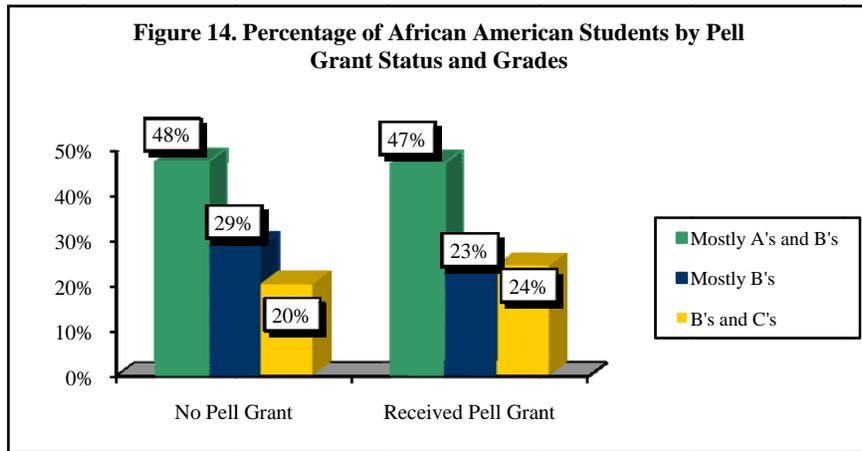
The data reported in Figure 12 show the importance of obtaining a Pell Grant for African American students in terms of persistence and graduation outcomes. With regard to low-income students (incomes less than \$30,000), African American students who received Pell Grants were more likely (35%) to earn their degree when compared to low-income African American students who did not receive a Pell Grant (23%) during college. For low middle income African American students (i.e., the student’s family income was between \$31,000 and \$57,000), Pell Grant recipients were more likely to graduate than low middle income students who did not obtain a Pell Grant. Similar results were obtained for African American students in the high middle income level (which was defined as incomes between \$57,000 and \$89,000). Even for the highest income level (incomes over \$89,000), African American students who received Pell Grants (53%) were more likely to receive their degree than African American students who never received a Pell Grant (38%).

In light of the need to increase the production of science and engineering undergraduates, many government agencies have focused on this goal. However, a continuous investment in science education is still needed to ensure that the United States is able to compete in the global market. Recent data indicate that African Americans are underrepresented among students earning degrees in science and engineering (National Science Foundation, 2011). Given the importance of developing a stronger scientific workforce, Figure 13 was developed to show the extent to which Pell Grant recipients majored in scientific and engineering fields. Based on the data, it suggests that African American Pell Grant recipients (33%) were more likely to major in science, technology, engineering, and mathematics (STEM) disciplines than their counterparts who did not receive Pell Grants (23%). Figure 14 sheds light on the academic experiences of African American students by Pell Grant

status. The data demonstrate that African American students who received Pell Grants were slightly less likely to earn mostly A's and B's (47%) than African American students who did not receive a Pell Grant (48%).

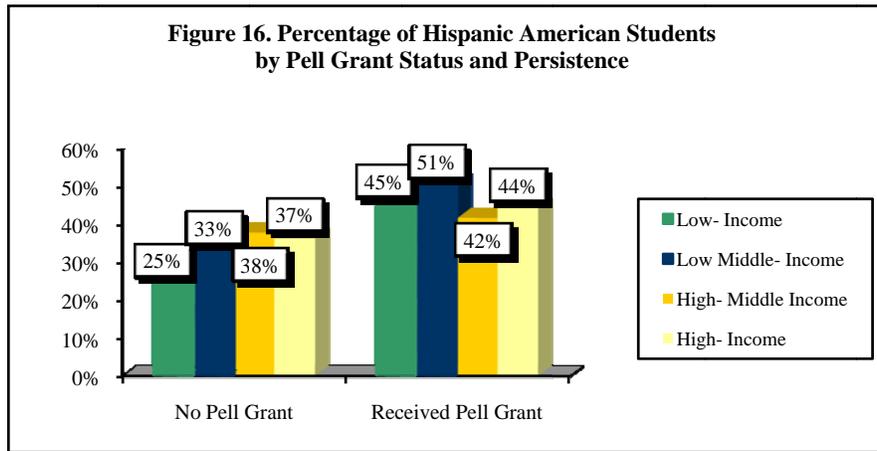
In terms of the labor market, data from Figure 15 showed that African American students who received a Pell Grant were more likely to make less than \$19,999 a year (31%) than students who did not receive a Pell Grant (22%). The data also showed that African American Pell Grant recipients (31%) were less likely to make between \$20,000 and \$28,699 a year when compared to students who did not receive a Pell Grant (33%). In contrast, African American students who did not receive a Pell Grant were equally likely to earn between \$28,700 and \$39,000 a year. Furthermore, African American students who had a Pell Grant (17%) were less likely to earn more than \$40,000 a year when compared to African American students who did not receive the Pell Grant (24%).



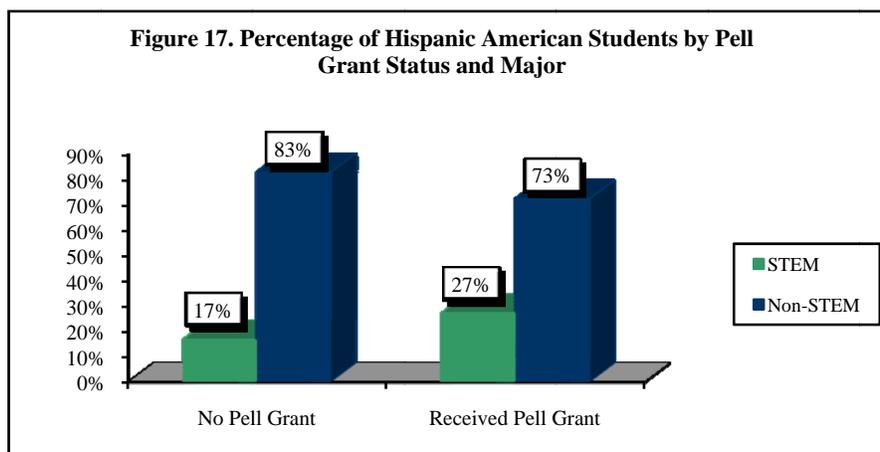


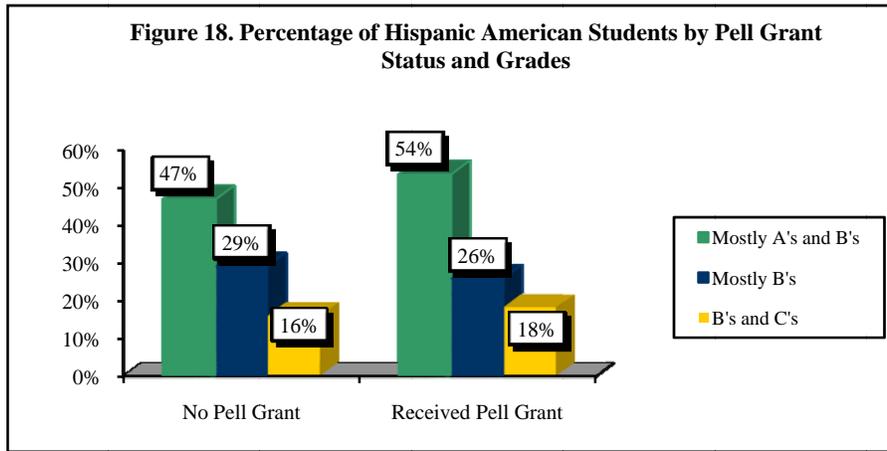
Hispanic Americans

The data reported in Figure 16 show the impact of obtaining a Pell Grant for Hispanic American students in terms of educational attainment outcomes. With regard to low-income students, Hispanic American students who received Pell Grants were more likely (45%) to earn their degree when compared to low-income Hispanic American students who did not receive a Pell Grant (25%) during college. With regard to low middle income Hispanic American students, Pell Grant recipients were more likely to graduate than low middle income students who did not obtain a Pell Grant. Consistent data were obtained for Hispanic American students in the high middle income group. Hispanic American college students in the high middle income group who received a Pell Grant (42%) were more likely to complete their degree when compared to Hispanic American college students who did not have a Pell Grant (38%). Additionally, at the highest income level, Hispanic American students who had received Pell Grants (44%) were more likely to receive their degree than Hispanic American students who never received a Pell Grant (37%).

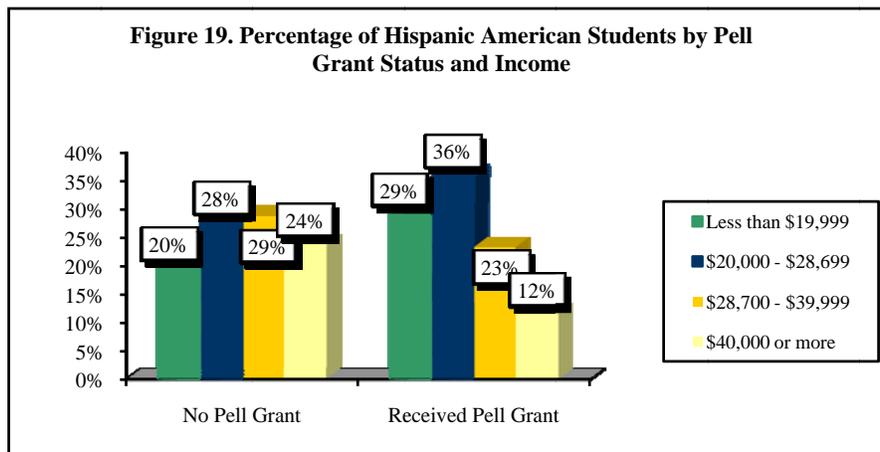


According to national data, Hispanic American students received approximately 8% of the science and engineering bachelor’s degrees awarded in America in 2008 (National Science Foundation, 2011). While growing steadily, this percentage is disproportionately low, when compared against the relative percentage of Hispanic Americans in the United States. To explore this issue with regard to the role of Pell Grants in addressing this national imperative, Figure 17 shows the extent to which Pell Grant recipients majored in STEM disciplines. The data show that Hispanic American Pell Grant recipients (27%) were more likely to major in science and engineering fields than their peers who did not receive Pell Grants (17%). Figure 18 describes the academic outcomes of Hispanic American students by Pell Grant status. The data demonstrate that Hispanic American students who received Pell Grants were more likely to earn mostly A’s and B’s (54%) when compared to Hispanic American students who did not receive a Pell Grant (47%). This finding suggests that Hispanic American students who received Pell Grants were able to earn higher grades, which may have indirectly impacted their persistence and graduation outcomes. Also, the data indicate that Hispanic American students who had a Pell Grant (26%) were less likely to earn mostly B’s when compared to Hispanic Americans who did not receive a Pell Grant (29%).



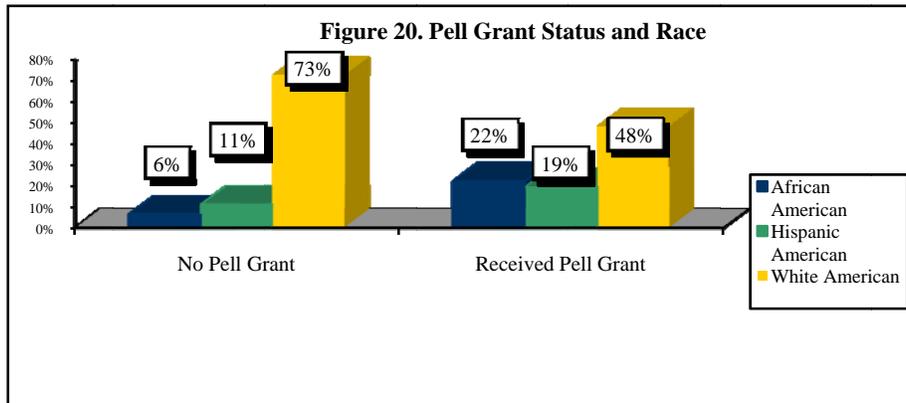


As shown in Figure 19, with regard to labor market returns, Hispanic American students who did not receive a Pell Grant were more likely to have higher salaries. Hispanic American students who received a Pell Grant were more likely to make less than \$19,999 a year (29%) when compared to their peers who did not receive a Pell Grant (20%). The data also showed that Hispanic American Pell Grant recipients were more likely to make between \$20,000 to \$28,699 a year. In contrast, Hispanic American students who did not receive a Pell Grant were more likely to earn more than \$28,700 a year.



White Americans

The percentage of Americans who received Pell Grants by race is shown in Figure 20.



These data indicate that among all Pell Grant recipients, 22%, 19%, and 48% were African American, Hispanic American, and White American, respectively. The data reported in Figure 21 show the impact of obtaining a Pell Grant for White American students in terms of educational attainment outcomes. With regard to low income students, White American students who received Pell Grants were more likely (45%) to earn their degree when compared to low-income White American students who did not receive a Pell Grant (40%) during college. Furthermore, with regard to low middle income White American students, Pell Grant recipients were more likely to graduate than low middle income students who did not obtain a Pell Grant. For White American students in the high middle income group, Pell Grant recipients were less likely to attain their degree (51%) when compared to White American students who did not receive a Pell Grant (54%). At the highest income level, White American students who did not receive Pell Grants were more likely to receive their degree (63%) than White American students who received a Pell Grant (48%). These data show that as the income of White American students increased, the potential impact of Pell Grants on degree attainment diminished.

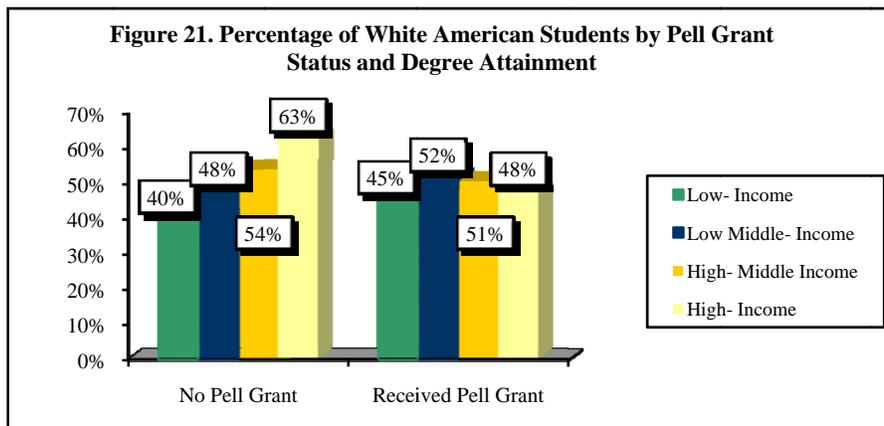
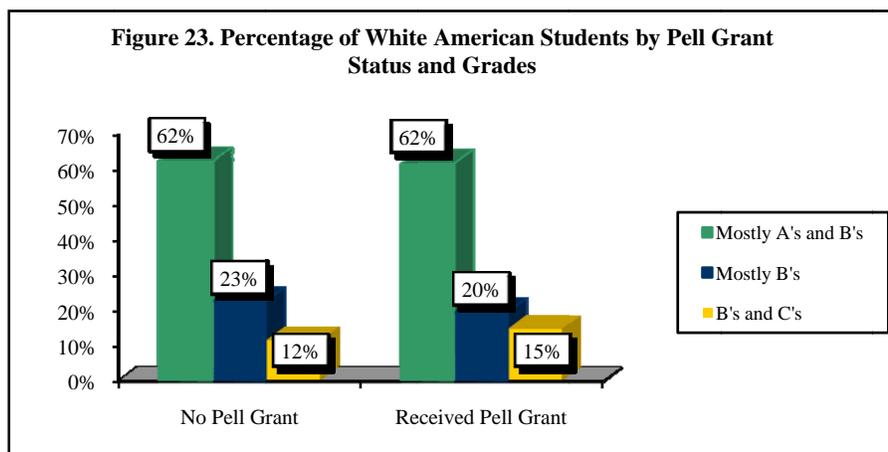
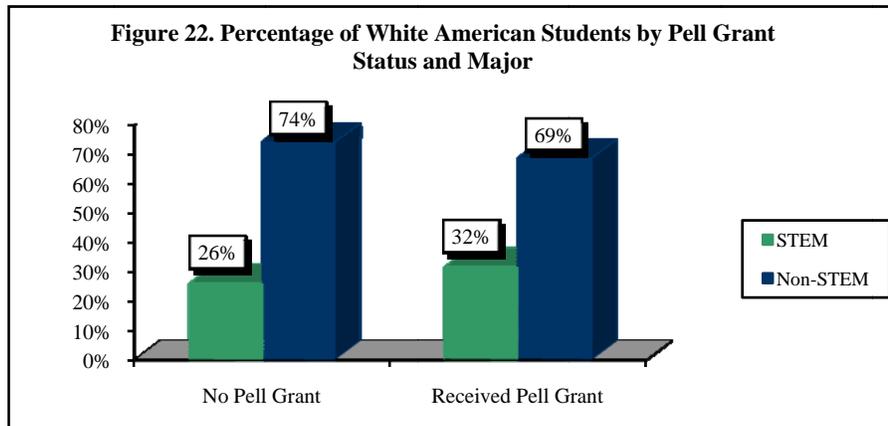
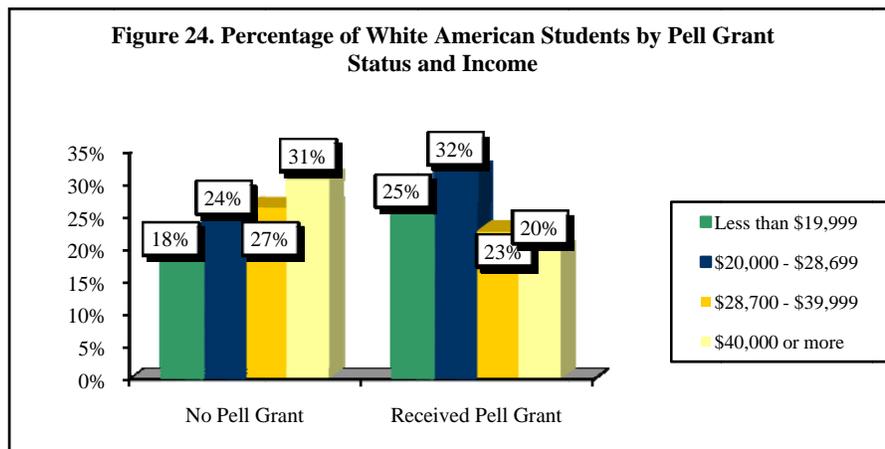


Figure 22 shows the extent to which White American students who received Pell Grants majored in STEM disciplines. The data show that White American Pell Grant recipients (32%) were more likely to major in science and engineering fields than their peers who did not receive Pell Grants (26%). Figure 23 describes the academic outcomes of White American students by Pell Grant status. The data demonstrate that White American students who received Pell Grants were equally likely to earn mostly A's and B's than White American students who did not receive a Pell Grant.



As shown in Figure 24, with regard to labor market outcomes, White American students who did not receive a Pell Grant were more likely to have higher salaries. White American students who received a Pell Grant were more likely to make less than \$19,999 a year (25%) when compared to their peers who did not receive a Pell Grant (18%). The data also show that White American Pell Grant recipients were more likely to make between \$20,000 and \$28,699 a year. In contrast, White American students who did not receive a Pell Grant were more likely to earn more than \$40,000 a year.



Implications for Policy

In an effort to streamline the Pell Grant program and reduce its costs, the recently released draft of the Department of Labor, Health and Human Services funding bill seeks dramatic changes to the structure of the Pell Grant program (U.S. House of Representatives, 2011). For example, if enacted, the funding bill would reduce the maximum number of years that students could receive Pell Grants and modify the income and eligibility formulas thereby potentially reducing the grant award that many low-income students would receive each year. Given the income and poverty status of many African American and Hispanic students, these and other changes to the Pell Grant program described in the funding bill could severely and negatively impact the completion and retention rates for these populations.

Recommendations for Educators and University Personnel

Secondary schools should develop, implement, or modify existing educational programs, while continuing collaborating with financial aid professionals, higher education researchers and school counselors to educate middle and high school students about the basic and foundational components of the Pell Grant program. Preparing parents and students about Pell Grants and other federal student financial aid programs would enable families to plan for the future and better respond to changes in the economy and federal student financial aid policies.

Colleges and universities should also consider offering online and traditional workshops for students that describe in clear and understandable terms how Pell Grant eligibility and Pell Grant awards are determined. While most postsecondary institutions utilize federal formulas, institutions may also have specific and particular factors that also determine Pell Grant awards and students should have the opportunity to know about this information and related processes about specific methodology, timeline, limitations, restrictions, and processes pertaining to the structure and implementation of the Pell Grants program at their institution. Similar to the previous recommendation, this suggestion may serve to better educate students regarding the importance of Pell Grants to fund their education. This information would also help students to calculate their

own college expenses and increase their awareness of the possibility and need to supplement their financial portfolio via work, scholarships, or other strategies. Thus, indirectly, this recommendation may perhaps even connect the student to the institution and fortify their commitment to their college or university because it would communicate the extent to which the institution is working on behalf of students to ensure that they have appropriate financial resources to complete their college degree.

Under the Higher Education Opportunity Act of 2008, colleges and universities that receive federal student aid funding are required to have a college cost calculator that will help families have a better understanding of the estimated costs of attending college. As an added feature, I recommend that colleges and universities also add or incorporate a Pell Grant calculator that integrates the latest federal policy changes, while also integrating the specific formulas used by the institution in determining Pell Grant eligibility and Pell Grant awards. While this modified Pell Grant calculator would only provide estimates based on estimated income data, it would provide some information to families, that in concert with the college cost calculator, could improve decision-making processes by providing important estimates regarding the potential costs of attending college and the financial aid available via Pell Grants.

DISCUSSION

Higher education represents a mechanism for educating the society and producing an intellectually-capable populace. Thus, for more than fifty years, the federal government has taken many affirmative steps to secure the inclusion of economically-disadvantaged students in higher education (McPherson & Stupor, 1991). As a result, the enrollment of students from low-income backgrounds as well as first-generation students has increased due to the support of federal financial aid programs. Due to the incessant division between the rich and poor in American society, the federal government must continue to mitigate financial challenges for low-income college students. The stated mission of financial strategies and techniques to spur the enrollment rate of economically-disadvantaged students is to provide equal educational opportunities through economic interventions for low-income families (Leslie & Brinkman, 1998). This purposeful objective of the federal government appears in the form of need-based grants initially established in the Higher Education Act of 1965 (Curs, Singell, & Waddell, 2007).

In many respects, higher education is supported because it is viewed and described as a social good (Winston, 1992). As a result, the federal government provides a considerable amount of financial assistance to institutions of higher learning via appropriations designed to increase access and equity in higher education (Paulsen & Smart, 2001). The reason for this investment can be traced back to the view that higher education helps to ameliorate social conditions and supports job creation (Yeager et al., 2001). Moreover, there is a considerable number of societal benefits of higher education including reduced crime rates, reduced poverty and unemployment rates, and increases in national productivity (Leslie & Brinkman, 1988; Paulsen & Smart, 2001). Despite the positive effects of higher education there exists a call for accountability and fiscal responsibility. Public sentiment and disfavor have recently befallen the American higher education system. As a result, the higher education system is being pressured to reassess its functions and finances.

From a societal perspective, the investment in education produces financial and social rates of return throughout a person's lifetime (Leslie & Brinkman, 1988). Given the personal benefits of higher education and the increasing number of low-income students in the educational pipeline, public policy initiatives and appropriation decisions should be designed to bolster financial aid resources for the students least able to pay. In light of research-based evidence, which clearly supports the contention that higher education produces many advantages which accrue directly to the individual in the form of financial and social benefits, future public policy recommendations should be aimed at making the federal student financial aid process easier to navigate especially for low-income students. Also, higher education policies should be advanced, developed, and supported to ensure that adequate sources of funding are available for prospective college students who are least able to pay for their education.

This descriptive report highlights several important issues that should be considered with regard to policy reform and budget considerations in terms of the future of the Pell Grant program. First, national data from the U.S. Bureau of Labor Statistics suggests that African Americans and Hispanic Americans are more likely than other racial groups to be unemployed. Second, national data show that many African Americans live below the poverty level (DeNavas-Walt, Proctor, & Smith, 2011) and thus may be more likely to attend 2-year institutions to begin their postsecondary studies (Provasnik & Planty, 2008) given the low cost of enrollment. Third, data from this study, showed that African American and Hispanic American students in the middle to high-income levels benefitted from the Pell Grant program as did low-income students. Moreover, White American students at the lowest income level also benefitted from the Pell Grant program.

This descriptive study is based partly on the work of Tinto (1993) who notes that student retention can be explained by considering the extent and level of a student's interactions within the institution such as academic experiences that students have on a college campus which support academic development as well as social experiences that help to connect students to the college environment, aid in their psychosocial development, and contribute to their overall satisfaction in college. According to Tinto, the combination of these academic and social experiences serves to shape, refine, and enhance a student's commitment to his or her prospective, current, and future educational aspirations and to their commitment to their respective educational institutions. Moreover, these formal and informal experiences may also serve to reinforce a student's devotion to an institution as well as to facilitate the development of educational goals and enhance academic performance in college. In the present study, it was hypothesized that Pell Grants, which affect a student's ability to pursue academic and social integration experiences at colleges and universities, would impact a student's decision to leave the institution before attaining a degree. Given the results, which show that African American and Hispanic American Pell Grant recipients at all income levels persisted to attain their intended degree, Pell Grants positively enhance student retention outcomes.

In light of the descriptive analyses presented in this report, it can be suggested that the issues related to the cost effectiveness of the Pell Grant program may be secondary when compared to the stated missions and objectives of federal student financial aid assistance programs designed to support and provide low-income students educational opportunities through the use of federal appropriations. Clearly, cost effectiveness is an important consideration in the equation but only to the extent that costs can be reorganized to provide more funds to disseminate among the increasing numbers of low-income students. In conclusion, cost-saving strategies implemented to cut the current level of Pell Grant funds available or to reduce the number of students who could potentially benefit from federal student financial aid assistance should be avoided at all costs.

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