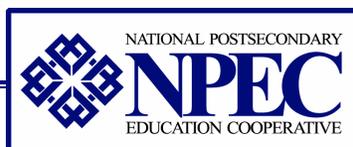


Deciding on Postsecondary Education: Final Report

Report of the National Postsecondary Education Cooperative

December 2007



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The National Postsecondary Education Cooperative (NPEC)

NPEC is a voluntary partnership of representatives from postsecondary institutions, associations, government agencies, states, and other organizations with a major interest in postsecondary education. Its mission is to promote the quality, comparability, and utility of postsecondary education data and information that support policy development at the federal, state, and institution levels. The National Center for Education Statistics (NCES) established NPEC and provides resources to support its activities. NPEC receives guidance for its activities from various working groups and committees that are composed of individuals from throughout the United States.

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December 2007

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DECIDING ON POSTSECONDARY EDUCATION

EXECUTIVE SUMMARY

Access to and use of practical, accurate, and actionable information are critical dimensions of the complex pathway students and families follow in enrolling in postsecondary education. Research shows that an effective search process is essential for college retention and success. The purpose of the National Postsecondary Education Cooperative's Improving Information for Student Decisions About Postsecondary Education project is to gain a better understanding of data and information that potential students—especially underserved students—use and need to assist them in making decisions about postsecondary education. As part of the project, Westat completed a literature review and conducted 11 focus groups with 90 participants in eight states. In addition, national and state college search and information websites were reviewed.

This report is organized into three substantive sections that address the following questions, and a summary of the results of the literature review and focus groups:

The Stages of College Planning and Choice

- How and when do individuals approach the college decision?
- What are the stages of the process and the specific steps taken?

The Influential Role of Others

- Who else is involved in the search and decision process?
- What roles do they play?

Types of Information Sought, Sources Used, and Application of Information

- What types of information do students and their families seek?
- What information do they apply to decisionmaking?
- What resources, including but not limited to websites, do they turn to?
- What information do students and families need?

The literature suggests that for traditional-aged, middle-income students, the decision to attend college and choice of college are best conceptualized as a process rather than an event. A student's choice regarding which college to attend is preceded by informal and formal information gathering and processing, which often starts years prior to enrollment and proceeds through a predisposition, search, and choice stage. Adults and low-income, first-generation students, on the other hand, tend to choose a postsecondary institution at the same time that they decide to attend or return to school.

A variety of individuals interact with students in multiple ways, shaping their predispositions, assisting in the college search, and influencing their choices. Regardless of socioeconomic status (SES) or ethnic and racial category, parents play the strongest role in the college choice and decisionmaking processes for traditional-aged students. Other individuals, including peers, school and college personnel, and mentors, also have significant influence. A much higher level of autonomy and independence is shown by adult students. Parents' educational attainment, parental encouragement, and student achievement are the strongest predictors of both college aspirations and enrollment for traditional-aged students.

The literature indicates that traditional-aged, middle-income high school students seek information about programs of study, college quality, cost of attending, geographical location, and size. Table E-1 shows the results of the focus groups with underserved students, parents, and guidance counselors who identified the need for similar information, but in a different order of importance.

Table E-1. Information focus group participants used to search for postsecondary institutions, by order of importance

Priority	Low-income and first-generation students	Low-income parents of first-generation students	Low- to moderate-income older students	Guidance counselors ¹
1	Major/program of study	Costs and financial aid	Convenience/location (where courses are offered and when)	Career planning information
2	Location and cost/financial aid	Major/program of study	Cost	Major/program of study
3	Student demographics and diversity/campus setting	Admissions requirements	Major/program of study	Institutional fit (size of institution, 2-year vs. 4-year, cost, academic support programs, etc.)
4	Size of institution	Location		Graduation rates
5		Campus crime/safety ²		

¹Counselors worked in schools where at least 30 percent of the students were low income.

²One of the two groups of parents was interested in this information.

Although much of the information students seek is readily available via the Internet and other published sources, the focus group research suggests it is less accessible (e.g., most of the parents in one of the focus groups did not have Internet access at home) or less comprehensible—especially cost, financial aid, and scholarship information—for underserved students than for middle income students. Additionally, for middle-income and traditional-aged students, the attractiveness of specific institutions during the search stage increases with their selectivity or “quality.” However, when students reach the choice stage, they tend to select a school based on the difference between their own aptitude and the average aptitude of students attending the school.

The most important information cited by adult students in the focus groups was convenience, cost, and program/course of study. Convenience (i.e., times classes were offered) was not identified as a priority for traditional-aged students. Counselors in the focus groups emphasized career planning in relation to academic majors as a first step for students in identifying postsecondary institutions. Another important type of information counselors identified was “institutional fit,” citing such measures as size of the institution, and academic support

The literature review indicated that parents, guidance counselors, mainstream media, college brochures, and institutions are primary sources for information about college. The focus group research suggests that online web-based resources are quickly gaining prominence among current and recent high school graduates; however, the extant literature has yet to address how students are using these resources.

Students whose parents had higher levels of education and who came from higher SES backgrounds tended to rely more on their parents for information and less on high school counselors. Students whose parents had lower levels of education and who came from lower SES backgrounds depended more on the advice of high school counselors (when available), unsolicited college marketing materials, or information requested directly from the colleges or at college fairs.

For both traditional-aged and older adult students, information about costs was a priority, particularly for students (and parents) from lower SES backgrounds. Students and their parents tended not to be well informed about the actual cost of attending college. For example, among students in 11th and 12th grades planning to attend college, 37 percent of students and 28 percent of their parents could not estimate the price of tuition and fees. The literature suggests that the direct effect of financial

constraints does not inhibit enrollment as much as the indirect effect of low SES status, (e.g., students' development, social network, educational experience, aspirations, and academic preparation).

Based on focus group research and the literature review, students and their families would benefit from additional information and resources and from assistance in interpreting and using information as outlined in table E-2. Institutional and state efforts to reach these target populations should consider marketing and research (e.g., focus groups, surveys, and/or usability studies) to ensure that needed information and resources are accessible and comprehensible to low-income students and their families.

Table E-2. Information and resources needed

Low-income and first-generation students	Low-income parents and students	Low- to moderate-income older students	Guidance counselors
Resources, for example, to assist them complete college applications, identify mentoring programs	Reliable information and resources: people and organizations and checklists of questions	Convenience/ location (where courses offered and when)	Tools to network with college admissions counselors
Information on graduation, retention, transfer rates by race/ethnicity	Institutional fit	Cost	Sample templates to help them produce college preparation newsletters
Information on importance of postsecondary education and age-appropriate guidance on steps to follow, beginning with the 7th grade	Early career planning	Major/program of study (academic and specific career-oriented programs)	Tools to assess students' learning styles and career interests
Information to address fears/concerns about college	Financial aid, including what information is required to complete forms	Time personnel spend helping them	Self-guided computer-based search tools
Early career planning	Campus crime/safety	Separate website for adult students	

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TABLE OF CONTENTS

Executive Summary	iii
Introduction and Background	1
Limitations and Gaps in the Literature	2
Composition of Focus Group Participants, Issues Explored, and Methodology	3
Methodology	5
Organization of the Report.....	5
Section 1. The Stages of College Planning and Choice.....	6
The Predisposition Stage	7
Personal, Familial, Cultural, Social, and Environmental Factors	8
Aspirations of First-Generation Students.....	9
Reasons Cited for Pursuing Postsecondary Education	9
Reasons Cited by Older Students.....	10
The Search Stage	11
Information Gathering and Structure of the Search	11
The Choice Stage	12
Self-Image and Fit	13
Socioeconomic Status and the Cost of College	14
The Choice Between 2- and 4-Year Institutions.....	14
The Choice Process of Older Students.....	15
The Choice Process of First-Generation, Low-Income Students.....	15
Section 2. The Influential Role of Others	16
Family	16
Parents.....	16
The Special Role of Mothers	18
Older Siblings	19
Other Influencers	19
Peers	19
Guidance Counselors, Teachers, and College Recruiters	20
Mentors	21
Racial Differences in Influence of Others	21
Role of Influencers on Older Students.....	22
Section 3. Types, Sources, and Application of Information	22
Types of Information Sought by Traditional-Aged Students.....	23

Information Sought by Traditional-Aged Focus Group Students	24
Information on and Perceptions of College “Quality”	26
Amount of Information Sought	27
Information Sought by Parents vs. Students	28
Information Used by Guidance Counselors in the Focus Groups	29
Timing of the Information Search	30
The Changing Salience of Information Types Over Time	31
Information Sought by Older Students	31
Data from the Focus Group on the Information Used by Older Students	32
Information Sought, by Students’ Race/Ethnicity	32
Sources of Information About College	33
Uses of Websites to Search for Information About Colleges	34
Information Sources Sought Over Time	35
Information About College Cost and Financial Aid	35
Section 4. Summary	37
What is the Process Used by Students to Determine If and Where to Attend College?	38
Who Influences and Assists Students With the College Search Process?	39
What Information Do Students and Parents Seek and Use in Making Decisions About Where to Pursue Postsecondary Education?	40
What Sources Are Students and Parents Using to Access Information About Postsecondary Institutions?	41
Where Do We Go from Here: Information/Translation Gaps for Students and Parents	42
Parents	42
Traditional-Aged, Underserved Students	43
Older Adult Students	44
Guidance Counselors	45
Marketing, Marketing, Marketing	45
Acknowledgments	47
Bibliography	49
Appendix A: How College Cost and Financial Aid Influence the College Decision Process	55
Appendix B: Summary Characteristics of Focus Group Participants	57
Appendix C: Focus Group Protocols	61
Appendix D: Focus Group Methodology	81
Appendix E: Selective List and Brief Descriptions of College Search/Information Websites	83

LIST OF TABLES

1	College enrollment by level of parental education	16
2	Commonly cited college criteria of interest to high school junior and seniors, by select sources	24
3	Information considered most important, by type of focus group participant...	24
4	Top choice criteria of adult students at 2- and 4-year colleges.....	31

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DECIDING ON POSTSECONDARY EDUCATION

Introduction and Background

Access to and use of practical, accurate, and actionable information concerning specific colleges and postsecondary education in general are two critical dimensions of the complex pathway students and families must navigate as they choose to enroll in postsecondary education. The recent publication of “A Test of Leadership,” by the Secretary of Education’s Commission on the Future of Higher Education (U.S. Department of Education 2006), served to focus the attention of the research and policymaking communities on making higher education as accessible as possible and called for clear and reliable information about postsecondary institutions.

As part of National Postsecondary Education Cooperative’s (NPEC) Improving Information for Student Decisions About Postsecondary Education project, Westat conducted several research activities:

- A literature review;
- Eleven focus groups with underserved (i.e., low-income and/or first-generation college) students and parents, as well as guidance counselors; and
- A review of some of the key websites cited by students, guidance counselors, and others.

The purpose of this project is to gain a better understanding of data and information that are used and/or needed by students and potential students to assist them in making decisions about participation and choice in postsecondary education. The project focused on students who are considered underserved, from low-income families, or of the first generation to attend college. The focus groups, conducted in eight states, supplement the literature review. Gathered from multiple perspectives, the focus group data provide a rich source of information on underserved students and families that is not available in the extant literature. This report focuses on the types and sources of information used during the transition from high school to postsecondary education, as well as the entry or reentry processes of adult students.

The implications of an effective college search process for postsecondary education are far reaching and include

- generating a sense of personal achievement;
- participating in the American dream (Butner et al. 2001);
- serving as the springboard for launching a professional career; and
- achieving success and retention in postsecondary institutions.

Bean and Bradley (1986) reported that students’ satisfaction with the institution of their choice had a greater impact on academic performance than academic performance had on student satisfaction. College choice research (Hossler 1984; Vellella and Hu 1990) has revealed that a weak, inaccurate search increases the risk of choosing the wrong institution to attend, becoming dissatisfied with the institution, and withdrawing before graduation. These findings suggest that some of the seeds of college retention are sown prior to enrollment, during the search and decisionmaking phase.

This report consolidates and highlights what is known from the literature about the search for information about postsecondary education institutions and the patterns of information access and use among students with different demographic and socioeconomic backgrounds and supplements this information with findings from focus group research.

Limitations and Gaps in the Literature

The research literature, in keeping with the well-established three-stage model of college choice, examines the factors that account for one's predisposition toward college, the search for information about college, and the college enrollment decision. While this review acknowledges the implications each stage has on subsequent stages, its attention is squarely on the intermediate stage of information gathering.

Much of the literature focuses on the first stage, predisposition, and the factors in child and adolescent development that are associated with an inclination toward postsecondary education. Generally qualitative in nature, these studies conclude that one's predisposition toward college is determined by personal, familial, cultural, and environmental conditions (Bers and Galowich 2002; Butner et al. 2001; Hossler, Schmit, and Vesper 1999; McDonough 1997; Hemsley-Brown 1999; De La Rosa 2006). By definition, only those students predisposed toward postsecondary education will seek out information that will be used to inform the college decision.

Given the obvious decision-point nature of the third stage, choice, and its significant relationship to the life course, there is an even larger body of literature on college enrollment and the factors that influence enrollment. In particular, a considerable amount of empirical research has examined the effects of economically based state and federal policies (e.g., scholarships and financial aid, tuition control, and direct appropriations to postsecondary institutions) on differential rates of enrollment. This rich research, which is outside the scope of this literature review, tends to show that financial interventions, while influential for those predisposed to postsecondary education, are not sufficient to ensure equal access for many economically disadvantaged groups (De La Rosa and Tierney 2006; Perna and Titus 2004; Kim 2004; Cunningham, Redmond, and Merisotis 2003; Pope and Fermin 2003; Perna and Swail 2001; Long and Riley 2007). Indeed, many of these researchers agree that it is limited awareness of financial aid packages and difficulty interpreting financial aid information that mitigated the influence of economically-based policies, suggesting a need for more effective dissemination of clearer information. (For a brief but fuller discussion of this issue, see appendix A.)

Given NPEC's goal to better understand the data and information that are used and/or needed by potential college students, this literature review focused on identifying and summarizing what is known about the intermediate stage of college choice, the search process. The first section provides a brief overview of the three-stage model and a cursory summary of the related literature to provide necessary context. However, the core research cited in the remaining sections is demarcated by the predisposition to college attendance on one side and the decision to enroll in college on the other. Research examining why students make the final decisions they do is beyond the scope of this report.

Additional caveats to this literature review arise from the following critical gaps in the extant literature:

- The bulk of the research continues to focus mainly on the experiences of "traditional" college-bound students—that is, 18- to 25-year-old students from middle- to high-income families. Less is known about nontraditional and low-income students, even though they account for the

majority of currently enrolled undergraduates (Horn 1996).¹ The literature provides little information on the very large adult student segment (Broekemier 2002), first-generation, or economically disadvantaged students.

- Although it is widely acknowledged that different cultures value education differently (Zimbrotff 2005), empirical research on variation in college choice criteria and decisionmaking among diverse racial and ethnic student populations is just emerging. While this report was concerned more with socioeconomic variables rather than demographic ones, the college search processes of certain racial and ethnic groups have received some attention (African American and Hispanic populations, for example) while those of other groups (Native Americans, for example) have not.
- Careful investigations into the unique situations faced by homeschooled students have yet to be completed (Nolan 2007).
- No rigorous research was found on search criteria used by transfer students.
- Research on the role of the Internet in the college information collection process was one of the most glaring omissions in the literature. Several articles addressed the rise of the Internet and its popularity among students from a marketing perspective only.

While the findings from the literature review can certainly guide policy, policy studies themselves were excluded from the review, as were studies that evaluated specific programmatic interventions. Virtually all relevant disciplinary approaches are represented; however, the review draws predominantly from educational, sociological, psychological, and econometric research. While the field has been criticized for a lack of large-scale quantitative studies that test the relationships between specific inputs and outcomes (SSRC 2005), small-scale qualitative research has contributed valuable insights into the complex workings of the college choice process. Therefore, the literature review draws on both quantitative and qualitative studies.

This effort concentrated on recent research, with over half of the 80 citations referencing work published in 2000 or later. About one-third of the research reports were published in the 1990s. Groundbreaking studies conducted in the late 1980s are included as well. Through the course of culling relevant research on the information students and their families access and use, this review was shaped by the limitations outlined above. It could be argued that with fast-changing student demographics and the now pervasive use of the Internet, even fundamental studies could benefit from replication.

Composition of Focus Group Participants, Issues Explored, and Methodology

Westat conducted 11 focus groups with 90 participants between October 2006 and May 2007. The groups were held in eight states: Maryland (2), West Virginia, Ohio, North Carolina, Texas (2), New Mexico, California (2), and Illinois. The focus groups were specifically designed to gather the perspectives of underserved students, their families, and guidance counselors. A general description of the participants in each focus group is summarized below. A more detailed breakdown of their characteristics and demographics is provided in appendix B.

¹ Horn distinguishes “non-traditional” students from “traditional” students as those displaying one or more of the following characteristics: delayed enrollment, attends part time, works full time, is considered financially independent, has dependents other than spouse, is a single parent, and/or does not have a high school diploma. For the purposes of this report, we added age to this list of characteristics (i.e., students over age 25).

- First-generation college-bound high school seniors from rural areas;
- First-generation, urban, college-bound high school seniors from low- to moderate-income families;
- First-generation, low-income Latino high school seniors;
- High-achieving/low-income African American college freshmen;
- College freshmen in 4-year colleges (public and private, not-for-profit) from low-income families;
- College freshmen from low-income families enrolled in 2-year public and technical colleges;
- Older low-income adults, ages 25 to 38 and enrolled in 2- and 4-year colleges (public and private, not-for-profit);
- Parents (low to moderate income) of first-generation students attending 2- or 4-year colleges (two groups); and
- Urban and suburban high school guidance counselors who serve moderate- to low-income families (two groups).

The purpose of the focus groups was to explore the process underserved students undertake when searching for and making decisions about postsecondary education institutions. (See appendix C for the focus group protocols.) The questions centered on the following key issues:

- When students began thinking about going to college and who influenced them to pursue a college education;
- What type of information they sought;
- What information they considered to be most important and how they prioritized the information;
- Where they searched for information and what resources were available to them (print, online, other people);
- What information sources they used and which ones they trusted the most;
- Who helped them in their search process;
- What would have made the process easier; and
- What types of assistance guidance counselors provided to students, what information students and parents used, and what type of information counselors thought students and parents needed.

Methodology

This section summarizes the procedures used to recruit participants and collect and analyze the focus group responses. (A more detailed description of this methodology appears in appendix D.)

The focus group participants shared valuable perspectives that either support or provide insight into differences between the literature on underserved students, which is just emerging, and the experiences of the participants. The participants also helped shed light on some issues that are ripe for further quantitative study. However, we caution the reader about the limitations of focus group findings given the potential for self-selection bias, the small number of participants (less than 10 per specialized group and 90 total), and the fact that not every participant offered a response to every question. Therefore, while these findings are enlightening, readers should be cautious about generalizing to broader populations.

Each focus group, which lasted about 2 hours, was held in a standard focus group facility. We organized two teams of Westat research staff (i.e., two moderators and two research analysts) to conduct the 11 groups and take notes, which allowed us to conduct two groups simultaneously. The research analysts took detailed notes on the focus group discussion and prepared a 5- to 7-page topline report to capture the responses to the key research questions. The recruitment agency also audiorecorded each session, which we used as a backup to check our notes for accuracy and to glean participant quotes.

Approximately 4–6 days after we conducted each group, the research analysts prepared the topline report for review by the moderator for that group. The research analysts used the audiotapes or audio CDs to clarify, add, or correct any questions or discrepancies noted by the moderators. After the last report was completed and reviewed, one research analyst compiled all the key questions (organized by themes) into a single document and used the topline reports to organize the responses from all the groups under the appropriate question/theme. Since one of the moderators conducted or observed 8 of the 11 groups, she assumed the lead in preparing the analysis.

Organization of the Report

The research findings are organized into three sections, with each focusing on one of the three themes that emerged from the critical review of the literature and parallel investigations drawing on focus groups with 90 high school and college students, parents, and guidance counselors. The report concludes with a summary section. The three substantive themes and the questions they subsume are as follows:

Section 1. The Stages of College Planning and Choice

- How and when do individuals approach the college decision?
- What are the stages of the process and the specific steps taken?

Section 2. The Influential Role of Others

- Who is involved in the search and decision process (i.e., family, friends, teachers, guidance counselors, postsecondary admissions officers)?
- What roles do they play?

Section 3. Types of Information Sought, Sources Used, and the Application of Information

- What types of information do students and their families seek out?
- What information do they apply to decisionmaking?
- What resources, including but not limited to websites, do they turn to?

Section 1. The Stages of College Planning and Choice

The decision to attend college is best conceptualized as a process rather than as an event. A student's choice regarding which college to attend is preceded by informal and formal information gathering and processing, which often starts years prior to enrollment. The body of literature on the information sought, obtained, and utilized by students planning to pursue postsecondary education relies heavily on Hossler's (Hossler and Gallagher 1987; Hossler 1984; Hossler, Schmit, and Vesper 1999) three-stage model of college choice. Cited by numerous authors approaching the subject from various perspectives (Cabrera and La Nasa 2000; Pope and Fermin 2003; Paulsen 1990; Freeman 2005; McDonough 1997; Southerland 2006; Butner et al. 2001), this model provides a relevant framework in which to analyze the college search and choice processes. Based on patterns of traditional-aged students sequencing to college straight from high school, this model may have less relevance when applied to older or returning students, low-income, or first generation college students (Broekemier 2002; Laanan 2003; Bers and Smith 1987). Indeed, as discussed below, findings from a focus group with older students confirmed a pattern different from the three-stage model.

Hossler's three-stage model, comprising predisposition, search, and choice, is briefly described below.

- Predisposition is the self-reflective stage culminating in the decision to pursue postsecondary education. Individual and environmental background factors have the strongest influence at this stage, informing one's self-image, preferences, and inclinations.
- The search stage is characterized by the gathering of information about college in general and specific colleges, and culminates in a "choice set" of preferred college options. At the outset of this stage, social networks tend to have the strongest influence, but these yield to the institutions themselves as prospective students come to interact more with individual institutions.
- In the choice stage, students and their families interpret the collected information within the context of their personal and social circumstances, resulting in decisions about whether to apply to college, which colleges to apply to, and which college to attend.

Although there is considerable variation, the general pathway to college for traditional-aged, academically prepared, middle-income students described in the literature consists of the following steps.

1. Student learns through school, parents, other family member or peers that college is something to consider.
2. Student in 9th or 10th grade talks to parents and considers options and financial issues.
3. Student gathers information in 11th and 12th grades.
4. Student makes lists of possible schools based on some or no particular criteria in 11th or 12th grade.
5. Student keeps options open until fall of the senior year.

6. Student talks to parents, guidance counselors, admissions counselors, college representatives, and friends.
7. Student applies to college(s).
8. Based on available options, personal preferences and accumulated information, student decides what to do.

Between the 8th and 12th grades, the intensity of the college decisionmaking process changes significantly. Typically, 8th-, 9th-, and even 10th-graders are not actively searching for colleges, nor have they seriously discussed with anyone the possibility of attending. The guidance counselors who composed 2 of the 11 sets of focus group participants suggested that students should begin to explore career and/or vocational options prior to high school. The earlier students actively research these options, the sooner they are able to identify programs of study and to search for appropriate postsecondary institutions.

The 11th and 12th grades are seen as the prime exploratory years when students become more certain of going to college, gather information more actively, and move from “novice...to expert information processor” (Hossler, Schmit, and Vesper 1999, pp. 103–104). However, the focus groups with first-generation students revealed that it is not unusual for academically underprepared and/or first-generation students and academically underprepared students to delay the process of deciding on and/or gathering information about colleges until several years following high school graduation. For example, several parents indicated that after several years of struggling to find a job/career that offers some upward mobility for their high school graduates they succumbed to their parents’ urging to take college-level courses, usually at the local community college. Each one of the stages is discussed in detail.

The Predisposition Stage

Although the focus of this report is on the information students seek during the search stage, the predisposition stage deserves attention since it initiates the search process and influences all subsequent stages. Indeed, students’ predispositions may be considered key, as they determine if they will seriously think about going to college and actively gather the necessary information.

Predispositions are determined by personal, familial, cultural, and environmental conditions. School culture and climate, resources available within the school, and one’s academic ability have been linked to predisposition (Bers and Galowich 2002; Butner et al. 2001; Hossler, Schmit, and Vesper 1999; McDonough 1997). However, parents’ educational attainment, parental encouragement, and student achievement are recognized as the strongest predictors of both college aspirations and actual enrollment (Bers and Galowich 2002; Hossler, Schmit, and Vesper 1999). Social class, for which parental education is often a proxy, also plays a role. Students from low socioeconomic status (SES) backgrounds tend to aspire to 2-year and less selective public 4-year colleges, while high SES students aspire to more selective private, not-for-profit and public 4-year universities (McDonough 1997; Hossler, Schmit, and Vesper 1999; Cooper 2006). MacLeod (1995, p. 15) concluded that aspirations reveal “an individual’s view of his or her own chances for getting ahead and are an internalization of objective probabilities” given one’s social and economic circumstances. Among the nine high-achieving, low-income college freshmen focus group participants, only one student attended a public 2-year institution. The remaining eight students, who had clear career aspirations, applied to and attended 4-year public and private, not-for-profit postsecondary institutions.

Personal, Familial, Cultural, Social, and Environmental Factors

Academic achievement was strongly correlated not only with college enrollment but also with preference of college type in a 9-year longitudinal study of high school students in Indiana conducted by Hossler, Schmit, and Vesper (1999). The findings highlight the correlation between personal academic performance in secondary school and enrollment in a postsecondary institution. The authors reported that 91 percent of A students attended 4-year colleges and 65 percent of B students attended 4-year colleges. Only 4 percent of A students and 16 percent of B students went directly into the workforce or military. In comparison, only 28 percent of C students attended 4-year colleges, 17 percent went to vocational or technical school, and 32 percent entered the workforce or military. Students' sense of their personal academic ability influences both their predispositions toward postsecondary education in general and their preferences toward the type of institution they believe matches their personal capabilities (Hearn 1991).

Parental intervention is frequently cited as a strong determinant of students' predispositions toward college (Bers and Galowich 2002). However, parental encouragement (discussed in greater detail in the next section) and student achievement are likely to be mutually reinforcing. Students with good grades may be encouraged by their parents to pursue postsecondary education more than students with poorer grades. At the same time, students who receive more encouragement from their parents may perform better academically. In some cases, serious discussions with parents start as early as ninth grade, but aspirations are also influenced by more subtle cues communicated to children at an early age by parents, family, friends, and media (Bers and Galowich 2002; Hemsley-Brown 1999).

Cultural factors affect predispositions toward college as well, particularly how students feel they will fit in at a certain college or within postsecondary education in general (Hemsley-Brown 1999). Observing that certain cultures follow collectivist norms favoring the group while others follow individualist norms favoring the individual, Zimbardo (2005) examined how these distinct normative structures affect how students approach decisions concerning college. Applying this cultural psychological perspective to the college decision, Zimbardo (2005) found that youth in cultures (e.g., Mexican American) emphasizing strong ties to the group (i.e., family) are discouraged from "standing out" or leaving home. An inclination toward college suggests the desire to stand out and better oneself, both considered overtly individualistic, and therefore not culturally expected (Zimbardo 2005, p. 817). Such norms discourage applications to prestigious or out-of-state postsecondary institutions and favor instead local institutions, often the closest community college.

Similarly, Butner et al. (2001) found that some Hispanic women college students reported familial pressures to maintain traditional gender roles—roles that often did not include postsecondary education. These women reported the need to overcome such normative pressures prior to pursuing college opportunities and received little if any support from their families when they did. Thus, while students may aspire to college, conflicting cultural expectations may discourage or distract them from continuing the college search process.

The focus group research revealed that Hispanic and Native American parents of first-generation college students encouraged their children to attend college close to home because "they need the support of their families." Moreover, these parents emphasized that living at home would save them money and allow their children to focus more on their studies. Notably, even when a child of one of the parents was offered a scholarship to an institution located in a different city within the same state, the child turned down the scholarship and chose to attend a college in his hometown.

Many other factors may predispose a student to think favorably or unfavorably toward college. Some research has connected the environmental characteristics of the high school (e.g., teacher/student ratio, school counselor/student ratio) or the community (e.g., perceived career opportunities) to student

aspirations (Freeman 2005; McDonough 1997). Freeman (1999a) observed the influences on African American students as they formed attitudes about the value of college attendance. Regardless of students' knowledge about college, if they perceived it unlikely that they could get a job commensurate with their postsecondary education, they did not want to invest the time and energy in it (Freeman 2005). Their economic aspirations were mitigated by their uncertain sense of upward mobility and did not always translate into goals for participation in postsecondary education (cf. MacLeod 1995). Further, psychological and social barriers, such as college not being considered a viable option or the lack of adequate encouragement by parents and school personnel, affected African American students' predisposition to attend postsecondary institutions.

Closely aligned with economic aspirations are perceptions about college cost and access to financial aid information, which have been considered an important part of the development of predispositions toward college (Terenzini, Cabrera, and Bernal 2001). However, this developmental process is not as straightforward for low-income students, especially those that attend large, under-resourced high schools that lack systematic communication about college, career planning, and financial aid (De La Rosa 2006). Findings from the De La Rosa study "indicate that some [low-income students] perceive that college- and financial aid-related information is not for them. They also believe that college is too expensive for them to attend, suggesting that this perception alone keeps them from even considering the idea" (p. 1683).

Comments from guidance counselors who participated in 2 of the 11 focus groups confirm these research findings for the first-generation and low-income students they serve. Counselors indicated one of the biggest barriers to attending college is the prohibitive cost for low-income families. Focus groups with students and parents reiterated this concern about costs, as it was one of the first considerations about going to college. However, guidance counselors further explained that one of the most difficult challenges they face is finding institutions that are both a good fit for their students (e.g., have smaller classes where students receive individual attention from faculty, and strong academic and social support services) and affordable.

Aspirations of First-Generation Students

The literature devotes little study to the aspirations of first-generation students (cf. Cooper 2006). Terenzini et al. (1996, p. 2), claiming "surprisingly little is known about first-generation students," undertook a large-scale study to ascertain how the precollege characteristics of first-generation students differed from their peers with college-educated parents. Using data from the National Study of Student Learning, Terenzini et al. (1996) found that first-generation students had lower degree aspirations, had lower family income, received less encouragement from family to attend college, spent less time with peers, spent less time talking to teachers, tended to be Hispanic, and were more likely to be women. On the other hand, Ceja (2006) found evidence that parental encouragement and support is not absent among first generation Hispanic students. In a study of respondents with similar characteristics, Ceja interviewed 20 college-bound Hispanic students and found that almost all of their parents aspired for them to go to college, but none knew how to guide them through the process. In a subsequent section, we examine in more detail what is known about first-generation students during the choice stage and the people who influence them.

Reasons Cited for Pursuing Postsecondary Education

While students may form predispositions at many ages with many influences, their reasons to attend college are generally consistent. De La Rosa (2006) has argued that the predisposition stage

coincides with the development of occupational aspirations as students come to value particular occupations and learn that postsecondary education is instrumental in attaining such occupations. In a study of undergraduate students from diverse racial backgrounds, Pope and Fermin (2003) explored different motivations to go to college and found that overall, the top five factors influencing college attendance were as follows:

1. Increased possibility of achieving a personal career goal upon completion;
2. Earning a degree as a personal goal;
3. Possibility of getting a better job;
4. Possibility of making more money; and
5. Parents' encouragement to attend.

These findings did not differ significantly by race (cf. Hossler 1984; Paulsen 1990) and were consistent with the focus group research.

Reasons Cited by Older Students

As the proportion of adult students entering institutions of postsecondary education rises, it is important to consider the motivations of older students for attending college and how they might differ from traditional-aged students. Some research suggests that adult learners attend college primarily for economic and technological skill development (Richardson and King 1998 cited in Broekemier 2002). Others argue that the motivations are more complex and multifaceted; for example, to make or maintain social networks, meet external expectations, learn to better serve others, advance professionally, escape boredom or gain stimulation, and for pure personal interest (Digilio 1998 cited in Broekemier 2002; Laanan 2003). Through a study examining adult learners (i.e., 25 years and older) attending 2-year and 4-year institutions in a Midwestern state, when asked to cite top reasons for attending Broekemier (2002) found that 58 percent said they attended college to get a better job with another employer, 49 percent said they went to gain general knowledge, and 41 percent said they went to enhance their self-esteem. Students at 4-year institutions more often cited gaining general knowledge and career advancement than did students enrolled at 2-year institutions. Women returned to college because some significant life event had occurred or they wanted to prepare for a new career, whereas men returned almost exclusively for a job change or additional training (Bers and Smith 1987).

The focus group with older students—the majority of whom attended 2-year institutions—revealed these students returned to college for both economic and personal reasons, including supporting themselves after a divorce, freshening skills after staying home with children, bettering themselves by getting a higher paying job, and gaining general knowledge.

If and when students decide they want to attend college, or reenter as adults, they begin to develop mental pictures of institutions and form predispositions toward colleges that match their image (Cabrera and La Nasa 2000). Armed with this intention, students transition to the search stage.

The Search Stage

During the search stage, students utilize a variety of strategies and avenues to obtain information that will later inform their college decisionmaking. However, the search stage is not uniform for all students and tends to vary in intensity over time, typically peaking in intensity during senior year (Hossler, Schmit, and Vesper 1999; Cabrera and La Nasa 2000; Freeman 1999a). Moreover, research reveals that students may transition in and out of three different types of searching: attentive, active, and interactive. For example, many students, especially during the early phases of the search process, may be receptive or attentive to pertinent information, although they may not actively search it out. Hossler, Schmit, and Vesper (1999) found that most 10th-graders were not actively searching for colleges, with the exception of those whose parents were particularly encouraging and involved in the search process. For the majority of students, however, the search stage does not become active until the last 2 years of high school. This section discusses parental and SES influences on students' information-gathering activities, including the dynamic structure of the search process over time. While we expected modern technology, especially the Internet, to exert its influence on the college search process, the academic research literature has yet to rigorously examine its role.²

As mentioned earlier, the high school guidance counselors who participated in the focus groups indicated that during the freshman and sophomore years, students should focus on exploring career and vocational options. Unfortunately, this activity occurs less frequently than it should.

Information Gathering and Structure of the Search

In an interesting paradox, as students gather information during their high school years, they tend to become increasingly certain about going to college but become less certain of where to go. Presumably, the process of gathering information on colleges reinforces students' predisposition toward college, while inclinations toward specific colleges are unstable and easily swayed by new information. Hossler, Schmit, and Vesper (1999) confirmed that students are not consistent in their lists of preferred colleges over time. Of students who chose a specific college as a sophomore, 73 percent did not list the same institution just 1 year later when they were juniors.

Among students who generated a list of colleges in the 10th grade, the number of their choices did not narrow significantly by the 12th grade, reflecting the junior and senior years as a time of exploration and expanding rather than of narrowing options (Hossler, Schmit, and Vesper 1999). Not all students list large college choice sets, however; males from lower income families as well as individuals with lower GPAs listed narrower choice sets (McDonough 1997).

Longitudinal research by Galotti and Mark (1994) has found that students, especially traditional-aged, middle-income students, tend to structure their college searches in remarkably similar ways. Generally, students initially rely heavily on their immediate social circle, namely parents, relatives, and friends, but they also consult with guidance counselors and, less often, teachers. Materials obtained within the guidance center, especially brochures and college catalogues, are then accessed. Eventually, students begin to interact with the institutions themselves. The third section of the review looks more closely at what the literature has to say about the specific types of information that students tend to collect and rank

² The exception to this apparent gap is marketing research. For example, our search did turn up articles that examined the role of the Internet as a "marketing tool." These reports tend to start with the premise that students use the Internet as a major information source and offer pragmatic advice rather than analytical insight. Our review also surfaced propriety research conducted on behalf of institutions of higher education not available to the general public. For example, referencing a large-scale proprietary survey of junior and seniors conducted in 2006 for the Enrollment Management Learning Collaborate, personal correspondence with Jim Quinn, a senior analyst at Eduventures, confirmed that students use the Internet heavily during the college search process.

as most important. Galotti and Mark (1994) found that information easily available from brochures or catalogues becomes relatively less important as students acquire information about the character and culture of individual institutions.

Finally, it is useful to highlight the average time students dedicate to the search process, although there appears to be a paucity of available research. Litten (1991 cited in Galotti and Mark 1994) reported that students spend, on average, just over 50 hours investigating information about colleges, exclusive of campus visits. While this average takes into consideration the full spectrum of students, with those who leave the college search to the last minute at one extreme and those who methodically collect information over many years on the other, it does suggest that the typical student is not investing substantial time in collecting and investigating information.

The Choice Stage

In the context of this literature, choice is operationalized as both the decision to apply to one or more colleges and subsequently the decision to enroll at a specific institution. Applications to college are typically completed between October and April of the senior high school year. Half of all students apply during a 7-week period between November and January (Hossler, Schmit, and Vesper 1999). One out of 10 students make their college choice prior to entering their senior year (Johnson, Stewart, and Eberly 1991).

Since the choice to attend college implies application to one or more institutions, the number of colleges to which students consider applying is determined during this stage (Hossler and Gallagher 1987; McDonough 1997). Research shows that students who reach this stage often seek specific help with the college application process, which often involves taking achievement exams and completing applications of varying length and complexity. To enhance their application credentials, some students take test preparation courses and have coaches mentor them through the essays (McDonough 1994). Some research implies that preparing and sitting for exams is in itself influential in the college choice process, as performance on such exams affects one's access to multiple and selective institutions.³ Culture also appears to play an influential role in expanding or contracting student choice. For example, in their study of college-bound Asians, Teranishi et al. (2004) found that Chinese and Korean Americans took SAT preparation courses the most and applied to more colleges (five or more) while Filipinos, Japanese, and Southeast Asians were more than twice as likely to apply to only one, reflecting constrained choice.

The college choice stage has been viewed both as a rational economic decision and as a decision constrained by sociocultural factors (Cabrera and La Nasa 2000). Those subscribing to the former view tend to place considerable emphasis on the return to investment in college costs and access to financial aid (cf. Manski and Wise 1983). Among those subscribing to the latter view is Mumper (1998, p. 83), who concluded that “the decision to go to college is not based on an economic calculation of costs and benefits. It is, instead, a choice that emerges out of a complex interaction of personal, family and social factors.” The research reviewed here suggests that for traditional-aged students, sociocultural factors appear to be the main drivers of the college decisionmaking process. In a subsequent section on the choice process of older students, the salience of economic considerations is discussed. Next, we examine the concept of self-image and fit, key social-cultural factors in the choice stage.

³ An obvious but rarely referenced aspect of college decisionmaking in the choice literature is the fact that many institutions are selective to some degree and in turn make admission selections among their applicants, thereby constraining student choice. A full discussion of students' awareness of test requirements, academic preparation for these tests, and encouragement to sit for them is beyond the scope of this review. Conventional wisdom holds that there are significant disparities on each of these dimensions that manifest themselves in ninth grade or earlier.

Self-Image and Fit

The concept of self-image and fitting in, often discussed in the popular media, have been borne out in academic research. Students choose colleges with campus cultures and student bodies that are perceived to match their own self-image of where they belong along both sociodemographic and academic dimensions (Paulsen 1990; Hemsley-Brown 1999; Zimbrotff 2005). Also, because students have yet to experience college first hand, they tend to compare and contrast college environments to their secondary school experience, rather than side-by-side with each other (Hemsley-Brown 1999). Paulsen (1990), Hemsley-Brown (1999), and others have found that when students reach the choice stage, they tend to utilize a selection process based on the relationship between their own aptitude and the average aptitude of students attending the choice set of schools.

The guidance counselors who participated in the focus groups emphasized a different dimension of institutional “fit” for first-generation and low-income students. They described fit as a function of matching the students’ academic, financial, and sociocultural needs with the academic institution. They raised the importance of institutional and class size, student/teacher ratio, racial/ethnic composition of students and faculty, availability of academic support services, and services or people to assist students with finances and financial management. Counselors explained that since these students cannot rely on their families for academic, financial, and sometimes emotional support, it is important for them to find this support at the postsecondary institution they attend. Additional literature on the specific academic criteria students apply during the choice stage is discussed below.

Sociocultural needs of some low-income students create tensions between their desire to fit in among one’s cultural reference group and their desire to attend college, as exemplified in Zimbrotff’s (2005) study of culturally based perceptions of college choice. In a study of disadvantaged students in urban California, Zimbrotff sought to determine why college-qualified high school students do not take full advantage of opportunities they have for college, hypothesizing that students may be intentionally declining opportunities. She distinguished between cultural groups that promote collectivist vs. individualist traits and theorized that the value these groups place on postsecondary education varies along this dimension. As a result, a student’s individualistic interest in pursuing college may conflict with collectivistic cultural values. Related research cited above (Zimbrotff 2005; Butner et al. 2001; Kurlaender 2006; Santiago 2007) has recognized the strong influence of tradition and family among Hispanic students, for example. These students often struggle with whether to follow their aspirations of attending college or to stay with the family and follow a more traditional path (Butner et al. 2001).

Another example of fit as it relates to African American students is provided in a study by Freeman (1999a). African American students in five cities with large African American populations were tracked as they progressed through predominately African American high schools. This study found that they increasingly felt intimidated by college and lost hope of enrolling, seemingly in reverse proportion to their gaining college information. For example, these students tended to experience feelings of isolation and alienation when making visits to predominantly White college campuses.

Guidance counselor and student focus group participants offered additional perspectives on the choice of African American students’ to attend predominately White postsecondary institutions regardless of feelings of isolation. Several counselors in suburban high schools explained that the latest trend among some of their African American students is not to attend a historically Black college or university (HBCU), since these environments are not necessarily familiar to them. Their African American students tended to be more interested in attending institutions that were more racially and ethnically diverse, perhaps mirroring their secondary school environments. About half of the African American students attending predominantly African American urban high schools planned to attend an HBCU, while the other half wanted to “step out of their comfort zones” and planned to attend a more racially mixed

institution. A detailed discussion of why certain African American students may choose HBCUs can be found in Freeman (1999b).

Next, this review turns to some of the other important considerations in the choice stage, including socioeconomic status, factors influencing the decision between 2-year and 4-year institutions, and a discussion of the unique challenges faced by older students and first-generation and low-income students.

Socioeconomic Status and the Cost of College

Given the costs associated with college attendance, it is commonly assumed that these costs present a barrier, especially to students from low-income families. Thus, much attention has been focused on strategies that address the economic dimension of college attendance. The nuances and complexity of how changes in college cost and financial aid influence the college decision process are beyond the scope of this review. However, appendix A contains a cursory review of this related literature.

For purposes of this review, it is helpful to place the role of economic factors associated with college choice in context. Research has found that all students, not just those from low SES backgrounds, appear to be sensitive to tuition costs and financial aid (Cabrera and La Nasa 2000; Avery and Hoxby 2004; Manski and Wise 1983). Thus, the impact of college costs on the decisions of students from varying SES strata is not necessarily linear.

Similarly, the “high cost” of college is not necessarily a “higher hurdle” to low-income students. Cabrera and La Nasa (2000, p. 15) claim “the dominant role of SES background appears to diminish when longitudinal data bases, along with powerful statistical models, preparation for college, and college application behaviors are brought to bear.” In other words, preparing oneself for college and taking steps to meet admission requirements were found to be more important to college enrollment than SES. Their study also found that low SES students who regularly consulted with a counselor were more likely to attend college, reflecting the value of information exchange with an influential adult. These authors went on to state “the direct effect of family income in attending higher cost institutions diminishes once pre-college academic variables are taken into account” (Cabrera and La Nasa 2000, p. 17). Along these same lines, Avery and Hoxby (2004) found that low-income parents of highly qualified college students were “insensitive” to differences in college tuition.

The Choice Between 2- and 4-Year Institutions

Since a larger number of students attend a community college rather than a 4-year college directly after high school (Fox, Connolly, and Snyder 2005), it is important to discuss the reasons and dynamics behind these decisions. For example, students who do early planning are less likely to enroll in a community college (Bers and Galowich 2002). The decision to attend a community college may stem from financial concerns (De La Rosa 2006; McDonough 1997) or uncertainties about college (Post 1990), even among affluent students whose parents have high education levels and promote college attendance (Bers and Galowich 2002). Kurlaender (2006) finds that there is a high rate of Hispanic enrollment in community colleges, regardless of academic achievement and SES, suggesting a cultural dynamic such as the one proffered by Zimbardo (2005) may be in effect.

The focus groups with students and parents revealed that 2-year colleges were the primary choice for lower income and older returning students for three commonly cited reasons: cost, location (also related to cost and convenience), and the inability to meet academic admission requirements at 4-year institutions. Another reason cited by parents of traditional-aged students was that community colleges

offered “affordable exposure” since their children had no idea what they wanted to major in or what career or vocation they wanted to pursue. Another parent added, “I thought of the community college as being subpar to the local 4-year university until I learned that many of the university faculty also teach at the community college.”

The Choice Process of Older Students

There are many reasons individuals may delay entering college, including negative academic experiences, the appeal of employment, lack of confidence or supportive relationships, or other personal issues. They may also lack knowledge about postsecondary education or have received misinformation. As a result, Levine and Nidiffer (1996) note that older students face additional barriers in entering college and that the “traditional” first chance at college (i.e., transitioning straight from secondary school) is easier than the “non-traditional” second chance.⁴

Students who return to school as older adults or choose to attend college later in life do not tend to follow Hossler and Gallagher’s three-stage process (Broekemier 2002; Laanan 2003). The Bers and Smith (1987) study, which relied on focus group interviews, points out a phenomenon among adult students to collapse the search and choice stages into a single step. Unlike traditional-aged students, who tend to choose from among a set of schools, adults tend to decide to attend or return to college and decide on a particular college at the same time. In the Bers and Smith (1987) sample, the majority of subjects indicated they had not considered multiple colleges but rather focused on a single college, typically the college closest to their home, showing the importance adult students place on convenience.

This review now focuses on the differential roles individuals play in contributing information to students’ search and choice process.

The Choice Process of First-Generation, Low-Income Students

Since there was a dearth of literature in this area, we draw upon the focus group findings to discuss this topic. Generally, the focus group findings with low-income, first-generation, and academically underprepared students were consistent with research on adult students in that these students also collapse the search and choice stages into one abbreviated step. They tend to focus on a single college or two, primarily due to cost considerations and the fact that their grades and test scores limit their choices. Not surprising, students who were academically prepared had more choices and tended to apply to three or more institutions, yet even these students did not start with an expansive set of options, as the literature indicates many middle-income students do. The one exception was for a few of the high-achieving, low-income students who applied to six or seven institutions. In these cases, the students attended high schools in which the guidance counselors had both the time and resources to devote to helping them with the search process.

⁴ It is noted that the term “nontraditional” has lost its utility in an era where it describes the majority of currently enrolled students (Horn 1996). Hence, terms such as “older student” are more accurately descriptive.

Section 2. The Influential Role of Others

A variety of individuals interact with students in multiple ways, shaping their predispositions, assisting in the college search, and influencing their choices. Parents, siblings, extended family, fictive kin, family friends, peers, counselors, teachers, mentors, church members, coworkers, college and university staffs, and occupational role models have all been identified as potential “influencers” (Murphy 1981; Chapman 1981). Thus, students’ social networks can have a powerful effect on how they value postsecondary education, what they come to learn about colleges, and their subsequent college-related decisionmaking. The literature consistently shows that parents tend to play the most significant roles. Other family members, counselors, mentors, and friends are important, but their involvement is less prominent, interceding at different points in the process and influential in different ways. This section reviews the literature that explores who students turn to and how these people influence the process.

Family

The literature is consistent in identifying immediate family members as the most influential others in students’ college search and decision. In general, extended family members tend to play a lesser role. While in some cultural, racial, and ethnic groups extended family and even fictive kin may have a more pronounced role, parents are consistently identified as the primary and most significant influencers (Hossler and Gallagher 1987; Flint 1992; Hossler, Schmit, and Vesper 1999; Butner et al. 2001; Paulsen 1990; Cabrera and La Nasa 2000).

Parents

While parents are influential at every stage of the process, the literature suggests that parents may have the most influence early in the process, namely the predisposition and early search stages (Hemsley-Brown 1999; Flint 1992; Hossler and Gallagher 1987; Choy 2001). Hemsley-Brown (1999) found that 16-year-old students entered the preliminary search stage with preexisting preconceptions of their self-image and orientation toward college education based on explicit and implicit cues gathered from parents and home life.

The effect of parental education is well documented in the literature. College enrollment rates vary considerably with parents’ educational attainment, with first-generation students, especially those whose parents did not graduate from high school having the lowest levels of college enrollment (table 1). While confounded by racial and economic variables, these data demonstrate the powerful role college-educated parents, particularly educated fathers (cf. Avery and Hoxby, 2004), play in determining their students’ likelihood of participating in postsecondary education.

Table 1. College enrollment, by level of parental education

Parents’ highest level of education	Percentage of 1992 high school graduates enrolled in college by 1994
BA degree or higher	93
High school diploma, no college	75
Less than high school	59

SOURCE: National Education Longitudinal Study of 1988 Eighth Graders, Third Follow-Up, as reported by Choy 2001.

Parental influence can manifest itself in two different modes: encouragement and support. The importance of and distinction between encouragement and support pervade the literature. Hossler, Schmit, and Vesper (1999, p. 24) define parental encouragement as “the frequency of discussions between parents and students about parents’ expectations, hopes, and dreams for their children.” In contrast, parental support tends to be much more tangible and direct. Examples include parents saving money for postsecondary education, taking the student on college visits, attending financial aid workshops, and assisting with forms and applications.

Encouragement is a form of influence that parents can exert prior to the predisposition stage and can continue through the search and choice stage. Butner et al. (2001) found that college was discussed “early and often” in African American women’s lives because it was seen as a positive way of advancing a student in her family and community. Bers and Smith’s (2002) research, which focused on parents of community college students, found that about a third (31 percent) became involved during the freshman or sophomore high school year, but nearly half did not become involved until junior or senior year. Almost one-quarter (21 percent) of parents were never involved. Parental encouragement has been found to have a strong positive correlation with college decisionmaking and enrollment (Smith and Fleming 2006; Pope and Fermin 2003). Tenth-graders whose parents encouraged them were more likely to engage in active and interactive searches in later grades (Hossler, Schmit, and Vesper, 1999).

While any parent can encourage his or her child, support tends to require higher levels of social capital and financial resources (Paulsen 1990). Hence, parents who have attended college and are personally familiar with navigating the processes of search, choice, and application, as well as parents from higher SES backgrounds, tend to be better positioned to provide tangible support to their children (Choy 2001). Some research has found that first-generation students tend to receive less encouragement and support from their parents (Levine and Nidiffer 1996; Terenzini et al. 1996; Ceja 2006).

The majority of the first-generation and low-income focus group participants credited one or both of their parents with encouraging them to pursue a postsecondary education. They described “getting speeches from family members:... ‘go to college to get a good job so you can take care of a family.’” Or as one Latino student stated: “[My dad] explained to me that he did something that [allowed] other family members to go further up the ladder and he did not want me to be the one to go backwards in the wrong direction.” However, when asked about specific ways in which their parents assisted them in the search process, students generally described their level of involvement as low. For example, “On the one hand my Mom was yelling at me every day to finish my application; but on the other hand, I had to figure it out on my own. My Mom reads English, but she could not offer much help.” And “My Mom felt it was my responsibility to take care of the application process, so she made me do it on my own.” This student described the mother’s behavior as frustrating because the student needed her help.

Several first-generation parents reported that although they had no experience searching for colleges, they made every effort to help their children complete the applications and fill out the federal financial aid forms, the most common forms of tangible support. Other examples of providing support include a parent who called several local colleges and asked them to send informational packets directly to their home, and who “talked to everyone who would listen.” A second low-income parent, who attended but did not graduate from college, indicated she “did everything” for her son, including helping him select a college that would best fit his interest in firefighting. A third parent helped her son by editing his college application essays, saying “I did what I could. Where my strengths were, I offered that.”

Parental support tends to take effect during search and choice stages. The literature suggests that it is uncommon for another individual to be able to substitute for the influence of a parent (Levine and Nidiffer 1996). Given the dramatic differences observed in enrollment between students of college-educated and non-college-educated parents, the data suggest that the latter group would benefit from additional support. During the search phase, parental lack of knowledge about the college process may impede first-generation students who may not become aware of resources available because their parents do not know about them. Yet, Choy (2001, p. 17) states that “students whose parents did not go to college are not more likely to receive help from their schools in applying to colleges.”

The focus group findings confirm Choy’s observations. When asked if and how guidance counselors helped them search for colleges, few students indicated they were helpful. Most of the low-income rural high school students indicated they did not know if their school had a guidance counselor or, if it had one, they felt he/she was not helpful. Their responses were similar to the urban African American high school seniors who reported their counselors were either not helpful or unreliable: “My Mom had to drive me to one college I applied to because my counselor had not mailed the application, as she promised she would.” Additionally, the majority of the parents reported similar experiences with guidance counselors, but acknowledged the counselors were overwhelmed by the large numbers of students assigned to them. They also mentioned counselors spent much of their time being “disciplinarians rather than a resource for preparing students for college.”

For traditional-aged students, parents across ethnic and racial categories play the strongest role in the college choice and decisionmaking processes (Hossler and Gallagher 1987; Hossler, Schmit, and Vesper 1999; Cabrera and La Nasa 2000; Flint 1992). For example, in a study of low SES urban African American students, Kelp Kern (2000) found that postsecondary education was not a tradition in many students’ families, but it was strongly encouraged and encouragement led to enrollment. Often mediated through parental aspiration, students receive explicit and implicit messages about how high to aim and how wide to search when considering college options. Flint (1992) found that more affluent and college-educated parents tended to signal that “more is better.” As a result, their children accumulated larger college choice sets and gave greater consideration to factors such as prestige, competition, expense, distance from home, and school size. Almost all the high-achieving, low-income students in the focus group acknowledged strong parental encouragement and support in choosing to go to college and searching for appropriate colleges.

The Special Role of Mothers

Mothers appear to play a particularly significant role with respect to encouragement and college decisionmaking (Freeman 2005; Smith and Fleming 2006). Especially in African American families, the top factor influencing a child’s orientation toward and decision about postsecondary education is the role of the mother (Smith and Fleming 2006; Freeman 2005). While education of the father is correlated with college enrollment (Choy 2001; Avery and Hoxby 2004), the qualitative literature lacks much information specifically discussing the father’s role in college search and choice.

Some research has found that urban African American mothers differentially encourage their sons and daughters (Freeman 2005). This finding was also observed by Smith and Fleming (2006), who reported that low-income African American parents in their study tended to encourage their daughters more strongly than their sons to pursue 4-year college programs. Mothers were found to be more involved in their daughters’ academic lives and to send strong aspiration signals. Particularly compelling is Freeman’s (2005) evidence that mothers had higher college aspirations for their daughters than for their sons. Daughters were raised to become academic achievers with the goal of obtaining personal and financial independence, while sons were encouraged to finish high school, not get in trouble, and choose a

practical postsecondary education option, such as a 2-year college. Mothers encouraged their daughters to attend a 4-year college, endorsing 2-year colleges as a back-up option. Although we did not specifically ask about the ways in which mothers encouraged female vs. male children in the focus groups, the majority of the low-income, high-achieving African American college freshmen—regardless of gender—reported receiving strong support and encouragement specifically from their mothers.

Butner et al. (2001) agree that family is important in influencing the college choice decision; however, cultural and ethnic differences may determine the nature of the influence. In their study of female African American and Hispanic college students, they found that some Hispanic women reported the need to overcome familial pressures to maintain traditional gender roles. Thus, conflicting cultural expectations may hinder certain students during the college search process (cf. Zimbhoff 2005).

Older Siblings

Older siblings provide significant support and knowledge to brothers and sisters who are considering and applying to college, especially those from families where their generation is the first to attend college (Ceja 2006). In many cases, an older sibling may have gone to or may currently be attending college. In some ways, it can be argued that this sibling fulfills the parental role through most of the search and decisionmaking process by sharing knowledge he/she has of the process, communicating the value of postsecondary education, and supporting the application process. This is not to say that the parents are uninvolved or that they think college is unimportant, but rather that they are limited in their ability to help. In interviews with first-generation, low SES, college-bound Hispanics and their parents, Ceja (2006) found that parents provided substantial support such as providing the money to pay the application fees and the transportation to the post office to mail their child's application. The siblings augment these tangible supports by providing personal, moral, and intellectual support.

Several parents and students reported in the focus groups that students' older siblings provided tangible support in helping them search for colleges. Students most frequently mentioned receiving help from an older sister or brother who either attended college or dropped out of college but nevertheless encouraged their younger siblings to graduate and "not play around in school rather than studying." One parent specifically mentioned asking her older son to assist his younger brother with the application process. Another parent indicated her younger son was planning to attend the same postsecondary institution as his older brother, who advised him on various aspects of the search process.

Other Influencers

The literature contains references to a wide range of individuals outside the family who can serve as influencers, but counselors, college personnel, and peers are most frequently identified as having the most significance. Of special interest are the differential roles these individuals play during the three major stages of the decision process.

Peers

In the literature on predisposition, peers play a significant role in influencing each others' self-image and group identity (Hemsley-Brown 1999). As a result, students may be predisposed toward or against postsecondary education due to peer pressure, often mitigated through social class. However, when engaged in the college search process, students rarely mention their friends as resources for gathering college information. Only during the final choice stage, when students are choosing between

two or three colleges in their choice set, might they consult with their peers (Hossler, Schmit, and Vesper 1999; Galotti and Mark 1994; McDonough 1997). For most students, however, the final decision is left to the student and his or her parents.

Teranishi et al. (2004) specifically examined the role peers play among Asian American students. The authors found that Chinese and Koreans who took advice from friends tended to choose less selective colleges. In a different study by Johnson, Stewart, and Eberly (1991, p. 86) a sample of students representing several racial/ethnic groups did not rate “friends’ preferences for college” as even moderately important and, indeed, ranked them as the least important factor they considered. The surprisingly limited role of friends is reconfirmed in the literature on sources of college information, examined later in this review.

Guidance Counselors, Teachers, and College Recruiters

A number of professionals, including guidance counselors, teachers, college recruiters, and college admission officers, guide students through the college search and choice process. However, by and large, these professionals tend to enter late in the decisionmaking process, typically during the choice stage (Hossler, Schmit, and Vesper 1999). For most students, these professional resources provide advice primarily in the 11th and 12th grades (Johnson, Stewart, and Eberly 1991). Cabrera and La Nasa (2000) found that low SES students who regularly consulted with a counselor were more likely to attend college. Some students turn to college admissions counselors when they make school visits or attend college fairs (Hossler, Schmit, and Vesper 1999). Teachers, though readily accessible by students and presumably academic role models familiar with college, are rarely mentioned in the literature as key figures in the search or choice process.

Similarly, student and parent focus group participants rarely mentioned teachers as academic role models. Even though only a few students and parents mentioned guidance counselors as being helpful, they emphasized the importance of needing a good high school counselor to help them through an overwhelmingly complicated and time-consuming process. Indeed, the guidance counselors in the focus groups were frustrated that the size of their caseloads and other duties, including handling disciplinary problems, substituting for teachers who are attending meetings at the principal’s request, etc., prevented them from spending more time with students who needed their assistance the most (i.e., first-generation, low-income students). Counselors in both urban and suburban settings recited a litany of college preparation functions they performed during long weekdays and on weekends. Counselors categorized their college advising activities as disseminating information to students, providing guidance and support, and tracking students through the application process. The range of activities included:

- helping students search for career information and take career and interest assessments;
- assisting students locate information on various colleges;
- organizing college fairs;
- organizing parent seminars and workshops on the search process and Free Application for Federal Student Aid (FAFSA) preparation;
- writing college recommendations, editing essays, and helping students complete applications;
- culling scholarship and college websites for information to prepare newsletters informing students about upcoming deadlines;

- arranging for and participating in campus visits and tours even when the high school has no resources to pay for transportation to the various colleges;
- preparing and escorting students to interviews for scholarships;
- cajoling and reminding students to complete applications or come to their office to pick up financial aid forms;
- convincing parents that their children are capable of doing college work and should apply to college;
- trying to talk parents into providing their Social Security number and income tax forms so their children could complete financial aid information to get the assistance they need; and
- building strong relationships with postsecondary admissions counselors, locally and across the country, whom they call upon to relax the admissions requirements for worthy students who either missed the deadline or whose paper credentials do not reflect their potential and ability to succeed.

Mentors

Some observers have argued that some students, especially those lacking strong social networks, need more mentors, counselors, and/or private consultants to guide them through the postsecondary education choice process (McDonough 1994). Weak social networks are likely correlated with low SES and first-generation college status (Choy 2001; Hearn 1991). Levine and Nidiffer's (1996) case studies of at-risk youth emphasize the importance of personal relationships and the role of the mentor as factors in enabling lower income, disadvantaged students to transition to college. The authors point out that none of the students attributed college attendance to having participated in a particular college transition program. Instead, in virtually every case, a single individual (i.e., mentor) played the decisive role in the student's decision to enroll in college. The mentors were diverse and the methods they employed were equally varied, but the authors found four common features:

- All offered hope for a better future.
- All boosted a student's confidence to achieve.
- All emphasized the importance of postsecondary education.
- All physically brought the student to a college campus to experience it firsthand.

Only a few of the students and parents in the focus groups mentioned a guidance counselor, teacher, or coach as being a mentor who encouraged them to attend college.

Racial Differences in the Influence of Others

A limited number of studies suggest that who is involved and to what degree his/her involvement is influential in the college decision may depend on students' race. However, these studies do not control for socioeconomic variation. Paulsen (1990) reported that African Americans expressed a preference for

talking with college admissions officers and current college students, whereas Whites cited a preference for high school counselors and parents. In a study of college students at one Midwestern university, Pope and Fermin (2003) found that admissions personnel influenced African American and Hispanic students more powerfully than White, Asian, or Native American students. The same study found Hispanic and African Americans to be more influenced by public relations materials, including advertisements in their school or community. African American students also indicated an increased response to the influence of church members on college choice, though it is noted that this support often included a financial component.

In their study of differences among Asian populations, Teranishi et al. (2004) reported that Filipinos and Southeast Asians were more influenced by relatives than were Japanese and Koreans and, indeed, the former group expressed a stronger interest in enrolling close to home. From research such as this, Zimbroff (2005), Butner et al. (2001), and others, it would appear that the role and salience of others on college search and choice is filtered through one's racial, ethnic, and cultural heritage.

Role of Influencers on Older Students

In the limited information available on the people who influence non-traditional-aged adult students, the picture suggests a much higher level of independence. For example, in Broekemier's (2002) survey of adult learners in 2- and 4-year institutions, respondents were consistent in ranking friends and family as having the least amount of influence. The Bers and Smith (1987) study of adults at a 2-year college found a lack of reliance on influencers, such as counselors or parents, in shaping their decisions. As expected, adults are more autonomous. Bers and Smith (1987) point out that adults are often returning students and as such have already been through the college search and choice process.

To varying degrees, all prospective college students, both traditional-aged and older adults, identify, collect, and consider objective and subjective information when conducting their college search. The type and application of that information are the focus of the next section.

Section 3. Types of Information Sought, Sources Used, and the Application of Information

As discussed in the preceding sections, the search stage is characterized by the gathering of information about both the college experience in general and about specific colleges. This stage culminates in the creation of a "choice set" of colleges the prospective applicants will consider and from which they will ultimately choose. Given the potentially life-changing implications of this decision, there is little literature about the specific types of information on which this decision is based; therefore, we draw heavily on the focus group findings to shed light on this topic.

The knowledge base that exists on the information prospective applicants accumulate and analyze is limited to the search and choice phases. Though much of it is qualitative and anecdotal, some researchers have tried to systematically document the information collection process. Compounding the limitations of the research literature is the virtual absence of data on the types of information that may contribute to one's predisposition toward college. The current understanding is that the mix of one's sociocultural milieu determines that predisposition (Hemsley-Brown 1999). While aspirations tend to be higher among Asian and White students, educational aspirations overall have steadily increased. According to data compiled by the National Center for Education Statistics (NCES) (Fox, Connolly, and Snyder 2005), the proportion of 10th-graders who aspire to complete at least some postsecondary

education increased from 73.5 percent in 1980, to 89.8 percent in 1990, to 90.8 percent in 2002. Yet, given the actual enrollment rate, the level of commitment students hold to these aspirations likely varies, and many factors serve to dampen these aspirations as well. Still other students conclude that college is not for them and never advance to the latter stages of search and choice (Hossler and Gallagher 1987; De La Rosa 2006).

Hence, the research reviewed in this section primarily examines the types and sources of information gathered by college-bound students. This chapter reviews the information sought by students, their parents, and guidance counselors; how the information varies in salience over time; the sources of this information; and information concerning college costs and financial aid.

Types of Information Sought by Traditional-Aged Students

Every year around college application season, journalistic attention turns to the college search and choice process. Articles in the mass media tend to point out the idiosyncratic variables that drive adolescents' preferences for certain colleges, typically subjectively perceived aspects of the college's campus or culture. For example, in an article in the *New York Times*, Gardner (2006) described how teenagers' reactions to particular colleges are "often based on the most subjective details: the souvenirs in the campus store, the smoothie bar in the student union, the perceived dress code, whether the tour guide was too weird or not weird enough." Such anecdotal observations belie a more systematic, fundamental, and predictable pattern of objective information collection on the part of college-bound students.

Based on a review of prominent research available at the time, Paulsen (1990) concluded that the most common characteristics of college that high school students consider are programs of study offered, college quality, cost of attending, and geographical location. Galotti and Mark (1994) conducted an empirical study that tracked the decisionmaking process of high school juniors over the course of 1 year in suburban/rural southeastern Minnesota. They found that the most commonly cited criteria of interest, in order of importance, were type of school,⁵ programs offered, cost, size, location, campus atmosphere, and extracurricular programs. In a survey of high school seniors, Erdmann (1983) sought to determine the informational aspects of college that influenced their college choice. In this study, the major criteria cited, in order of importance, were availability of specific programs, reputation, location, and size.

In a recent analysis of NELS data, Ingels, Planty, and Bozick (2005) presented the features of postsecondary institutions rated "very important" by a nationally representative sample of college-bound seniors in the high school class of 2004. Unlike many studies that allow students to report criteria in an open-ended fashion, respondents selected from a fixed set of features. The data clearly indicate that program of study (i.e., "degree in chosen field" and relevant "courses/curriculum") topped the list, but criteria not identified in other studies, such as "job placement record" and "graduate school placement," emerged as important. While these items may be a function of instrument design, they might also reflect an increased emphasis on the economic value of postsecondary education. Cost (i.e., "low expenses") was tied with low crime rate in seventh place in order of importance. Findings from these studies are summarized in table 2.

⁵ In this case, the choice was whether it was public or private, which suggests at least two dimensions of cost and religious affiliation, though the latter was not explored in detail.

Table 2. Commonly cited college criteria of interest to high school junior and seniors, by select sources

Erdmann (1983)¹	Paulsen (1990)²	Galotti and Mark (1994)³	Ingels, Planty, and Bozick (2005)⁴
<ul style="list-style-type: none"> • Availability of specific programs • Reputation • Location • Size 	<ul style="list-style-type: none"> • Programs of study offered • College quality • Cost of attending • Geographical location 	<ul style="list-style-type: none"> • Type of school (public or private) • Programs offered • Cost • Size • Geographical location • Campus atmosphere • Extracurricular programs 	<ul style="list-style-type: none"> • Has degree in chosen field • Courses/curriculum • Job placement record • Academic reputation • Availability of financial aid • Graduate school placement • Low expenses/low crime (tie)

¹Findings based on a survey of high school seniors.

²Findings based on a review of the literature.

³Findings based on a study tracking high school juniors in suburban/rural southeastern Minnesota for 1 year.

⁴Nationally representative sample of college-bound seniors who made selections from a predetermined set of criteria.

Information Sought by Traditional-Aged Focus Group Students

Parent, student, and guidance counselor focus group participants were asked three questions related to their searches for postsecondary education information:

1. What information did they use in searching for colleges?
2. What information did they think was most important?
3. Was there any information they needed but could not find?

Table 3 reflects responses to question 2.

Table 3. Information considered most important, by type of focus group participant

Priority	Low-income and first-generation students	Low-income parents of first-generation students	Low- to moderate-income older students	Guidance counselors ¹
1	Major/program of study	Costs and financial aid	Convenience/location (where courses are offered and when)	Career planning information
2	Location and cost/financial aid	Major/program of study	Cost	Major/program of study
3	Student demographics and diversity/campus setting	Admissions requirements	Major/program of study	Institutional fit (size of institution, 2-year vs. 4-year, cost, academic support programs, etc.)
4	Size of institution	Location		Graduation rates
5		Campus crime/safety ²		

¹Counselors worked in schools where at least 30 percent of the students were low income.

²One of the two groups of parents was interested in this information.

Cost information was more important to parents than to students, but it was important to students as well. It is difficult to disentangle cost and location information since they are strongly related. Not surprising, traditional-aged students first looked for institutions that offered the major/program of study in which they were interested, followed by location and cost, and toward the end of the search, student demographics/campus setting.

Additionally, students' interest in cost, location, and attendance at public vs. private institutions were interrelated. Many of the students worked or planned on working part-time or full-time jobs, and those students were primarily interested in attending a local college. In some cases, students had few choices of locally based postsecondary institutions. For example, there were only three public postsecondary institutions located within commuting distance from the homes of rural Appalachian students who participated in the focus groups, which greatly limited their choices. Their choices were constrained further since they were primarily considering low-cost institutions. Unlike the students in the Galotti and Mark study, underserved students in the focus groups only mentioned public colleges when discussing costs; that is, they eliminated the possibility of attending a private institution due to higher tuition. The distinction between private, for-profit vs. private, not-for-profit institutions was not raised during the focus groups, and this distinction represents an area of interest for future exploration with respect to student information gathering.

Illustrative responses from students to question 2 include the following.

Program

"I search for if the school has what I want to major in."

"There's only one college near here that offers what I want, so that's where I'm thinking about."

"Courses offered in art are important to me."

Cost

"Basically, the public universities were cheaper, so those were the main ones that I was looking at."

"There was a lot of information on how much school is going to cost, but if I'd had more information about how much I was going to be receiving, it would've made my decision a little different."

"I like my school, but I'm looking to transfer because the tuition [at an out-of-state, private university] is too high."

"For me, I've got to figure out if I want to go to a Christian college or, you know, a public one. And Christian colleges are a whole lot more expensive. The one I'm thinking about is \$17,000 [a year]..."

"What I should have looked at was... what the university required and probably the price of each class because the private university has turned out to be a whole lot more expensive than I would have imagined."

Location

“I pretty much want to stay at home, and so I pretty much thought about three colleges... I limited them to within a 45-minute range so I can drive [to campus]...”

“Going out of state costs too much and I’m not sure I want to consider it since you get attached to a city and state.”

“I’ll only be an hour from home and my sister’s friends who are already in college will be nearby.”

Size of institution

“I’m looking for smaller colleges...having too many students around me makes it difficult to learn.”

“If it’s [the school] too big, I don’t want to get lost.”

Student demographics/campus setting

“I’m interested in the quality of the dorm rooms.”

“I’m interested in sorority life at schools.”

“Campus life is kind of important to me, but it’s not the most important thing.”

In responding to the question about what information they needed but could not find, students identified information about costs and financial aid as difficult to find. One student reported, “When I was surfing online, I really didn’t find the tuition for the schools. But now since I got accepted to the school, they sent me the award and how much I have to pay out of pocket.”

A few of the underserved students in the focus groups mentioned graduation rates as an item of information collected. However, they indicated this information was not applicable to them as individuals and therefore it did not factor into their choice. Interestingly, students interpreted graduation rates as reflections of individual effort and talent rather than institutional differences. Students also mentioned that they considered the campus environment (i.e., quality of dorms and food, campus amenities such as sports and exercise facilities) when making their final decisions based on real or virtual campus visits and tours. Finally, students enrolled in 2-year institutions expressed strong interest in knowing transfer rates and agreements between the local 2-year and 4-year institutions that eased the transfer process in terms of time, money, and transfer of credit hours.

Information on and Perceptions of College “Quality”

The types of information traditional-aged, middle-income students tend to cite such as college costs are seemingly objective, relatively straightforward, and easily obtained either from published sources or directly from the college, with the possible exception of quality, depending upon how it is

operationalized.⁶ In the Paulsen (1990) study, quality was a function of college admission selectivity and therefore objectively determined. In other studies, however, quality is self-defined by the respondent and therefore a subjective impression that may or may not be accurate. For example, in Erdmann (1983), students mentioned various colleges' "reputation" as an important category of information; however, students imputed this quality rather than using research or other objective sources to determine quality. Neither college quality nor reputation were characteristics that high school students sought information about, according to the Galotti and Mark (1994) study. In contrast, Johnson, Stewart, and Eberly (1991) found academic reputation and quality of available programs to be among the most important characteristics cited by their sample of college freshmen at a large Midwestern university. (Social psychology theory might suggest that students, once enrolled in college, raise perceived quality to a higher level to help justify their choices.)

In other studies, subjective perceptions of quality tended to be important only in establishing or selecting between the top two choices (Hossler and Gallagher 1987; Douglas and Powers 1985). A few studies have operationalized college quality more objectively. Long (2003), in conducting a panel study, found that college quality, measured by median SAT score and faculty credentials, increased in importance among high school graduates choosing between colleges in 1972–92. A few underserved students who participated in the focus groups mentioned reputation or quality of the institution. However, when asked how they determined the quality of the institution, students said they relied on information from college fairs, news reports and magazines on the best colleges, and literature they received from institutions.

Paulsen (1990) reported that on average, the attractiveness of specific institutions during the search stage increases with their selectivity or "quality." However, when students reach the choice stage, they tend to utilize a selection process based on the difference between their own aptitude and the average aptitude of students attending the choice set of schools. Using academic aptitude as a measure of college quality, Paulsen (1990) revealed that students tended to prefer colleges where the average aptitude of enrolled students was equal to or only moderately exceeded their own aptitude. This would suggest that students do not necessarily prefer the highest quality schools in an absolute sense, but rather prefer those that are in alignment with their own aptitude (cf. Manski and Wise 1983; Avery and Hoxby 2004). The exception is that students with very high academic aptitude are more likely to choose the most selective college to which they were admitted (Avery and Hoxby 2004; cf. Douglas and Powers 1985). Accordingly, Hemsley-Brown (1999) claims that for most students, information on the quality of postsecondary institutions is filtered through their social and academic status in relative rather than absolute terms.

Research has examined multiple facets of the information collection process. In the following sections, we discuss the literature on the differences in information sought by students and parents, the timing of information collection, how the salience of information changes over time, and the types of information sought by older students.

Amount of Information Sought

Looking more closely at longitudinal data, Galotti and Mark (1994) found that the number of criteria students named and used in their search for a postsecondary institution correlated with their academic ability—the higher the ability, the larger the number of criteria students listed as important to

⁶ While objectively factual, it should be noted that from the student's perspective, costs associated with college may not always appear to straightforward or without ambiguity.

their search process. The authors speculate this may be due to the more sophisticated analyses higher ability students tend to apply to all life decisions.

In the focus groups, students were asked a slightly different question about the amount of information they *found*. Their responses were mixed. About one-third of students reported they found too much information, which overwhelmed them. Another third of the students indicated they found just about the right amount of information, and the final third reported they did not find enough information. Those students who did not find enough information expressed the need to find more information about

- out-of-pocket expenses (e.g., books, athletic fees, lab and computer fees);
- availability of financial aid, grants, and scholarships;
- campus crime and security information;
- college placement tests; and
- math and science prerequisites.

Information Sought by Parents vs. Students

Hossler, Schmit, and Vesper (1999) conducted a longitudinal study of students and their parents to document the college search and decision process. Over 3,000 students from 21 ethnically, socio-economically, and geographically diverse high schools responded to a series of surveys. In addition, they tracked a subsample of 56 students and their parents for 9 years starting when the students were in the eighth grade through the end of a 4-year postsecondary education program. Data from surveys and interviews indicated that information made available to students and parents is important but ordered somewhat differently for the two groups. Students tended to seek out information about course opportunities related to their career interests, college admission requirements, and financial aid assistance, respectively, while parents more frequently sought information on financial aid, and they did so early in the process (e.g., when their children were in the eight and ninth grades).

Parents and students in focus groups reflected similar priorities: cost information was more important to parents than to students, and many parents indicated they were not interested in taking out loans. Table 3 shows that parents, like many of the student focus group participants, were interested in their children attending an institution close to home to minimize costs. And because many of their children attended a local institution in the evening where classroom buildings were not within close proximity, one of the parent groups was interested in obtaining reliable information on campus crime. As one parent remarked, “I didn’t want my daughter walking from one building to another at night.” Illustrative responses from parents are as follows.

Cost

When asked what was the first thing that came to mind about your child attending college, many parents said, “Can I afford it? Where can I find the funding?”

“Loans are the last possible resort.”

Referring to databases on scholarships, one parent stated, “Sometimes it’s just overwhelming. We went online and there were just pages and pages [of information].”

Major/program of study

“What [major] will go with what she [her daughter] wants to be?”

Location

“Financially [staying close to home] was more practical. You’re already stressing on just going to school. Why do you want to stress about rent, food, and clothing?”

Admissions requirements

“What requirements are needed for my child to transfer from a 2-year to a 4-year university?”

“I found out too late that one school required students to take advanced math.”

When asked if there was any other information they needed, parents mentioned scholarships and general guidance and preparation for college in high school, including assistance in and information on deadlines for completing applications and financial aid forms, transfer rates from 2- to 4-year institutions, employment opportunities on campus, classes offered and how they align with career goals, and the reputation of faculty.

Information Used by Guidance Counselors in the Focus Groups

Table 3 shows that guidance counselors responded to the question about what information they thought was most important by emphasizing career planning to help their students explore academic majors and career interests. They used a variety of online assessment tools that identify students’ interests and strengths. In addition to major or program of study, guidance counselors also identified institutional fit as an important type of information. Counselors asked themselves, given the student’s academic, financial, social, and cultural preparation and preferences, what institution is the best fit for him or her? Counselors focused on the following specific types of information as being critical to institutional fit:

- Size of institution and class size;
- Two-year vs. 4-year institutions;
- Public vs. private institutions;
- Cost (tuition and all fees, room and board);
- Academic support programs (e.g., academic advising, tutoring services, first-year programs);
- Diversity of student body and faculty;
- Geographic location and type of setting (urban, rural, suburban); and
- Living on campus vs. commuting from home.

They offered the following comments to explain their responses.

“It’s important [for students] to know who you are. If you don’t know what you are going to major in, that’s okay. But where do you want to go? What do you want to do? What do you want to learn?”

“Students often ask about costs and financial aid information and forms. However, some parents do not want to share tax forms or Social Security numbers.”

“What support systems, such as availability of academic advisors, multicultural affairs office, tutoring services, etc., are in place [at the institution]?”

“Not everyone can go to a very large state school and sit in a class of 300 students.... We try to get the students to look at the size of the college. Some kids need to be in a smaller school so they receive more individual attention.”

“A lot of our kids, when we take tours at the schools in our area, are very concerned that there are not students that ‘look like me.’ Other students like a more diverse setting.”

“We start freshman year just getting them [students] to look at the demographics of the school: what is the teacher/student ratio? What kind of social environment do they have? Is the school in a rural area vs. a city?”

One counselor stressed the importance of living in campus housing: “Parents and students do not understand that living on campus fosters personal growth and development.”

Finally, in response to the question about what information is needed, counselors mentioned that both students and parents should pay more attention to size of institution, student/teacher ratio, graduation rates (by academic program and race/ethnicity), and scholarships not tied directly to a specific postsecondary institution.

Timing of the Information Search

With respect to the timing of when students begin their college search process, the research reviewed here confirms that active information collection starts in the junior or senior year of high school (Johnson, Stewart, and Eberly 1991; Bers and Smith 2002). Yet, among those who have tracked the implications of timing of information gathering on effective decisionmaking, there is nearly universal agreement on the need for early intervention (i.e., seventh or eighth grade) to build awareness of college preparation courses, raise aspirations, and encourage students to consider college (De La Rosa and Tierney 2006; Cunningham, Redmond, and Merisotis 2003; Perna and Swail 2001; Cabrera and La Nasa 2000; Mumper 1998). Evidence suggests that those who begin their college planning prior to junior year are more likely to matriculate (Johnson, Stewart, and Eberly 1991).

In the focus groups, many of the college freshmen said that they regretted not beginning their search for colleges earlier. Guidance counselors also emphasized the importance of students exploring careers and preparing for college sooner rather than later: “We need to return to the days when in grade school, the local firefighters, doctors, nurses, dentists, attorneys, policemen and women talked to children about their careers and what it takes to get there.”

The Changing Salience of Information Types Over Time

Longitudinal data reported by Galotti and Mark (1994) reveal an interesting dynamic. They found that the kinds of information sought and considered changed at different points over the course of the search process. For example, information about admission requirements, course offerings, and class size that initially ranked high in the junior year decreased in salience over time, while information about campus culture and atmosphere rose. The authors concluded that the types of factual information easily available from brochures or catalogs became relatively less important as qualitative information about institutions' characteristics and campus cultures was acquired. Presumably, students use objective (quantitative) data to narrow down a choice set and subjective (qualitative) data to decide between their top-ranked choices. This may in part account for the seemingly capricious decisionmaking reported in the media (e.g., Gardner 2006).

Information Sought by Older Students

The college selection criteria that older students cite are somewhat different from the criteria used by traditional-aged students. Levine and Cureton (1998) reported that convenience is the top criterion for adult students followed by quality, service (i.e., time personnel spent assisting students), and cost. In a study by Bers and Smith (1987), adult students at a 2-year college reported that convenience and cost were their primary considerations. Swenson (1998) also found that convenience, operationalized as times/days that preferred classes were available, was rated most highly among adult students. Citing previous work as anecdotal and hampered by overgeneralization, Broekemier (2002) used a survey of adult students in 2- and 4-year programs to empirically determine if the search criteria differed among adults pursuing 2- vs. 4-year colleges. His study found both similarities and distinctions in the top choice criteria between the two populations (table 4). Programs of study, days/times classes are available, and location, were the top three choice criteria for both groups.

Table 4. Top choice criteria of adult students at 2- and 4-year colleges

Criterion	4-year college respondents	2-year college respondents
	Rank	Rank
Programs of study.....	1	1
Days/times needed classes are available.....	2	2
Location where courses are available.....	3	3
Geographic location of campus.....	4	*
Faculty reputation /high quality teaching.....	5	*
Cost.....	6	4
Time personnel spend assisting you.....	*	5

*Ranking unknown.

SOURCE: Broekemier (2002).

Importantly, the Broekemier study pointed out the distinction between college campus and location where courses are taught. For most traditional-aged students interested in 4-year colleges, this distinction was irrelevant. It appears from this work that for adults, those attending both 2- and 4-year colleges, where courses are taught was more important than location of the main campus. Also reported as having minimal salience (ranked 25th or lower out of 30 items) for adult students were “friends attending” college, campus social life, availability of child care, and athletic programs.

Data from Focus Groups on the Information Used by Older Students

The focus group with nine adult students—most of whom attend 2-year institutions—revealed that convenience (i.e., where courses were taught and when they were offered) and cost were most important, closely followed by program of study (see table 3). Students provided the following comments about the information they used:

“What kind of programs they [postsecondary institutions] offer, the convenience of the program they’re offering, you know, how it aligns with your life because most of the time you’re going back and continuing [your] education. You have a whole other life that you have to fit education into. I have children, I have a full-time job, so I have to find a program that fits my lifestyle.”

“[Cost is] very important because I think I’m one of the people where school is not close to me. [Name of specific school] is kind of a hike for me, but [specific school] was the only school that had the best program. I checked all of them [lists schools nearby] and [named a nearby school] the cost was ridiculous!”

When asked whether participants agreed that convenience, cost, and program were the most important types of information, they answered, “That’s what it’s all about, right?”

Information Sought, by Students’ Race/Ethnicity

A number of studies have focused on specific racial and ethnic groups. In a study by Kelpie Kern (2000), African American students were found to consider subjective impressions of college reputation and availability of a specific major as the most important criteria, followed by location, total cost of attending, and availability of financial aid. For Latino students who chose Hispanic-Serving Institutions,⁷ Santiago (2007) reported that the decisive factors in their choice of college were costs, proximity to where they lived, and an accessible (i.e., nonselective) campus. Santiago (2007, p. 18) further notes that information on costs tend to be limited to the “sticker price” of tuition rather than actual costs after factoring in fees, books, transportation, and potential financial aid.

Information of particular salience to African American and Hispanic students is geographic location or, more precisely, proximity to home. African American students tended to choose colleges that are closer to home (Kelpie Kern 2000) more than their White counterparts, a finding replicated in studies of Hispanic students by Kurlaender (2006) and Santiago (2007). Surveys of students of color found that they responded negatively to the idea of going to college to “get away from home” (Kelpie Kern 2000). Given the correlation between race and SES, it is worth noting that among the most academically talented students—presumably those with the most college choices—Avery and Hoxby (2004) found that only the low-income students (of all races) responded negatively to a college’s distance from home. Guidance counselors in the focus groups who worked in large urban high schools provided some insight into this issue. They passionately described their experiences in counseling low-income students who had to take care of their younger siblings or disabled parents, or whose families depended on their part-time jobs to contribute to the household income. The focus group research also suggested that the more academically talented students of any race were more likely to consider institutions located outside of their hometown and/or state than students who were less academically prepared for college.

⁷ Hispanic-Serving Institutions (HSIs) are defined in federal law as accredited and degree-granting public or private nonprofit institutions of higher education with 25 percent or more total undergraduate Hispanic full-time-equivalent student enrollment (Santiago 2007).

Sources of Information About College

Another strand of work has examined the sources of information used in the college search process. Research in this area tends to confirm the conventional wisdom—sources tend to be traditional and not surprising—parents, the guidance counselor, mainstream media, college brochures, and the institutions themselves are often cited as the primary sources (Bers and Galowich 2002; Galotti and Mark 1994; Erdmann 1983).⁸

In the previous chapter, the role of individuals as influencers was examined. In this chapter, individuals are examined as sources of information. Student and parental preferences with regard to sources are discussed with respect to certain demographic variables, including race and parental level of education.

In one study (Litten and Brodigan 1982 cited in Paulsen 1990), parents and students were asked to rate a list of information sources in the search and application process, and the two groups generally had the same preferred sources, i.e.,

- admissions officers;
- college publications;
- high school counselors;
- commercial guides; and
- alumni and college students.

With the exception of high school counselors and commercial guides, these sources are predominately postsecondary institutionally based. Along these lines, Santiago (2007) found that the three main sources of information among high-achieving Hispanic students tended to be programs offered at their high school (e.g., college fairs or visits from college representatives), high school counselors, and direct outreach from colleges. Further, “few Hispanic students reported that they received information about college options from family, friends, or teachers,” (Santiago 2007, p. 15). The focus groups with high-achieving, low-income African American students revealed similar sources of information. They indicated they had used the Internet, information from colleges, campus visits, or college fairs.

Paulsen (1990) attempted to disentangle the relative usage levels of various information sources cited by students and parents of varying races and educational backgrounds. His study reported some variance in source preference based on sex, race, parental education, income, and academic ability. For instance, African American students requested more information, consulted more information sources, considered more institutions, and considered more institutional characteristics than Whites (Lewis and Morrison 1975 cited in Paulsen 1990). African American students tended to get more information directly from the college through campus visits and visits by admissions officers. The finding that African-American students also reported receiving less information from high school counselors and parents may help explain the tendency for those students to consult more information sources. However,

⁸ The extant literature has yet to address how the Internet is being used by students to access and process this information. Recent focus group work by Westat (forthcoming) suggests that online web-based resources are quickly gaining prominence among current and recent high school graduates.

many of these studies were conducted before the Internet was widely used, and students relied on different sources 20 or more years ago than now.

Students whose parents had higher levels of education and came from higher SES backgrounds tended to rely more on their parents for information and less on their high school counselors (Leslie, Johnson, and Carlson 1977 cited in Paulsen 1990). These students were also more inclined to use commercial guidebooks, campus visits, admissions officers, and alumni. Students whose parents had lower levels of education and came from lower SES backgrounds depended more on the advice of high school counselors and unsolicited college marketing materials.

Although these studies identified numerous information sources, in print form as well as specific individuals, the question of which sources are more influential or trusted is not as well understood. Chapman (1981) found that print materials, even from the institutions themselves, were not as influential as personal contact with admissions officers or guidance counselors. The use of websites confounds this question of trusted sources, since information is readily available but often more difficult to evaluate in terms of its reliability. Most of the students in the focus groups indicated they trusted information provided by the institutions via their institutional websites. They reasoned that this information was more current than printed sources and therefore more reliable. One student posed the question, “Why would they [the institution] put up false information?” Other students mentioned they trust the information from alumni or students who have attended their institution of interest or college representatives. A few students indicated they trusted the information they received from their high schools and guidance counselors who assisted them with the search process.

Use of Websites to Search for Information About Colleges

In addition to the 11 focus groups Westat conducted in 2006 and 2007 with underserved students, parents, and high school guidance counselors, Rocco Russo, a 2005 AIR/NCES Senior Fellow, conducted six focus groups with high school students in 2005. Data gathered in both sets of the focus groups point to similar findings regarding the use of consumer websites to search for information about postsecondary institutions. Appendix E contains a selective list and descriptions of the sites reviewed by Russo.

Most students in the focus groups indicated that they relied heavily on the Internet in their college search and application process. Students did not rely on a single or a particular group of websites; instead, they began the process with a general search using search engines such as Google and Yahoo. Students narrowed their search based on various criteria discussed in the earlier section (e.g., program, location, cost, etc.) and then focused on specific institutional websites for information.

The focus groups conducted in 2006 and 2007 revealed more detailed information about these websites. Many students began with a very narrow college search (i.e., researching information on local colleges) and chose to start by looking directly at the institutional websites. And although most students were not familiar with NCES’ College Opportunities Online Locator (COOL, which was redesigned in September 2007 by NCES and replaced by the College Navigator) or their state’s postsecondary education websites, many were familiar with and used sites such as fastweb.com and collegeboard.com. Parents and students shared similar search methods, except parents were less familiar with sites other than institutional ones; they relied more heavily on print information received from postsecondary institutions. Indeed, many parents reported they did not know where to look for information, and most of the parents in one of the two parent focus groups did not have Internet access at home. They regretted not being better informed about the wealth of information available online.

Not surprising, guidance counselors in the focus groups were more knowledgeable about the range of websites. In particular, counselors relied heavily on career planning sites, such as Choices Planner (http://www.bridges.com/us/prod/serv/choicesplanner_hs/index.html), to help students determine which schools match their particular interests, and the College Board's website (<https://myroad.collegeboard.com/myroad/navigator.jsp>) for the personality assessment. Based on the assessment results, students can use this resource to explore various college majors and career interests. Unlike the student and parent focus group participants, many guidance counselors were knowledgeable about their state's postsecondary websites. Many, however, were not familiar with COOL and did not consult the Department of Education website. The majority of the student focus group participants indicated they were familiar with and used either the Free Application for Federal Student Aid (FAFSA) website or the hard copy form to complete the financial aid process.

Information Sources Sought Over Time

As was found with types of information, the specific sources of information also changed over time. Thus, the importance of particular sources of information is a function of when the information is identified. Hossler, Schmit, and Vesper (1999) observed a general movement among students from a reliance on internal sources (especially parents and siblings) to external sources (counselors, college admission officers), suggesting that students are inclined to collect information, or perhaps receive information, from those closest in their social network at the start of the search process. As time passes and students' information-processing skills mature, they are better able to identify alternative sources that extend beyond their immediate social networks and collect information on their own, filling in missing pieces that parents and/or family can not provide (Hossler et al. 1999). Indeed, information sources available to students and the degree to which they mine those sources were both positively correlated with students' SES and academic ability in the Galotti and Mark (1994) study.

During the latter search phase, and predominantly in the choice phase, postsecondary institutions themselves appear to exert a strong influence as students interact more with individual institutions, either remotely through the admissions office, directly with an admissions counselor, and/or through current students or alumni representatives, presumably gathering detailed and qualitative information about that particular institution (Hossler and Gallagher 1987; Paulsen 1990). However, at this stage, typically in the senior year, students tend to narrow their focus within an already circumscribed choice set. In this light, some authors (Chapman 1981; Hemsley-Brown 1999; Butner et al. 2001) have suggested that colleges should proactively share institutional information with students earlier in the search process (e.g., prior to the high school junior year) to increase the likelihood that their institutions are included within students' choice set.

Information About College Cost and Financial Aid

As discussed earlier, the college choice stage has been viewed both as a rational economic decision and one constrained by sociocultural factors (Cabrera and La Nasa 2000). While the bulk of research reviewed here suggests that sociocultural factors appear to be the main drivers of the college decision process for traditional-aged students, economic factors appear to pertain more to older adult students. In either case, the cost of college was found to be significant information for students when conducting their college searches (Paulsen 1990; Galotti and Mark 1994; Hossler, Schmit, and Vesper 1999; Johnson, Stewart, and Eberly 1991), although cost tended to be characterized as more significant for students (and parents) from lower SES backgrounds. In Galotti and Mark (1994), the lower one's SES, the more frequently cost was cited as a decision criterion. McDonough (1997), Frenette (2007), Hossler, Schmit,

and Vesper (1999), and Fox, Connolly, and Snyder (2005) reported similar findings. Even so, in none of the studies reviewed was cost cited as the most significant factor.

The financial dimensions of college cannot be completely separated from social and family factors. For example, findings from a student survey of 11th- and 12th-graders in low-income high schools illustrate that low-income students make sense of college and financial aid information through the filters of their school culture, perceptions of college affordability, and family backgrounds (De La Rosa 2006). Hodkinson and Sparkes (1997, p. 33, cited in Hemsley-Brown 1999, p. 87) drew a similar conclusion, stating that “decision-making could not be separated from family background, culture, or life histories of the pupils.” These researchers claimed that student decisions were only partially rational and were influenced strongly by feelings, emotions, and preconceptions.

Although all students who decide to enroll in college must make associated decisions about how to finance their postsecondary education, students and their parents tend not to be well informed about the actual cost of attending college (De La Rosa 2006; Choy 2001). Among students in 11th and 12th grades who were planning to attend college, 37 percent of students and 28 percent of their parents could not estimate the price of tuition and fees (Horn, Chen, and Chapman 2003).

Confusion about college costs appears to be greater among low-income, non-English-speaking, and first-generation students. Research by Avery and Kane (2004) indicates that low-income high school students have little understanding or knowledge about actual college tuition costs. De La Rosa (2006) found that low-income students and their families held many misperceptions about financial aid: many assumed college was simply too expensive for them to attend and dismissed the idea even before exploring financial aid options. Post (1990), using logistic regressions on college plans, discovered differential effects of estimated costs as a function of language background. In this study, English-only speakers were better informed about costs at local colleges, and both groups were less informed about costs at elite universities. However, for both students and their parents, knowledge about costs and financial aid tends to increase as family income and parental education increase (Choy 2001), suggesting that low-income and first-generation students suffer the most from a lack of information about college costs and financial aid.

Citing similar results, some researchers have claimed that the lack of accurate information about financial aid and the true cost of college attendance contribute to an irrational search process (Hossler and Gallagher 1987; King 2004). Bers and Galowich (2002) found that students planning to attend community college also lacked complete information about financial aid, calling the topic “complex and frustrating.” De La Rosa and Tierney (2006) reported that students, especially those from low-income communities, make college-related decisions based in part on their *perceptions* of financial aid availability, which may not be accurate. De La Rosa (2006) concluded that financial-aid-related information as a means to create college opportunity was not having the impact expected for low-income students. As Perna and Swail (2001, p. 100) stated, “Merely making financial aid available for students to attend college is not enough.” They argue for the provision of clear, practical information about cost and aid so students and their families can make knowledgeable, informed, and timely decisions.⁹

In analyzing the postsecondary decisions of high school graduates from 1972, 1982, and 1992, Long (2003) found that the role of college cost in the enrollment decision has decreased over time. However, she points out that price does play a significant role in how students choose between colleges in

⁹ A report by the American Council on Education (King 2004) revealed that half of all undergraduates enrolled at institutions participating in the federal Title IV student aid programs during the 1999–2000 academic year (approximately 8 million students) failed to complete a FAFSA form. Additionally, one out of every five dependent low-income students failed to take advantage of most governmental and institutional aid for which they were eligible.

their choice set. Likewise, Kim (2004) found that in some cases the structure of students' final financial aid packages had an influence on the decision of which college in their choice set to attend. However, financial aid did not appear to influence their decision to attend college per se. Just over half (54 percent) of the students in the Johnson, Stewart, and Eberly (1991) study reported that the offer of financial aid was considered important.

Taken as a whole, the research literature suggests that the direct effect of financial constraint (credit, savings, loans, etc.) at the choice stage does not inhibit enrollment as much as the indirect effect that low SES status has on the many dimensions of students' development, social network, educational experience, aspirations, and academic preparation that precede the choice stage. Low-income students are more likely to live in environments and attend schools that inadequately prepare them for entry into postsecondary education. Confusion during the choice stage for many students and their families, especially first-generation and those from low SES backgrounds, is further compounded by the lack of knowledge about financial aid options, the process of obtaining financial aid, and the true cost of college. Thus, inadequate preparation and the lack of accurate information forestall decisionmaking and result in many students making ill-informed college decisions or not enrolling at all (Carneiro and Heckman 2002; Pope and Fermin 2003; King 2004).

The first-generation parents and students in the focus groups were the most concerned about obtaining understandable data about the cost of attending college, as well as information on scholarships, grants, and loans. A few parents described themselves as the "working poor," yet they indicated that they did not qualify for federal financial aid. Guidance counselors echoed these concerns and gave poignant examples of how many low-income, first-generation, and immigrant parents were unwilling to share income tax and Social Security information, essentially preventing their children from applying for and receiving any financial aid and therefore enrolling in college.

Hossler and Schmit (in St. John 1995) reported on the structure and outcomes of Indiana's Postsecondary Encouragement Experiment that took place in the early 1980s. They showed how a few common sense ideas, such as early intervention to ensure that the state's ninth graders received consistent and accurate information about college, ongoing communication to parents, students, and counselors, and assistance in completing financial aid forms, evolved into a comprehensive plan for improved communication among colleges, high schools, and students. The result was an 8 percent increase in the state's postsecondary participation rates between 1988 and 1992. This initiative illustrates what can be accomplished when students have comprehensive information prior to making decisions about college.

Section 4. Summary

This final section, organized around the key research questions, summarizes the major findings from the literature review and focus group research. The research questions are as follows:

1. What is the process used by students to determine if and where to attend college?
2. Who influences and assists students with the college search process?
3. What information do students and parents seek and use in making decisions about where to pursue postsecondary education?

The summary culminates with a brief presentation of the information and translation gaps that exist for underserved students and families, based upon the research.

What Is the Process Used by Students to Determine If and Where to Attend College?

The decision to attend college is best conceptualized as a process rather than as an event. A student's choice regarding which college to attend is preceded by informal and formal information gathering and processing, which often starts years prior to enrollment. A three-stage model of college choice is commonly used as the framework to analyze the college search and choice process. This model, based on the traditional sequence of college search during high school, may have less relevance to older and returning college students and, to some extent, underserved students who may be academically underprepared. The three stages of college planning—predisposition, search, and choice—are briefly summarized below:

- **Predisposition** is the self-reflective stage culminating in the decision to pursue postsecondary education. Individual and environmental background factors, especially parents' educational attainment, parental encouragement, and student achievement, have the strongest influence at this stage in informing students' self-image, preferences, and inclinations.
- The **search** stage is characterized by gathering information about college in general and specific colleges and culminates in a choice set of preferred college options. At the outset of this stage, social networks tend to have the strongest influence, but they yield to the institutions themselves as prospective students come to interact more with individual institutions.
- In the **choice** stage, students and their families interpret the collected information within the context of their personal and social circumstances, resulting in decisions about whether to apply to college, which colleges to apply to, and which college to attend.

The general pathway to college for traditional-aged, academically prepared, middle-income students described in the literature consists of the following steps:

1. Student learns through school, parents, or other family member that college is something to consider.
2. Student talks to parents in 9th or 10th grade and considers options and financial issues.
3. Student gathers information in 11th and 12th grades.
4. Student makes lists of possible schools based on some or no particular criteria in 11th or 12th grade.
5. Student keeps options open until fall of the senior year.
6. Student talks to parents, guidance counselors, admissions counselors, college representatives, and friends.
7. Student applies to college(s).
8. Based on available options, personal preferences, accumulated information, student decides what to do.

Typically, 8th-, 9th-, and even 10th-graders are not actively searching for colleges, nor have they seriously discussed with anyone the possibility of attending. Guidance counselors in the focus groups recommended that students begin to explore career and/or vocational options prior to high school.

The 11th and 12th grades are seen as the prime exploratory years when students become more certain of going to college and gather information more actively. However, our focus groups with first-generation students revealed that it is not unusual for academically underprepared and/or first-generation students to delay the decisionmaking process until several years following high school graduation, especially if they can only find low-paying jobs. At this point, they succumbed to their parents' urging to take college-level courses, usually at the local community college.

Who Influences and Assists Students With the College Search Process?

A variety of individuals interact with students in multiple ways, shaping their predispositions, assisting in the college search, and influencing their choices. Parents, especially mothers, tend to play the most significant role. Other family members, counselors, and friends are important, but their involvement is less prominent.

Parental influence can manifest itself in two different modes: encouragement and support. The importance of and distinction between the two pervade the literature and were confirmed in the focus groups as students described the various levels of parental involvement.

- *Encouragement* is a form of influence that parents can exert prior to the predisposition stage and can continue through the search and choice stage. Examples include emotional and inspirational encouragement to attend college and to complete the necessary applications, but little tangible assistance.
- *Support* tends to be much more tangible and direct and tends to require higher levels of social capital and financial resources. Parental support tends to take effect during search and choice stages. Examples include parents saving money for postsecondary education, taking the student on college visits, attending financial aid workshop, and assisting with forms and applications.

For traditional-aged students, across ethnic and racial categories and regardless of SES, parents play the strongest role in the college choice and decisionmaking processes. However, for low-income and/or first-generation students, parents primarily provide encouragement to their college-bound children. In the limited literature available on the people who influence non-traditional-aged adult students, the picture suggests a much higher level of autonomy and independence, which was confirmed by the focus group work with adult students.

After parents and siblings, counselors were cited as most influential in the college planning and search process. For example, low-income and first-generation student focus group participants turned primarily to guidance counselors, when available, to assist them in the search process. However, these students often attend high schools with fewer guidance counselors and resources to assist them with this process. They tend to be more independent and/or to limit their search to local colleges, especially more cost-effective 2-year institutions.

What Information Do Students and Parents Seek and Use in Making Decisions About Where to Pursue Postsecondary Education?

The research literature, although not rich in studies about information parents and students use, concluded that the most common characteristics of colleges about which traditional-aged, middle-class high school students seek information are programs of study, college quality, cost of attending, geographical location, and size.

The focus group research with underserved students and parents identified similar information but in a different order of importance—and few mentioned the quality of the institution. Students sought information in the following order of importance: program of study, geographic location, cost, student demographics/diversity, and size of institution. The focus groups with low- to moderate-income parents identified costs and financial aid as the highest priority, followed by admissions requirements and geographic location (i.e., close proximity to home). Additionally, one group of parents expressed interest in information about campus crime since their children worked during the day and attended classes in the evening where classroom buildings are located some distance from parking garages and lots.

Additional insights into the information used by traditional-aged students, high school guidance counselors, and older students are summarized below.

- For Latino students who chose Hispanic-Serving Institutions, Santiago (2007) reported that the decisive factors in their choice of college were costs, proximity to where they lived, and an accessible (i.e., nonselective) campus. She further notes that information on costs tend to be limited to “sticker price” of tuition rather than actual costs after factoring in potential financial aid.
- Guidance counselors in the focus group indicated that African American students’ preferences for attending an HBCU vs. a non-HBCU may depend upon the racial/ethnic composition of their high schools; that is, they tended to be more interested in attending institutions that mirrored their secondary school environments.
- Students who were less academically prepared and/or had no career plans had fewer choices of institutions to attend or chose to limit their search to the local community college. However, rural students, regardless of academic preparation or career aspirations, had fewer choices of local postsecondary institutions due to their more isolated geographic locations.
- Many of the underserved students in the focus groups worked or need to work part-time or full-time jobs; therefore, they were primarily interested in attending local, more cost-effective, public 2-year institutions.
- Underserved students in the focus groups only mentioned public colleges in the context of discussing costs; that is, they eliminated the possibility of attending a private institution due to higher tuition.
- In most studies and in the focus group research, specific aspects of campus life, including atmosphere and extracurricular activities, were of secondary importance to students. These more subjective dimensions rise in importance during the final choice stage.

Guidance counselors in the focus groups emphasized career planning to their students to help them explore academic majors and career options. Another important piece of information counselors identified was institutional fit. Counselors focused on the following specific types of information as being critical to institutional fit:

- Size of institution and class size;
- Two-year vs. 4-year institutions;
- Public vs. private institutions;
- Cost (tuition and all fees, room and board);
- Academic support programs (e.g., academic advising, tutoring services, first-year programs);
- Diversity of student body and faculty;
- Geographic location and type of setting (urban, rural, suburban); and
- Living on campus vs. commuting from home.

The college criteria adult students cite is somewhat different from the criteria used by traditional-aged students. The most commonly cited four in the literature were:

- convenience (i.e., courses offered at convenient times and at convenient locations);
- quality of program /course of study;
- service (i.e., quality of interaction with personnel); and
- cost.

The focus group with adult students—most of whom attended 2-year institutions—suggested that convenience (i.e., where courses were taught and when the courses were offered) and cost were more important than program of study. Additionally, adult students reported they were also interested in knowing how easy or difficult it is to transfer from 2-year to 4-year institutions in their area.

What Sources Are Students and Parents Using to Access Information About Postsecondary Institutions?

The literature review indicated that sources tend to be traditional—parents, the guidance counselor, mainstream media, college brochures, and the institutions themselves are often cited as the primary sources.

The focus group research revealed that online web-based resources are quickly gaining prominence among current and recent high school graduates. Specifically, students primarily search individual college websites and conduct general Google or Yahoo searches rather than using the plethora of college search and information websites described in appendix E. However, for underserved parents, the focus

group research suggests information on the Internet is not as accessible (e.g., most parents in one of the two parent focus groups indicated they did not have Internet access at home) or comprehensible, especially cost, financial aid, and scholarship information. Additionally, low-income parents indicated they did not know what information was important and where they should search for it. The extant literature has yet to address how students are using the Internet to access and process this information.

The literature indicates that both parents and students generally preferred the sources, listed below. With the exception of high school counselors and commercial guides, these sources are predominantly postsecondary institution based.

- Admissions officers;
- College publications;
- High school counselors;
- Commercial guides, alumni; and
- College students.

Where Do We Go From Here: Information/Translation Gaps for Students and Parents

Based on the literature review and focus group research, what can we learn about the information/translation gaps that exist for underserved students and families, and how they might begin to be addressed?

Parents

Low-income parents and first-generation children need special guidance and assistance in understanding what information is important and how to interpret and apply it. For example, parents were interested in graduation rates. Although few of them were familiar with the term, when asked about it, they instinctively knew it was important. Parents and students in the focus groups expressed frustration with the lack of support from high school personnel. Parents knew they needed assistance to help their children conduct their college searches, but they did not know what to look for or where to find the most reliable sources of information, which limited the amount of assistance they could offer their children.

Low-income parents in the focus groups reminded us that even as institutions and states develop Internet-based postsecondary education preparation and search websites, not everyone has access to the Internet at home; some people must rely on the schools, community centers, and public libraries for access. This suggests there is some value in providing straightforward, reliable, step-by-step information to parents (and students) in a variety of formats (e.g., print and DVD). The focus group research suggested some specific areas in which additional resources, *information*, *explanation*, and *interpretation* might be helpful:

- Reliable information on how to conduct searches and where to look, including people or organizations that can serve as resources.

- An explanation of the limitations of relying solely on information from institutions' websites, which might function more as marketing tools rather than sources of accurate information.
- Information and interpretation of graduation rates by program and race/ethnicity.
- Campus crime statistics.
- Information about early career planning.
- Information important to understanding and identifying institutional fit:
 - Size of institution and class size;
 - 2-year vs. 4-year institutions;
 - Cost;
 - Academic support programs (e.g., academic advising, tutoring services, first-year programs);
 - Diversity of student body and faculty;
 - Geographic location and type of setting (i.e., urban, rural, suburban);
 - Living on campus vs. commuting from home; and
 - Importance of campus visits.
- Information on scholarships and grants tailored to their needs and circumstances.
- Financial aid information that explains and clearly delineates the sticker price and out-of-pocket expenses, including tuition, books, transportation, room and board, and all fees.
- Information that helps parents understand why Social Security numbers and income tax forms are required to complete most financial aid forms.
- Checklist of questions parents (and students) can use when talking to guidance counselors, college admissions counselors, and others about the college search process.
- Full disclosure about what it takes to qualify for financial aid.

Additionally, several guidance counselors mentioned they are beginning to receive more questions about postsecondary institutions that serve students with special needs, including those who have physical and learning disabilities.

Traditional-Aged, Underserved Students

Research indicates that many low-income and first-generation students often do not have parents who can provide tangible support in helping them search for colleges. Therefore, they make the decision to attend later than middle-class students; they also tend to attend high schools in which counseling

resources are stretched and academic preparation is less rigorous than their middle-class counterparts. These students, intentionally or by default, often end up attending local, public 2-year institutions. The following types of information, explanation, and interpretation might be important to these students:

- Information and interpretation of transfer, retention, and dropout rates of postsecondary institutions.
- Compelling presentation/explanation on why it is important to attend a postsecondary institution and how and when to begin preparing for college, perhaps drawing in part on the motivations cited in the literature (i.e., increased possibility of achieving a personal career goal upon completion, earning a degree as a personal goal, possibility of getting a better job, possibility of making more money).
- Year-by-year guidance and/or a series of guided questions on the practical steps students should take to prepare for college beginning in the seventh grade.
- Information that is age and stage appropriate so it is not overwhelming to students.
- Information on/and links to statewide and local mentoring programs.
- Resources where students can get free help in completing college applications.
- Most frequently asked questions and answers to address students' (and parents') fears/concerns about going to college as communicated by focus group participants:
 - Fear of failing;
 - Fear of not being prepared to succeed in a competitive environment;
 - Fear of not being accepted by a college of their choice or by *any* college;
 - Fear of being able to only attend a local college due to cost;
 - Fear of not being able to afford college;
 - Fear of leaving home to attend college (expressed by students and parents); and
 - Fear of being overwhelmed by the process and the choices.

Older Adult Students

The focus group research and literature review suggests that older and returning students undertake a different decisionmaking process from traditional-aged students as they search for information about colleges. This suggests that any literature and websites targeted at these students present information on convenience (e.g., location of classes, schedule of classes, availability of classes, availability of online courses), cost of attending including information of financial aid, academic and career-oriented programs of study, and available services (e.g., advising and time personnel spend assisting students). A separate audience page or channel for adult students on a website might be more conducive to their needs and interests, as would be links to specific data on workforce needs in their state.

Guidance Counselors

High school guidance counselors in the focus groups who worked in resource-poor schools indicated a need to use as many tools as possible to help them advise their students. The information to help close the interpretation/translation gap for students and parents discussed would also help counselors. Counselors mentioned additional resources that would assist them prepare students for college:

- Tools to help them assess students' learning styles and career interests;
- Tools/applications to help them identify, network with, and maintain contact information on college admissions counselors within their state;
- Sample templates to use in developing college preparation newsletters to distribute to students and parents; and
- Straightforward, self-guided computer-based programs or applications on the college search process that students could review prior to seeing a counselor.

Marketing, Marketing, Marketing

Focus group research revealed that many parents and students were not familiar with state postsecondary education websites and the more popular college guidebooks and websites described in appendix E. At the risk of stating the obvious, the best literature and websites will not be used if no one knows about them. Marketing efforts should include research (e.g., focus groups, surveys, and/or usability studies) with targeted underserved students and parents—however defined by the local, regional, state, and/or national entity—and representatives from the appropriate education and community-based institutions and organizations to ensure the “right” messages are disseminated in the most appropriate outlets through the most appropriate formats.

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Appendix A

How College Cost and Financial Aid Influence the College Decision Process

The issue of college cost and the role of financial aid tend to be addressed more thoroughly in the college enrollment literature than in the college search literature. To gain a better understanding of how college cost and financial aid influence the college decision process, we extended our literature review to include a cursory look at some of the most relevant of the many studies that used college enrollment as the dependent variable.

Empirical studies indicate that all students, not just those from low SES backgrounds, appear to be sensitive to tuition costs and financial aid. The conventional wisdom has been that lower SES families were most sensitive to changes in tuition and aid (Heller 1997). However, more recent research has begun to challenge that assumption. In a regression analysis, Avery and Hoxby (2004, p. 268) found that “low income parents appeared to be quite insensitive to tuition differences.” The same study reported on the differences in probability of matriculation among students from low-, middle-, and high-income families in response to an increase of \$1,000 in grants. Not surprisingly, high-income students were the least responsive. However, middle-income, rather than low-income, families were the most responsive to an increase in grants. Carneiro and Heckman (2002), Kim (2004), King (2004), and De La Rosa (2006) all argue that the reason interventions targeted to the most needy may have a stronger influence on middle-class families may be due to limited awareness of financial aid packages, difficulty interpreting financial aid information, and lack of familiarity with the process among low SES families.

How students respond to financial aid clearly varies by SES and other demographic factors (Galotti and Mark 1994). For example, Kim (2004) examined the influence of financial aid packages on the enrollment patterns of different races. While White students tended to enroll in their college of first choice when grants were their sole source of aid, the type of financial aid had a minimal affect on the choices of African American or Latino students. In contrast, earlier work by Paulsen (1990) found that African American and Hispanic students’ choices were more similar to those of their White counterparts; that is, they tended to choose colleges when grants alone or aid packages with loans and grants were offered more often than when loans alone were offered.

In a landmark econometric analysis, Carneiro and Heckman (2002) found that special government scholarship programs did little to boost college attendance. Their model found that only 8 percent of the enrollment gap was explained by financial constraint. Earlier, Cameron and Heckman (1999) found that family income did not explain differences in college attendance after controlling for achievement and parental education. These results were recently replicated in a careful economic analysis by Frenette (2007) in Canada. His analysis found that only 12 percent of the gap between high- and low-income students in university attendance can be explained by financial constraints. This and other research show that financial interventions, while influential for those predisposed to postsecondary education, are not sufficient to ensure equal access for many economically disadvantaged groups (De La Rosa and Tierney 2006; Perna and Titus 2004; Kim 2004; Cunningham, Redmond, and Merisotis 2003; Pope and Fermin 2003; Perna and Swail 2001; Long and Riley 2007). The difference in enrollment patterns is better predicted by college preparation, operationalized as standardized test scores and school grades, by the quality of high school attended, and by parental influence (cf. Paulsen 1990). As Hossler and Gallagher (1987) observed, SES has a strong positive cumulative effect on the factors associated with college enrollment that begins in preschool.

Drawing from the 1980 and 1982 waves of the High School and Beyond survey of 30,000 American high school seniors, Hearn (1991) concluded that the primary influences on college destinations

are academically based, i.e., on test scores, high school grades, academic tracks, extracurricular involvements, and educational aspirations. Academically strong students were particularly likely to attend more selective institutions. However, deeper analyses suggest that nonacademic factors, particularly SES background, affected graduates' postsecondary choices. For example, lower SES students were particularly likely to attend lower selectivity institutions, even when controlling for academic ability.

There has been escalating interest among practitioners and policymakers on the transition to postsecondary education, especially regarding the barriers faced by those students considered first generation, academically underserved, and from economically disadvantaged families. Much of the national dialogue has focused on the spiraling costs of postsecondary education and various strategies for structuring financial aid. As a result, a considerable amount of empirical research has examined the effects of economically based state and federal policies (e.g., scholarships and financial aid, tuition control, and direct appropriations to postsecondary institutions) on differential rates of enrollment. This research shows that financial interventions, while influential for those predisposed to postsecondary education, are not sufficient to ensure equal access for many economically disadvantaged groups (De La Rosa and Tierney 2006; Perna and Titus 2004; Kim 2004; Cunningham, Redmond, and Merisotis 2003; Pope and Fermin 2003; Perna and Swail 2001; Long and Riley 2007; Carneiro and Heckman 2002; Frenette 2007). There is growing realization that the decision—and ability—to pursue postsecondary education is influenced by economics but determined more by a confluence of personal, social, and institutional variables.

Appendix B
Summary Characteristics of Focus Group Participants

Table B-1. Summary characteristics of student, parent, and guidance counselor focus group participants

Characteristic	Students	Parents	Guidance counselors	Total
Total	58	16	16	90
Gender				
Male.....	20	3	6	29
Female	38	13	10	61
Race/ethnicity				
White	20	7	1	28
African American	23	1	13	37
Hispanic.....	10	6	1	17
Asian.....	3	1	1	5
Other.....	2	1	0	3
Geographic area				
Urban.....	29	5	7	41
Suburban.....	19	9	9	37
Rural.....	10	2	0	12
First-generation status	21*	9	**	30
Income level				
Low.....	33	6	***	39
Low/moderate.....	25	10	***	35
Institution type				
2-year.....	19	13	**	32
4-year.....	39	3	**	42
Region	Mid-Atlantic, Midwest, South, Southwest, West Coast, Appalachia	Southwest, West Coast	Mid-Atlantic, Midwest	

* Not ascertained for all students.

** Not relevant.

***Income level of students served by guidance counselors—10 served low-income students; 6 served low/moderate-income students.

Table B-2. Summary characteristics of student focus group participants

Characteristic	College freshmen	High school students	Older adult students	Total
Total	24	25	9	58
Age (mean)	19	17.5	31	NA
Gender				
Male.....	7	11	2	20
Female	17	14	7	38
Race/ethnicity				
White	5	12	3	20
African American	13	5	5	23
Hispanic.....	3	7	0	10
Asian.....	2	1	0	3
Other.....	1	0	1	2
Employment status				
Full time	4	1	5	10
Part time	15	21	0	36
Unemployed	5	3	4	12
Geographic area				
Urban.....	15	12	2	29
Suburban.....	9	5	5	19
Rural.....	0	8	2	10
First-generation status	*	21	*	21
Income level				
Low.....	11	17	5	33
Low/moderate.....	13	8	4	25
Institution type				
2-year.....	7	5	7	19
4-year.....	17	20	2	39
Region.....				
	Southwest, West, Mid-Atlantic	Appalachia, Southwest, Midwest	South	

NA = not applicable.

*Not ascertained.

Table B-3. Summary characteristics of parent focus group participants

Characteristic	Southwest	West Coast	Total
Total	8	8	16
Gender			
Male.....	0	3	3
Female	8	5	13
Race/ethnicity			
White	1	6	7
African American	0	1	1
Hispanic.....	6	0	6
Asian.....	0	1	1
Other.....	1	0	1
Child's employment status			
Full time	2	1	3
Part time	3	2	5
Unemployed	3	5	8
Geographic area			
Urban.....	3	2	5
Suburban.....	3	6	9
Rural.....	2	0	2
Parent(s)' education			
No college	8	1	9
Less than 20 credits	0	2	2
21–30 credits	0	4	4
Greater than 30 credits.....	0	1	1
Type of institution			
2-year.....	7	6	13
4-year.....	1	2	3
Income level			
Low.....	6	0	6
Low/moderate.....	2	8	10
First-generation status			
No college.....	8	2	10
Some college	0	6	6

Table B-4. Summary characteristics of guidance counselor focus group participants

Characteristic	Midwest	Mid-Atlantic	Total
Total	7	9	16
Gender			
Male.....	2	4	6
Female	5	5	10
Race/ethnicity			
White	0	1	1
African American	7	6	13
Hispanic.....	0	1	1
Asian.....	0	1	1
Other.....	0	0	0
Geographic area			
Urban.....	7	0	7
Suburban.....	0	9	9
Percent of low-income students			
40 percent to 60 percent	1	9	10
61 percent to 80 percent	2	0	2
81 percent to 100 percent	4	0	4
Percent of time spent counseling students about postsecondary education			
Less than 30 percent	1	2	3
30 percent to 60 percent	3	4	7
61 percent to 90 percent	3	3	6

Appendix C
Focus Group Protocols

**WESTAT PROTOCOL FOR LOW-INCOME,
COLLEGE-BOUND, HIGH SCHOOL SENIORS**

Introductions and Warm-Up Questions

OK, let's get started by once again going around the table and introducing ourselves. Please give your first name only and tell me:

- What your favorite academic subject is and what you like about it, **and**
- What is your favorite extracurricular activity/hobby?

Opening Questions

1. What is the first thing that comes to mind when you think about going to college? *[If they say something like "anxious" or "exciting," ask them what makes them say this or tell me more about this]*
2. When did you first start thinking about college **seriously**? What was it about the conversation or situation that makes you say this was first time you started thinking about college **seriously**? (i.e., who raised it, what actions, if any, followed the conversation?)
3. Do you have some idea about what you will major in?
 - What appeals to you about this major?
 - *Probe, if they are unable to pinpoint their major:*
 - Do you know what you courses you're most interested in?

Now, let's talk a little bit about some of the information you were/are looking for and where you are looking.

4. How did you get started on your college search process?

Probes:

- What was the first step you took?
- Who helped you?
- Where did you look?

5. What types of college information did you use or are you using as you think about which colleges you are interested in?

Probes: *If they don't mention these, ask them, esp. first five bullets:*

- **Academic** (strong in major program, competitiveness, student faculty ratio)
- **Environment** (proximity to home/family; rural, urban, suburban environment; large or small campus or classes; campus safety)

- **Affordability** (cost, tuition, room & board, fees, financial aid; financial aid package)
- **Admissions** (application process, interviews, essays, cut-off dates)
- **Social** (racial/ethnic diversity of the student body, culture, campus life, proximity to city)
- **Personal** (prestige, religious affiliation, family connection)
- **Athletic** (sports, division level, scholarship)
- **Residential/ Physical Plant:** (size, location, housing, facilities)

Listen for references to the following and pick up on specifically in Q. 13

- **Career:** (job prospects, income, placement rate in professional schools)
- **Graduation rates:** (percentage graduated within a specific period of time?)

6. You mentioned several types of information you use/are looking for. What type of information do you think is **most important** to you personally? [*Ideally, we'd like them to mention 3-4 types of information here for each*]

Probe on how financial aid and cost, location, and academic major, campus life figure into their priorities, if not mentioned

Next, let's discuss the sources you used or plan to use in searching for colleges.

7. Where did you **first** look for information about colleges?

7a. What other places did you look for this information?

Probes:

7b. How would you describe the resources available to you within your school? In the guidance office, the counselor, college rep visits, college fairs)

7c. How would you say these compare to resources you find outside of school? (e.g., websites, college guides, marketing materials directly from college, peers and family members)

8. Did you use the Internet to look for information?

If so, what are/were your favorite websites? How did you find out about them? What makes you say these were your favorite ones?

Probe: *Here we want to know generally if they looked at individual college sites, **and/or** comparative sites such as COOL, [the website of state where this focus group was held]; College NET, U.S. News and World Report, Princeton Review online, Peterson's.*

9. Who spoke to you (or who did you speak to) about colleges?

Probes:

- What about parents, relatives, teachers, counselors, friends, etc.
- What information, if any, did they share with you? What advice, if any, did they give you?
- Did they talk to you about the application process and deadlines? What did they say?
- Who would you say was MOST KNOWLEDGEABLE about the college search process?

10. What sources of information do you trust the most?
*[If not mentioned, probe on people, print **and** Internet sources]*

10a. What makes you say that about _____ source?
[get at the notion of objective vs. subjective information and who they trust to provide it]

Next, I'd like to ask you a few questions about information that either you could not find or you think would have been helpful to you.

11. So far, do you think you have found too much information, not enough, or just about the right amount of information you've needed to help you in your search?

11a. *[If too much]* What makes you say that?

11b. For those of you who said not enough, what were/are you looking for that you have not been able to find?
[As a framework, use the categorical info in Q. 6 to probe]

Probes:

11c. Were you able to find enough information about the costs associated with college and how to apply for financial aid? Are you able to determine how much it will cost to attend colleges that you have applied to?

11d. How valuable is information such as placement rates, graduation rates *[explain what this means,]* percentage continuing to professional schools like law or med school?

12. Were there some resources (i.e., person, a document, a website) you used again and again? What was it about this resource that made you use it so much?

Probe, if not mentioned:

What about financial aid information and how to complete the FASFA forms?

13. How do you **feel** about your college search experience thus far?

Probes:

If they don't know what we mean by this, throw out some terms:

Has it been frustrating, exciting, interesting, time-consuming, overwhelming, confusing?

13a. Please tell me more about this?

Thank you. We've talked about the types of information you look for and use, the sources you used, and what you could or could not find. Our final set of questions focus on how you are using or plan to use the information you are collecting.

14. How many schools have you applied to? Do you plan to apply to more? What made you decide to apply to these specific colleges?

15. Have you already decided where you want to go to college?

On what did you base this decision?

If not mentioned, probe on importance of cost and affordability

15a. For those of you who have not decided where you want to go to college, how do you plan to narrow down your search?

If not mentioned, probe on importance of cost and affordability

16. What role, if any, did/are your parents play/playing in the college search process?

Probes:

- Specifically, what did they do or say?
- How would you describe their level of involvement?

17. Is there anyone else who is involved or that you plan to involve in helping you with your college search process? Who? How have they helped?

Probes:

What about other family members, teachers, counselors, friends? How have they helped/plan to help?

- Who was most influential in encouraging you to go to college? What did they do or say?

18. When was the idea of going to college *first* raised? Who raised it and in what context (e.g., talking about careers, what you want to do after graduating from high school?)

This conversation has been very informative. I only want to ask one final question to wrap-up.

19. Given your experience, what would you say could make the college search easier for students like yourselves?

WESTAT PROTOCOL FOR LOW INCOME COLLEGE FRESHMEN

OK, let's get started by going around the table and introducing ourselves. Please give your first name only and tell us either:

- Your favorite academic subject thus far and what you like about it **or**
- Your favorite extracurricular activity and what you like most about it.

Opening Questions

1. What is the first thing that comes to mind when you think about your college search experience?
[If they say something like "anxious" or "exciting," "difficult" ask them what makes them say this or tell me more about this]
2. When did you first start thinking about college seriously?
 - Do you recall how the topic was first raised and by whom?
3. Have you decided what you are majoring in? What appeals to you about this major?
 - *Probe, if they are unable to pinpoint their major:*
Do you know what you courses you're most interested in?
- 3a. Have you changed majors since enrolling?

Thank you. Now, let's talk about some of the information you looked for when you conducted your college search.

4. How did you get started in your college search process?

Probes:

- What was the first step you took?
- Who helped you get started? [parents, siblings, guidance counselors]

5. What types of college information did you initially look for?

Probes: What was it about potential colleges that you needed to know?

If they don't mention these, ask them, esp. first five bullets:

- **Academic** (strong in major program, competitiveness, student faculty ratio)
- **Location** (proximity to home; rural, urban, suburban environment; large or small campus or classes; campus safety)
- **Affordability** (cost, scholarships available, tuition, room & board, fees, financial aid; financial aid package)

- **Admissions** (application process, interviews, essays, cut-off dates)
- **Social** (ethnic/racial diversity of students and faculty/staff, HBCU, fraternities/sororities, culture, campus life, proximity to city)
- Personal (prestige, religious affiliation, family connection)
- Athletic (sports, division level, scholarship)
- Residential/
Physical Plant: (size, location, housing, facilities)

Listen for references to the following and pick up on specifically in Q. 11b and 13a

- Career: (job prospects, income, placement rate in professional schools)
- Graduation rates: (percentage graduated within a specific period of time)

6. You mentioned several types of information you looked for.

What types of information do you recall were **most important at the time** you conducted your search?

[Ideally, we'd like them to mention 2 -3 types of information here for each]

Probe on how financial aid and cost, location, academic major, and campus life figure into their priorities, if not mentioned

6a. As you look back on your search, do you think the kind of information you thought was most important then turned out to be **most important to you now**?

If not, what's most important now?

6b. Knowing what you know now, what would you encourage high school students to concentrate on in their search?

Next, let's discuss the sources you used in searching for colleges.

7. Where did you **first** look for information about colleges?

7a. Were there other places you looked for this information?

How would you describe the resources that were available to you within your school?

(in the guidance office, the counselor, college rep visits, college fairs)

How would you say these compare to resources you found outside of school?

Websites

college guides

college fairs held at church or with other organizations

marketing materials directly from college

peers

family members

extended family or friends of family members

8. Did you use the Internet to look for information?

If so, what websites did you use—individual college sites or comparative sites?

Which ones did you use most often and why? How did you find out about them?

[Probe on COOL --- College Opportunities Online Locator --- nces.ed.gov/ipeds/cool/]

[*Examples of comparative sites include COOL, College NET, U.S. News and World Report, Princeton Review online, Peterson's. Probe on COOL in particular.*]

9. Who spoke to you (or who did you speak to) about colleges?

Probes:

- *What about parents, relatives, teachers, counselors, friends, minister, mentor, etc.*
- *What information, if any, did they share with you?*
- *What advice, if any, did they give you? [probe on application process]*
- *How would you describe the application process? What **sources** of information did you trust the most?*

9a. What makes you say that?

[*If not mentioned, probe on people, print **and** Internet sources*]

9b. In looking back, was the information you based your decisions on reliable?

Next, I'll ask you questions about information that either you could not find or you think would have been helpful to you.

10. Do you recall finding too much, not enough, or just about the right amount of information you needed to help you in your search?

10a. If too much, what makes you say that?

10b. If not enough, what were you looking for that you were not able to find?

[As a framework, use the categorical info in Q. 5 to probe]

Probes on Financial Aid:

Were you able to find enough information about the costs associated with college and how to apply for financial aid and FASFA?

Were you able to determine how much it would cost to attend colleges that you thought you might attend?

Did you apply for financial aid? If not, why not. If so, was your application experience acceptable?

Did you find information such as placement rates, graduation rates, percentage continuing to professional schools like law or med school valuable?

11. Were there some resources (i.e., person, a book/guide, a website) you turned to more often than others? What was it about this resource that made you use it more often?

Thank you. We've talked about the types of information you look for and use, the sources you used, and what you could or could not find. Our final set of questions focus on how you made decisions about colleges to apply to and attend.

12. How many colleges did you apply to?

12a. How did you narrow down the list of colleges you **applied** to?

Probe on: admissions requirements, cost, strong in major, reputation/rigor, cost/scholarships, location, family/friends connection, academic support programs, campus life/environment, extracurricular activities

12b. Were there any colleges that you wanted to apply to but didn't ?

Probe : What stopped you from applying ?

13. Were there any experiences, piece(s) of information or individuals(s) who helped you with your final decision to **attend** the college you are currently enrolled in?

Probe on specific influences and weight of each, if possible

- *College website*
- *College promotional materials*
- *college visits*
- *parent*
- *friend*
- *teacher*
- *guidance counselors*

14. So far, how do you feel about the choice you made to attend your current institution?

14a. Would you have done anything differently?

14b. What, if anything, surprised you most about the college search process?

*[Probe on: search process **and** information]*

This conversation has been very informative. I only want to ask one or two final questions to wrap-up.

15. Given your experience, what would you say could make the college search process easier for students like you?

**PROTOCOL FOR ADULT
STUDENTS ENROLLED IN 2 AND 4 YEAR COLLEGES
(Older working adults aged 25-38, low income, mixed race)**

Opening Questions

1. What is the first thing that comes to mind when you think about your most recent college search experience? *[If they say something like “anxious” or “exciting,” ask them what makes them say this or tell more about this]*

2. When did you first start thinking about college seriously?
 - Do you recall how the topic was first raised and by whom?
 - Did you seriously consider college while you were in high school?

For the purposes of this study, our primary interest is on the set of circumstances and steps you have taken most recently when deciding to enter the college and program in which you are currently enrolled. In particular, we are interested in the types of information you sought out and used in your decision-making. This will provide the common ground for tonight’s conversation.

For those of you who may have enrolled at earlier points in your lives, we’ll want to talk about those experiences as well since they definitely have had an impact on your later decision to re-enroll.

3. What motivated you to start the college search process (or return to college)?

Better job / gaining general knowledge / enhancement of self-esteem

4. How did you get started in your college search process?

Probes:

- What was the first step you took?

- Who helped you? [parents, siblings, spouse, guidance counselors]

[We will immediately begin to get historical information on their previous experiences and how these informed the most recent search process.]

Probes can include:

- How was this process different from earlier searches?
- How did you use what you already knew about college?
- How much information about college would you say you had as you began this most recent decision process?

5. What types of college information did you look for?

Probes: What was it about potential colleges that you needed to know?

If they don't mention these, ask them, esp. first five bullets:

- **Academic** (major programs, competitiveness, student faculty ratio, faculty reputation)
- **Location** (proximity to home; rural, urban, suburban environment; large or small campus or classes; campus safety)
- **Schedule** (days / times courses are offered)
- **Affordability** (cost, scholarships available, tuition, room & board, fees, financial aid; financial aid package)
- **Admissions** (**application process, interviews, essays, cut-off dates**)
- **Social** (**ethnic/racial diversity of students and faculty/staff, HBCU, fraternities/sororities, culture, campus life, proximity to city**)
- Personal (prestige, religious affiliation, family connection)
- Athletic (sports, division level, scholarship)
- Residential/
Physical Plant: (size, location, housing, facilities)

Listen for references to the following and pick up on specifically in Q. 11b and 13a

- Career: (job prospects, income, placement rate in professional schools)
- Credential: needed for career advancement / more money / to keep current job
- **Special services** for working, married, parents, etc. (child care, evening classes, etc)
- Graduation rates: (percentage graduated within a specific period of time)

6. You mentioned several types of information you looked for.

What types of information do you recall were **most important at the time** you conducted your search? [*Ideally, we'd like them to mention 2 -3 types of information here*]

Probe on how financial aid and cost, location, academic major, and campus life figure into their priorities, if not mentioned

6a. As you look back on your search, do you think the kind of information you thought was most important then turned out to be **most important to you now**?

If not, what information is most important now?

6b. What would you encourage other potential adult students to concentrate on in their search?

6c. How did this process compare to your previous college searches?

6d. Do you think the information you were looking for as an adult was different from what you were concerned about as a high schooler? In what ways?

Next, let's discuss the sources you used in searching for colleges.

7. Where did you **first** look for information about colleges?

7a. Were there other places you looked for this information?

(websites, college guides, college fairs held at church or with other organizations, marketing materials directly from college, local public marketing, peers and family members, friends of family members)

Probes:

How would you describe the resources that were available to you?

How do these sources compare to those you may have used when you originally searched for information?

8. Did you use the Internet to look for information?

If so, what websites did you use—individual college sites or comparative sites?
Which ones did you use most often and why? How did you find out about them?
*[Examples include COOL, College NET, U.S. News and World Report, Princeton Review online, Peterson's. **[Probe on COOL in particular and the NC State website.]***

9. Who spoke to you (or who did you speak to) about colleges?

Probes:

- *What about parents, relatives, coworkers, supervisors, former teachers, counselors, friends, family (children?) minister, mentor, etc.*
- *What information, if any, did they share with you?*
- *What advice, if any, did they give you? [probe on application process] How would you describe the application process?*

10. What sources of information did you trust the most? What makes you say that?

*[If not mentioned, probe on people, print **and** Internet sources]*

10a. In looking back, would you say that the information you based your decisions on were reliable?

Next, I'll ask you questions about information that either you could not find or you think would have been helpful to you.

11. Do you recall finding too much, not enough, or just about the right amount of information you needed to help you in your search?

11a. [If too much] What makes you say that?

11b. If not enough, what were you looking for that you were not able to find?

[As a framework, use the categorical info in Q. 5 to probe]

Were you able to find enough information about the costs associated with college and how to apply for financial aid and FAFSA? Were you able to determine how much it would cost to attend colleges you thought you might attend?

Did you apply for financial aid? If not, why not. If so, was your application experience acceptable?

Did you look for information on student achievement such as placement rates or graduation rates, or transfer rates (for 2 year colleges) [we'll explain what this means] If so, did you find this information valuable?

12. Were there some resources (i.e., person, a book/guide, a website) you turned to more often than others? What was it about this resource that made you use it more often?

Thank you. We've talked about the types of information you look for and use, the sources you used, and what you could or could not find. Our final set of questions focus on how you made decisions about colleges to apply to and attend.

13. How many colleges did you apply to?

13a. How did you narrow down the list of colleges you **applied** to?

Probe on: admissions requirements, cost, strong in major, reputation/rigor, cost/scholarships, location, family/friends connection, academic support programs, campus life/environment, extracurricular activities

13b. Were there any colleges that you wanted to apply to but didn't ?

Probe: *What stopped you from applying ?*

Did you receive any financial support from work, family, others to apply?

14. Were there any experiences, piece(s) of information or individuals(s) who helped you with your decision to **attend** the college you are currently enrolled in?

Probe on specific influences: college visits, parents, friends, coworkers, supervisors, teachers, academic advisors, and weight of each, if possible

15. So far, how do you feel about the choice you made to attend your current institution?

- Would you have done anything differently?
- What, if anything, surprised you, or confused you, the most about the college search process?
[Probe on: search process and information]

This conversation has been very informative. I only want to ask one or two final questions to wrap-up.

16. Based on your experience, what would you say are the pros and cons of conducting the college search and decision process when you did?
17. Given your experience, what do you think could make the college search process easier for adult students like you?

Final Protocol for First Generation Parents of First-time College Freshmen/Sophomores

Introductions and Warm-Up Questions

OK, let's get started by once again going around the table and introducing ourselves. Please give your first name only and tell me:

- What is your favorite activity or hobby? If you have little or no time for hobbies, what would you love to have time to do?

Opening Questions

1. What is the first thing that comes to mind when you think about your child attending college?
2. Before your child started looking for colleges, did you know about any colleges in your area? If so, what did you know about them, and where did this information come from?

Introductory Questions: Now, let's talk about some specific issues you and your child discussed about colleges or searching for colleges and information shared by high schools.

3. When was the idea of going to college **first** raised and by whom? How did the topic come up? Who raised it? What did you talk about? [Probe on disposition stage; if no response]
4. What questions did **you** ask your child about college?
Probes:
 - What do you hope to get out of college?
 - Are you prepared to go to college? [academic preparation]
 - What do you want to study/?
 - Where do you want to go to college? Locally or out of area?
 - What does it cost to go to college?
 - Other specific information: application process, availability of financial aid, best schools in your major, size of campus/classes, racial/ethnic mix of students and faculty
 - Campus crime?
5. What questions did they ask **you** about college?
Probes:
 - Where can they go? (locally or out of city or state)
 - Help in completing any forms, especially applications, etc.
 - Can we afford for me to go to college?
6. Who at your child's school was involved in helping your child with looking for colleges? Do you know how they helped him/her? What did they do?
Probes:
 - Teacher/guidance counselor
 - Help with deadlines, finding info. about colleges, suggesting colleges to attend

7. Did the school provide information about colleges to **you**? If so, what did they share with you and how was it shared (printed, in seminars, one-on-one with counselor/teachers)?

Probes:

- Why it is important to go to college
- Information about the different types of colleges (e.g., public and private; 2-yr and 4-year)
- General information about how parents can get involved or what to expect
- Preparation: required courses and tests to take to get into college
- Specific types of information to search for and where to find it
- Important deadlines, help in writing essays, application process, financial aid workshops/information, college fairs, college visits

- 7a. Did other community organizations or agencies or programs your child was involved in provide information about colleges?

Probe: If so, what specific type of information was provided? What agency provided it? Was it helpful/useful?

8. Did the school or other organizations provide any information about how to look for colleges? Tell me more about information provided. Was this information provided in English only, or was it also available in Spanish and/or other languages?

Key Questions

Next, let's talk about your involvement in helping your child search for colleges. Parents are involved in helping their child search for colleges in a variety of ways, depending on their time and experience. Sometimes parents help their child by generally supporting them in the process. Other times, parents are involved in more specific ways such as helping them fill out forms, going with them to visit colleges, talking to counselors and teachers, etc.

9. When did your child first start thinking about college seriously? Do you recall how old she/he was? What specifically did you talk about? Who started the conversation? What actions, if any, did you take after this conversation?
10. How were you involved in helping your child search for colleges? What did you do? What kinds of things did you focus on?

Probes:

- Academic preparation (courses, taking tests)
- Career goals
- Types of colleges or specific colleges they might consider
- Costs, financial aid; scholarship information
- Specifics in the college search

- 10a. Has your involvement changed over time? If so, how? (i.e., more involved as child moved closer to decision on, less involved over time, or about the same?)

11. As a parent, what information about colleges did you review or see? [If they cannot answer this, ask: What information were you interested in?]

- Academic (major/program of study, competitiveness, student faculty ratio)
- Location (proximity to home; ability to commute; rural, urban, suburban, size of college and/or classes; campus safety)
- Type of institution 2-year vs. a 4-year; public vs. private
- Affordability (cost, financial aid; financial aid package scholarships available, tuition, room & board, fees,)
- Admissions (application process, interviews, essays, cut-off dates)
- Social (ethnic/racial diversity of students and faculty/staff, tribal colleges an option?; fraternities/sororities, culture, campus life, proximity to city)
- Outcomes Placement in careers; graduation rates; percent transferring to 4-year colleges
- Personal (religious affiliation, family connection)
- Athletic (sports, division level, scholarship)
- Residential/
Physical Plant: (housing, facilities, food)

12. Was there any information you were looking for, but could not find?

13. Was there any information you found confusing or hard to understand? What specifically? [Probe: application process, financial aid, cost information, forms]

14. What type of information about colleges did **you** think was MOST IMPORTANT? Your child?

15. Do you recall **where** you looked for information about colleges?

Probe : school resources, resources at home, or resources other than school and home? What school resources? What resources at home? Do you have a computer or Internet access at home?

Probe: Aware of NM State Dept. of ED website? What about COOL?

16. Based on what **you** learned as your child entered college, what kind of information do you think parents like you need to see or know?

17. Do you have any other relatives (i.e., nephews, nieces, sisters, brothers, aunts, or uncles) who have attended or graduated from college? Did they help you or your child look for colleges? Tell me more about what they did or said.

18. Do you have older children who are attending college or graduated from college? If yes, did they help your younger child look for colleges? In what ways did they help?

Probe: helping them with Internet or other types of searches application process, financial aid, college visits, writing essays, completing financial aid forms, encouraging your child?

Final Questions-- Financial Aid

19. Did you talk to your child about the cost of going to college? How much did you understand about college costs?

Probes:

- How did the topic come up?
- Did you raise it or did your child raise it?
- When did you have this discussion—what year was the child in high school?
- Was this a hard topic to talk about or not?

20. Did you talk about how much the family was able to pay?

20a. Did the topic of sharing college costs come up?

20b. What did you decide about sharing costs?

[Probe on if child working FT or PT to help with costs.]

21. Did you help your child complete federal financial aid forms? [Show them a form.] What did you do?

21a. What did you think about the forms?

21b. On a scale of 1 to 10, with 1 being easy and 10 being most difficult, how easy or hard would you say it was to complete the form?

21c. Did you have any trouble understanding the instructions? The questions?

21c. Did your child complete the form online or use a hard copy?

22. Do you think the form could be improved? How?

Concluding/Summary Questions [ask one, depending on time]

23. Are there any other comments or suggestions you would like to share about the college search process?

Protocol for High School Guidance Counselors

Introductions and Warm-Up Questions

First, let's introduce ourselves. Please tell me:

How long you've been a counselor? How many students are enrolled in your school? How many guidance counselors work in your high school? What's the one thing you like most about your work?

Opening Questions

1. What is the first thing that comes to mind when you think about your role as a guidance counselor? What activities consume most of your time?
2. Based on your experience, when are your students most often introduced to the idea of going to college? By whom? [Probes: you, a teacher, parent, relative, friend]
3. What is the biggest barrier to your students going to college?
[Probe on information, financial aid, preparation, culture]
4. What is the most common concern students have about going to college?

Key Questions

5. Generally, what do you do to help your students with the college search and selection process?

Probes: Help them generally search for colleges? Broaden or narrow their search? Help them with admissions/ application process, financial aid/scholarship information?

6. What things in particular do each one of you do to help students with the college search process?
7. What specific kind of information do your students ask about in conducting their college search?

Probe on: academics (major, academic rigor); cost (e.g., financial aid and deadlines, completing the FAFSA, scholarship information), location (close to home in-state):admissions process (application deadlines, essays) race/ethnicity of students, faculty, and staff size of campus/classes, race/ethnicity of students, faculty, and staff, social (campus life, fraternities/sororities, extracurricular activities), graduation rates, physical plant

8. What would you say is the kind of information your students most often ask about?

9. Are there any other kinds of information about colleges that your students should pay more attention to? What information should parents pay more attention to?
10. Is there any information about colleges that you [or your students] were looking for but could not find? What was it?
11. What role, if any, do parents play in helping your students with their college search? What about other adults, relatives, siblings?

Final Questions

12. When students decide which colleges they will apply to, how do they narrow down their search? What kind of information is used to help them make their decisions?
13. What college search/selection resources are available in your school?
14. What sources do you trust the most? What makes you say you trust these the most?
Probe on: COOL College Board site, Education Trust YES, Peterson's, U.S. News and World Report YES, College Net
15. What resources do you think students use most often when searching for colleges? Do you know which ones they trust the most? Do you know why they trust them?

Concluding Question

16. Please complete this statement. The one thing that would make the college search and selection process easier for my students is _____

Appendix D: Focus Group Methodology

This section describes the procedures used to recruit participants and collect and analyze the focus group responses. The limitations of the use of focus groups are noted.

The focus group participants shared valuable perspectives that either support or provide insight into differences between the literature on underserved students, which is just emerging, and the experiences of participants. The participants also helped shed light on some issues that are ripe for further quantitative study. However, we caution the reader about the limitations of focus group findings given the potential for self-selection bias, the small number of participants (less than 10 per specialized group and 90 total), and the fact that not every participant offered a response to every question. Therefore, while these findings are enlightening, they cannot be generalized.

Each of the focus groups, which lasted about 2 hours, was held in a standard focus group facility. We organized two teams of Westat research staff (i.e., two moderators and two research analysts) to conduct the 11 groups and take notes, which allowed us to conduct 2 groups simultaneously. The Westat research analysts took detailed notes on the focus group discussion and prepared a 5- to 7-page document (a topline report) to capture the responses to the key research questions. The recruitment agency also audiorecorded each session, which we used as a backup to check our notes for accuracy and to glean participant quotes.

Approximately 4–6 days after each group was conducted, the Westat research analyst prepared the topline for review by the moderator. The research analyst used the audiotapes or audio CDs to clarify, add, or correct any questions or discrepancies noted by the moderator. After the last topline report was completed and reviewed, one research analyst compiled all the key questions (organized by themes) into a single document and used the topline reports to organize the responses from all the groups under the appropriate question/theme.

The following approach was used to prepare the analysis of the focus group data.

1. The team met weekly to compare and contrast focus group findings and identify key themes.
2. The lead moderator read through all the notes several times to obtain a general sense of the information and reflect on its meaning, and wrote notes in the margin to stimulate thinking about this information. What ideas were participants expressing? What was the tone behind the ideas?
3. The lead moderator, with assistance from the research analyst, performed some general coding of the responses to identify the substantive issues and how participants responded to them and to note the frequency with which participants identified or mentioned a response or issue.
4. The lead moderator used the literature review as a framework for integrating the information into the report, drawing frequently upon the information and quotes included in the single document that contained all the major responses from all participants arranged by question/issue. We also drew on the demographic and other characteristics of the participants to help interpret information.

5. Several members of the team reviewed the entire draft report and identified and modified any information that was not accurately represented.
6. The lead moderator reread the report and worked with the team to review the draft and brainstorm issues to include in the last section of the report, “Where Do We Go From Here?”

Appendix E

Selective List and Brief Descriptions of College Search/Information Websites Revised October 25, 2007

The research literature on sources used to conduct college searches yielded no articles or studies on postsecondary education consumer websites. However, Rocco Russo, a 2005 AIR-NCES Senior Fellow, prepared a comparative assessment of the COOL website and 27 competitor sites and conducted six focus groups with high school students. We have included his descriptions of the major websites he located in conducting his research. Additional sites mentioned in focus groups with students, parents, and guidance counselors, conducted by Westat in 2006 and 2007, are identified with an asterisk (*).

We have divided these websites into three separate categories: federal government websites, websites based on postsecondary education guidebooks, and other websites. Please note the inclusion of a particular website in this chart is not an endorsement of that site.

Federal Government Websites

URL/Site	Website Description	Number of Institutions Referenced
<p>www.fafsa.ed.gov (*) [Federal Student Aid]</p>	<p>Provides information for completing the FAFSA form, making corrections, submitting the form, getting reimbursed.</p> <p>Also has a college search tool feature (enter criteria, etc.).</p>	<p>No ability to search for information about specific colleges and universities.</p>
<p>http://www.fafsa4caster.ed.gov/(*)</p>	<p>The fafsa4caster is a tool designed to get students "to determine their need and eligibility for financial assistance." Used by the U.S. Department of Education to "promote early awareness."</p> <p>Purpose of the site: (1) provide general information about federal student aid; (2) foster early awareness and create familiarity with the financial aid application process and form; (3) serve as an early analysis tool informing college affordability; and (4) reduce the time required to submit the "official" financial aid application process in the student's senior year and beyond.</p> <p>Users can access an online form that initially asks for Social Security number, first and last name, date of birth, and a password. Some of this information then automatically transfers to FAFSA on the Web, the official financial aid form. Although it might reduce the burden when completing the real form, fafsa4caster does not ask all the questions the FAFSA form does.</p>	<p>No ability to search for information about specific colleges and universities.</p>

Federal Government Websites—continued

URL/Site	Website Description	Number of Institutions Referenced
<p>http://nces.ed.gov/collegenavigator/</p> <p>[College Navigator-U.S. Department of Education, National Center for Education Statistics. This site a redesign (in September 2007) of the former NCES college search engine, College Opportunities On-line (COOL).]</p>	<p>Provides users with a college search engine allowing them to search and compare post-secondary education options. Users can conduct a specific search by entering the name of an institution, or they can conduct a search based on criteria such as: location (zip code, region, or state), program type, academic major, degree, and institution type, including religious affiliation or special mission (e.g., HBCU or tribal college). Other features of this website include the ability for users to create a list of schools, view and print a side-by-side comparison of up to four institutions, export search results into a spreadsheet, create a list of favorites, and pinpoint school locations on an interactive map. Other new resources include preparing for your education (e.g., information about assessing interests and career goals, financial literacy, student planner, planner timeline), and career options (links to the <i>Occupational Outlook Handbook</i>). There are also direct links to individual institutions.</p> <p>Additionally, the site provides direct links to federal financial aid websites. The Federal Student Aid website provides information for college preparation. The link to the Free Application for Federal Student Aid FAFSA) provides users with the ability to complete the financial aid application online (http://www.fafsa.ed.gov/.)</p> <p>Institutional profile data are based on data acquired annually via the NCES Integrated Postsecondary Education System (IPEDS), and Campus Safety and Equity in Athletics annual surveys from the Office of Postsecondary Education.</p>	<p>Users can review and compare approximately 7,000 Title IV (institutions receiving federal financial aid) postsecondary institutions in the United States and its territories, the largest database of postsecondary institutions available on any of the college search websites.</p>

Websites Based on Postsecondary Education Guidebooks

URL/Site	Website Description	Number of Institutions Referenced
<p>www.CollegeBoard.com [The College Board]</p>	<p>Developed by the creators of the SAT college admission test, the primary focus of this website is to assist prospective students learn about, register, and prepare for the SAT.</p> <p>Users are provided accounts that allow them to maintain relevant SAT information that is shared with institutions via their application process.</p> <p>The website provides a college search engine, entitled College MatchMaker, that allows users to identify and research colleges and universities based on specified characteristics (i.e., 2-year vs. 4-year, public vs. private, and single sex vs. coed institutions) linked to their specifications. The site also provides students with information on (1) preparing for the college admissions exams; (2) planning for college during the junior and senior high school years; (3) selecting and applying to college; and (4) paying for college.</p>	<p>Profiles 3,600 institutions in the College Board's databases.</p>

Websites Based on Postsecondary Education Guidebooks—Continued

URL/Site	Website Description	Number of Institutions Referenced
www.myroad.collegeboard.com (*)	Developed by the creators of Collegeboard.com, this site provides prospective college students with information to help with college and career planning. Students can obtain information on majors or can research specific careers. They can also take a personality assessment designed to help them learn more about themselves and their interests. Based on these results, students receive suggestions on majors and careers that match their personality type and interests. Students can also perform a college search—either by specific names or based on specified institutional characteristics.	The site does not indicate how many colleges are included in the database.
www.Petersons.com [Peterson's]	Users can identify a list of colleges that meet their defined criteria based on their expressed interests and preferences in five categories: basic school characteristics, academic interests, student body preferences, campus life preferences, and academic talent (i.e., selectivity and GPA).	Provides profiles of over 4,000 institutions.

Websites Based on Postsecondary Education Guidebooks—Continued

URL/Site	Website Description	Number of Institutions Referenced
<p>www.Review.com [The Princeton Review]</p>	<p>Known for its high-stakes test preparation products (e.g., SAT, ACT, GRE), the Princeton Review based the college search engine for this website on a lengthy student questionnaire. Users are asked to profile their background using the “Counselor-O-Matic” questionnaire that encompasses eight screens of items covering topics related to the students’ academic background, high school life, individual and family background characteristics, as well as interests and preferences about majors and degrees, location and size, student body features, costs and aid, and activities. Based on users’ responses, the site presents a list of college profiles.</p> <p>This site also is known for its trendy ranking of colleges. Users can review ranked lists of colleges and universities on topics such as America’s Best Value Colleges, Colleges with a Conscience, The Best 361 Schools, Top 25 Most Connected Campuses, TV, Film and Digital Media Programs, and Top Entrepreneurial Colleges.</p>	<p>Does not list how many colleges are included in its database.</p>

Websites Based on Postsecondary Education Guidebooks—Continued

URL/Site	Website Description	Number of Institutions Referenced
<p>www.USNews.com [U.S. News and World Reports]</p>	<p>Best know for its controversial college ranking system, U. S. News presents a variety of ranked college and university lists on this website. These lists include Top National Universities, Top Master’s Universities (by region), Top Business Programs, Top Liberal Arts Colleges, Top Comprehensive Colleges (by region), and Top Engineering Programs (by doctoral universities and nondoctoral schools).</p> <p>In addition to reviewing college rankings, users are able to generate an individualized list of colleges by responding to interests or preferences listed within the following categories: location, campus information, academics, majors, financial aid and cost, and sports and extracurricular activities.</p>	<p>Ranks and reviews over 1,900 schools on their America's Best Colleges List and over 1,200 schools on their America's Best Graduate Schools list.</p>

Other Websites

URL/Site	Website Description	Number of Institutions Referenced
<p>www.aessuccess.org [American Education Services]</p> <p>American Education Services is a large financial aid organization that serves to provide affordable access to students and families seeking postsecondary education. This organization is a division of the Pennsylvania Higher Education Assistance Agency. [http://www.aessuccess.org/about/index.shtml]</p>	<p>Contains sections on planning for college, financial aid, and managing loans. Included is a college calendar listing testing dates and other key dates. There is also a scholarship search and a feature that allows the user to compare loan programs. Users can also search for graduate schools, distance learning schools, Caribbean/Latin American schools, and private secondary schools.</p> <p>The undergraduate listing contains links to nursing schools, Historically Black Colleges and Universities (HBCUs), career colleges, vocational and technical schools, etc. The site also provides links to www.educationplanner.com, which is similar to collegeanswer.com (described below).</p>	<p>Provides information on 4,000 accredited undergraduate 2- and 4-year colleges and universities in the U.S. and Canada.</p>
<p>www.AnyCollege.com (*)</p>	<p>This traditional college search engine website is available to prospective college students actively involved in the college search process. Users can conduct searches by program, state, college type, sport, and/or college name.</p>	<p>The site provides information for over 5,500 accredited colleges and universities.</p>
<p>www.careersandcolleges.com [Copyright 2007/Alloy Education]</p>	<p>This planning-only website requires users to register. It contains sections on finding a loan, exploring colleges, searching for scholarships, and preparing for tests. As one of the newer sites, this site has blogs, podcasts, and articles about specific institutions and topics relevant to students, parents, and high school counselors.</p>	<p>No ability to search for information about individual colleges and universities.</p>

Other Websites—Continued

URL/Site	Website Description	Number of Institutions Referenced
<p>www.collegeanswer.com</p>	<p>This Sallie Mae scholarship site contains different audience sections for students, parents, and guidance counselors.</p> <p>The student tabs are divided into six categories: preparing for, selecting, applying to, paying for, deciding on, and financing postsecondary education. The site also contains information on skills/interests/personality tests, researching occupations, taking exams, etc., and includes a tool to search for a postsecondary institution by state, name, and characteristics.</p> <p>Additional features include a college application tool, free scholarship search, online award analyzer to compare school offers, and an online loan application.</p>	<p>The underlying database contains “nearly 4,000” colleges and universities; Peterson’s is the source of information about these institutions.</p>
<p>www.CollegeNet.com [College Net]</p> <p>CollegeNET, Inc., based in Portland, Oregon, provides postsecondary institutions with cost-effective internet and technological support (i.e., the college admissions process and alumni development). This organization also aims to improve access to and affordability of higher education opportunities. [http://corp.collegenet.com/about_collegenet/]</p>	<p>This site is designed to provide potential postsecondary students with a quick custom search that matches students’ stated interests and personality. Users are provided general descriptions on the college/university as well as a direct link to the school’s website.</p> <p>The resulting list of schools provides application links that students can use to prepare and submit admission applications.</p>	<p>Over 1,500 customized Internet admissions applications built for college and university programs are available via this website.</p>

Other Websites—Continued

URL/Site	Website Description	Number of Institutions Referenced
www.Collegeresults.org (*)	Users can conduct searches of specific institutions or, based on selected school characteristics (i.e., graduation, and student retention and transfer rates), they can be matched to specific institutions that meet their criteria.	The data are based on NCES' Graduation Rate Survey.
www.CollegeView.com	A website with a traditional college search engine that provides a "quick" search by region, state, major, or school type; a "name" search; and an "advanced" search based on student interests and preferences logged across 12 response categories.	The site does not list how many colleges are included in the database.
www.fastweb.com	The primary focus of this site is to provide information on scholarships (local, national, and by college). Other sections of the site contain information about colleges, jobs, and internships.	The site does not indicate how many colleges are included in the database.
www.GoCollege.com	This conventional web-based college search site is based on a defined student profile that may include standardized test scores (e.g., SAT, ACT), tuition requirements, desired major, etc. The search produces a list of colleges that match students' profile information/ criteria.	The site does not list a college database.

Other Websites—Continued

URL/Site	Website Description	Number of Institutions Referenced
<p>http://www.nacacnet.org/MemberPortal (*) [National Association of College Admissions Counselors website]</p>	<p>This professional information site for guidance counselors contains resources for students and parents such as national college fairs. Lists of publications are also referenced. Information specific to students: A Prep for College Calendar, a list of Internet websites and resources, and articles about scholarship scams.</p>	<p>There is no ability to search for information about specific colleges and universities.</p>
<p>http://www.postsecondary.cps.k12.il.us/Programs/AcademicPrepLeadership/ChoicesPlanner.html (*) [Chicago Public Schools, Department of Postsecondary Education]</p>	<p>This site provides a link to Choices Planner, a web-based career and education planning software that helps students choose careers and colleges. Specific tools include planning for college (e.g., assessing skills, taking tests) a counselor’s corner, a calendar of major events/dates.</p>	<p>There is no ability to search for information about specific colleges and universities.</p>
<p>www.supercollege.com</p>	<p>The site is specifically designed to meet the needs of traditional-aged and non-traditional-aged students. Prepared by a team of two people, the site offers information on and links to scholarships, tuition, essay editing, recommended books, and relevant workshops. A high school section links to the NCES College Navigator website. Resources are also available for parents and high school counselors.</p>	<p>There is no ability to search for information about specific colleges and universities.</p>

Other Websites—Continued

URL/Site	Website Description	Number of Institutions Referenced
www.Xap.com [Xap Corporation]	A traditional college search website that also provides online application services to students and institutions. Users generate an individualized list of colleges by responding to interests or preferences. Xap Corporation operates 36 Mentor Systems that cover approximately 80 percent of the U. S. college enrollment. Mentor Systems provide unique websites that allow students to select a college, apply for admission and financial aid, explore career options, and maintain communication with their campuses of interest. The Systems are organized around cohorts of postsecondary institutions within a state (or by cohort themes such as Historically Black Colleges and Universities (i.e., www.HBCUMentor.org) and Christian colleges (i.e., www.ChristianCollegeMentor.org).	Offers users the option of completing and transmitting an admission application online to over 700 colleges and universities.