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Cover Page Footnote

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Addressing Information Gaps: Disparities in Financial Awareness and Preparedness on the Road to College

By Casey E. George-Jackson and Melanie Jones Gast

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The rising cost of higher education and questions of affordability are concerns for many families in the United States, particularly those from historically underrepresented backgrounds. This article examines what we know about financial awareness and preparedness through a review of 39 empirical articles on the topic published between 2000 and 2013 in 24 peer-reviewed publications. The literature review highlights existing disparities by race, ethnicity, and socioeconomic status. Specifically, it examines challenges faced by students and parents when considering and preparing for college costs, and explores how current research discusses policies and practices to alleviate disparities in pre-college financial awareness and preparedness. This literature review reveals an intricate link between pre-college financial awareness and preparedness, in that information and awareness are often precursors to behaviors and preparations involved with financing a college education. Conclusions present implications for programs and policies designed to address these inequities and include recommendations for future research on this important, but under-researched topic.

Key Words: *Pre-college, financial awareness, financial preparation, college affordability*

College affordability dominates public and political discourses. While the nation's economy continues to lag, postsecondary education operates in a difficult fiscal climate, which restricts public, private, and nonprofit financial support available to students (and their families) pursuing a college degree. Further, families and individuals constituting the postsecondary education consumer market continue to wrestle with the historic regression of housing values and investment markets, as well as high levels of unemployment and growing income and wealth inequality—factors impacting the ability of students and families to financially plan for and pay for higher education (Nelson & Goodman, 2009; Pew Research Center, 2012). In spite of such challenging fiscal circumstances, students and families must “do more with less,” as the economy and labor market conditions have prompted aggressive college completion and attainment agendas without commitments to address financial aid and cost issues.

The Importance of Financial Awareness and Preparedness

The past decade has presented extraordinary barriers to college affordability, including the Great Recession of 2008, rapidly rising college costs, and complex cost and financial aid structures, to name a few (Dynarski & Scott-Clayton, 2013; Dynarski & Wiederspan, 2012). Across all types of higher education institutions, tuition continues to rise faster than inflation and median family income (College Board, 2012). The costs of other college-related expenses, such as fees, books, meals, and room and board, have also risen rapidly. Although the percentage increase in tuition and fees at public four-year institutions was at a 30-year low in 2013-14, students' average net price of attendance has continued to increase over time due to changes in grant aid policies (College Board, 2013). Along with rising college costs, due to changes in federal policies and tuition trends, financial aid programs have shifted from primarily offering grants to primarily offering loans (St. John, 2003; Fry, 2012; Reed & Cochrane, 2012). Furthermore, the federal student loan volume has tripled over the past decade, family borrowing for college has risen, and one-in-five households now carry student loan debt (Federal Reserve Bank of New York, 2013; Reed & Cochrane, 2012; Sallie Mae, 2014; SHEEO, 2013). Added to this strain on students and families is the burden of understanding and negotiating complex college financing options, which is, no doubt, even more difficult for those with limited discretionary resources and/or little prior experience with higher education.

In 2013-14, a majority of undergraduate students and their parents said they removed some colleges from their selection process due to cost-related reasons, struggled to manage personal funding sources, and worried about rising tuition costs (Sallie Mae, 2014). Low-income, Black, and Latino families appear to be the most impacted by constrained economic and financial aid environments, and they are the least likely to possess information and support systems that can aid in the process of paying for college (Grotsky & Jones, 2007; Avery & Kane, 2004; Paulsen & St. John, 2002; Perna, 2005; St. John, 2006). It is crucial that policymakers and the higher education community examine the relationship between financial awareness and preparation (FAP) and college access, particularly for low-income and underrepresented racial and ethnic minority populations. This study seeks to update and advance the prior work of Perna (2005), which reviewed literature published between 1985 and 2004 on how financial aid programs influenced students' and parents' college-going plans. We add to Perna's work by focusing on disparities across race, ethnicity, and socioeconomic status (SES) in students' and families' access to information; perceptions of college costs, financial aid, and affordability; and the ability to successfully apply for financial aid and plan and prepare for college expenses prior to college attendance. We identify these components as crucial in the FAP process. While we recognize the broad diversity among racial and ethnic minorities and low-income groups, we focus on the constraints of underrepresented Black, Latino, and low-income students given their disadvantaged positions in terms of college affordability, support networks, and college access (Charles et al., 2007; Grotsky & Jones, 2007; Perna 2000; Perna & Titus, 2005).

For the purpose of this study, we define *financial awareness* as knowledge and perceptions of college costs, affordability, and financing options based

on information and guidance accessible to students and their parents. *Financial preparedness* consists of the ability and willingness of students and parents to plan and prepare for college tuition and other future educational expenses, possibly due to their level of financial awareness and means to funding sources, including, but not limited to, savings, assets, and financial aid. Based on our review of the literature, we find an intricate link between pre-college financial awareness and preparedness, in that information and awareness are often precursors to behaviors and preparations involved with college financing. Finally, we offer recommendations for research and implications for policy and practice.

Methodology

This study provides a review of up-to-date, peer-reviewed, published research on pre-college FAP using primary or secondary U.S. data sources in education and social science journals during 2000 to 2013 – a time marked by the Great Recession, rising income and wealth inequality, and unprecedented college costs. Given the growing racial and ethnic wealth gap and persistent economic inequalities in the beginning of the 21st century, the following research questions guided our study:

1. What does current research tell us about racial, ethnic, and socioeconomic disparities in pre-college financial awareness and preparedness?
2. What barriers and issues do students and families face when thinking about and preparing for college costs?
3. What policy and practice recommendations does current research offer to alleviate disparities in pre-college financial awareness and preparedness?

Peer-reviewed empirical articles located through two search methods informed our literature review. First, we searched for peer-reviewed articles in the following journals: *Economics of Education Review*, *Education Finance and Policy*, *Education Policy*, *Educational Evaluation and Policy Analysis*, *Higher Education*, *Journal of Public Policy Analysis and Management*, *Journal of Student Financial Aid*, *Research in Higher Education*, *Review of Higher Education*, and *The Journal of Higher Education*. We chose these journals not to preference their work, but as a strategic starting point given their relevancy to the topic of higher education, college students, and financial aid issues and policies. We reviewed all titles, abstracts, and keywords for each article published in these periodicals between 2000 and 2013—a total of 5,446 articles—to identify FAP-related articles (see Table 1).¹

Specifically, we sought articles related to our research questions on students' and parents' pre-college knowledge, information, perceptions, and preparation for financing college. We purposefully excluded studies that examined the effects of implementing scholarship programs or tuition programs and policies unless they discussed individuals' perceptions, knowledge, awareness, or behaviors in relation to those programs or policies. We excluded studies that focused on populations outside of the United States or students already enrolled in higher education. Finally, we excluded book chapters, working papers, and technical reports.

Table 1. Summary of Financial Awareness and Preparedness Articles Published in Key Journals

	Total FAP Articles Published	Total Number of Articles Published in Select Journals, by Year						
		2000-2013	2000	2001	2002	2003	2004	2005
Economics of Education Review	1	31	18	17	25	14	7	16
Education Finance and Policy	0	N/A	N/A	N/A	N/A	N/A	N/A	12
Education Policy	0	45	39	37	29	34	35	32
Educational Evaluation and Policy Analysis	2	23	18	17	23	17	16	16
Higher Education	0	55	49	55	52	63	60	56
Journal of Public Policy Analysis and Management	1	66	69	84	76	75	81	67
Journal of Student Financial Aid	4	9	9	8	8	7	11	8
Research in Higher Education	5	34	32	28	31	41	38	38
The Review of Higher Education	1	26	23	29	52	67	81	81
The Journal of Higher Education	6	62	53	56	44	47	40	53
Other journals	19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	39	289	257	275	296	318	329	326

Table 1–Continued. Summary of Financial Awareness and Preparedness Articles Published in Key Journals

	Total Number of Articles Published in Select Journals, by Year							
	2007	2008	2009	2010	2011	2012	2013	TOTAL
Economics of Education Review	14	12	12	27	30	24	113	360
Education Finance and Policy	12	17	19	22	19	17	10	128
Education Policy	29	38	31	35	34	37	49	504
Educational Evaluation and Policy Analysis	19	16	23	26	25	25	28	292
Higher Education	83	88	100	90	101	112	49	1,013
Journal of Public Policy Analysis and Management	78	88	76	67	72	74	47	1,020
Journal of Student Financial Aid	8	3	3	9	10	7	8	108
Research in Higher Education	35	41	38	38	41	38	21	494
The Review of Higher Education	81	81	76	75	55	65	81	873
The Journal of Higher Education	43	43	45	43	41	44	40	654
Other journals	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	359	384	378	389	387	399	406	5,446

Initially, we each examined a different set of journals and identified FAP-related articles, and then we both read all of the identified articles. We then converged to determine whether each article met our selection criteria, removing articles that did not meet the inclusion parameters (e.g., an article focused specifically on the effects of a financial aid program rather than perceptions of aid). Using our research questions and search parameters, we identified 20 FAP-related articles from seven of the selected journals (see Table 1). It is noteworthy that the articles resulting in the first search process were published in only seven of the ten journals systematically reviewed (*Economics of Education Review*, *Educational Evaluation and Policy Analysis*, *Journal of Public Policy Analysis and Management*, *Journal of Student Financial Aid*, *Research in Higher Education*, *Review of Higher Education*, and *The Journal of Higher Education*).

Second, we searched the Education Resources Information Center (ERIC) by using *college preparation* or *pre-college* as primary key terms, in combination with each of the following secondary key terms: *debt*, *family financial resources*, *financial awareness*, *financial support*, *money management*, *paying for college*, and *student financial aid*, for a total of 14 searches performed in the ERIC database. This process led to the review of 168 titles and abstracts of peer-reviewed articles published between 2000 and 2013. After removing articles that we had already located during the first search process, we identified 19 additional articles that met our inclusion criteria, including studies published in journals such as *American Behavioral Scientist*, *American Education Research Journal*, and *Studies in Higher Education*. Table 2 summarizes the 39 articles used in the study and provides their source, methods, data, population of focus, and where applicable, the specific policies or programs discussed. In addition, the table designates each article's FAP focus.

As is shown in Table 2, many of the studies on financial preparedness ($N=15$) utilize nationally representative data with randomized sampling designs, while the financial awareness studies ($N=16$) use case- or state-specific data. Only eight articles focus on both financial awareness and financial preparedness. While a majority of the data come from the 1990s to early 2000s, the policy and practical implications recommended by the articles remain relevant. After providing an overview of what we know about FAP, we discuss implications for practice and research in terms of improving pre-college FAP.

Gaining Financial Awareness

Financial awareness depends on access to timely, accurate, and in-depth information on college costs, financial aid, and savings options. While many students and parents struggle to gain extensive financial awareness to help them navigate complicated financing options and rising college costs, low-income, Black, and Latino families in particular tend to have less exposure to college financing information sources and less confidence in the accuracy of their knowledge of college costs (Bell, Rowan-Kenyon, & Perna, 2009; Grodsky & Jones, 2007; Perna, 2008b). In this section, we summarize research related to obtaining information on college costs and payment options to understand how to improve students' and parents' knowledge and awareness gaps on the road to college.

Table 2. Summary of Financial Awareness and Preparedness Articles Used in Study

Study	Journal Source	Method(s)	Data Source(s)	Population of Focus*	Specific Policies or Programs Discussed
Financial Awareness					
Bell, Rowan-Kenyon, & Perna, 2009	The Journal of Higher Education	Case study	Interviews and Focus Groups with individuals at 15 high schools located in 5 states (CA, FL, GA, MD, PA)	High school parents, teachers, and counselors	Upward Bound, Advancement Via Individual Determination (AVID)
Desjardins, Ahlburg, & McCall, 2006	The Journal of Higher Education	Logistic regression	Students who sent their ACT scores to the University of Iowa between 1997-98 and 2001-02		
Gibbons, Borders, Wiles, Stephan, & Davis, 2006	Professional School Counseling	Chi-square tests and one-way ANOVAs	Survey of stratified random sample of 9th graders and their parents in North Carolina	High school parents	College Foundation of North Carolina (CFNC)
Grodsky & Jones, 2007	Social Science Research	Logistic regression	National Household Education Survey of 1999 (NHES:99)	High school parents	
Hu & Hossler, 2000	Research in Higher Education	Logistic regression	Students attending 21 high schools in Indiana, surveyed between 1986-87 and 1989-90		
Kim, Desjardins & McCall, 2009	Research in Higher Education	Logistic Regression	Students who sent their ACT scores to the University of Iowa between 1997-98 and 2001-02		
McDonough & Calderone, 2006	American Behavioral Scientist	Qualitative	Interviews with college counselors in Southern California urban secondary schools	High school counselors	

*Note: All studies include analyses of high school students only, unless otherwise noted.

(continued)

Table 2–Continued. Summary of Financial Awareness and Preparedness Articles Used in Study

Study	Journal Source	Method(s)	Data Source(s)	Population of Focus*	Specific Policies or Programs Discussed
Ness & Tucker, 2008	Research in Higher Education	Logistic regression with weighted maximum-likelihood estimating equations and adjustments for clustering and stratification	Stratified, random sample of all high school seniors in Tennessee in 2004–2005 who responded to the 2005 Senior Opinions Survey		Tennessee Education Lottery Scholarship
O'Connor, Hammack, & Scott, 2010	Research in Higher Education	Logistic regression and Oaxaca decomposition	National Educational Longitudinal Study of 1988 (NELS:88)		
Paulsen & St. John, 2002	The Journal of Higher Education	Logistic regression with sequential logistic analysis	National Postsecondary Study Aid Survey of 1987 (NPSAS:87)		
Perna, 2008b	Research in Higher Education	Case study	15 schools in 5 states. Interviews, Focus Groups	High school parents, teachers, and counselors	
Perna, Rowan-Kenyon, Thomas, Bell, Anderson, & Li, 2008	The Review of Higher Education	Case study	see Bell et al., 2009	High school parents, teachers, and counselors	AVID
Plank & Jordan, 2001	American Educational Research Journal	Descriptive analysis and multinomial logistic regression	NELS:88	Parents and schools	
Tierney & Venegas, 2009	The Journal of Higher Education	Descriptive (qualitative)	Comparison of three financial aid programs		Cal Grant, Kansas State Scholars Program, Nevada Millennium Scholars Program

*Note: All studies include analyses of high school students only, unless otherwise noted.

(continued)

Table 2–Continued. Summary of Financial Awareness and Preparedness Articles Used in Study

Study	Journal Source	Method(s)	Data Source(s)	Population of Focus*	Specific Policies or Programs Discussed
Unverferth, Talbert-Johnson & Bogard, 2012	International Journal of Educational Reform	Descriptive (quantitative)	Pre- and post-surveys of a random sample of students attending a vocational high school in Ohio		Unnamed postsecondary informational session
Watt, Huerta & Lozano, 2007	Journal of Education for Students Placed at Risk	ANOVAs, regressions, with qualitative data analysis for triangulation	Surveys, focus group interviews, and student records of randomly selected high school students enrolled in AVID and/or GEAR UP programs in Texas; control group data also gathered		AVID, Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), Upward Bound, SCORE, Project GRAD (Graduation Really Achieves Dreams)
Financial Preparation					
Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012	The Quarterly Journal of Economics	Intent-to-Treat effects and Treatment-on-Treated effects	Families who participated in a randomized field experiment in Ohio and Charlotte, North Carolina (participants had an adjusted gross income of less than \$45,000, interested in learning more about college, did not already have a bachelor's degree)	Independent adults	FAFSA
Charles, Roscigno, & Torres, 2007	Social Science Research	Logistic regression	NELS:88	High school parents	

*Note: All studies include analyses of high school students only, unless otherwise noted.

(continued)

Table 2–Continued. Summary of Financial Awareness and Preparedness Articles Used in Study

Study	Journal Source	Method(s)	Data Source(s)	Population of Focus*	Specific Policies or Programs Discussed
Elliott & Beverly, 2011a	American Journal of Education	Logistic regression	Panel Study of Income Dynamics (PSID)	High school parents	Child Development Accounts (CDAs), America Saving for Personal Investment, Retirement, and Education (ASPIRE) Act
Elliott & Beverly, 2011b	Journal of Children and Poverty	Logistic regression	PSID	High school parents	CDAs, ASPIRE Act
Elliott & Nam, 2012	Educational Evaluation and Policy Analysis	Structural equation modeling, weighted least squares and theta parameterization	PSID	High school parents	CDAs
Feeney & Heroff, 2013	Journal of Student Financial Aid	Logistic regression	Administrative student records from the Individual Student Information Report (ISIR), the Illinois Monetary Award Program (MAP), and the Illinois State Scholar program		Illinois Monetary Award (MAP) Program, FAFSA
Grinstein-Weiss, Sherraden, Gale, Rohe, Schreiner & Key, 2013	Economics of Education Review	Logistic regression and marginal probit regressions with propensity score weighting, bivariate comparisons	Baseline and Wave 4 survey data of individuals assigned to treatment and control groups	Adults in Tulsa, Oklahoma	Individual Developmental Account (IDA)
Huang, Beverly, Clancy, Lassar & Sherraden, 2013	Journal of Policy Practice	Logistic regression	Survey of eligible parents of Maine's Alfond Challenge	Parents	College savings plans (529 plans), CDAs, Harold Alfond College Challenge of Maine

*Note: All studies include analyses of high school students only, unless otherwise noted.

(continued)

Table 2–Continued. Summary of Financial Awareness and Preparedness Articles Used in Study

Study	Journal Source	Method(s)	Data Sources(s)	Population of Focus*	Specific Policies or Programs Discussed
Kim & Johnson, 2012	School Social Work Journal	Concept mapping	Focus group data of high school students enrolled in the San Francisco SEED Program		San Francisco SEED Program (SFSP), Child Savings Accounts (CSAs), IDAs
Nam, Kim, Clancy, Zager & Serraden, 2013	Journal of Public Policy Analysis and Management	Descriptive and multivariate analyses, probit and OLS regressions	Survey of stratified random sample of caregivers of children eligible for Oklahoma SEED accounts	Caregivers	SEED for Oklahoma Kids, CDAs, 529 plans
Perna, 2000	The Journal of Higher Education	Logistic regression	NELS:88		
Perna & Titus, 2005	The Journal of Higher Education	Hierarchical linear modeling	NELS:88	High school parents	
Pharris-Ciurci, Herting & Hirschman, 2012	Social Science Research	Logistic regression	Pre- and post-intervention surveys of high school seniors obtained from University of Washington Beyond High School Project (UW-BHS)		Washington State Achievers (WSA) Program
Sáenz, Rodríguez, Martínez, & Romo, 2011	Association of Mexican American Educators (AMAE) Journal	Chi-square tests	CIRP Freshman Survey	Incoming college freshmen in Arizona, California, Florida, New Mexico, and Texas	
Tekleslassie, 2010	Journal of Student Financial Aid	Chi-square tests	NELS:88	High school parents only	

*Note: All studies include analyses of high school students only, unless otherwise noted. (continued)

Table 2–Continued. Summary of Financial Awareness and Preparedness Articles Used in Study

Study	Journal Source	Method(s)	Data Source(s)	Population of Focus*	Specific Policies or Programs Discussed
Financial Awareness and Preparation					
Luna De La Rosa, 2006	American Behavioral Scientist	Chi-square tests	2004 College Access and Financial Aid Survey (11th and 12th graders in seven low-income serving high schools in Los Angeles)	High school parents	
McCallister, L., Evans, J., & Illich, P., 2010	Community College Journal of Research and Practice	Chi-square tests	Surveys of middle school parents at urban school district in Texas	Middle school parents	
Myers, Brown & Pavel, 2010	Journal of Education for Students Placed at Risk	Logistic regression	Washington State Achievers Longitudinal Survey and Tracking Study		WSA Program
Perna, 2008a	Journal of Student Financial Aid	Case study	see Bell et al., 2009	High school parents, teachers, and counselors	
Perna & Steele, 2011	Teachers College Record	Case study	see Bell et al., 2009	High school parents, teachers, and counselors	Georgia HOPE Scholarship, California Cal Grant, Florida Bright Futures Scholarship
Stephan & Rosenbaum, 2013	Educational Evaluation and Policy Analysis	Difference-in-difference, fixed effect logistic regression	Chicago Public High School Seniors (Classes of 2004-2007), supplemented with National Student Clearinghouse data	High school counselors	College coach program

*Note: All studies include analyses of high school students only, unless otherwise noted.

(continued)

Table 2–Continued. Summary of Financial Awareness and Preparedness Articles Used in Study

Study	Journal Source	Method(s)	Data Sources(s)	Population of Focus*	Specific Policies or Programs Discussed
Venegas, 2006a	American Behavioral Scientist	Focus groups and case studies	Low-income urban high school students in who were in 12th grade and college-bound		FAFSA
Venegas, 2006b	Journal of Student Financial Aid	Focus groups	Low-income urban high school students in Southern California who were in 12th grade and college-bound		FAFSA

**Note:* All studies include analyses of high school students only, unless otherwise noted.

Based on the literature, we identified the following three main sources of information that are important for students' financial awareness: (1) parents; (2) secondary school counselors and teachers; and (3) higher education institutions' websites and other Internet sources. Parents are the most important source of information and support. Past research suggests that parental involvement in the financial aid and college application processes may be particularly important in helping students commit to four-year colleges (O'Connor, Hammack, & Scott, 2010; Perna & Titus, 2005; Plank & Jordan, 2001). However, disparities exist across race, ethnicity, income, and education level in terms of whether parents have information on college costs, their accuracy in estimating the costs of college, and their exposure to financial aid information (Grodsky & Jones, 2007; O'Connor et al., 2010). In qualitative studies of high school students and their parents, a significant proportion do not recognize the different types of college expenses, including tuition, fees, room and board, books, and transportation (Perna & Steele, 2011). Students and parents also have general assumptions and limited information about eligibility requirements and coverage of financial aid, although these perceptions vary based on grade level, SES background, and school and state contexts, where families who have younger children and families from backgrounds with low-SES, low-resourced schools, and states without merit-aid programs tend to have less financial aid knowledge (Perna & Steele, 2011).

High school counselors play a large role in helping students to become aware of financing options and apply for financial aid; however, counselor resources, financial knowledge, and guidance methods vary widely across states, districts, and schools (McDonough & Calderone, 2006; Perna, Rowan-Kenyon, Thomas, Bell, Anderson, & Li, 2008). Recent reports show that the average national public secondary school student-to-counselor ratios are approximately 450:1 (Clinedinst, Hurley, & Hawkins, 2011; U.S. Department of Education, 2011). With high student-to-counselor ratios and a diverse set of responsibilities, counselors may encounter difficulties helping individual students with FAP (Lautz, Hawkins & Pérez, 2005). Counselors also differ in their level of training in and knowledge about financial aid options and institution-specific tuition policies. Teachers are often less knowledgeable than counselors in the process of financing college, and the level of teacher support also varies across students and schools (Perna et al., 2008). Supplementing traditional counseling with college coaches who guide high school students through the college application and financial aid processes may be useful in increasing students' college access and attendance, particularly for underserved students otherwise lacking opportunities to receive counseling in college financing (Stephan & Rosenbaum, 2013).

Low-income, Black, and Latino students are the most impacted by a lack of counseling resources, as they often attend public schools with higher student-to-counselor ratios, counselors with less knowledge and training, and counselors that use passive information dissemination techniques, such as simply handing out brochures and packets that are rarely written in Spanish or other non-English languages (Hill, 2008; McDonough & Calderone, 2006; Perna, 2008b; Perna et al., 2008). Private schools and

schools with a higher proportion of high-income students are more likely to provide more extensive counseling, including providing personalized help with filling out the Free Application for Federal Student Aid (FAFSA), financial aid workshops, cost comparison sheets, and presentations by financial aid administrators and other university representatives (McDonough & Calderone, 2006; Perna et al., 2008). Therefore, on average, more advantaged students are exposed to greater counseling opportunities in school environments while underserved students face difficulties gaining similar support from their schools (Perna et al., 2008; Tierney & Venegas, 2009). However, having access to high school counselors who do assist students with the financial aid process does not necessarily mean that students will take action to financially prepare for college (Perna, 2008a).

College and university websites are the third source of information about costs and payment options for students (Whittset & O'Sullivan, 2012). Under the Higher Education Opportunity Act (HEOA) of 2008, the U.S. Department of Education's National Center for Education Statistics (NCES) now requires colleges and universities to provide a net price calculator to prospective students and their families to help inform their postsecondary choices. While the Internet provides a source of abundant, accessible information about college costs and financial aid options for those with computer and Internet access, students and parents may have difficulties understanding such information without more in-depth guidance. In focus groups at two urban high schools, low-income students highlighted the following problems with online financial aid applications: "(a) 'using the Internet to apply for financial aid is a complicated thing to do,' (b) 'finding someone who knows the rules and can help you apply online is hard,' and (c) 'figuring out how to follow up on applications is tough'" (Venegas, 2006a, p. 1661). Even finding a reliable Internet connection to access financial aid information online and complete the FAFSA was challenging for some students (Venegas, 2006b). Another study argues that families may not only need greater access to information, but also "the instrumental knowledge needed to efficiently navigate websites in order to gain information about, and apply for, financial aid" (Bell et al., 2009, p. 666).

A few studies discuss the importance of college readiness and outreach programs such as Upward Bound and similar local or state programs. While not a main source of information, these programs can help historically underserved students to receive information on financing college options early on in high school, giving them a slight advantage over similar students who did not participate in such programs (Bell et al., 2009). However, it is important to keep in mind that students enrolled in college preparation programs aimed at serving students from historically underrepresented groups, such as AVID and GEAR UP, may already be predisposed to believing college is unaffordable (Watt, Huerta & Lozano, 2007). These programs may need to provide information to participants about college affordability, as well as work to correct any existing misperceptions. Such programs can also aid first-generation students in gaining pertinent college-going and college-financing knowledge that their parents may be unable to provide (Unvernferth, Talbert-Johnson &

Bogard, 2012). However, not all outreach programs address college financing issues, as they tend to focus on academic rather than financial preparation. Although early awareness programs are currently understudied and few empirical studies examine their roles in relation to financial awareness and preparation (Tierney & Venegas, 2009), the studies that do exist indicate that such programs may serve as a useful resource to those populations eligible for such programs.

**How Do
Knowledge and
Awareness
Influence
Perceptions of
Affordability?**

Providing accurate and in-depth information and guidance on financial aid options and college costs years before students are of college age may be particularly important for improving college access for underserved students. Unfortunately, such students often do not receive this guidance and continue to believe that college is too expensive, even if they do well in high school (Bell et al., 2009; Plank & Jordan, 2001). Students from wealthier families are much less concerned about how to pay for college; meanwhile, first-generation, Black, and Latino students (particularly those attending low-resourced high schools) are negatively impacted by perceptions that college is unaffordable and that financial aid is inadequate (Gibbons, Borders, Wiles, Stephan, & Davis, 2006; Luna De La Rosa, 2006; Paulsen & St. John, 2002; Perna & Steele, 2011). These perceptions may affect underserved students' college-choice preferences and decisions (Hu & Hossler, 2000; Luna De La Rosa, 2006). In a study of Tennessee high school students, perceptions of eligibility for the state's merit aid program were particularly influential on Black and low-income students' decisions to enroll in college (Ness & Tucker, 2008). Other research suggests that school savings, college costs, and affordability issues affect Black and Latino students differently than White students. (Elliott & Nam, 2012; Perna, 2000; Williams Shanks & Destin, 2009). Perceptions of affordability may be complicated by how families understand how their own income and assets will be allocated in the financial aid process, as well as their expectations of potential aid. In a survey of parents of middle school students in Texas, only one quarter of respondents had begun saving for their child's college education while over half of the respondents believed their child would receive a scholarship to attend college (McCallister, Evans & Illich, 2010).

Overall, the tendencies of students and parents to overestimate college prices and perceive college as unaffordable may be related to low average levels of awareness of net price as well as complex financial aid and tuition programs (Grodsky & Jones, 2007; Gibbons, Borders, Wiles, Stephan, & Davis, 2006; Perna, 2008b). A study conducted in five different states revealed that high school students have a lack of awareness and understanding of the financial aid process, including what information is required to complete the FAFSA (Bell et al., 2009). That study also found that students tended to be more aware of straightforward state-based merit aid programs, such as the HOPE scholarship in Georgia, as compared to more complicated need-based aid programs. Furthermore, using similar data on student, parent, and school-wide perceptions of student loans across those states, Perna (2008b; see also Bell et al., 2009) found that students and parents at low-resource schools were more likely to view student loans as "risky" and undesirable compared to those in higher-

resource schools. This is possibly because counselors and teachers in low-resource schools conveyed conflicting messages about loans, often based on their own personal experiences or perceptions. Consequently, there is a need to break down complex financial packages and tuition options into concrete, understandable terms.

Even when state-based financial aid programs are available and easy to understand, “there is a disconnect between what students may believe that they are eligible to receive in financial aid and whether or not they are adequately informed or prepared on how to access it” (Tierney & Venegas, 2009, p. 381), or on how to assess affordability. Extensive guidance in navigating complex financial aid processes seems to be just as important as detailed and direct information on financing options. This means that early, up-to-date, extensive, and straightforward information *and* guidance need to be accessible to *both* students and families, particularly those from underserved backgrounds. Students’ and parents’ *perceptions* of financial aid packages are at least as important in shaping application and enrollment behaviors as the actual financial aid packages when looking at underserved populations (Kim, DesJardins, & McCall, 2009; DesJardins, Ahlburg, & McCall, 2006). Disparities by race, ethnicity, income, and immigration status affect the likelihood of parents possessing information on college costs and affordability options, further exacerbating student-level disparities in understanding college affordability. Overall, we need more research, and, ultimately, better-targeted policies to address the longitudinal, interactive, and complex nature of financial knowledge and perceptions of affordability among students and parents before they actually begin applying to and financing college.

How Do Student and Families Financially Prepare to Pay for College?

As illustrated in the previous sections, not all students and parents have equal opportunities to access the information they need to financially prepare for college and navigate a confusing financial aid system. While amassing parental or household assets over time can positively affect a student’s initial enrollment in college and other college outcomes (see Elliot & Nam, 2012; Loke, 2013), accumulating assets can be difficult for low-income families. Additional factors may also come into play. For example, for Latino families, financial preparation and contributions can vary according to immigration status, with native-born parents providing more financial support for their children’s college education than foreign-born parents do (Sáenz, Rodríguez, Martínez, & Romo, 2011). Driven by increasing concerns of college affordability and rising costs of postsecondary education, state and federal policymakers have designed and implemented several programs to help families plan and pay for college. Research suggests that the more students and families take advantage of these opportunities, the more likely students are to enroll in college; however, the research also suggests that too few low-income families are aware of or able to benefit from these opportunities (Charles et al., 2007; Elliott & Beverly, 2011). As illustrated in the previous sections, not all students and parents have equal opportunities to gain knowledge and awareness so that they can financially prepare for college and navigate a confusing financial aid system. Due to these information gaps, it is not surprising that gaps also exist in terms of how students and their families

financially plan and prepare for college. This section focuses on the effectiveness of existing efforts to help students and their families plan and prepare for college expenses.

College Savings Accounts

Savings accounts can be an effective way to plan for college, but only if students and their families have opportunities to set aside money for this purpose. Given the large wealth gaps that exist by race, ethnicity, and income level, Black, Latino, and low-income students face financial constraints that could impede their ability to open such accounts and set aside funds for college (Charles, Roscigno, & Torres, 2007).² However, once differences by SES are accounted for, the Black-White gap in parents' commitment levels to paying for college disappears (Tekleselassie, 2010). This finding suggests a need for researchers and policymakers to focus on SES and its intersections with other demographic characteristics. Economic inequality may perpetuate educational attainment disparities, as research suggests that parental assets and savings are associated with college attendance; however, conditioning on academic achievement complicates the picture, and the short- and long-term effects remain unclear (Charles, Roscigno, & Torres, 2007; Conley, 2001; Elliott & Beverly, 2011a; Elliott & Beverly, 2011b; Williams Shanks & Destin, 2009).³ In one study, researchers examined the effect of Individual Development Accounts (IDAs) on participants' educational attainment over a 10-year period. As part of the American Dream Demonstration project, participants who deposited at least \$10 per month into an IDA for nine months per year received matching funds of up to \$750 per year to attend college. Results indicate that IDAs increase college participation rates for lower-income individuals and male participants (Grinstein-Weiss, Sherraden, Gale, Rohe, Schreiner & Key, 2013).

Automatic enrollment in Child Development Accounts (CDAs), such as the state-sponsored Saving for Education, Entrepreneurship, and Downpayment (SEED) for Oklahoma Kids program, may motivate participating families to diversify their savings across multiple types of accounts, allowing them to accumulate more assets than families who attempt to save on their own (Nam, Kim, Clancy, Zager & Sherraden, 2013).⁴ Although initial findings from such studies are positive, long-term research is needed on the effects of the many existing postsecondary savings programs in order to inform comprehensive efforts on postsecondary financial preparedness.

In addition to opening IDAs or CDAs, students and their families can also save for college via state 529 College Savings Plans. Simply having a savings account in the students' own name is associated with greater college participation rates, regardless of whether the account was designated for education purposes (Elliott & Beverly, 2011b). Participation in child savings account programs, such as the San Francisco SEED Program (SFSP), can help high school students have more positive attitudes toward education; however, it is unclear if such gains are due to the act of saving money, the financial literacy education program participants receive, or a combination of both (Kim & Johnson, 2012). In addition, automatic

enrollment or simplifying the process of enrolling in savings accounts can assist lower-income families who may otherwise not participate in a particular savings program (Huang, Beverly, Clancy, Lassar & Sherraden, 2013). It is important to note, however, that the account holder may affect the amount of financial aid for which a student qualifies. Savings accounts in the child's name may increase the amount that the student is expected to contribute toward educational costs and lower the total amount of need-based federal aid awarded. While students having their own savings account may lead to positive enrollment decisions, possibly due to reductions in uncertainty and anxiety over college payments, there may be unforeseen consequences, such as increases in net price of attendance. Furthermore, new research suggests that the timing of opening such accounts creates important disparities in the total amounts saved (Hillman, Gast & George-Jackson, forthcoming).

Early Aid Commitments

Savings accounts are just one way to prepare financially for college. The Washington State Achiever's (WSA) program illustrates an alternative strategy that promises financial aid to low-income students early in their academic careers. In addition, WSA also provides mentorship and college awareness programming to help students in their transition from high school to college. In a study by Pharris-Ciurej, Herting, and Hirschman (2012), WSA positively affected high school senior students' preparation for college in the early 2000s via an increase in the number of students taking the SAT or ACT, particularly for students who planned to attend a four-year college or university; however the "promise" of the scholarship affected students differently among the three high schools examined in the study. While it took three years to increase college-going rates at the lowest-income school, the program effects were observed immediately in one low-income school where college-going rates rose sharply in the first year of implementation. Interestingly, the third school experienced no changes in college enrollment patterns. The authors believe this was probably due to the profile of aid beneficiaries at that school, who were likely to have gone to college regardless of the program. Other research on the WSA program suggests that providing continuous college funding is associated with increased college enrollment after conditioning on academic and other background factors (Myers, Brown, & Pavel, 2010). While the generalizability of the program may be limited to Washington State, it serves as a reminder that the effect of early intervention efforts on college participation rates may not occur immediately. This finding becomes particularly relevant when implementing programs within schools serving a high number of low-income families and/or families from underserved backgrounds that historically have low college participation levels.

Applying for Financial Aid and Expectations of Financial Assistance

Applying for financial aid is another critical step in the college-going process. Unfortunately, many students from underserved groups leave money on the table by not completing the FAFSA or by filing the FAFSA late (Fenney & Heroff, 2013). Students who do not apply for aid are ineligible for federal, state, and most institution-based grants, scholarships,

and loans. As a result, many eligible students who fail to submit the FAFSA on time may perceive of college as too costly. Even when students complete the financial aid application on time, they are often uncertain of how much aid they will receive, which may lead to perceptions of college as unaffordable.

In Ohio, researchers tested whether personalized assistance increased the probability that students would apply for financial aid (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012). The researchers randomly assigned parents to three different groups while they were completing their taxes at H&R Block: 1) a control group that received no treatment; 2) a group which received information about eligibility for financial aid; and 3) assistance completing FAFSA and understanding aid eligibility information. Parents who received the personal assistance were not only more likely to file the FAFSA, but their children also attended college at higher rates. The assistance cost less than \$100 per filer (including incentives, training, and software), took less than 10 minutes for each participant to complete, and increased college participation rates by eight percent. Although informational brochures, websites, and even television commercials may provide information on financial aid, these passive techniques are not as effective as intensive assistance during the aid application process (Bettinger et al., 2012).

While applying for aid is clearly an important part of the financial preparation puzzle, students' expectations about how much aid they will receive is also crucial for attending college. In a study of University of Iowa applicants, Kim, DesJardins, and McCall (2009) examine how *expectations* of aid affect students' postsecondary decisions. They found that receiving less financial aid than expected negatively affected the decisions of students of color. While expectations of aid did not seem to affect decisions to apply to college, expectations of specific types of aid—such as grants, loans, and work study—had different effects on students' decisions to enroll by race and ethnicity. Using the same data, another study stressed that “enrollment decisions are not only affected by the *level* of expected aid, but are also sensitive to *deviations* of actual awards from their expected level” (DesJardins, Ahlburg & McCall, 2006, p. 394; original emphasis).

In summary, college savings accounts initiated by the government or individual families can affect college attendance. Yet, it is important to note that large disparities exist by race, ethnicity, and family income in terms of how much and when students and parents save for college and their ability to pay for college costs on their own (Hillman, Gast & George-Jackson, forthcoming). Early aid commitment programs, assistance with filling out and submitting the FAFSA, and having accurate estimates of how much aid the student will receive may help to alleviate these disparities by assisting disadvantaged populations to learn about financing options and helping them to prepare well financially before they are confronted with college expenses.

Limitations of Existing Literature and Recommendations for Future Research

Our discovery of less than 40 empirical, peer-reviewed articles on the topic of pre-college postsecondary financial awareness and preparation revealed that this topic is important and timely, but understudied, especially since only eight studies examine both financial awareness *and* preparedness. Research on financial awareness and preparation is limited in terms of the type of data used. Research on financial awareness tends to use in-depth case studies without longitudinal or randomized data samples, while studies using nationally representative survey data focus more on financial preparedness. None of the eight studies on both financial awareness and financial planning use nationally representative data, making it difficult to extrapolate their findings to broader populations. Regarding methodological approaches, 18 studies utilize logistic regression. While regression models are informative, utilizing quasi-experimental design methods, such as propensity score matching, would allow for more accurate estimates of group differences, such as level of financial awareness by students' race or ethnicity (Zanutto, 2006).

Our review also identifies a need to build on current theoretical models while specifically addressing financial awareness and preparation. Research suggests that financial awareness can be a precursor to preparedness and is part of the complicated college-choice process, although we lack extensive studies measuring both financial awareness and preparedness (Bettinger et al., 2012; Fenney & Heroff, 2013; Hu & Hossler 2000; Luna De La Rosa, 2006; Ness & Tucker, 2008; Plank & Jordan, 2001). Indeed, educational models have linked information about college costs and benefits to student aspirations and preparation for college (see Morgan, 2005), and have identified connections between financial aid and college applications, admission, and enrollment (see DesJardin et al., 2006). We call on researchers to develop frameworks that include awareness of college financing options (e.g., early aid programs, IDAs, and CDAs) into models predicting college preparation and enrollment outcomes. While theoretical and conceptual models of the FAP process are needed, these should also be incorporated into existing college choice models to allow for a more comprehensive and longitudinal perspective on how FAP affects college choice, attendance, and even completion. In light of the disparities we uncovered in our study, we encourage researchers to place concerns of equity at the forefront of future studies focusing on FAP and its connections to the various stages of preparing for, entering, and successfully completing college.

Furthermore, researchers need to consider the multiple and intersecting actors and institutions that shape student financial perceptions and actions. Scholars have developed models for understanding the contextual factors affecting the relationship between student expectations about college costs and the college decision-making process (Perna, 2006; Paulsen & St. John, 2002; St. John, 2006). However, less attention has been paid to modeling the relationship between financial awareness and preparedness (Zeidner, 2006), while also considering the multiple actors that may take on the burden of college payments. We also have much to learn about differences in FAP across different populations, using comparative studies. Specifically, existing studies treat racial and ethnic groups as largely homogenous, raising questions of how immigration status, language, first-generation

status, and other characteristics that vary within these groups may further affect disparities in FAP. Future qualitative and quantitative studies should work to examine both between- and within-group disparities in FAP.

Most studies we reviewed on financial preparation use crude measures of traditional college investment strategies, such as total amount saved or the existence of IDAs or CDAs. Such approaches fail to capture other financial strategies pursued by families, particularly for Black, Latino, and low-income families. For example, families may choose to allocate discretionary funds toward securing housing in preferred neighborhoods featuring better primary and secondary schools, rather than toward a college savings account, in order to provide their children with improved educational opportunities. Therefore, we call for future research and conceptual models to consider the non-traditional ways that families, and even extended families, financially plan and prepare for college, especially for historically underserved families.

While our review focused on pre-college FAP and attempted to purposefully distinguish FAP from financial aid, the topics are obviously intertwined. The use of longitudinal data allow for investigation of how FAP and financial aid usage interact over time. The most recent pertinent longitudinal and nationally representative data from the National Center for Education Statistics, the Education Longitudinal Study of 2002 (ELS:2002) and the High School Longitudinal Study of 2009 (HSL:09), are two sources available to conduct further research on FAP. ELS:2002 and HSL:09 contain information on high school students' and their parents' savings behaviors and perceptions related to financial aid applications. For instance, recent analysis of HSL:09 provides insight into the disparities in timing of financial planning and preparations, highlighting important differences by family income, race, and ethnicity (Hillman, Gast & George-Jackson, forthcoming).

Finally, many studies focus solely on high school students *or* parents despite the fact that parents' own financial awareness and preparation levels often influence students' awareness, preparation, and subsequent college-going behaviors. In addition, few studies examine middle school students or link student perceptions of college financing to a myriad of information and support sources (see Bell et al., 2009 for a study on multiple college information sources). Given that research suggests students need financial information and support well before their junior and senior years, more research is needed on the early nature of the FAP processes.

Implications for Policy and Practice

Given the existing complexities of pre-college financial awareness and preparation, designing and implementing policies and programs to reduce existing disparities will likely be equally complex. We intend our suggestions for practice to serve as an impetus for resolving FAP-related challenges that will eventually require that multiple parties undertake a multifaceted approach. Parents, counselors, teachers, and higher education institutions and their affiliated websites are the main sources of information related to pre-college financial awareness and preparation. We offer

policy implications and suggestions for practice with these sources in mind, including the following three recommendations: 1) commit to informing and counseling low-income, Black, and Latino families and students in middle school or even prior to middle school; 2) support local efforts, particularly in urban, low-income communities, that help parents learn about financing options and accurately estimate college costs and the net price of attendance; and 3) assist in the early opening of college savings accounts and completion of FAFSA forms. Based on our literature review, we prioritize the first two recommendations, as such efforts may foster FAP for underserved groups.

Research suggests a need for active, long-term, and individualized counseling assistance for both students and parents. Middle and early high school guidance counselors need to be trained to help students *and* parents navigate the variety of financing options and complete FAFSA, IDA, CDA, or other savings account forms years before college deadlines and junior- or senior-year college preparations (McDonough & Calderone, 2006). Private investment firms and financial advisors should work with urban counseling programs and help students and families better understand and prepare for multiple types of financial aid and financing options (Bettinger et al., 2012; Venegas, 2006a; Whitsett & O'Sullivan, 2012). Counselors are encouraged to not only offer students and families programming and services centered around FAP, but also to communicate explicitly the short- and long-term benefits of strengthening financial awareness and preparation (Perna, 2008a). Including college coaches who provide one-on-one counseling and customized advice may help raise the financial awareness and preparation levels of students and parents from historically underserved backgrounds (Stephan & Rosenbaum, 2013). Individualized counseling is particularly important for Latino high school students, who do not independently access information from colleges at the same rate as their peers (Martinez & Cervera, 2012). Counselors can also collaborate with English as a Second Language (ESL) teachers to help immigrant Latino students and their families access pre-college information, including FAP-related materials (Kim, 2012). Early in their students' education, teachers at all grade levels can encourage students and their families to learn about higher education and the diverse ways to finance college costs.

Pre-college counselors and teachers should also learn about and distinguish between a college's sticker price and the net price of attendance. Colleges and universities can provide training and materials that explain how net prices are calculated to staff in middle schools and high schools in high-minority and low-income areas. They can also encourage those who interact with middle and high school students and their parents to focus on the net price of attendance rather than the sticker price. Perhaps most important, colleges and universities can work with these schools to help dispel the common myths held by teachers, counselors, parents, and students about college affordability and financial aid (Tierney, Bailey, Constantine, Finkelstein, & Hurd, 2009). More specific to the high school audience, postsecondary institutions can help remind parents, students, and those who work with them about critical financial aid deadlines (Tierney et al., 2009). We encourage higher education institutions to collaborate with

middle schools and other organizations to help initiate and support these efforts aimed at introducing FAP to students and their families early on. In addition to securing buy-in from the middle school administrators and other leaders of key community organizations, colleges and universities should work with partner organizations to ensure that the needs of the families they serve are met and attention is given to providing families with age-appropriate postsecondary financing and planning information.

We also encourage colleges and universities, as well as third-party college readiness programs, to reflect on emerging and existing FAP-related policies and programs. Colleges, universities, and other organizations should move beyond simply disseminating information online—including the previously mentioned net price calculators—and provide extensive, individualized guidance that mirrors other institutional support systems that assist students in transitioning to college (Venegas, 2006b). A recent report on the federally mandated net price calculators showed that the information institutions ask families to provide, as well as the ease of access, use, and understanding of net-price information, varies widely by institution (The Institute for College Access and Success (TICAS), 2012). To address this issue, TICAS (2012) recommends that the U.S. Department of Education, colleges, and universities standardize the information inputs and outputs for the online calculators and help parents make sense of the calculators. Colleges and universities could provide additional support to families using the calculators through counseling hotlines or online chat features. Programs and policies should also be reviewed by higher education administrators and evaluators to identify if and how colleges and universities are addressing FAP, who the intended audience is, and if the program or policy serves all groups equitably. Information-oriented programs should be assessed to determine if the information provided is readily available and easily accessible to the targeted groups, and if not, how improvements could be made.

Postsecondary institutions should give careful attention to the quality, accuracy, and multi-layered nature of information given to families, as well as to how families differentially process this information to create perceptions of debt and affordability. This is especially important, given that modern families pay for college using diverse strategies, orientations, and payment methods (Sallie Mae, 2014). In accordance with the findings of the H & R Block FAFSA experiment, colleges could provide historically underserved families, including extended families, with one-on-one financial counseling by working with private investment companies, language translators, local organizations, schools, and libraries. Although the H&R experiment cost less than \$100 per participant, the cost to institutions would be reduced without the inclusion of participant incentives. Action-oriented programs and policies should be reviewed to determine if the action can be reasonably undertaken by the target audience, or if there are other factors that may prevent underserved families from engaging in the preparatory behavior, such as language, documentation, or other barriers. All programs and policies should be reviewed in terms of the timing of financial information or guidance.

Conclusion

The first 15 years of the new millennium have presented a time of increasing barriers to affording a college education and unprecedented rising college costs, leaving students and parents strapped to make the most of scarce resources at hand, particularly among low-income, Black, and Latino families (Pew Research Center, 2012; Shapiro, Meschede, & Osoro, 2013). Furthermore, it is crucial for students and families to have the knowledge and awareness they need to navigate rapidly changing and increasingly complex college financial aid, tuition, and payment structures. The literature produced on FAP between 2000 and 2013 has advanced our understanding of disparities by race, ethnicity, and SES, and highlights the need to examine how these disparities interact with college-going preparations and behaviors. While the recommendations offered here could potentially reduce disparities in families' pre-college FAP, we would be remiss not to stress the need for postsecondary institutions to control and reduce the cost of college attendance. The persistent lack of college affordability may be the most significant barrier to reducing existing FAP disparities for many families. The onus of maximizing pre-college financial awareness and preparation should not reside with parents and students who are simply told to save more. Instead, institutions should expand FAP for underserved families while actively working on making tuition more affordable and financial aid more accessible. Discussions around college affordability should not only serve the middle and upper classes, but also low-income families and others marginalized by continually rising college costs (Gross, 2014).

One major theme is the information gap that continues to persist, particularly among individuals historically underserved in higher education. The fact that many low-income, Black, and Latino students attend high schools that lack adequate counseling to prepare them financially for college exacerbates this gap. Identifying exactly when and where the information gaps occur is a critical step toward designing effective interventions to close these gaps and provide accurate, timely, and trusted information to students, parents, and even counselors. Early access to multiple information sources and individualized guidance support systems may help to improve the FAP of underserved populations. We urge higher education institutions, middle schools, high schools, local organizations, and investment companies to work together to improve pre-college FAP for underserved communities.

When addressing college access issues, student and parent knowledge, perceptions, and actions related to financing college should be given the same priority as academic preparation. While college affordability is an ongoing and pressing issue in public and political discourse, the limited number of studies on FAP suggests that academic research has not adequately addressed the complex, multifaceted nature of college financing. As evidenced by the literature reviewed here, addressing the multiple intersecting actors, institutions, and financing options, as well as approaching college financing as a cumulative, longitudinal process, may serve as useful starting points.

Nexus: Putting Research Into Practice

- Middle schools, high schools, and colleges should collaborate in efforts to introduce students and their families to accurate information about the costs of college and strategies for preparing to pay for college. These efforts may include helping families to learn about and complete the FAFSA, as well as explaining how financial aid works.
- Colleges and universities should offer assistance to families in their pre-college financial decisions and preparations, rather than simply displaying information online or in brochures.
- Colleges and universities should review existing cost and financial aid information to determine their clarity, accuracy, and how families may perceive such information, especially those from historically underserved backgrounds. Such a review should include the usability and understandability of the institution's net price calculator and the subsequent cost estimates provided.

Endnotes

¹ This search process was conducted as part of the Young Academic Fellowship Program, sponsored by the Lumina Foundation and the Institute of Higher Education Policy.

² Family wealth, or total household assets minus what is owed (debt), also known as net worth, can include financial assets, such as college savings accounts, and non-financial assets, such as real estate and business equity (Oliver & Shapiro, 2006). Both types of assets, but particularly financial assets, are positively associated with college enrollment as they can be used for educational expenses for college preparation and actual college expenses (Charles et al, 2007; Conley, 2001; Williams Shanks & Destin, 2009).

³ Parental marital status can also affect the amount families spend on college education, with differences existing between low- and high-income divorced and married couples (Turley & Desmond, 2011).

⁴ The data used in this study are based on children born in 2007.

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References

- Avery, C., & Kane, T. J. (2004). Student perceptions of college opportunities: The Boston COACH Program. In Hoxby, C. M. (Ed.), *College choices: The economics of where to go, when to go, and how to pay for it*. Chicago, IL: University of Chicago Press, 355-394.
- Bell, A. D., Rowan-Kenyon, H. T., & Perna, L. W. (2009). College knowledge of 9th and 11th grade students: Variation by school and state context. *The Journal of Higher Education*, 80(6), 663-685.
- Bettinger, E. P., Long, B. T., Oreopoulous, P. & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. *The Quarterly Journal of Economics*, 127(3), 1205-1242.
- Charles, C. Z., Roscigno, V. J., & Torresa, K. C. (2007). Racial inequality and college attendance: The mediating role of parental investment. *Social Science Research*, 36, 329-352.
- Clinedinst, M. E., Hurley, S. F., & Hawkins, D. A. (2011). *2011 State of college admission*. Alexandria, VA, National Association for College Admission Counseling.
- College Board (2012). *Trends in college pricing, 2012*. College Board: New York.
- College Board (2013). *Trends in college pricing, 2013*. College Board: New York.
- Conley, D. (2001). Capital for college: Parental assets and postsecondary schooling. *Sociology of Education*, 74(1), 59-72.
- DesJardins, S. L., Ahlburg, D. A., & McCall, B. P. (2006). An integrated model of application, admission, enrollment, and financial aid. *The Journal of Higher Education*, 77(3), 381-429.
- Dynarski, S., & Scott-Clayton, J. (2013). Financial aid policy: Lessons from research. *The Future of Children*, 23(1), 67-91.
- Dynarski, S. M., & Wiederspan, M. (2012). Student aid simplification: Looking back and looking ahead, *NBER Working Papers 17834*, National Bureau of Economic Research, Inc.
- Elliott, W., & Beverly, S. (2011a). Staying on course: The effects of savings and assets on the college progress of young adults. *American Journal of Education*, 117(3), 343-374.
- Elliott, W., & Beverly, S. (2011b). The role of savings and wealth in reducing “wilt” between expectations and college attendance. *Journal of Children & Poverty*, 17(2), 165-185.

- Elliott, W., & Nam, I. (2012). Direct effects of assets and savings on the college progress of Black young adults. *Educational Evaluation and Policy Analysis*, 34(1), 89-108.
- Federal Reserve Bank of New York. (2013). *Quarterly report on household debt and credit*. New York, NY: Federal Reserve Bank of New York.
- Feeney, M., & Heroff, J. (2013). Barriers to need-based financial aid: Predictors of timely FAFSA completion among low-income students. *Journal of Student Financial Aid*, 43(2), 65-85.
- Fry, R. (2012). *A record one-in-five households now owe student loan debt*. Washington, DC: Pew Research Center.
- Gibbons, M. M., Borders, L. D., Wiles, M. E., Stephan, J. B., & Davis, P. E. (2006). Career and college planning needs of ninth graders—as reported by ninth graders. *Professional School Counseling*, 10(2), 168-178.
- Grinstein-Weiss, M., Sherraden, M., Gale, W., Rohe, W. M., Schreiner, M., & Key, C. (2013). Long-term effects of individual development accounts on post-secondary education: Follow-up evidence from a randomized experiment. *Economics of Education Review*, 33, 58-68.
- Grodsky, E., & Jones, M. T. (2007). Real and imagined barriers to college entry: Perceptions of cost. *Social Science Research*, 36, 745–766.
- Gross, J. P. K. (2014, July 31). On affordability, who decides? *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/views/2014/07/31/who-decides-when-college-affordable-and-whom-essay>
- Hill, L. D. 2008. School strategies and the “College-Linking” process: Reconsidering the effects of high schools on college enrollment. *Sociology of Education*, 81, 53-76.
- Hillman, N. W., Gast, M. J., & George-Jackson, C. E. (forthcoming). When to begin? Socioeconomic and racial/ethnic differences in financial planning, preparing, and saving for college. *Teachers College Record*, 117(8).
- Horn, L., 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*. U.S. Department of Education, National Center for Education Statistics, Washington, DC.
- Hu, S., & Hossler, D. (2000). Willingness to pay and preference for private institutions. *Research in Higher Education*, 41, 685-701.
- Huang, J., Beverly, S., Clancy, M., Lassar, T., & Sherraden, M. (2013). Early program enrollment in a statewide Child Development Account program. *Journal of Policy Practice*, 12(1), 62-81.

- Kim, J., DesJardins, S., & McCall, B. (2009). Exploring the effects of student expectations about financial aid on postsecondary choice: A focus on income and racial/ethnic differences. *Research in Higher Education, 50*, 741-774.
- Kim, S. U. (2012). Postsecondary assistance: A research project helps immigrant students plan their education futures. *Knowledge Quest, 40*(3), 48-53.
- King, J. E. (2004). *Missed opportunities: Students who do not apply for financial aid*. American Council on Education Issue Brief.
- Lautz, J., Hawkins, D., Pérez, A. B. (2005). The high school visit: Providing college counseling and building crucial K-16 links among students, counselors, and admissions officers. *Journal of College Admission, 188*, 6-15.
- Loke, V. (2013). Parental asset accumulation trajectories and children's college outcomes. *Economics of Education Review, 33*, 124-133.
- Luna De La Rosa, M. (2006). Is opportunity knocking? Low-income students' perceptions of college and financial aid. *American Behavioral Scientist, 49*(12), 1670-1686.
- Martinez, S., & Cervera, Y. L. (2012). Fulfilling educational aspirations: Latino students' college information seeking patterns. *Journal of Hispanic Higher Education, 11*(4), 388-402.
- McCallister, L., Evans, J., & Illich, P. (2010). Perceptions about higher education among parents of Hispanic students in middle school: Implications for community colleges. *Community College Journal of Research and Practice, 34*(10), 784-796.
- McDonough, P. M., & Calderone, S. (2006). The meaning of money: Perceptual differences between college counselors and low-income families about college costs and financial aid. *American Behavioral Scientist, 49*(12), 1703-1718.
- Morgan, S. L. (2005). *On the edge of commitment: Educational attainment and race in the United States*. Stanford, CA: Stanford University Press.
- Myers, C. B., Brown, D. E., & Pavel, D. M. (2010). Increasing access to higher education among low-income students: The Washington State Achievers Program. *Journal of Education for Students Placed at Risk, 15*(4), 299-321.
- Nelson J. C., & Goodman, R. (2009). U.S. colleges and universities rating roadmap: Focus on special risk during recession & credit crisis. Retrieved February 28, 2014, from: http://www.nacubo.org/Documents/business_topics/MoodysApril2009.pdf

- Ness, E., & Tucker, R. (2008). Eligibility effects on college access: Under-represented student perceptions of Tennessee's Merit Aid Program. *Research in Higher Education, 49*, 569-588.
- O'Connor, N., Hammack, F. M., & Scott, M. A. (2010). Social capital, financial knowledge, and Hispanic student college choices. *Research in Higher Education, 51*, 195-219.
- Oliver, M., & Shapiro, T. (2006). *Black wealth/White wealth: A new perspective on racial inequality* (10th anniversary ed.). New York: Routledge.
- Paulsen, M. B., & St. John, E. P. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *The Journal of Higher Education, 73*(2), 189-236.
- Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and Whites. *The Journal of Higher Education, 71*, 117-141.
- Perna, L. W. (2005). A gap in the literature: The influence of the design, operations, and marketing of student aid programs on college-going plans and behaviors. *Journal of Student Financial Aid, 35*(1), 8-15.
- Perna, L. (2006). Understanding the relationship between information about college prices and financial aid and students' college-related behaviors. *American Behavioral Scientist, 49*, 1620-1635.
- Perna, L. (2008a). High school students' perceptions of local, national, and institutional scholarships. *Journal of Student Financial Aid, 37*(2), 4-16.
- Perna, L. (2008b). Understanding high school students' willingness to borrow to pay college prices. *Research in Higher Education, 49*, 589-606.
- Perna, L., Rowan-Kenyon, H. T., Thomas, S. L., Bell, A. D., Anderson, R., & Li, C. (2008). The role of college counseling in shaping college opportunity: Variations across high schools. *The Review of Higher Education, 31*, 131-59.
- Perna, L., & Steele, P. (2011). The role of context in understanding the contributions of financial aid to college opportunity. *Teachers College Record, 113*(5), 895-933.
- Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *The Journal of Higher Education, 76*(5), 485-518.
- Pew Research Center. (2012). The lost decade of the middle class. *Pew Social & Demographic Trends*. Retrieved from <http://www.pewsocialtrends.org/2012/08/22/the-lost-decade-of-the-middle-class/>

Pharris-Ciurej, N., Herting, J. R., & Hirschman, C. (2012). The impact of the promise of scholarships and altering school structure on college plans, preparation, and enrollment. *Social Science Research, 41*(4), 920-935.

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*, 947-79.

Reed, M., & Cochrane, D. (2012). *Student debt and the class of 2011*. Oakland, CA: The Institute for College Access and Success.

Sáenz, V. B., Rodríguez, A. A., Martínez, M. A., & Romo, E. (2011). The college pathways of foreign-born and native-born Latino college students at four-year institutions. *Association of Mexican American Educators Journal, 5*(1), 31-40.

Sallie Mae (2014). *How America pays for college: Sallie Mae's national study of college students and parents*. Washington, DC: Ipsos Public Affairs.

Shapiro, T., Meschede, T., & Osoro, S. (2013). The roots of the widening racial wealth gap: Explaining the Black-White economic divide. Institute on Assets and Social Policy, Waltham, MA.

SHEEO. (2013). *State higher education finance*. Boulder, CO: State Higher Education Executive Officers.

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. (2006). Contending with financial inequality: Rethinking the contributions of qualitative research to the policy discourse on college access. *American Behavioral Scientist, 49*(12), 1604-1619.

Stephan, J. L., & Rosenbaum, J. E. (2013). Can high schools reduce college enrollment gaps with a new counseling model? *Educational Evaluation and Policy Analysis, 35*(2), 200-219.

Tekleselassie, A. A. (2010) Demystifying conventional assumptions: Do African American parents anticipate investing less toward their children's college costs than their White peers? *Journal of Student Financial Aid, 40*(2), 5-20.

The Institute for College Access and Success (2012). *Adding it all up: Are college net price calculators easy to find, use, and compare?* Washington, DC. http://ticas.org/pub_view.php?idx=859

Tierney, W. G., Bailey, T., Constantine, J., Finkelstein, N., & Hurd, N.F. (2009). *Helping students navigate the path to college: What high schools can do: A practice guide* (NCEE #2009-4066). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>

- Tierney, W. G., & Venegas, K. M. (2009). Finding money on the table: Information, financial aid, and access to college. *The Journal of Higher Education, 80*(4), 363-388.
- Turley, R. N., & Desmond, M. (2011). Contributions to college costs by married, divorced, and remarried parents. *Journal of Family Issues 32*(9), 767-790.
- Unverferth, A. R., Talbert-Johnson, C., & Bogard, T. (2012). Perceived barriers for first-generation students: Reforms to level the terrain. *International Journal of Educational Reform, 21*(4), 238-252.
- U.S. Department of Education, National Center for Education Statistics. 2011. United States student-to-counselor ratios 2008-2009 data year. American Counseling Association, Alexandria, VA.
- Venegas, K. M. (2006a). Internet inequalities: financial aid, the internet, and low-income students. *American Behavioral Scientist, 49*(12), 1652-1669.
- Venegas, K. M. (2006b). Low-income urban high school students' use of the Internet to access financial aid. *Journal of Student Financial Aid, 36*(3), 4-15.
- Whittset, H. C., & O'Sullivan, R. (2012). Lost without a map: A survey about students' experiences navigating the financial aid process. NERA Economic Consulting and Young Invincibles. Retrieved October, 14, 2012, from http://www.nera.com/nera-files/PUB_Student_Loan_Borrowers_1012.pdf
- Williams Shanks, T. R., & Destin, M. (2009). Parental expectations and educational outcomes for young African American adults: Do household assets matter?" *Race and Social Problems, 1*(1), 27-35.
- Zanutto, E. L. (2006). A comparison of propensity score and linear regression analysis of complex survey data. *Journal of Data Science, 4*(1), 67-91.
- Zeidner, T. (2006). *Information and access: Modeling the nexus of academic preparation and financial aid literatures*. Peabody Journal of Education, 81(4), 118-138.