

A Gap in the Literature: The Influence of the Design, Operations, and Marketing of Student Aid Programs on College-Going Plans and Behaviors

By Laura W. Perna

Laura W. Perna is an assistant professor in the Department of Education Policy & Leadership for the College of Education, University of Maryland

This article describes what is known from prior research about the impact of student financial aid program design, operations, and marketing on the formation of family (including parents' and children's) college-going aspirations, expectations, and plans, and the resulting college-going behaviors of potential students. The review focuses on the experiences of lower-income, minority, and potential first-generation college students.

A primary purpose of the student financial aid programs established under Title IV of the Higher Education Act of 1965 is to ensure that inadequate financial resources do not limit access to college. Nonetheless, despite nearly 40 years of investment in student financial aid programs—by federal and state governments, higher education institutions, and other entities—college access and choice remain stratified by both family income and race/ethnicity. Although students received about \$81.5 billion through federally supported programs in 2003-04 (The College Board, 2004), families with low incomes, first-generation college students, African Americans, and Hispanics were less likely than other students to enroll in college. When they did enroll, these students were concentrated in lower-price institutions, such as public two-year colleges and less selective four-year colleges and universities (Baum & Payea, 2004; National Center for Education Statistics [NCES], 2003, 2004; Thomas & Perna, 2004).

For example, although college enrollment rates generally have been increasing over time for all groups, the approximately 30 percentage-point gap in college enrollment between low- and high-income students is comparable in size to the gap that existed in the 1960s (Gladieux & Swail, 1999). In 1999, 57% of low-income students enrolled in college, compared with 86% of high-income students (Gladieux & Swail, 1999). Other analyses show that in 1999-00, students from families with incomes below \$30,000 represented smaller shares of the populations at private four-year (19%) and public four-year (23%) institutions than at public two-year institutions (30%, Baum & Payea, 2004). In contrast, students from families with incomes of \$90,000 or more represented substantially higher shares of students at private four-year (30%) and public four-year (21%) institutions than at public two-year institutions (13%, Baum & Payea, 2004).

Only 52% of Hispanics and 55% of African Americans who completed high school in 2001 enrolled in college in the fall after graduating from high school, compared with 64% of Caucasians.

In terms of racial/ethnic group differences, enrollment rates also continue to be lower for African Americans and Hispanics than for Caucasians. Only 52% of Hispanics and 55% of African Americans who completed high school in 2001 enrolled in college in the fall after graduating from high school, compared with 64% of Caucasians (NCES, 2004). Among those who enrolled, both African American and Hispanic first-time undergraduates were relatively concentrated in two-year rather than four-year institutions. African Americans represented a higher share of first-time freshmen at two-year institutions than at four-year institutions in fall 2001 (14.0% versus 11.1%). Following a similar pattern, Hispanics represented 12.2% of first-time freshmen at two-year institutions in fall 2001, but only 6.6% of first-time freshmen at four-year institutions (NCES, 2003).

Some observers (e.g., Advisory Committee on Student Financial Assistance, 2002; St. John, 2003) argue that continued gaps in educational opportunity are primarily due to the inadequacy of existing financial aid programs. Others (e.g., Perna, 2004) acknowledge the importance of student financial aid but also recognize the barriers imposed by inadequate academic preparation. A third explanation for continued gaps in college enrollment may pertain to the adequacy of information, particularly with regard to academic requirements, the costs of attendance, and the availability of student financial aid (Kane, 1999). Lacking adequate and accurate knowledge and information about college prices and student financial aid, some students and their families may have their early dreams of attending college diminished by both accurate and biased perceptions of the affordability of higher education. Students and their parents may acquire accurate awareness and understanding of college prices and financial aid in the later years of high school, but by that point students may be unable to correct for such behaviors as dropping out of high school, failing to enroll in college preparatory courses, and performing poorly in high school courses.

This article describes information derived from prior research on the impact of student financial aid program design, operations, and marketing on high school students' college-going aspirations, expectations, plans, and actual enrollment. The review is especially concerned with the experiences of lower-income and minority students, as well as students from families in which the parents have not attended higher education. The review focuses on traditional college enrollment because of the absence of research examining non-traditional students (i.e., students who delay enrollment into college after high school, enroll in college part-time, and/or attend a community college). More specifically, the review of prior research synthesizes what is known about two questions:

- To what extent have families, especially lower-income and minority families, been affected by their awareness, under-

standing, and predictions of college prices and student aid program resources?

- To what extent have families' awareness, understanding, and predictions of college prices and student aid been influenced by student aid program design, operations, and marketing activities?

This literature review incorporates research on family college planning and decision-making from a variety of disciplinary perspectives, including economics, sociology, and psychology. The review focuses on research conducted after 1985 and includes published articles, reports, and books, as well as unpublished papers.

To set the context for examining the two central questions, this article first discusses the ways students and their families form college-going aspirations, expectations, and plans. The review then summarizes what is known about students' and families' awareness, understanding, and predictions of college prices and financial aid. Primary attention is focused on variations in knowledge and information across groups and the relationship between information and college plans and enrollment. The third section describes what is known about the relationship of student aid program design, operations, and marketing to awareness, understanding, and predictions of college prices and student aid. Particular attention is given to the timing and sources of information. The article concludes by suggesting directions for additional research to address gaps in knowledge about two important areas:

- (1) the ways student aid program design, operations, and marketing influence students' and families' awareness, understanding, and predictions of college prices and financial aid, and
- (2) the effects of this type of information on students' college plans and enrollment.

Formation of College-going Aspirations, Expectations, and Plans

Although the process of becoming predisposed toward college varies across racial/ethnic groups (Hamrick & Stage, 2004; Hossler, Schmit, & Vesper, 1999), parents play a key role in the development of college aspirations and expectations for all students, particularly low-income, African American, and Hispanic students (Hamrick & Stage, 2004; Hossler & Stage, 1992; Hossler et al., 1999). Although most parents want to promote their children's educational attainment, economic, social, and psychological barriers often limit the ability of low-income and minority parents to do so. Barriers to parental involvement may be associated with mother's employment, parents' education, family composition, childcare responsibilities, language and culture, and discrimination (Kerbow & Bernhardt, 1993; Tierney & Auerbach, 2004). Differences in social networks may also limit the resources that are available to low-income, African

Awareness, Understanding, and Predictions of College Prices and Financial Aid

American, and Hispanic students and parents (Lareau, 1987; Horvat, Weininger, & Lareau, 2003; Perna & Titus, in press). Because they may lack economic, social, and psychological resources, low-income and disadvantaged minority parents are more likely than others to depend on the elementary and secondary school to guide their child's education (Furstenberg et al., 1999; Lareau, 1987). Structural barriers—including the bureaucratic processes found in elementary and secondary schools and the often-limited access to teachers and counselors—restrict families' abilities to acquire information from school personnel. (Stanton-Salazar, 1997).

Based on its review of research published between 1980 and 1989, the U. S. Government Accountability Office (GAO, 1990) concluded that students and their parents generally lack accurate knowledge and information about college costs and the availability of financial aid to offset costs. Research published since 1985 shows the continued appropriateness of the GAO's (1990) conclusion. Most adults, parents, and students in the 1980s, 1990s, and early 2000s were uninformed or poorly informed about college prices and financial aid (Grotsky & Jones, 2004; Horn, Chen & Chapman, 2003; Ikenberry & Hartle, 2000). Some families may be unaware of college costs and financial aid because they do not expect the student to enroll in college (Grotsky & Jones, 2004). However, the lack of awareness and understanding about college costs and financial aid is evident even among families who report that they expect the student to attend college (Horn et al., 2003).

Further, simply having information about college prices and financial aid does not ensure the accuracy of the knowledge among students or parents. Students and parents tend to overestimate college prices (Grotsky & Jones, 2004; Horn et al., 2003; Ikenberry & Hartle, 2000). Levels of awareness and understanding of college prices and financial aid are particularly low among Latino and African American students and parents (Grotsky & Jones, 2004; Horn et al., 2003), although more research has focused on probing the understandings of Latinos (e.g., Immerwahr, 2003; Tomás Rivera Policy Institute, 2004; Tornatzky, Cutler & Lee, 2002).

Research shows that parents with direct experience in higher education—i.e., those who attended college or who have children who have already entered college—are more likely than other parents to believe they know about student financial aid (Brouder, 1987; Hossler, Schmit & Bouse, 1991). The literature has not consistently established the relationship between parental education and income, and student awareness and understanding of college prices and financial aid.

Effects of Awareness, Understanding, and Predictions of College Costs and Financial Aid on College Plans and Enrollment

Effects of Student Aid Program Design, Operations, and Marketing Activities on Awareness, Understanding, and Predictions of College Prices and Financial Aid

The gap between the higher educational expectations that students declare in high school and their lower rates of actual postsecondary enrollment may be attributable, at least in part, to inadequate awareness and understanding of college prices and financial aid. Researchers (e.g., Kane, 1999; St. John et al., 2002) speculate, and students perceive (Tomás Rivera Policy Institute, 2004), that such a relationship exists.

A variety of college-related outcomes are lower for students who have less knowledge and information about college prices and financial aid than for other students. Students' and parents' awareness and understanding of college prices and financial aid are positively related to such outcomes as college expectations (Flint, 1993; Horn et al., 2003), application (Cabrera & LaNasa, 2000), enrollment (Plank and Jordan, 2001), and choice (Ekstrom, 1991), as well as such college financing strategies as students' willingness to borrow, students' use of financial aid, and parental saving for college (Ekstrom, 1991; Flint, 1997). However, the direction of causality is ambiguous; research does not reveal the extent to which knowledge and information are a cause or consequence of college-related outcomes.

Little is also known about the ways student aid design, operations, and marketing influence students' and parents' awareness, understanding, and predictions of college prices and financial aid. Research shows that most parents of dependent students participate in the student aid application process, suggesting that student aid program design, operations, and marketing activities should be aimed at both parents and students (Stringer et al., 1998). Most research on this topic focuses on the complexity of the application and eligibility procedures, assuming that such complexity limits students' and parents' understanding of their eligibility for student aid and the procedures for obtaining aid (Advisory Committee on Student Financial Aid, 2004a, 2004b; Kane, 1999). Little is known, however, about how financial aid is marketed to students and parents by elementary and secondary schools or by postsecondary educational institutions.

Descriptive analyses suggest that students and their parents typically acquire knowledge and information about college prices and financial aid during the final years of high school (Horn et al., 2003; Hossler et al., 1991; Olson & Rosenfeld, 1984). By this time, it is likely that families have made decisions—particularly with regard to academic preparation—that influence their ability to attend college. This finding suggests that either student aid program design and operations typically do not target students and parents early in the educational pipeline, or that early marketing efforts have minimal effectiveness.

Many entities are, or should be, involved in the marketing of student aid programs, as suggested by the variety of

sources from which parents and students obtain information about college costs, financial aid, and other college requirements (Cabrera & La Nasa, 2001; Hossler & Vesper, 1993). Language barriers restrict the sources of information that are available to parents with limited English proficiency, causing some parents to rely on their children for college-related information (Tomás Rivera Policy Institute, 2004; Tornatzky et al., 2002).

Compared to Caucasian students and parents, African American, Hispanic, and low-income students and parents appear to be more dependent on high school personnel for information about college (Cabrera & La Nasa, 2001; Horn et al., 2003; Tomás Rivera Policy Institute, 2004; Tornatzky et al., 2002). But, the high schools that these students typically attend are generally not equipped to provide support for college-admissions related activities (McDonough, 1997; Rosenbaum, 2001; Rosenbaum et al., 1996). Teachers are often unable to provide required college-related information, at least in part because of their focus on other priorities, including reducing high school dropout rates and teen pregnancies (Immerwahr, 2003). Teachers also often have low educational expectations for African Americans and Hispanics (Freeman, 1997; Immerwahr, 2003). Little is known about the contribution of such sources as the media, friends, and social networks to students' and parents' awareness, understanding, and predictions of college prices and financial aid.

Directions for Future Research

Although prior research consistently shows that students and their parents are poorly informed about college prices and financial aid until, at best, the latter years of high school, the implications of poor awareness and understanding for college enrollment are not well understood. This review suggests at least four areas where additional research is necessary.

First, additional research is required to understand the ways awareness, understanding, and predictions of college prices and financial aid influence the formation of college aspirations, plans, and enrollment. Research suggests that college enrollment rates are higher when students and their parents have accurate knowledge and information about college prices and financial aid. But, the implications of this relationship are unclear because the direction of causality has not been established between awareness and understanding of college prices and financial aid and such outcomes as college plans and enrollment.

Second, research is required to understand how student aid program design, operations, and marketing influence students' and parents' awareness, understanding, and predictions of college prices and student aid. Research generally has not examined specific features of student aid design, operations, and marketing but has focused on describing the sources that students and parents use to acquire information about college

prices and financial aid, and variations in sources of information across groups.

Third, more research is needed to understand the ways elementary and secondary schools, as well as higher education institutions, can ensure that students and parents are knowledgeable about college prices, financial aid, and other college-related requirements and processes. The involvement of low-income, African American, and Hispanic parents in college-planning activities is often limited by economic, social, and psychological barriers, but schools and other community institutions are not adequately compensating for these barriers.

Finally, future research should examine the relationship between awareness, understanding, and predictions of college prices and financial aid, and the college plans and enrollment of non-traditional college students. More also needs to be learned about the ways student aid programs should be designed, operated, and marketed to most effectively inform non-traditional students about college prices and financial aid. In fall 2001, one-third (32%) of all undergraduates were over age 24 and 39% of all undergraduates were enrolled part-time rather than full-time (NCES, 2004). Although more needs to be learned about the experiences of traditional students, non-traditional students are clearly a segment of the population that should also be examined.

Conclusion

This literature review reveals an important gap in the literature on student financial aid. Specifically, despite the large amounts of resources that are allocated to student financial aid, little is known about how the design, operations, and marketing of student financial aid programs influence students' college-going plans and behaviors. Research that addresses this knowledge gap may suggest ways student aid programs may be more effectively targeted to reach the groups who need this information most: the students that continue to be underrepresented in higher education.

Acknowledgments

This article is a summary of a larger report completed for The Education Resources Institute (TERI) with support from the Lumina Foundation for Education. The purpose of the project was to create a research agenda of research studies and demonstrations that would, if implemented, improve the understanding of the potential impact of student aid program, design, marketing, and operations on the college-going rates, patterns, and successes of lower-income and minority youth. Thank you to David Mundel and Ann Coles for their very helpful comments and feedback on earlier drafts of the report.

References

- Advisory Committee on Student Financial Assistance (2002). *Empty promises: The myth of college access in America*. Washington, DC: Author.
- Advisory Committee on Student Financial Assistance (2004a). *Summary of the Advisory Committee's hearing: February 5, 2004*. Washington, DC: Author.
- Advisory Committee on Student Financial Assistance (2004b). *Summary of the Advisory Committee's hearing: March 30, 2004*. Washington, DC: Author.
- Baum, S., & Payea, K. (2004). *Education pays 2004: The benefits of higher education for individuals and society*. Washington, DC: The College Board.
- Brouder, K. (1987). Parental attitudes toward pre-college planning. *Journal of Student Financial Aid*, 17(2), 5-13.
- Cabrera, A. F., & La Nasa, S. M. (2001). On the path to college: Three critical tasks facing America's disadvantaged. *Research in Higher Education*, 42(2), 119-149.
- Cabrera, A. F., & La Nasa, S. M. (2000). Overcoming the tasks on the path to college for America's disadvantaged. In A. F. Cabrera, & S. M. La Nasa (Eds.), *Understanding the College Choice of Disadvantaged Students* (pp. 31-43). San Francisco: Jossey-Bass Publishers.
- Ekstrom, R. (1991). *Attitudes toward borrowing and participation in post-secondary education*. Paper presented at the annual meeting of the Association for the Study of Higher Education.
- Flint, T. (1993). Early awareness of college financial aid: Does it expand choice? *Review of Higher Education*, 16(3), 309-327.
- Flint, T. (1997). Intergenerational effects of paying for college. *Research in Higher Education*, 38(3), 313-344.
- Freeman, K. (1997). Increasing African Americans' participation in higher education: African American high-school students' perspectives. *Journal of Higher Education*, 68(5), 523-550.
- Furstenberg, F. F., Cook, T. D., Eccles, J., Elder, G. H., & Sameroff, A. (1999). *Managing to make it: Urban families and adolescent success*. Chicago: University of Chicago Press.
- Gladieux, L., & Swail, W. S. (1999). Financial aid is not enough: Improving the odds for minority and low-income students. In J. E. King (Ed.), *Financing a college education: How it works, how it's changing*. (pp. 177-197). Oryx Press: Phoenix, AZ.
- Grodsky, E., & Jones, M. (2004). *Real and imagined barriers to college entry: Perceptions of cost*. Paper presented at the annual meeting of the American Education Research Association: San Diego, CA.
- Hamrick, F. A., & Stage, F. K. (2004). College predisposition at high-minority enrollment, low-income schools. *Review of Higher Education*, 27(2), 151-168.
- Horn, L. J., Chen, X., & Chapman, C. (2003). *Getting ready to pay for college: What students and their parents know about the cost of college tuition and what they are doing to find out*. (NCES 2003-030). Washington, DC: U.S. Department of Education, Institute of Education Sciences.
- Horvat, E., Weininger, E. B., & Lareau, A. (2003). From social ties to social capital: Class differences in the relations between schools and parent networks. *American Educational Research Journal*, 40(2), 319-351.
- Hossler, D., Schmit, J., & Vesper, N. (1999). *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore: Johns Hopkins University Press.
- Hossler, D., Schmit, J., & Bouse, G. (1991). Family knowledge of postsecondary costs and financial aid. *Journal of Student Financial Aid*, 21(1), 4-17.
- Hossler, D., & Stage, F. K. (1992). Family and high school experience influences on the postsecondary educational plans of ninth-grade students. *American Educational Research Journal*, 29(2), 425-451.
- Hossler, D., & Vesper, N. (1993). An exploratory study of the factors associated with parental saving for postsecondary education. *Journal of Higher Education*, 64(2), 140-165.
- Ikenberry, S. O., & Hartle, T. W. (2000). *Taking stock: How Americans judge quality, affordability, and leadership at U. S. colleges and universities*. Washington, DC: American Council on Education.
- Immerwahr, J. (2003). *With diploma in hand: Hispanic high school seniors talk about their future*. (National Center Report #03-2). San Jose, CA: National Center for Public Policy and Higher Education, and Public Agenda.

- Kane, T. J. (1999). *The price of admission: Rethinking how Americans pay for college*. Washington, DC: Brookings Institution Press.
- Kerbow, D., & Bernhardt, A. (1993). Parental intervention in the school: The context of minority involvement. In B. Schneider, & J. S. Coleman (Eds.), *Parents, their children, and school* (pp. 115-145). Boulder, CO: Westview Press.
- Lareau, A. (1987). Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education*, 60 (April), 73-85.
- McDonough, P. M. (1997). *Choosing colleges: How social class and schools structure opportunity*. Albany, NY: State University of New York Press.
- National Center for Education Statistics (2004). *Digest of education statistics 2003*. Washington, DC: Author. (NCES 2005-025)
- National Center for Education Statistics (2003). *Enrollment in postsecondary institutions, fall 2001 and financial statistics, fiscal year 2001*. Washington, DC: Author. (NCES 2004-155)
- Olson, L., & Rosenfeld, R. A. (1984). Parents and the process of gaining access to student financial aid. *Journal of Higher Education*, 55(4), 455-480.
- Perna, L.W. (2004). The key to college access: A college preparatory curriculum. In W. G. Tierney, Z. B. Corwin, & J. E. Colyar (Eds.), *Preparing for college: Nine elements of effective outreach*. (pp. 113-134). Albany, NY: State University of New York Press.
- Perna, L.W., & Titus, M. (in press). The role of parental involvement in promoting the college enrollment of African Americans and Hispanics. *Journal of Higher Education*.
- Plank, S. B., & Jordan, W. J. (2001). Effects of information, guidance, and actions on postsecondary destinations: A study of talent loss. *American Educational Research Journal*, 38(4), 947-979.
- Rosenbaum, J. E. (2001). *Beyond college for all: Career paths for the forgotten half*. New York, NY: Russell Sage Foundation.
- Rosenbaum, J. E., Miller, S. R., & Krei, M. S. (1996). Gatekeeping in an era of more open gates: High school counselors' views of their influence on students' college plans. *American Journal of Education*, 104, 257-278.
- St. John, E. P. (2003). *Refinancing the college dream: Access, equal opportunity, and justice for taxpayers*. Baltimore, MD: Johns Hopkins University Press.
- St. John, E. P., Musoba, G. D., Simmons, A. B., & Chung, C. G. (2002). *Meeting the access challenge: Indiana's Twenty-First Century Scholars Program*. Indianapolis, IN: Lumina Foundation for Education, New Agenda Series.
- Stanton-Salazar, R. D. (1997). A social capital framework for understanding the socialization of racial minority children and youth. *Harvard Educational Review*, 67, 1-40.
- Stringer, W. L., Cunningham, A. F., O'Brien, C. T., & Merisotis, J. (1998). *It's all relative: The role of parents in college financing and enrollment*. Indianapolis, IN: Lumina Foundation for Education, New Agenda Series.
- The College Board. (2004). *Trends in student aid 2004*. New York: Author.
- Thomas, S. L., & Perna, L. W. (2004). The opportunity agenda: A reexamination of postsecondary reward and opportunity. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research*, Volume 19 (pp. 43-84). Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Tierney, W. G., & Auerbach, S. (2004). Toward developing an untapped resource: The role of families in college preparation. In W. G. Tierney, Z. Corwin, & J. E. Colyar (Eds.), *Preparing for college: Nine elements of effective outreach* (Chapter 2). Albany, NY: State University of New York Press.
- Tomás Rivera Policy Institute at the University of Southern California. (2004). *Caught in the financial aid information divide: A national survey of Latino perspectives on financial aid*. Reston, VA: The Sallie Mae Fund.
- Tornatzky, L. G., Cutler, R., & Lee, J. (2002). *College knowledge: What Latino parents need to know and why they don't know it*. Claremont, CA: The Tomás Rivera Policy Institute.
- U. S. Government Accountability Office (1990). *Higher education: Gaps in parents' and students' knowledge of school costs and federal aid*. (GAO/PEMD-90-20BR) Washington, DC: Author.