

# Advancing or Hindering the Next Generation? A Look at Financial Aid for Minority Graduate Students

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*African American and Hispanic participation in graduate and professional programs has increased over the last decade, but the literature on how these students financially support their education is limited. The purpose of this study is to examine the differences in financial aid awards and awarding patterns among African American, Hispanic and white graduate students. The 2004 National Postsecondary Student Aid Study database was utilized to study the financial support and borrowing habits of full-time graduate students. Through the theoretical lens of “disparate impact”, findings revealed that African American students received less institutional dollars and borrowed more money at both graduate and undergraduate levels. Also, the financial support Hispanic students received and amount of money borrowed were parallel to White students. The study concludes with some specific recommendations for institutions.*

African American and Hispanic participation in graduate and professional programs has increased over the last decade. A recent report from the Council of Graduate Schools (CGS) stated that racial and ethnic minority students comprised 28 percent of first-time enrolled graduate students (Bell, 2009). While this percentage is encouraging, African Americans and Hispanics continue to lag behind their white counterparts in enrollment and degree attainment. In fact, CGS indicates that African American and Latino bachelor degree recipients are less likely to complete a graduate program (CGS, 2009).

There have been numerous studies of minority participation in graduate education. Most of the studies have examined areas such as socialization (Nettles, 1990), access (Heller, 1999), and time-to-degree (Girves & Wemmerus, 1988). There are also the seminal texts by Bowen and Rudenstine (1992) and Nettles (2006) that take a comprehensive view of the graduate education experience. Most of the studies have mentioned financial aid as a key element in recruitment and persistence in graduate school. Few studies, however, have specifically examined financial aid and the awarding patterns for graduate students. In a 1985 article, Olivas examined financial aid packaging policies and their impact on undergraduate Hispanic enrollment. In his study, he identified four packaging models: (1) Individual Benefit (work-study, unsubsidized loans, personal and family resources); (2) Societal Benefits (subsidized grants and subsidized loans); (3) Individual or Group Characteristic Benefit (subsidized grants, loans and personal resources indexed according to specific characteristics); (4) Mixed Purpose Packages (work-study, loans, grants, award for characteristics, personal and family resources). Olivas found that Hispanics were predominately represented in what he called the “single source” categories of

packaging models “societal benefit” and “individual or group characteristic benefit.” He suggests this may have implications for where undergraduate students enroll (2-year vs. 4-year institutions) and the tenuous position they may find themselves in if federal funding for programs such as Pell grants are reduced.

The literature on financial support for graduate students is limited. Other than the 2009 CGS report, little research has been done on the sources of funding and awarding patterns. CGS found that 73.5 percent and 85.9 percent of all master’s and doctoral students, respectively, received some form of aid. In addition, they found that financial aid for African American and Hispanic students continued to fall short of the aid received by white and Asian American students. This study expands on that work by examining the difference in financial aid awards and awarding patterns among African American, Hispanic and white graduate students.

The 1960s was a decade of change for the United States. The civil rights movement, the women’s movement, and opposition to the Vietnam War created a framework for the transformation of American society. Higher education institutions were affected by these movements and saw changes that included new curricula and a reexamination of policies and procedures. In addition to these changes, institutions also experienced an increase in the number of racial and ethnic minority students. Federal policies such as the Civil Rights Act of 1964 promoted an environment that resulted in greater access for African American students. While the Civil Rights Act of 1964 created opportunities for larger numbers of African American students to gain access to predominately white institutions, the experience for many African American students was not the same as for their white counterparts. Ballard (2004), referring to the education of African Americans in the 1960s, noted:

The University fancied itself free of racism and imbued with the belief that it is the man, not the color, that counts. But self-perception is often fatally in conflict with the perception of others. The white American university, as viewed by blacks, was white and racist.

In particular, campus climates were described as being cold and uninviting for minority students (Fleming, 1984). And even as the number of minority students on our campuses increase, college campuses and students of color continue to struggle with campus climate issues (Locks, Hurtado, Bowman, & Oseguera, 2008; Rankin & Reason, 2003; Solorzaro, Ceja, & Yosso, 2000). Although campus climate is important for the matriculation and persistence of students in graduate programs, the study by CGS found that financial support was the most important factor that contributed to completion.

## **Background to the Study**

One way to understand the awarding of financial aid to graduate students is through the lens of “disparate impact.” Title VII of the Civil Rights Act of 1964 prohibits employers from treating employees differently because of their membership in a specific group. In essence, Title VII speaks to the “disparate treatment” of individuals due to their membership in a specific

group. It was characterized as being “intentional discrimination” against a group or individual. During the 1970s the concept of “disparate impact” was introduced in the legal field. First used by the Supreme Court in the 1971 case of *Griggs v. Duke Power Co.* (401 U.S. 424, 431-2), the ruling suggested there were practices that served as barriers to minority groups. Disparate impact has been defined as the “...facially neutral practice that has an unjustified adverse impact on members of a protected group” (USLegal.com, n.d.). The Court recognized there may be “good intention,” but that certain “mechanism” can be put in place that result in a “disparate impact” on certain individuals or groups. Practices that have been subject to a disparate impact challenge include: (1) written tests, (2) height and weight requirements, and (3) educational requirements.

A recent article in the *Chronicle of Higher Education* (Basken, 2010) suggested that the U.S. Department of Education would take a more aggressive approach to examining civil rights issues on college campuses. Russlynn Ali, Assistant Secretary for Civil Rights, stated the Department of Education would use disparate impact analysis to examine outcome data. Heller and Shapiro (2001) also utilized the disparate impact frame in a study that examined high-stakes testing. In particular, the study examined the legal precedent for the three-step process needed to prove disparate impact. Elizabeth Mooney O’Callaghan (cited in Cook, 2006) also used the concept of disparate impact in a presentation on women and the tenure process. She suggests that the numbers are still dismal for women in academe. More men than women are on the tenure track and that women are a disproportionate number of adjuncts. The tenure system (or mechanism) is set up to be neutral but does, in fact, disadvantage women. While arguments have been advanced in the legal field and in academe that question the legitimacy of using disparate impact (Ricketts, 2010; Braceras, 2002), the concept is salient for an examination of institutional aid policies and how they may impact various student populations.

For the purpose of this paper, the concept of disparate impact is used to examine the awarding of financial aid to graduate students, and whether the awarding patterns for financial aid produce a disparate impact on minority graduate students. Specifically, this research focuses on funding patterns and their impact on various graduate student populations.

This study seeks to answer the following questions:

- 1) What are the sources of institutional support for African American, Hispanic, and white graduate students?
- 2) What are the borrowing levels of African American, Hispanic, and white graduate students?
- 3) Is there a statistically significant difference in the institutional support and borrowing levels of African American, Hispanic, and white graduate students?

## Methodology

The 2004 National Postsecondary Student Aid Study (NPSAS:04) database was used to study the financial support and borrowing habits of full-time graduate students working on either a master's or doctoral degree by race/ethnicity. NPSAS:04 is described as:

a comprehensive study of financial aid among postsecondary education students in the United States and Puerto Rico that provides information on trends in financial aid and on the ways in which families pay for postsecondary education...The primary objective of NPSAS:04 is to produce reliable national estimates of characteristics related to financial aid for postsecondary students (National Center for Education Statistics online, n.d.).

NPSAS:04 also served as the base year of data collection for the Beginning Postsecondary Students Longitudinal Study (BPS), which followed a cohort of students from the start of their postsecondary education and collected further data from them in 2006 and 2009. NPSAS:04 utilized a web-based instrument for both self- and telephone-administration. Sufficient comparability in survey design and instrumentation was maintained to ensure that important comparisons with past NPSAS studies could be made. Approximately 109,210 undergraduate, graduate, and first-professional students enrolled in postsecondary education between July 1, 2003, and April 30, 2004, comprised the student sample, with special concern for the accurate sampling of students eligible to participate in the BPS longitudinal studies in the future. Students were selected on a flow basis from the institutions providing lists. Of the 109,210 students sampled, 8,200 were determined to be ineligible for the study, resulting in 101,010 eligible student sample members (Cominole, Siegel, Dudley, Roe, & Gilligan, 2004).

The full-time graduate students in this study were 82 percent white, eight percent African American, and 10 percent Hispanic. Additionally, the majority of the students were female (52%) and are working on a doctorate (62%). An analysis of covariance (ANCOVA) was used to analyze data to determine if there were statistically significant mean differences. The covariate for this study was institutional type.

Thirteen variables (i.e., total institutional aid, amount still owed on all education loans, and cumulative amount borrowed for education) were studied related to institutional financial support and amount of money borrowed using NPSAS:04. See Table 1 for variable names.

## Results

ANCOVA was utilized to analyze data to determine whether the means were significantly different by race/ethnicity. The least square means presented by race/ethnicity were used because it adjusted for the covariate, institutional type (see Table 2).

Eight of the 13 variables studied were statistically significant: (1) total institutional aid ( $F=3.11$ ,  $p=.04$ ); (2) total assistantships amount ( $F=3.76$ ,  $p=.0234$ ); (3) amount still owed on all education loans ( $F=17.89$ ,  $p=.0001$ );

**Table 1: Demographics of Full-Time Graduate Student (n=2960)<sup>1</sup>**

Demographics	Frequency	Percentage
Gender		
Male	1,410	48
Female	1,550	52
Race/Ethnicity		
Black/African American <sup>1</sup>	250	8
Hispanic or Latino <sup>1</sup>	280	10
White <sup>1</sup>	2,430	82
Graduate degree program		
Master's	1,110	38
Doctoral	1,850	62
Major		
Humanities	350	12
Social/Behavioral Sciences	500	17
Life Sciences	320	11
Math/Engineering/Computer Science	310	10
Education	390	13
Business/Management	270	9
Health	380	13
Law	50	2
Others	390	13

Source: U.S. Department of Education, NCES, 2004 National Postsecondary Student Aid Study.

Note: <sup>1</sup>IES/NCES requires restricted data sample size to be rounded to the nearest 10.

(4) amount still owed on all graduate education loans ( $F=12.50$ ,  $p=.0001$ ); (5) amount owed on all undergraduate education loans ( $F=12.46$ ,  $p=.0001$ ); (6) cumulative borrowed for education ( $F=13.85$ ,  $p=.0001$ ); (7) cumulative amount borrowed for graduate education ( $F=9.17$ ,  $p=.0001$ ); and (8) cumulative amount borrowed for undergraduate education ( $F=9.11$ ,  $p=.0001$ ). The Wilks' Lambda value was at 98 percent and Pillai's Trace  $p$ -value was significant at .0001.

**Table 2: Least Square Means and ANOVA P-Values for Graduate Students Receiving Institutional Support and Borrowing Funds**

	African American (N=250) <sup>1</sup> LS Mean	Hispanic (N=280) <sup>1</sup> LS Mean	White (N=2430) <sup>1</sup> LS Mean
Total graduate waivers	\$5,331	\$5,420	\$6,080
Institutional aid total*	8,823	10,056	10,938
Graduate assistantship amount	345	529	488
Research assistantship amount	2,115	2,332	2,820
Teaching assistantship amount*	1,484	2,139	2,113
Total assistantship amount	3,944	5,000	5,421
Total aid amount	17,871	16,539	18,067
Amount still owed (all education)***	37,965	24,354	24,470
Graduate loan amount owed***	27,667	18,016	18,155
Undergraduate loan amount owed***	10,299	6,339	6,315
Cumulative borrowed for education***	37,425	25,304	25,986
Cumulative borrowed for graduate education***	25,872	17,563	18,105
Cumulative borrowed for undergraduate***	11,553	7,741	7,882
Wilks' Lambda value = 0.980			
Pillai's Trace p-value = .0001			

Source: U.S. Department of Education, NCES, 2004 National Postsecondary Student Aid Study.

Note:

\* $p \leq 0.05$ , \*\* $p \leq 0.01$ , \*\*\* $p \leq 0.001$  for ANCOVAs.

<sup>1</sup>IES/NCES requires restricted data sample size to be rounded to the nearest 10.

The findings revealed that African American students received less institutional financial aid and borrowed more money at both graduate and undergraduate levels. The financial support Hispanic students received and amount of money borrowed were parallel to white students for several variables. The statistically significant differences, based on post-hoc examinations, were between African American and white students and/or African American and Hispanic students.

**Table 3: Percentage of Graduate Student Financial Aid Support by Race/Ethnicity**

	White	African American	Hispanic
Total graduate fellowship, grants, traineeships, waivers			
≤ \$6,000	81.16	9.10	9.74
> \$6,000	83.90	7.06	9.04
Institutional aid total			
≤ \$11,000	80.67	9.56	9.78
> \$11,000	84.16	6.73	9.12
Other graduate assistantship amount			
≤ \$480	82.03	8.48	9.49
> \$480	81.56	8.38	10.06
Research assistantship amount			
≤ \$2,800	81.27	8.99	9.74
> \$2,800	0.00	0.00	0.00
Teaching assistantship amount			
≤ \$2,062	81.26	9.08	9.67
> \$2,062	85.11	5.95	8.93
Total assistantship amount			
≤ \$5,300	80.83	9.54	9.64
> \$5,300	84.57	6.15	9.28
Aid total amount			
≤ \$18,000	81.41	7.95	10.64
> \$18,000	82.66	9.06	8.28
Amount still owed on all education loans			
≤ \$26,000	84.11	5.96	9.93
> \$26,000	78.15	13.07	8.78
Amount still owed on all graduate education loans			
≤ \$19,000	83.73	6.54	9.73
> \$19,000	78.37	12.54	9.09

**Table 3: Percentage of Graduate Student Financial Aid Support by Race/Ethnicity (cont.)**

	White	African American	Hispanic
Amount still owed on all undergraduate education loans			
≤ \$6,700	83.78	6.59	9.62
> \$6,700	77.80	12.91	9.29
Cumulative borrowed for education			
≤ \$27,000	83.71	6.22	10.08
> \$27,000	79.09	12.33	8.58
Cumulative borrowed for graduate school			
≤ \$19,000	93.31	6.93	9.77
> \$19,000	79.25	11.74	9.01
Cumulative borrowed for undergraduate education			
≤ \$8,200	83.67	6.60	9.72
> \$8,200	78.75	12.12	9.14
Can afford school without working			
No	81.22	8.92	9.87
Yes	86.65	5.85	7.49
Effect of job on graduate school			
Not a student working to meet expenses	81.56	8.60	9.85
Positive effect	80.68	7.39	11.93
Negative effect	82.91	9.83	7.26
No effect	85.63	6.32	8.05

Source: U.S. Department of Education, NCES, 2004 National Postsecondary Student Aid Study.

Table 3 presents information on the percentage of financial aid support by race/ethnicity of the graduate students. The dollar amounts were based on the mean for each variable. If the dollar amount of the variable was at the mean or less than the mean, it is represented by “≤” and is considered a “low” amount. If the dollar amount was greater than the mean, it is represented in the table as “>” and is considered a “high” amount. The results revealed that white students received a higher amount of total graduate fellowships, grants, traineeships and waivers; total institutional aid; teaching assistantship amounts and total assistantship amounts. White and African American students both had a high amount of total aid. Hispanic graduate students received a high amount of other graduate assistantships. On the other hand, African American students had a high amount of loans borrowed and amount of loans still owed. Specifically, they had high amount still owed on all

loans, amount still owed on graduate loans and undergraduate loans, cumulative borrowed for education, and cumulative borrowed for both graduate and undergraduate education. These findings are consistent with data reported in Table 2 of the least squared means and MANOVA.

Additionally, the graduate students were asked if they could afford school without working. The majority of the white students responded “yes,” but the majority of African American and Hispanic students responded “no.” The students were also asked about the effect of employment on grades. The white students responded there is no effect; the African American students responded that there is a negative effect; and the Hispanic students responded there is a positive effect.

## **Conclusions and Implications**

Recent research conducted by CGS found that if institutions are really interested in supporting graduate students of color they should strongly consider two key elements; financial support and collaborative mentoring (Bell, 2009).

Financial support has been defined in this study as the amount of institutional aid provided to students. This study found that African American students received fewer institutionally controlled dollars in support of their education. In particular, African American students received lower amounts of graduate, research and teaching assistantship funds. These figures alone cannot explain why African American students received less financial support than their white and Hispanic counterparts, but they do suggest that there is a disparate impact on African American students in the awarding pattern of these institutional dollars.

Institutions implement policies that guide the recruitment and selection of students for assistantships and the awarding of those assistantships. Even though institutional policies regarding the awarding of assistantships may appear equitable on the surface, the numbers suggest a disparate impact in the awarding pattern on African American students. African American participation as graduate, research or teaching assistants is important in the overall educational process. Various studies have identified assistantships as not only a source of financial support, but also a major conduit for socialization to the profession (Nettles, 1990, 2006). Access to assistantships would also increase access to faculty who could serve as mentors.

As noted previously, CGS found that financial support and mentoring are the key elements that institutions must provide if they want their students of color to succeed. Assistantships have the potential of meeting both of these needs. Without this support, the persistence of students of color, and in particular African American students, in graduate programs may be in jeopardy.

This study also reveals that African American students are borrowing more money to support their study than their white and Hispanic counterparts. African American graduate students borrowed, on average, \$25,872 during the course of their studies while white students borrowed an

average of \$18,105 and Hispanic students, \$17,563. *The Chronicle of Higher Education* reported that the debt load for African American students varies by discipline (April 6, 2007). African American doctoral students in the social sciences incurred the highest level of debt, while students in education funded more of their studies through personal finances. However, as a group, African American graduate students leave school with a greater debt load than any other ethnic group. A heavy debt load has strong implications for African American doctoral students. The impact on their professional life once they leave the university can be overwhelming. Completing a graduate degree is often accompanied by relocation expenses and all of the accoutrements that come with starting a career. African American students who attend full-time must consider this and the time it will take to recoup wages lost while pursuing a graduate degree.

The findings in this study have important implication and raise the question of the disparate impact of current aid award policies on our campuses. Policies and procedures that support the current financial aid awarding process could potentially serve as a barrier to African American graduate students. This study found a statistically significant difference in the funding patterns for African American and majority graduate students. Interestingly, funding patterns for Hispanic students mirrored those of white students. While this sounds counterintuitive, additional study may be required to understand the similarities in the awarding patterns between Hispanic and white graduate students. The good news is that the literature demonstrates a slight closing of the gap in participation rates between minority and majority students. The troubling news is that African American students continue to lag behind in the receipt of institutional dollars to support their graduate study. Consequently, they have to borrow greater amounts to support their graduate work. We suggest that financial aid awarding patterns demonstrate a disparate impact on African American students. Proving disparate impact starts with an examination of the data (e.g., financial aid support). Policies and procedures that support the current awarding process could potentially serve as a barrier to graduate students of color.

## **Recommendations**

The practices at the graduate institutions represented in this study may not have been intentional, yet the evidence reveals a disparity in the amount of aid awarded to African American students. Certain mechanisms may be in place at these institutions that increase the potential for a disparate impact. College administrators must examine their policies and create new tactics to address this disparity. Here are some specific areas to which institutions should pay attention:

### **1) Institutions should examine their policies surrounding the awarding of graduate assistantships and the distribution of information on assistantships.**

Students of color may not have the same access to information as their white counterparts. Being “out of the loop” can perpetuate a pattern of who receives assistantships. Assistantship availability is traditionally posted to institution websites, but just as often, the information may be shared by

word of mouth among faculty and current graduate assistants. If students of color are not “in the loop,” they do not receive timely information about these opportunities. Institutions should devise multiple methods of advertising and purposefully connecting to students of color.

**2) Institutions should examine deadlines to determine how they might impact graduate students of color.**

Assistantship deadlines have a purpose. They serve to provide guidance to students in completing all necessary documents and to allow sufficient time for the evaluation of those documents. Institutions should examine their deadlines to ensure that they are not arbitrary and that they support the intent of the application process. Similar to the suggestion above, students of color may not hear about assistantships until near the close to the deadline for submission of materials. This can result in incomplete applications which may automatically eliminate them from consideration. Institutions must not only publicize the availability of assistantships, but should also look for ways to ensure that all students have the opportunity to submit complete documentation.

**3) Institutions should provide information on debt counseling.**

Many graduate students (27%) are first-generation students (Bell, 2008). These students may not recognize some of the pitfalls of borrowing money. Institutions should consider offering debt counseling to these students to educate them about the pitfalls of student loan borrowing. This type of education could take place as part of a graduating senior capstone class or as part of an introductory graduate course. This would also be an opportune time to promote the availability of graduate assistantships.

**4) Institutions should create opportunities for students to interact with faculty.**

The “chilly climate” has been discussed in numerous studies when identifying barriers to minority participation (Turner & Myers, 2000). Quite often graduate students of color, particularly those at predominately white institutions, are not comfortable in approaching faculty about possible assistantship or scholarship opportunities. Institutions should create structured opportunities for faculty and student interaction. These could range from informal luncheons to the assigning of multiple mentors who would address the various elements that comprise a successful doctoral experience. Multiple mentors could address the areas of academic preparation and studying, personal issues, and institutional politics. Having more than one mentor provides a larger network for the student and provides multiple perspectives on the institution and the meaning of success.

Participation of students of color in graduation programs is important to most colleges and universities. Therefore, it is incumbent on institutions to examine the participation rates of students of color and to look at potential barriers they may face. As suggested in this study, finances are a major barrier to students of color. Policies on the awarding of institutional

dollars in the form of assistantships and fellowships should be reviewed for equitable distribution. Institutions should examine their financial aid and assistantship awarding process to expose any policies that may inadvertently result in a disparate impact on African American students.

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