

Creating a Comprehensive Profile of the Academic Competitiveness Grant

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Abstract

The recent push for more Americans to attend postsecondary institutions has led to the development of numerous and far-reaching government student financial aid programs. These programs have aimed at supplying the whole of the population with financial assistance regardless of color, gender, or age. However, the distribution of the aid has encountered many problems as critics argue that the recipients of the aid are primarily limited to a narrow subgroup of the population. A new program created under the Higher Education Reconciliation Act of 2005 called the Academic Competitiveness Grant is no exception. Preliminary logit analysis of the reception rates of the ACG demonstrates the continuing importance of race, gender, and other demographic characteristics within this form of federal aid. I have acquired data from the National Postsecondary Student Aid Survey utilizing the undergraduate data from 2008.

History

Since its inception, the federal student aid program has been focusing on providing access to college for all eligible students. Financial aid is generally thought of as money made available to college and university students, through government loans, grants, and need-based scholarships, which enable them to receive an education they could not otherwise afford. The program started out as a means of enhancing our defense against the Soviet threat. It was part of a movement to put in place measures to strengthen the current educational programs to provide society with more forward-thinking individuals who would have the latest scientific and mathematical education for an edge over the competition (Center for Higher Education Support Services, Inc., 2003).

Numerous adjustments to the system, particularly the Higher Education Act, have been made to the system to in attempt make it the most efficient and effective. Despite their best efforts, major critiques of the aid program maintain that the system is too complex, minorities, on the whole, are unequally effected by the current programs (Cunningham & Santiago, 2008), there is a lack of availability of information, the current policies are poorly integrated (Reschovsky, 2008), and the program itself focuses too much on access and not enough on success of the recipient (Rethinking Student Aid Study Group, 2008). There are two major schools of thought regarding financial aid; those who favor giving funds to the institutions and those favoring funds to the individual students themselves (Kimberling, 1995). The form of aid that focuses on the individual student splinters further into two competing categories; need versus merit based aid. This need versus merit based aid debate has produced many novel

programs and been the subject of many studies. What follows is a summary of some of the higher profile need and merit based aid programs and the studies that have evaluated them.

The increased importance of education in today's society has led to a surge in postsecondary attendance. However, in addition to the increase in enrollment there has been an increase in tuition costs and fees as institutions respond to inflation rates and furthered government subsidies. The high cost of education has led to an implementation of a mix of both government and private forms of financial aid. Since the enactment of the first Higher Education Act in 1965 the government has been providing financial assistance to those who wouldn't otherwise have the financial means to attend a postsecondary education. More recently, the criteria of academic achievement has been taken into account, initiating merit-based aid programs. In an effort to provide equal opportunities to all members of society, especially women and minorities, affirmative action programs, such as Title VI of the Civil Rights Act have been set in place. There has been a long-standing gap in education between upper-class white males and the rest of society, these programs, and the unbiased allocation of Government funds based on income, seek to close the gap. With the institution of merit-based aid programs critics argue that these efforts are being undermined, they argue that these programs apply to only a specific portion of society in no need of financial assistance. With the lack of income caps placed on merit programs around the country many students from the upper income quartiles of society are receiving aid and taking it from those who are in real need. The outcome of these heated debates was the development of mixture programs, those financial aid programs that select their recipients on two criteria; income and academic achievement.

Need-Based Aid

Federal student aid based on income is often referred to as need-based aid; these programs began in most states in the 1960's and 1970's as part of the State Student Incentive Grant, or SSIG. Prior to that 19 states had need-based aid programs and by 1979 all states had a need-based programmed. The centered goal of those policies was access, providing students of low income families the opportunity to attend higher education institutions (Doyle, 2008). The modes of distribution may vary from state to state, but the most common method is a program for which all state residents are eligible. In some states this only provides aid for those students attending public institutions, others, like North Carolina; provide separate programs for both the private and public sectors (Doyle, 2008).

There are both advantages and disadvantages to a focus of financial aid on purely need-based aid programs. The advantages include the lowering of net prices for students most

sensitive to the prices of institutions, the lowering of these costs increases enrolment rates, and these programs tend to be more affordable for states because not much is needed to make a large impact on those it was designed to affect. Twenty to forty percent of low-income students wouldn't have entered college if no aid was offered (Long, 2008). The disadvantages of the program include possible response of institutions as is stated in the Bennett hypothesis and the fact that politicians see state and federal programs as politically easy to cut because the affect of doing so only affects a small number of the population.

Merit-Based Aid

Over the last fifteen years there has been an increased trend towards merit-based aid, the money spent on merit-based programs have increased three hundred and forty eight percent in the last decade alone. "Policymakers have offered several rationales for their adoption of merit-based financial aid programs. Many of these programs were set in place in order to slow what has been deemed the 'Brain Drain'" (Doyle, 2008). This concept of "Brain Drain" refers to the phenomenon noticed by researchers of college age students leaving their home states to go to college.

Institutions have more discretion when dealing with these programs because they are not subject to external federal and state guidelines (Singell Jr. & Stone, 2007). Institutions in New Mexico only base their aid on collegiate performance, the students maintaining a specified GPA or higher while enrolled; others include high school performance in their equation, examining GPA and/or national measures of achievement such as the SAT or ACT.

Some of the benefits of these programs include the redistribution of students among the universities as smaller institutions are able to "buy" students from more prestigious schools using merit-based aid by "bidding down" the amount charged to high-quality students (McPherson & Schapiro, 1994). "The main social affect of merit aid competition among a group of peer institutions of similar quality is a redistribution of resources between schools an (the families of) students" (Singell, 1995). The existence and awareness of merit programs also encourage students to perform better in high school and increase participation in extracurricular activities.

Though merit scholarships often offer full coverage of tuition and associated fees and strong incentives to remain in state for students their sources of funding can be unstable and their funds tend to focus on small subsection of society (Heller & Martin, 2002). The Bright Futures, HOPE, Success, KEES, TELS, and PROMISE programs instituted by Florida, Georgia, New Mexico, Kentucky, Tennessee, and Michigan respectively use funding from the state lottery. Relying on such an unpredictable source of funding has many concerned about their permanence (Doyle, 2008). Many of these current merit programs place no income ceiling for

their participants and therefore a disproportionate number of high income students originally able to access a more costly high school education are given a full ride through college.

Georgia's HOPE

The Georgia HOPE program has been the subject of much scrutiny and criticism since its introduction in 1998. The state program both widens the gap between black and white students and low- and high-income families in tandem (Long, 2008), "The increased emphasis on merit in college financial aid may exacerbate the trend towards greater income inequality in the United States, even among people of equal academic ability" (Singell & Stone, 2002). On the other hand HOPE has increased enrollment rates by as much as 6.9% (Sridhar, 2003) and increased the participation of needy students in the Pell program (Singell, Wadell, & Curs, 2004) (Monks, 2009). The average award received from the HOPE scholarship is \$3,800 annually, but those who had an adjusted gross income less than \$36,000 received an extra \$1,500, and those with a GPA of 3.5 or higher and a 29 on their ACT got an additional \$1000. SAT scores also rose under the implementation of this program by some five percentage points, leading some to reluctantly agree that it may have raised education quality.

Kentucky's KEES

Founded in 1998, Kentucky's Educational Excellence Scholarship, KEES, provided a complex design for reward of high school achievement. There is a certain amount of money tied to GPA scores, which is multiplied by the number of years that GPA is maintained and to that is added the specific dollar amount associated with scores of the ACT. The amount calculated in this process is then added as supplemental aid to each year of postsecondary education. Despite the fact that this amount is automatically calculated and the information regarding such is sent to the recipient, there is still not full participation in the KEES program, the overall participation rates in the freshman year in college is fifty five percent, though those with a higher GPA tend to take more advantage of the system. As the years go on, participation in the program drops off; by senior year less than forty percent of students utilize it. Because of the lax standards of KEES, retention throughout their college career is difficult, also numbers show that the longer a financial aid program is in place, the more expensive it becomes.

Tennessee's TELS

The Tennessee Education Lottery Scholarship has more open criteria for qualification. While most merit programs require that students have a GPA of 3.0 and a 21 on their ACT's,

TELS only requires one or the other. This program also has “add-on” components for those students with exceptional need or performed exceptionally well academically.

There are both advantages and disadvantages of merit-based programs. They do increase attendance rates among students, increase high school achievement rates, lower the net price of college, and the programs themselves are clear and simple. The disadvantages include spending money on upper class students who would have gone to college regardless if aid was offered, increase inequality in enrolment patterns, the difficulty of maintaining academic achievement to continue receiving the aid, and students tend to take fewer credits to help maintain a high GPA.

Mixture Programs

Illinois’ MAP

Illinois’ Monetary Assistance Program, or MAP, is an example of a mixture-based aid program. It originally derived from a scholarship program that provided academically able students with need some funding for their schooling. It was ultimately expanded to include all students enrolled at least part time at proprietary institutions. Participants EFC’s were adjusted to account for the cost of living in Illinois and that amount was subtracted from the tuition and the living expenses a student would incur upon enrolment. No student with an EFC of nine thousand dollars or more was allowed to participate and the minimum payout was five hundred dollars. This program admittedly does not meet all aid but supplements federal programs for in-state students.

California’s Cal Grant and New York’s EOP

Up until 2000, the Cal Grant was based solely on academic eligibility requirements but has since been replaced with an entitlement program with an academic component. The Educational Opportunity Program of New York is a similar entitlement option, enacted in 1967 its intention is more of a tutoring and retention course for those who demonstrate the potential of mastering the academic workload experienced by a postsecondary student.

The ACG

The Academic Competitiveness Grant in conjunction with the national SMART grant began in the 2006-2007 school year as a part of HERA, or the Higher Education Reconciliation Act, in an effort to facilitate the transition between high school and college in terms of academic expectations. However, due to the hasty implementation and vague requirements there have been problems achieving full participation.

Program requirements include completing a “rigorous high school curriculum” the specifications of which were determined by agents of the government, schools could also submit curricula for approval. However, since a college-prep curriculum was not offered in every high school concerns were raised regarding the exclusion of those Pell eligible schools (Choy, Berkner, Lee, & Topper, 2009). State participation varied widely, ranging from 32% to 4% and the qualifying programs were just as various.

While the Academic Competitiveness Grant lies on a different plain than most existing mixture programs because of its national application, the difficulties faced at both the state and national levels remain the same. The ability of a student aid program to provide the opportunity for all to attend the postsecondary institution of their choosing is the very measure of its efficacy as less than 40% of those students who are eligible for the Pell Grant qualify for the ACG. All of the programs listed above have encountered issues reaching minorities within their intended populations; the level of application bars no effect on this.

Previous Studies

Previous studies, including those done by the U.S. Department of Education, have pointed out those women aged 18 or younger are more likely than their male counterparts to receive the ACG. They have also found that those recipients of the Pell Grant from moderate-income families qualify for the grant more often than those of lower-income families. However, these studies have completely disregarded the demographic most emphasized by criticisms of existing aid programs: race. Other background factors include; parental marital status, dependency status, job status, family size, existence of a handicap, and the enrollment of another sibling or family member in a postsecondary institution.

I aim to include these factors in my research using the National Postsecondary Student Aid Study of Undergraduates for the 2008 year. I expect to find a disproportionate number of dependent white students to be the primary recipients of the ACG. Non-handicapped students from married parents are also expected to outnumber the other categories. In regards to the enrollment of another family member or sibling in a postsecondary institution and job status there is a little less of an obvious directional pattern.

Methods and Analysis

With the introduction of financial aid governmental subsidies and grants have been put in place to help reduce the cost of postsecondary education. Periodically, financial aid levels increase to help counteract rising inflation levels. In this section I examine the ACG program and the characteristics of those who receive it to determine whether or not this program falls

victim to the age-old critiques plaguing its predecessors; current provisions of financial aid unequally favor subsets of the population.

I conduct the analysis in multiple parts, focusing on demographic, institutional, academic, and other variables using the National Postsecondary Student Aid Survey. I use a logit analysis of a binary dependent variable given the value of 1 when a candidate receives the grant and a 0 when it does not. The independent variables fall into four main divisions: demographic, academic, institution, and other. These categories will separate the influence of these variables students have no control over and those they can influence.

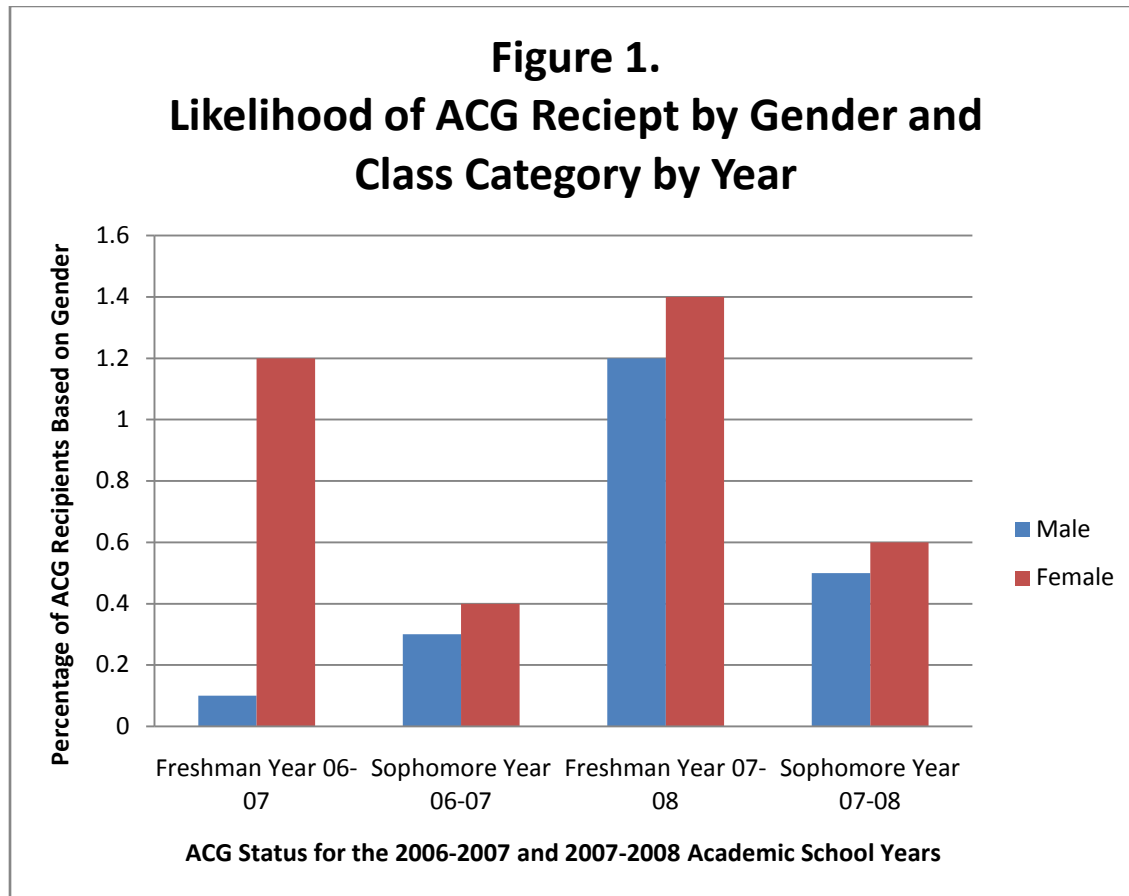
Current studies indicate a higher number of white recipients of governmental merit aid, we would therefore expect a positive value for students identified as “white” within the seven-category variable of *Race/Ethnicity*. The *Degree of Urbanization* of a candidate’s home residence was included to take into account the aspect of the environmental factors on reception rates.

One may conclude that demographic characteristics of a candidate are not considered for most financial aid programs, especially those free of racial and gender restrictions as with the ACG. Six demographic characteristics have been included to measure the degree to which background factors play in the likelihood of financial aid receipt in regards to the ACG. *Gender* is separated quite obviously into male and female categories, males equated with a value of 1 and females a 0 for dummy analysis. *Family Size* is separated into two categories with 1-2 family members coded to receive a value of 0 and 3-4 family members to receive a 1. The variable *Race/Ethnicity* is broken down into seven categories as used by the United States Census Bureau and is grouped into “white”, 1, and “nonwhite”, 0, categories for simplification and ease of interpretation. The variable *Disability* is separated into two categories, those with a disability of any kind, 1, and those without, 0. *Parental Marital Status* is separated into four categories and is further grouped into two; married and non-married, with those candidates whose parents are classified as “married” receiving a value of 1 and those whose parents are not a value of 0. The variable *Parental Education Level* is separated into ten categories ranging from less than a high school diploma to their first professional degree. I have further lumped these categories to those whose parents have less than a bachelor’s degree, coded 1, and those whose parents have a bachelor’s degree or higher, coded 0.

Those variables in the academic division of my analysis include *GPA* and *Field of Study*. *GPA* has been standardized by NPSAS to a four-point system and multiplied by 100 in order to better highlight differences in academic performance. Due to the academic requirements for this grant I have set the floor at a score of 2.0, with a max score of 4.0, each .01 point increase on the standardized scale equivalent to a 1-point increase when multiplied by 100. The variable *Field of Study* is divided into 13 categories further grouped into “hard” (coded 1) and “soft”

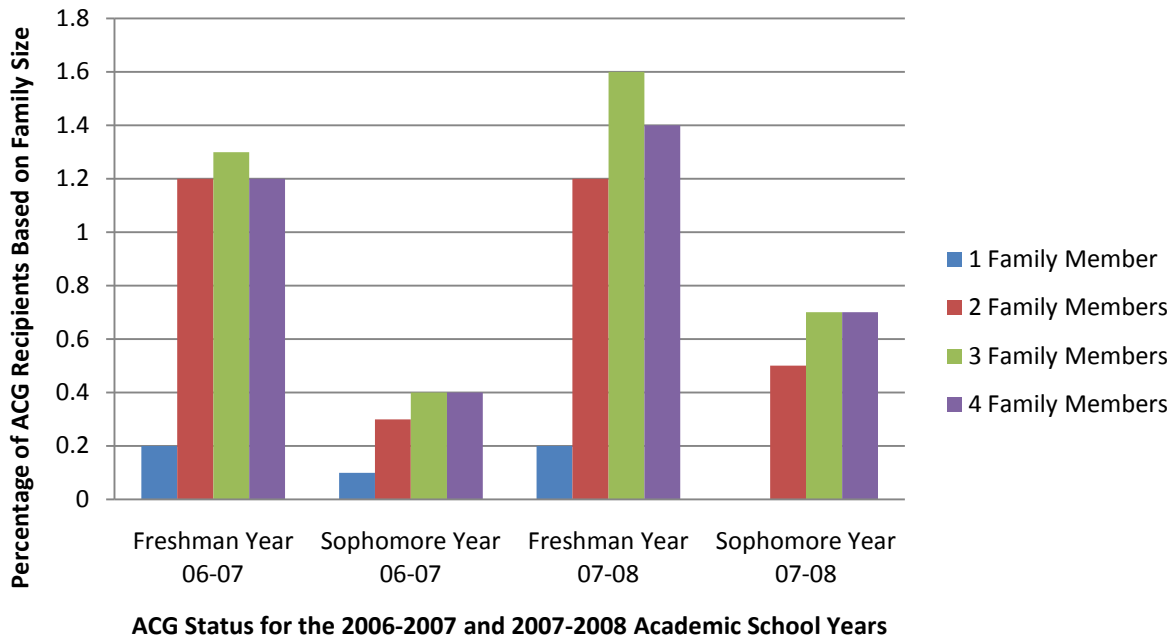
(coded 0) sciences for readability. Data sources and a detailed summary of the variables are listed in the appendix.

The variable *Institution Type* takes into account the choice and preference of the recipients. Institutions are classified into nine categories and are further grouped into “public” institutions, coded 1, and “private” institutions, coded 0.

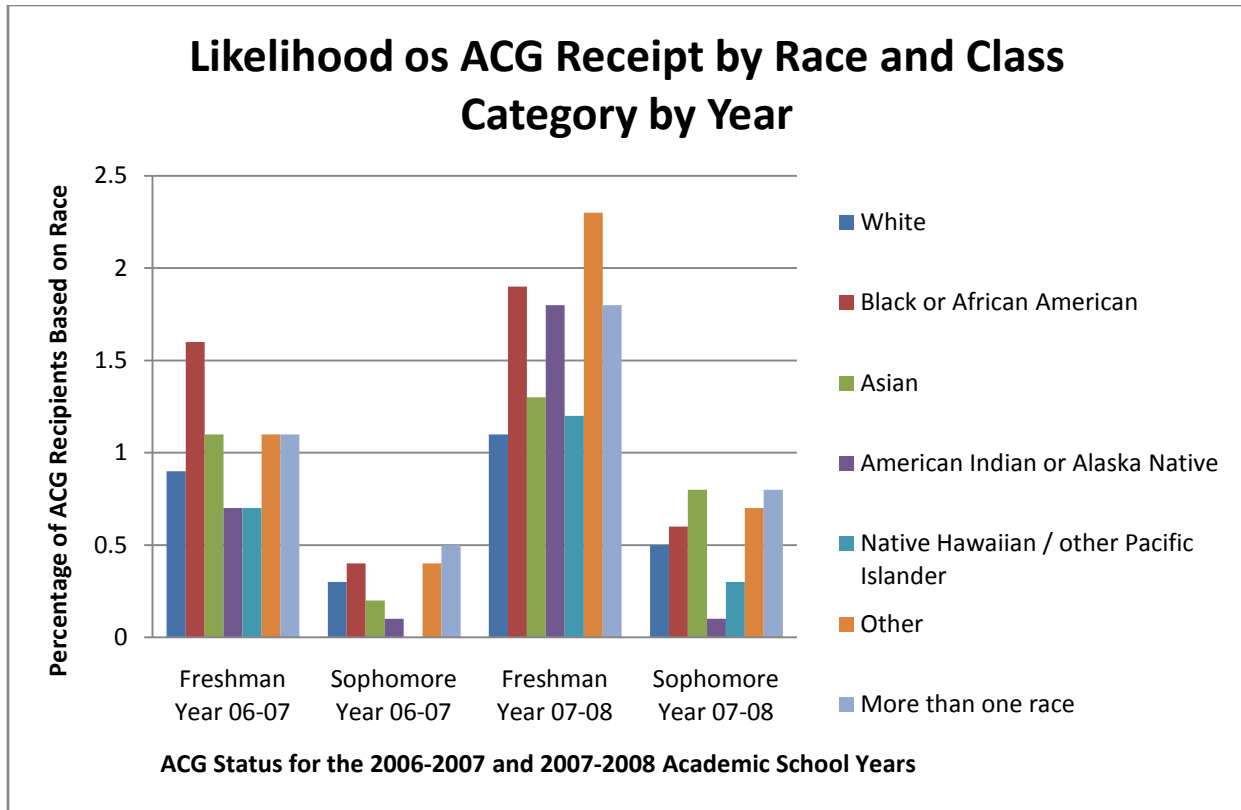


In Figure 1, the variable GENDER is separated into the obvious two categories of male and female. These figures represent the percentages of recipients within the male and female categories throughout the whole survey. Of all of those who responded male in the survey less than .2% received the ACG in their freshman year for the 2006-2007 school year, less than .4% in their sophomore year of 06-07, 1.2% for the freshman year of 07-08, and less than .6% for their sophomore year in 07-08. Of all of those who responded female in the survey 1.2% reported receiving the ACG in their freshman year for the 2006-2007 school year, .4% in their sophomore year in 06-07, 1.4% in their freshman year of 07-08, and .6% in their sophomore year in 07-08. The topmost gender of a candidate is the same for both the 2006-2007 and 2007-2008 school years with higher number of the candidates being female.

Figure 2.
Likelihood of ACG Reciept by Family Size and
Class Category by Year

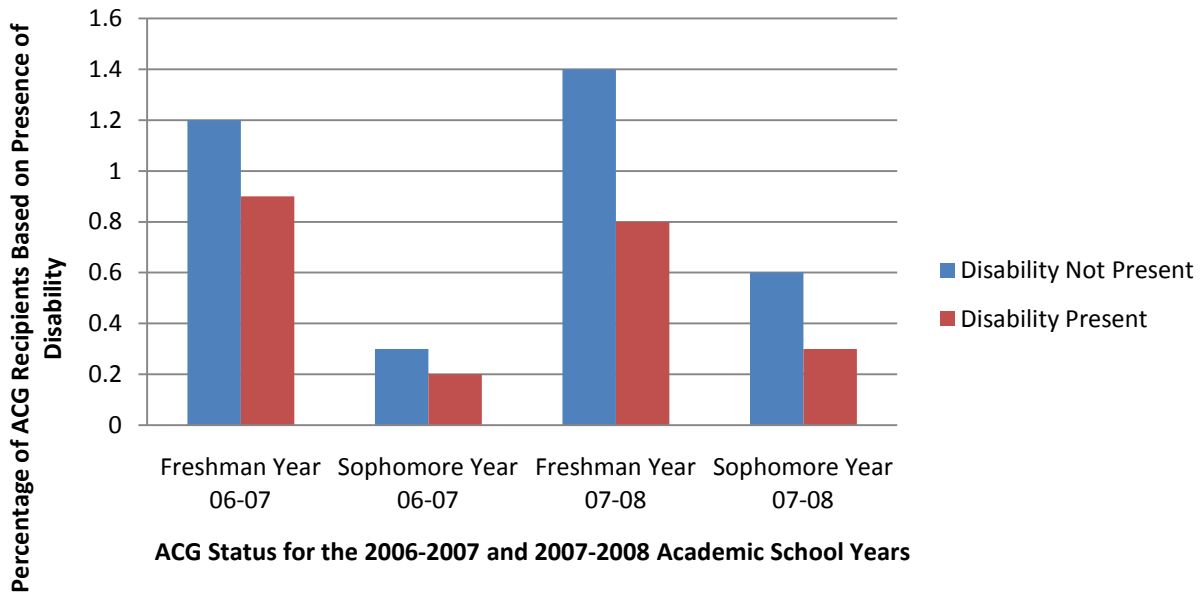


In Figure 2, the variable HSIZE had the option of up to 15 family members, however, because of the low number of recipients with the response of five members and above, I shortened my analysis to include up to four family members. This graph represents the percentage of candidates throughout the survey by number of family members who reported receiving the ACG in their freshman and sophomore years for the 06-08 academic school years. For those with one family member .2% for their freshman year for the 2006-2007 school year, less than .2% for the sophomore class in 06-07, .2% for the freshman class of 07-08, and none for the sophomore class for the 07-08 school year. For those who had two family members 1.2% for the freshman class of the 06-07 school year, less than .4% in the sophomore class within the same year, 1.2% for the freshman class in 2007-2008, and less than .6% for the sophomore year for 07-08. Those who reported having 3 family members they had less than 1.4% for the freshman year of 2006-2007 academic school year, .4% for the sophomores, 1.6% for the freshman class of in the 2007-2008 school year, and less than .8% for the sophomore class in 07-08. For those who reported having four family members 1.2% and .4% for the freshmen and sophomores for the 06-07 school year respectively, and 1.4% and less than .8% for the freshmen and sophomores for the following year. Within the freshman class for both years one can see a slight spike in the number of recipients with three family members but it is not statistically significant.



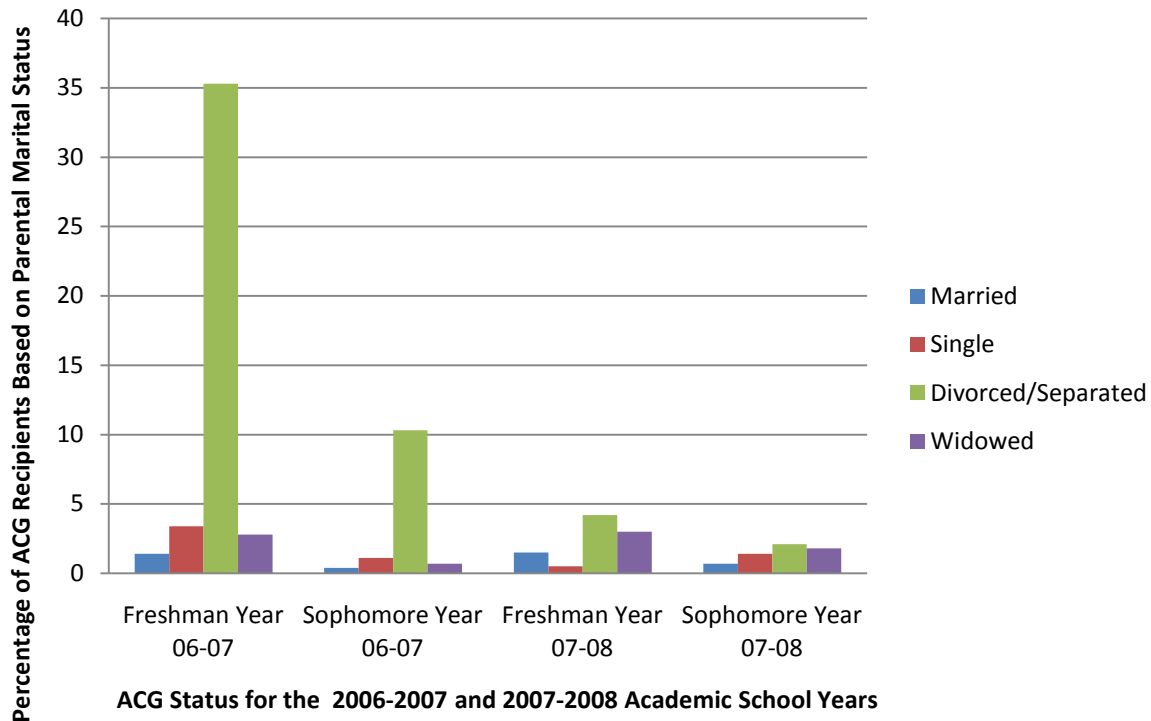
In Figure 3, the variable RACECEN was separated into seven categories used by census data to identify ACG recipients. This is a percentage of all of the survey respondents who reported their race as one of these 7 categories. For those who reported their race as white a little under 1% and under .5%, over 1% and .5% for the freshman and sophomore classes for the 06-07 and 07-08 academic school years respectively. Those that reported black received a little over 1.5%, under .5%, a little under 2%, and a little over .5% in the freshmen and sophomores for the 2006-2007 and 2007-2008 school years respectively. For the freshmen and sophomores for the 06-07 and 07-08 academic school years they reported slightly over 1%, under .5%, a little over 1%, and a little over .5%. For American Indians they reported over .5%, under .5%, over 1%, and over .5% for the freshman and sophomore class for the 2006-2008 years. Pacific Islanders reported over .5%, 0 %, over 1%, and under .5% for the freshman and sophomore classes for the 06-07 and 07-08 years. Those that reported their race as other reported over 1%, under .5%, slightly under 2.5%, and over .5% for the freshman and sophomore classes for the 2006-2008 school years. Those that reported their race as more than one race was over 1%, .5%, over 1.5%, and under 1% for the two classes in the 2006-2007 and 2007-2008 academic school years. Though the white student don't show a huge leap ahead like it would had this been a frequency graph, this merely represents the percentage within all of those within the survey.

**Figure 4.
Likelihood of ACG Reciept by Presence of
Disability and Class Category by Year**



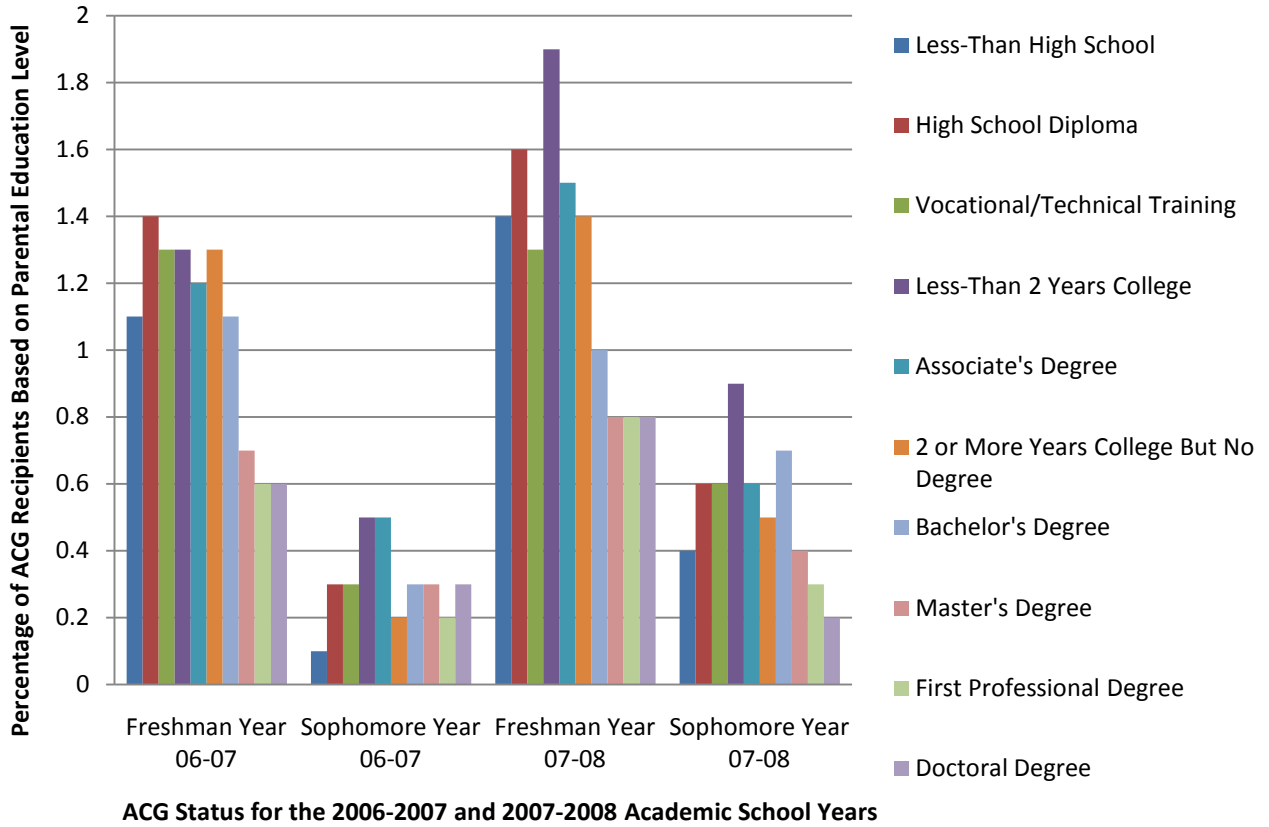
In Figure 4, the variable DISABLE is simply separated by a response of “no” or “yes” to the question of whether or not they had a disability of any kind. The percentage of all respondents within the survey who received the ACG in their freshman or sophomore year for the 2006-2007 school year was 1.2% and a little more than .2% respectively. The percentage for those who responded that they did have a disability and received the ACG in their freshman or sophomore year was a little over .8% and .2% respectively within the 2006-2007 school year. For the following year those the percentage of those surveyed who responded that they did not have a disability and received the ACG in their freshman or sophomore year was 1.4% and .6% respectively. Additionally, those who reported that they did have a disability received the grant .8% and a little over .2% for their freshman or sophomore year respectively. It is plain to see that more students without a disability have received the ACG for both the 2006-2007 and 2007-2008 school years. This could be due to the fact that there are less students with disabilities currently enrolled in college and, therefore, there are less disabled recipients.

**Figure 5.
Likelihood of ACG Receipt by Parental Marital Status and Class Category by Year**



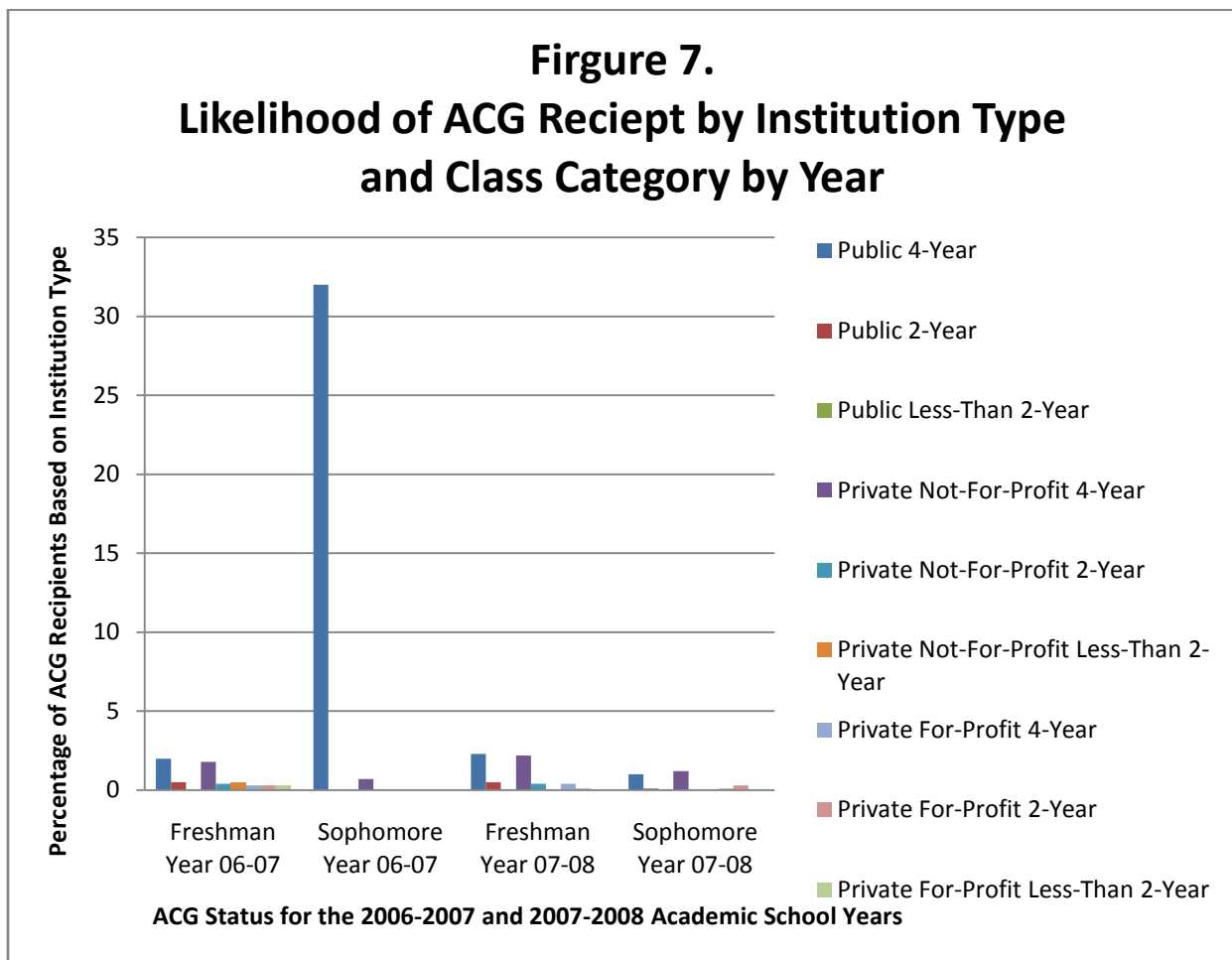
In Figure 5, the variable PMARIT is separated into four categories; married, single, divorced/separated, and widowed. The percentage of those within the survey who reported receiving the ACG in their freshman or sophomore year and that their parents were married was 1% and .1% respectively within the 2007-2007 school year. For the following year students of married parents in their freshman and sophomore years received 1.5% and .7% respectively. The percentage of those within the survey who reported receiving the ACG in either their freshman or sophomore year in 06-07 from single parents represented 3.5% and .5%, the following year they represented .1% and 1.5%. Those of divorced/separated parents represented 35.5% and 10.5% for the freshman and sophomore years in 06-07, and 4% and 2% for the 07-08 year. Students of widowed parents who received the ACG in their freshman and sophomore year during the 06-07 school year represented 3% and .4%, and 3% and 1.4% for the 07-08 year. One can see a surprising spike in the freshman class of the 2006-2007 academic school year with a significant number of the recipients being a child of a divorced/separated parent. This could also be attributed to the income cap in place, as individual parents make less money than do their married counterparts.

**Figure 6.
Likelihood of ACG Receipt by Parental Education
Level and Class Category by Year**



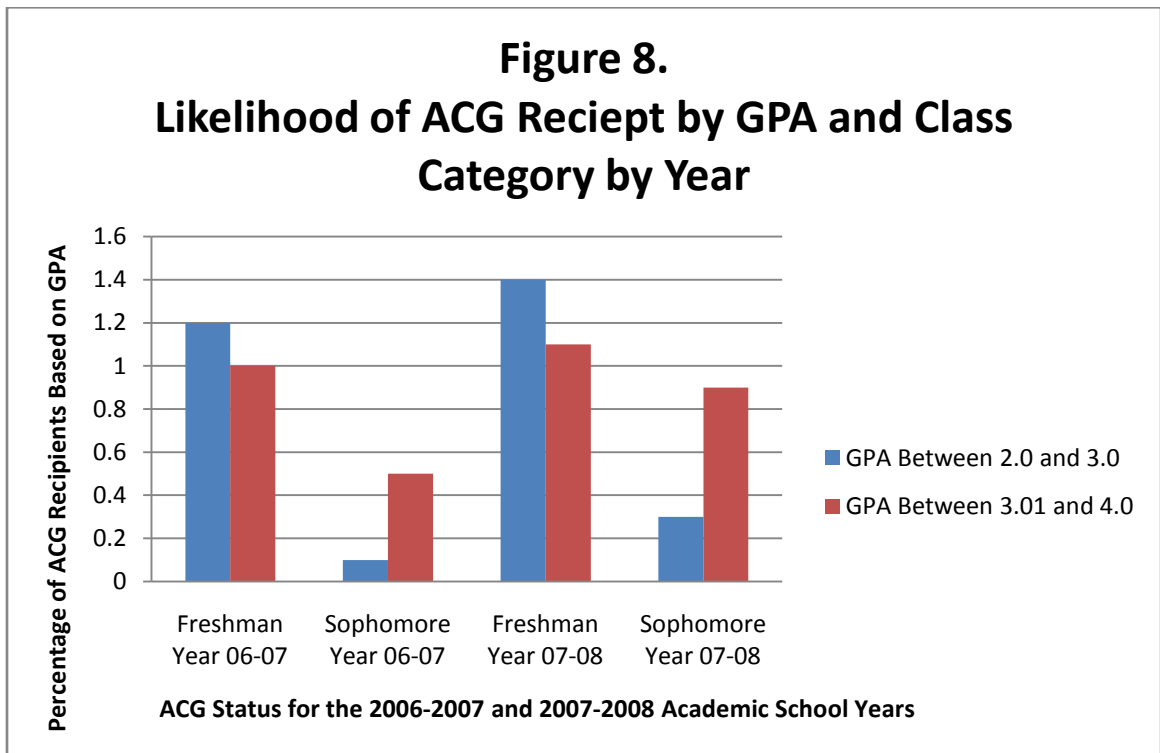
In Figure 6, the variable PAREduc is separated into 10 categories with the lowest value corresponding with the response of less than a high school diploma and the highest corresponding with a professional degree attainment. The percentage of the students within the survey who reported receiving the ACG in either their freshman or sophomore year for the 06-07 year and who were from parents with an education level of less-than high school was 1.1% and .1% respectively, and 1.4% and .4% for the 07-08 school year. Students from parents whose education level was a high school diploma represented 1.4% and .3%, and 1.6% and .6% for their freshman or sophomore year in 06-07 and 07-08 respectively. Those from parents with vocational/technical training represented 1.3% and .3%, and 1.3% and .6% for their freshman or sophomore year for the 06-07 and 07-08 school years respectively. Students from parents with an education level of less-than two years of college received 1.3% and .5%, and 1.9% and .9% for either of their first two years of college within the 06-07 and 07-08 school year respectively. Students of parents with an education level equivalent to an associate’s degree represented 1.2% and .5%, and 1.3% and .6% for their freshman or sophomore year in the 06-07 and 07-08 school year. For those of parents with two or more years of college but no degree the percentages

were 1.3% or .2%, and 1.4% or .5% for the freshman or sophomore year in the 06-07 and 07-08 school years. Students from parents with a bachelor’s degree had 1.3% or .3%, and 1% or .7% for their freshman or sophomore year in the 06-07 and 07-08 school years respectively. Students of parents with a master’s degree had .7% or .3%, and .8% or .4% for their freshman or sophomore year in the 06-07 and 07-08 school years. Those with parents with a professional degree had .6% or .2%, and .8% or .3% for their freshman or sophomore year in the 06-07 and 07-08 school years respectively. Lastly, those from parents with a doctorate degree had .6% or .3%, and .8% or .2% for their freshman or sophomore year in the 06-07 and 07-08 school years respectively. Those students who reported a parental education level of less than 2 years of college or a high school diploma or equivalent were more likely to receive the ACG, except in the sophomore class of the 2007-2008 school year where a parental education level of a bachelor’s degree came in second.



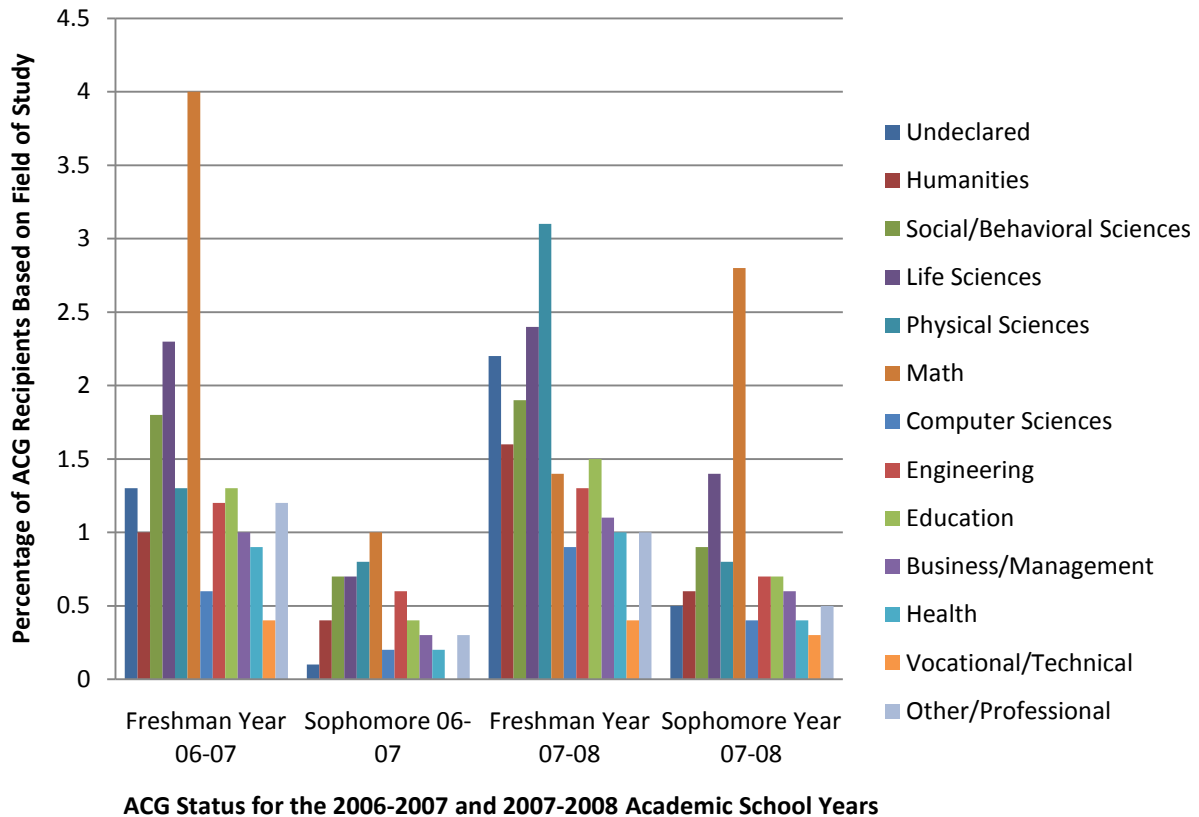
In Figure 7, the variable SECTOR1 has been separated into nine categories, ranging from public 4-year institutions to private for-profit institutions. The percentages of those within the survey who reported receiving the ACG for their freshman or sophomore year within the 2006-2007 or 2007-2008 school years who attended a public four-year institution were 2% or 33%, or 2% or 1% respectively. Those that attended public two-year institutions had .5% or 0%, or .5% or .1% respectively. Students who attended public less-than two-year institutions had 0% for both classes in 06-07 and 07-08. Those

who attended private not-for-profit four-year institutions had 1.7% or .5%, and 2% or .5% respectively. Those of private not-for-profit two-year institutions had .5% or 0%, and .5% or 0% respectively by year and class. Students attending private not-for-profit less-than two-year institutions had .5% or 0%, and 0% for both classes in 07-08. Private for-profit students had .4% or 0%, and .4% or 0% respectively. Students of private for-profit two-year institutions had .4% or 0%, and 0% or .4% respectively by class and year. Lastly, those of private for-profit less-than two-year institutions had .4% or 0%, or 0% for both classes in the 07-08 school year. It is clear that a higher percentage of ACG recipients attend public 4-year institutions than any other type with private not-for-profit 4-year institutions coming in second for both the 2006-2007 and 2007-2008 school years.



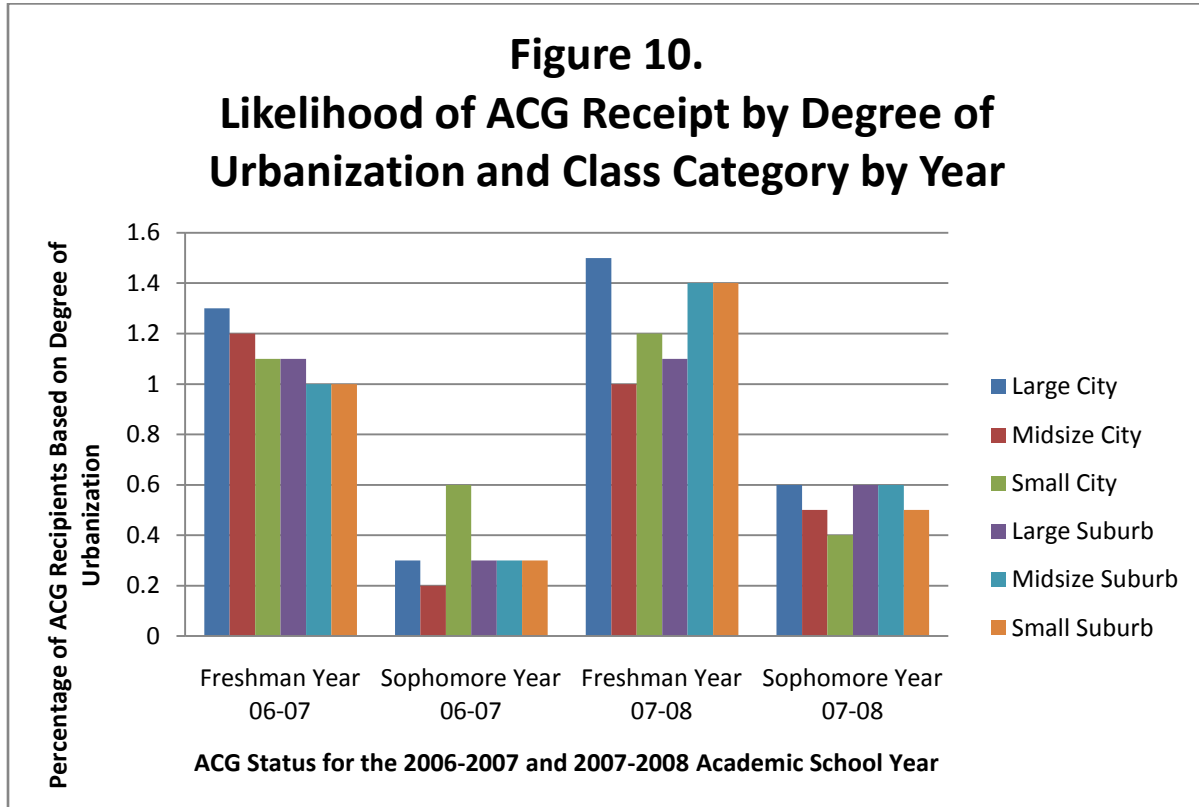
In Figure 8, the variable GPA has been standardized to a four-point scale and multiplied by 100 with a low of 1 to a high of 400, due to the academic restrictions of the ACG program I have limited my inspection to GPA scores of 2.0 (200) to 4.0 (400). The percentages of those within the survey who reported having a GPA between 2.0 and 3.0 and received the ACG for either their freshman or sophomore year were 1.2% or .1%, and 1.4% or .3% for the 2006-2007 and 2007-2008 school years respectively. Those with a GPA between 3.01 and 4.0 who reported receiving the ACG for their freshman or sophomore year were 1% or .5% and 1.1% or .9% for the 06-07 and 07-08 school years respectively. One can see that the number of recipients in their first year of college was virtually equal for those reporting a GPA of 2.0-3.0 and 3.01-4.0, however, recipients in the other years differ dramatically.

Figure 9.
Likelihood of ACG Receipt by Field of Study and
Class Category by Year



In Figure 9, the variable MAJORS is separated into thirteen categories ranging from education to engineering. I categorized these majors into 2 subdivisions; both “hard” and “soft” sciences. Under the classification of “hard” sciences I placed life sciences, physical sciences, math, computer sciences, engineering, and vocational/technical. Under the classification of “soft” sciences I placed undeclared, humanities, social/behavioral sciences, education, health, and other/professional majors. The percentage of those within the survey who reported having a major of undeclared and received the ACG for either their freshman or sophomore year within the 2006-2007 or 2007-2008 school years were 1.2% or .1%, or 2.2% or .5% respectively. Those with a humanities major had 1% or .4%, or 1.6% or .6% respectively by class and year. Social/behavioral majors had 1.7% or .7%, or 1.9% or .9% respectively by class and year. Life science majors had 2.3% or .7%, or 2.4% or 1.4% respectively by class and year. Physical science majors had 1.3% or .8%, or 3.1% or .8% respectively by class and year. Math majors had 4% or 1%, or 1.4% or 2.8% respectively by class and year. Computer science majors had .6% or .2%, or .9% or .4% respectively by class and year. Engineering majors had 1.2% or .6%, or 1.7% or .7% respectively by class and year. Education majors had .7% or .4%, or 1.5% or .7% respectively. Business/management majors had 1% or .3%, or 1.1% or .6% respectively. Health majors had .9% or .2%,

or 1% or .4% respectively. Vocational/technical majors had .4% or 0%, or .4% or .3% respectively. Other/Professional degrees had 1.2% or .3%, or 1% or .5% respectively. Math majors really stand out for both years with physical science majors cropping up in the freshman class of the 2007-2008 academic school year.



In Figure 10, the variable LOCALE was separated originally into 12 categories ranging from large city to rural remote locations for a student’s home address. The percentage of those within the survey who reported coming from a large city and receiving the ACG in their freshman or sophomore year within the 2006-2007 or 2007-2008 academic school year were 1.3% or .3%, or 1.5% or .6% respectively by class and year. Those from a midsize city had 1.2% or .2%, or 1% or .5% respectively. Small city students had 1.1% or .6%, or 1.2% or .4% respectively. Students from large suburbs had 1.1% or .2%, or 1.3% or .4% respectively. Midsize suburb students had 1% or .3%, or 1.4% or .6% respectively. Lastly, students from small suburbs had 1% or .3%, or 1.4% or .5% respectively. Due to the concentration of minorities in large cities I excluded the rural sections of this variable and focused on the large cities and the suburbs surrounding them. As one can see, students from large cities were most likely to receive the ACG but not significantly so.

Table 1 A Logit Analysis of ACG Variables for the 2006-2007 School Year

Variable	B	Odds Ratio	LN Odds Ratio
	<i>Demographic</i>		
Gender	-25.1	0.749	-0.289
Family Size	-14.6 (0.535)	0.854	-0.158
**Race/Ethnicity	84.1 (0.001)	1.841	0.61
Disability	-11.5 (0.733)	0.885	-0.122
**Parental Marital Status	-55.0 (0)	0.45	-0.798
* Parental Education Level	44.4 (.037)	1.444	0.368
	<i>Institution</i>		
Institution Type	7.6 (0.592)	1.076	0.073
	<i>Academic</i>		
*Grade Point Average	0.3 (0.028)	1.003	0.003
**Field of Study	71 (0.006)	1.71	0.53
	<i>Other</i>		
Degree of Urbanization Of Residence	26.4 (.076)	1.264	0.234
*Significant at the .05 Level		**Significant at the .01 Level	

Source: NPSAS 2008 Undergraduate Survey

Table 1 A features the logit analysis of the variables listed above for the 2006-2007 academic school year. We find that *Race/Ethnicity*, *Parental Education Level*, *GPA* and *Field of Study* are all significant in one direction or the other.

Within the demographic division we find, as expected, an 84.1% increase in likelihood for reception for white students over those classified as “minorities”. This finding once again confirms the fact that the white students receive an unequal portion of the merit grants. Those with a married set of parents within the survey were 55% less likely to receive the Academic Competitiveness Grant. This phenomenon can be explained by the income cap placed on the recipients of this grant. Those students from a dual-income household are more likely to exceed the \$45,000.00 income limit than those from a single-income or single-parent household.

The academic division shows that *GPA* also proved highly significant as each 1-point increase resulted in a .3% increase in the likelihood of ACG reception. The standardization of this coefficient is what leads to the seemingly tiny incremental changes within the increase of GPA score. GPA scores were standardized into a 400-point scale to help even the calculations for those using unconventional grading methods.

Table 1 B Logit Analysis of ACG Variables for the 2007-2008 School Year

Variable Name	B	Odds Ratio	Ln Odds
<i>Demographics</i>			
Gender	-17.4 (0.213)	0.826	-0.192
*Family Size	52.5 (0.049)	1.525	0.422
Race/Ethnicity	31.7 (0.079)	1.317	0.276
Disability	18.7 (0.525)	0.813	-0.207
**Parental Marital Status	-76.4 (0)	0.236	-1.444
**Parental Education Level	53.5 (0)	1.535	0.428
<i>Institution</i>			
Institution Type	11.7 (0.301)	1.117	0.111
<i>Academic</i>			
**Grade point Average	0.4 (0.001)	1.004	0.004
*Field of Study	44 (0.042)	1.44	0.365
<i>Other</i>			
Degree of Urbanization Of Residence	12 (0.395)	1.12	0.113

Significant at the .05 Level** * Significant at the .01 Level**

Source: NPSAS 2008 Undergraduate Survey

Table 1 B features the logit analysis of these variables for the 2007-2008 academic school year. We find that within this table *Parental Marital Status, Parental Education Level, GPA, and Field of Study* are once again significant. Curiously, while an overwhelming number of recipients are white, *Race/Ethnicity* is no longer a significant factor of the likelihood of receipt.

This time, within the demographic division we find that those with married parents are 76.4% less likely to receive the ACG and those with parents whose education level was less than a bachelor's degree were 53.5% less likely. Due to the income cap for the ACG, this could possibly be attributed to the higher income levels of those who attain higher postsecondary degrees.

In the academic division we see a .4 increase in the probability of reception and the degree of change associated with every 1-point increase in GPA to .4%. *Field of Study* analysis shows that those entering into "hard" science majors were 44% more likely to receive the ACG than those studying in the "soft" science category.

Conclusions

My research proves that once again minorities have not been able to gain access to a governmental financial aid program (Doyle,2008). With the ACG females also get their fair share, as per usual in regards to academic merit scholarships, closing the gap between the genders within postsecondary institutions. The income cap of \$45,000, top qualifying income for Pell Grant recipients, also combats the current of merit-based financial aid.

Though I encountered issues using the NPSAS data system I was successful in creating a comprehensive profile for the current recipients of the ACG and measure the impact of specific factors on the likelihood of reception. While basic covariance analysis and logit regression was possible, the inability to acquire the data set limited my ability to manipulate my variables to allow for common measures of association or recoding.

Due to the recentness of the program deep analysis wasn't possible; the first recipients of the Academic Competitiveness Grant are in their second or third year of study, just shy of graduation. In further research I hope to examine the success of the program in terms of graduation rates of the recipients. I would like to compare those rates with those of the recipients of the Pell Grant in addition to and instead of the ACG as well as those who have received no type of governmental assistance. I hope to highlight the importance of the merit component in the provision of governmental funds. The ability of low-income students to demonstrate academic achievement and a talent for college-level work should be awarded financial assistance above those who perform weakly in academics.

Appendix

Table A1 Data Descriptions

Variables	Description		
ACGST07-	Dummy=1 if received the ACG		
ACGST08-	Dummy=1 if received the ACG		
DISABLE-	dummy=1 if disability present		
GENDER-	Dummy=1 if male		
GPA-	GPA standardized to 4-point scale and multiplied by 100	286.6682	75.6119
HSIZE-	Dummy=1 if 3-4 members in the family		
LOCALE-	Dummy=1 if “extremely urban” home residence		
*MAJORS-	Dummy=1 if major classified as a “hard science”		
PAREduc-	Dummy=1 if parents’ education level >Bachelors		
PMARIT-	Dummy=1 if parents are married		
RACECEN-	Dummy=1 if classified as “white”		
SECTOR1-	Dummy=1 if the institution is public		

Due to the difficulty I encountered in the access to the NPSAS Undergraduate Survey 2008, I was limited in my methods of analysis. I was only able to construct a dummy variable logit regression for all of the variables except the interval-level GPA.

*For the variable MAJORS the classification of “hard sciences” included life sciences, physical sciences, math, computer sciences, engineering, and vocational/technical sciences. Those classified as “soft sciences” (coded 0) included undeclared, humanities, social/behavioral sciences, education, business/management, and other.

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