

# **First-Generation College Students: A Literature Review**

By  
Carmen Tym  
Robin McMillion  
Sandra Barone  
Jeff Webster

November 2004

Research and Analytical Services



## Table of Contents

<b>Access Issues</b> .....	<b>1</b>
First-generation high school graduates .....	1
Academic preparation for college .....	1
Understanding the admissions and financial aid application process .....	3
Understanding the college experience .....	4
Educational expectations and encouragement.....	5
<b>Characteristics of First-generation Students</b> .....	<b>6</b>
Demographic characteristics .....	6
Enrollment characteristics .....	7
<b>Retention Issues</b> .....	<b>9</b>
Drop-out characteristics .....	9
Integration into college experience .....	11
Full-time employment duties.....	12
Employment and graduate school rates .....	13
<b>Pre-college Intervention Efforts</b> .....	<b>13</b>
Motivating factors .....	13
Access and enrichment .....	14
Upward Bound .....	15
Key components of successful academic programs.....	16
<b>College Intervention Efforts</b> .....	<b>17</b>
Retention efforts .....	17
Learning communities and structured freshman year programs.....	18
Career exploration programs.....	19
<b>Bibliography</b> .....	<b>20</b>

# First-Generation College Students: A Literature Review

November 12, 2004

Research indicates that students whose parents did not attend college are more likely than their non first-generation counterparts to be less academically prepared for college, to have less knowledge of how to apply for college and for financial assistance, and to have more difficulty in acclimating themselves to college once they enroll. They are also more at risk for not completing a degree because they are more likely to delay enrollment after high school, to enroll in postsecondary education part-time, and to work full-time while enrolled. Targeted intervention efforts that reach out to first-generation students both before and during college can help mitigate the differences between first-generation and non first-generation students and can help colleges reach their goal of recruiting and retaining all students.

## Access Issues

### *First-generation high school graduates*

Twenty-seven percent of 1992 high school graduates are first-generation students, i.e. students from families in which neither parent had attended college (Choy, 2001).

---

The likelihood of enrolling in postsecondary education is strongly related to parents' education even when other factors are taken into account: among 1992 high school graduates whose parents had not gone to college, 59 percent had enrolled in some form of higher education by 1994. This rate increased to 75 percent among those whose parents had some college experience, and 93 percent among those who had at least one parent with a bachelor's degree (Choy, 2001).

### *Academic preparation for college*

Academic preparation for college varies by parents' education: 49 percent of 1992 high school graduates whose parents never attended college were only marginally qualified or were not qualified to attend college when they finished high school, compared to 33 percent of students whose parents had some college education and 15 percent of those who had at least one parent with a bachelor's degree (Choy, 2001).

---

High school math coursetaking is associated with eventual enrollment in a 4-year institution: 76 percent of 1992 high school graduates who took advanced math in high school had enrolled in a 4-year institution by 1994, compared to 44 percent of those who only completed Algebra II, and 16 percent of those who only completed Algebra I and Geometry (Choy, 2001).

---

High school math coursetaking is also related to parents' education: Even for 1992 high school graduates who had achieved the highest level of math proficiency tested in 8<sup>th</sup> grade, those whose parents had not attended college were less likely than those whose parents had a bachelor's degree to take Algebra I in 8<sup>th</sup> grade (34 vs. 55 percent), and were also less likely to complete any advanced math in high school (63 vs. 83 percent). However, if they took Algebra I in 8<sup>th</sup> grade, the percent taking advanced math in high school rose to 83 percent, narrowing the gap with students whose parent had a bachelor's degree (Choy, 2001).

---

Among 1992 high school graduates who took all the necessary steps leading to enrollment in a 4-year institution—i.e. preparing academically, taking the SAT or ACT, applying to a 4-year school, and being accepted—there was no measurable difference by parental education in whether they actually attended (Choy, 2001).

---

First-generation students are likely to enter college with less academic preparation, and to have limited access to information about the college experience, either first-hand or from relatives (Thayer, 2000).

---

First-generation students are often placed in vocational, technical, and/or remedial programs which impede their progress toward transferring to a four-year program, and receive poor counseling (Striplin, 1999).

---

Academic preparation of Hispanics is lacking: on average, Hispanic students score lower on standardized college-admission tests, and require more remedial English and mathematics compared to white students (Schmidt, 2003).

---

A high school curriculum of high academic intensity (as measured by the number of non-remedial courses taken in the core subjects of English, math, science, and social studies) and high quality (as measured by the number of Advanced Placement courses completed and the highest level of math achieved) has greater impact on bachelor's degree completion than any other pre-college indicator of academic preparation, including the student's high school test scores or grade point average. This finding holds true regardless of socioeconomic status or race (Adelman, 1999).

### *Understanding the admissions and financial aid application process*

Students whose parents had not attended college received less help from their parents in applying to college, and were not more likely to receive help from their schools (Choy, 2001).

---

Among 1992 high school graduates who took all the necessary steps leading to enrollment in a 4-year institution—i.e. preparing academically, taking the SAT or ACT, applying to a 4-year school, and being accepted—there was no measurable difference by parental education in whether they actually attended (Choy, 2001).

---

First-generation students are likely to enter college with less academic preparation, and to have limited access to information about the college experience, either first-hand or from relatives (Thayer, 2000).

---

Underserved students have less access to the Internet, an important tool for exploring college opportunities (A Shared Agenda, 2004).

---

Low-income, African-American, and Latino families are less informed about financial aid: they tend to overestimate the cost of tuition and underestimate available aid (A Shared Agenda, 2004).

---

Low-income, minority, and first-generation students are especially likely to lack specific types of “college knowledge.” They often do not understand the steps necessary to prepare for higher education which include knowing about how to

finance a college education, to complete basic admissions procedures, and to make connections between career goals and educational requirements (Vargas, 2004).

---

A survey of college-bound students (Art & Science Group Inc., 2000) reported that the Internet ranked second only to guidance counselors in their decisions about where to apply to college (Vargas, 2004).

### *Understanding the college experience*

First-generation students are likely to lack knowledge of time management, college finances and budget management, and the bureaucratic operations of higher education (Thayer, 2000).

---

Students from a low-income and first-generation background face obstacles that include: lack of knowledge of the campus environment, its academic expectations, and bureaucratic operations; lack of adequate academic preparation, and lack of family support. First-generation students may encounter a cultural conflict between home and college community (Thayer, 2000).

---

A dean of a community college observes that a large percentage of first-generation students are intimidated by the educational system, and do not understand when it can be flexible and when it cannot (Padron, 1992; in Hsiao, 1992).

---

“It is absolutely the case that they [Hispanic students] have parental support, but they don’t have anybody in the family who really knows the ropes,” says Tomas A. Arciniega, president of California State University at Bakersfield, which has an enrollment of about 36 percent Hispanic (Schmidt, 2003).

---

Low-income, minority, and first-generation students are especially likely to lack specific types of “college knowledge.” They often do not understand the steps necessary to prepare for higher education which include knowing about how to finance a college education, to complete basic admissions procedures, and to make connections between career goals and educational requirements (Vargas, 2004).

## *Educational expectations and encouragement*

Educational expectations vary by parents' education as early as 8<sup>th</sup> grade: Only 55 percent of 1992 high school graduates whose parents had not attended college aspired in 8<sup>th</sup> grade to obtain a bachelor's degree, compared to 71 percent and 91 percent, respectively, of 8<sup>th</sup> graders whose parents had attended college or who had a bachelor's degree. Similarly, the likelihood of these three groups taking the SAT or ACT in high school was 25 percent, 42 percent, and 73 percent, respectively (Choy, 2001).

---

First-generation students are likely to perceive less support from their families for attending college (Thayer, 2000).

---

Families of first-generation students sometimes discourage them from going to college and this can lead to alienation from family support. First-generation students are also susceptible to doubts about their academic and motivational abilities; they may think they are not college material. Overcoming these personal challenges is crucial to a successful transfer to a four-year college (Striplin, 1999).

---

First-generation students often face unique challenges in their quest for a degree such as conflicting obligations, false expectations, and lack of preparation or support (Hsiao, 1992).

---

While going to college may be seen as a rite of passage for any student, it marks a significant separation from the past for those who are the first in their families to do so. Parents, siblings, and friends who have no experience of college or its rewards may be non-supportive. First-generation students may not have or be able to create a designated place or time to study at home, and they may be criticized for devoting time to school rather than family responsibilities (Hsiao, 1992).

---

Family surveys conducted by the Education Department show that more than 9 out of 10 Hispanic parents expect their children to attend college – a figure in line with results for both black and white parents. But Hispanic children are much less likely than white children to have a parent that attended college. More than two out of five Hispanic freshmen at four-year colleges are the first in their family to attend college, compared with about one out of five white freshmen (Schmidt, 2003).

---

“It is absolutely the case that they [Hispanic students] have parental support, but they don’t have anybody in the family who really knows the ropes,” says Tomas A. Arciniega, president of California State University at Bakersfield, which has an enrollment of about 36 percent Hispanic (Schmidt, 2003).

---

Family involvement in the education of underserved students is restricted by limited resources, time, confidence, and language skills (A Shared Agenda, 2004).

---

Students need to know what educational pathways will lead to their desired goals and how current academic performance affects future options. Even though low-income middle school students consistently express high academic and occupational aspirations, often they do not demonstrate realism of choice or planning. Students need to become aware of the relationship between their high school grades and curriculum, and their probabilities to attend college and attain their occupational aspirations in the future (Vargas, 2004).

## Characteristics of First-generation Students

### *Demographic characteristics*

First-generation beginning students differ from non-first-generation students in age and family background:

- They are older: 31 percent of first-generation students were 24 or older, compared to 13 percent and 5 percent, respectively, of students whose parents had some college experience or a bachelor’s degree;
- They have lower incomes: 42 percent of those who were dependent were from the lowest family income quartile (less than \$25,000/year), compared to 22 percent and 18 percent, respectively, of the other 2 groups (Choy, 2001).

---

Beginning students who are first-generation students are more likely than their non-first-generation counterparts to be: female (57 percent of first-generation students are female vs. 51 percent of non-first-generation students), 30 or more years old (13 percent vs. 3 percent), African-American or Hispanic (20 percent vs. 13 percent),



married (18 percent vs. 5 percent), or independent either with or without dependents of their own (37 percent vs. 13 percent) (Nunez and Cuccaro-Alamin, 1998).

---

In terms of enrollment, beginning students who are first-generation students are more likely than their non-first-generation counterparts to: attend part-time (30 percent vs. 13 percent), live off-campus or with family or relatives (84 percent vs. 60 percent), not be in a bachelor's degree program (88 percent vs. 43 percent), delay entering after high school graduation (46 percent vs. 19 percent), receive aid (51 percent vs. 42 percent), or work full-time while enrolled (33 percent vs. 24 percent) (Nunez and Cuccaro-Alamin, 1998).

---

Beginning postsecondary students who were first-generation were more likely than their non-first-generation counterparts to cite, in choosing an institution, cost-related reasons such as receiving financial aid (36 percent vs. 25 percent) and having a shorter time to finish (35 percent vs. 21 percent). They were also more likely to cite location-related reasons such as the ability to live at home (56 percent vs. 35 percent), the ability to go to school and work at the same time (53 percent vs. 36 percent), and the ability to get a job at school (21 percent vs. 13 percent) (Nunez and Cuccaro-Alamin, 1998).

---

While Hispanic freshmen report having major concerns about paying for their education, they tend not to take advantage of all the financial aid, particularly loans. Last year (2002) loans accounted for nearly 70 percent of all federal financial assistance available to college students. The Latino community, which is relatively poor, is leery of taking on debt and would rather get grants (Schmidt, 2003).

---

A disconnect between home and school cultures limits the effects of classroom learning as underserved students see few connections to their world (A Shared Agenda, 2004).

---

### *Enrollment characteristics*

Forty-seven percent of all beginning postsecondary students in 1995-1996 were first-generation students. The proportion declined as institution level increased—from 73 percent at less than 2-year institutions, to 53 percent at 2-year, and 34 percent at 4-year (Choy, 2001).

---

At 4-year public and private schools, 30 percent and 25 percent, respectively, of beginning students were first-generation vs. 44 percent and 53 percent who were students whose parents had a bachelor's degree. By contrast, at for-profit schools, 67 percent of beginning students were first-generation vs. only 12 percent who were students whose parents had a bachelor's degree (Nunez and Cuccaro-Alamin, 1998).

---

First-generation students tend to be more concentrated in two-year colleges, but are found at all levels of postsecondary education (Thayer, 2000).

---

First-generation beginning students are less likely than their non-first-generation counterparts to attend school full-time: 44 percent enrolled full-time, full-year, compared to 52 percent and 62 percent, respectively, of students whose parents had some college experience or a bachelor's degree (Choy, 2001).

---

In terms of enrollment, beginning students who are first-generation students are more likely than their non-first-generation counterparts to: attend part-time (30 percent vs. 13 percent), live off-campus or with family or relatives (84 percent vs. 60 percent), not be in a bachelor's degree program (88 percent vs. 43 percent), delay entering after high school graduation (46 percent vs. 19 percent), receive aid (51 percent vs. 42 percent), or work full-time while enrolled (33 percent vs. 24 percent) (Nunez and Cuccaro-Alamin, 1998).

---

Most first-generation students begin college at a community college. The student may transfer into a four-year college after earning the required number of credits for transfer. While some first-generation community college students experience smooth transitions to four-year institutions, others struggle during the acclimation process (Striplin, 1999).

---

From interviews Richardson and Skinner (1992) found that first-generation students who attended community colleges typically attended part-time and were more likely than their classmates to have significant work and family responsibilities (Hsiao, 1992).

---

About 25 percent of traditional-age Hispanic college students are enrolled part-time, compared with 15 percent of white students. Part-time college students of any race or ethnicity are more likely than full-time students to drop out (Schmidt, 2003).

---

Parental education is strongly related to a child's likelihood of enrolling in college immediately after high school. Sixty-five percent of students graduating from high school in 1992 whose parents had bachelor's degrees enrolled in four-year colleges, compared with only 21 percent of students whose parents had a high school diploma or less (A Shared Agenda, 2004).

## Retention Issues

### *Drop-out characteristics*

At 4-year institutions, first-generation beginning students are twice as likely as students whose parents had a bachelor's degree to leave before their second year (23 vs. 10 percent). Even taking into account other factors associated with not returning, such as delaying enrollment after high school or working full-time, and also taking into account financial aid, gender, race/ethnicity, etc., first-generation status was still a significant indicator of a student leaving before their second year (Choy, 2001).

---

For students with a certificate or associate's degree goal, by three years after entering postsecondary education, first-generation students were as likely as others to persist and to attain the degree. However, for students with a bachelor's degree goal, three years after enrolling in postsecondary education first-generation students were less likely to still be enrolled (52 percent) than were students whose parents had a bachelor's degree (67 percent). This persistence gap vanishes for first-generation students who took a rigorous high school curriculum, with "rigor" measured by the number of courses students had taken in academic subjects, the level and intensity of courses taken in math and science, and whether students had taken any Advanced Placement courses (Choy, 2001).

---

Almost half (45 percent) of first-generation students who began higher education in 1989-1990 had not obtained a degree or certificate and were no longer enrolled by 1994, compared with 29 percent of non-first-generation students (Nunez and Cuccaro-Alamin, 1998).

---

As parental education rose, so did the likelihood of attaining a degree or still being enrolled, from 55 percent for first-generation, to 65 percent for students whose parents had some college, to 76 percent for those whose parents had a bachelor's degree (Nunez and Cuccaro-Alamin, 1998).

---

Only 13 percent of all first-generation students had obtained a bachelor's degree by 1994 compared to a third (33 percent) of non-first-generation students. For students who began at 4-year institutions, the difference in whether or not a student had obtained a bachelor's degree was somewhat more pronounced at public schools (34 percent vs. 52 percent) than at private (55 percent vs. 69 percent). However, because persistence (i.e., retention) rates were similar, evidence suggests that first-generation students may simply be taking longer to finish at public schools than they are at private (Nunez and Cuccaro-Alamin, 1998).

---

Among those attending full-time and who began at 4-year schools, first-generation students were less likely than non-first-generation students to persist in school (Nunez and Cuccaro-Alamin, 1998).

---

Among those attending full-time and who began at 2-year schools, first-generation students had similar persistence and attainment rates as those of their non-first-generation counterparts (Nunez and Cuccaro-Alamin, 1998).

---

Of 1989-1990 beginning students who had a goal of obtaining a certificate, associate's degree or bachelor's degree, first-generation students were less likely than non-first-generation students to persist and attain a degree (57 percent vs. 73 percent). This difference held (62 percent vs. 69 percent) even when controlling for other variables such as age, type of institution, and enrollment status, indicating that first-generation status, independent of other background and enrollment factors with which it is associated, has an effect on the likelihood of persistence and attainment (Nunez and Cuccaro-Alamin, 1998).

---

Students from first-generation and low-income backgrounds are among the least likely to be retained and complete a degree. Institutional retention efforts must take

the needs of these students into account to achieve more equitable attainment rates (Thayer, 2000).

### *Integration into college experience*

First-generation beginning students are less likely than their non-first-generation counterparts to attend school full-time: 44 percent enrolled full-time, full-year, compared to 52 percent and 62 percent, respectively, of students whose parents had some college experience or a bachelor's degree (Choy, 2001).

---

In terms of enrollment, beginning students who are first-generation students are more likely than their non-first-generation counterparts to: attend part-time (30 percent vs. 13 percent), live off-campus or with family or relatives (84 percent vs. 60 percent), not be in a bachelor's degree program (88 percent vs. 43 percent), delay entering after high school graduation (46 percent vs. 19 percent), receive aid (51 percent vs. 42 percent), or work full-time while enrolled (33 percent vs. 24 percent) (Nunez and Cuccaro-Alamin, 1998).

---

Beginning postsecondary students who were first-generation were more likely than their non-first-generation counterparts to cite, in choosing an institution, cost-related reasons such as receiving financial aid (36 percent vs. 25 percent) and having a shorter time to finish (35 percent vs. 21 percent). They were also more likely to cite location-related reasons such as the ability to live at home (56 percent vs. 35 percent), the ability to go to school and work at the same time (53 percent vs. 36 percent), and the ability to get a job at school (21 percent vs. 13 percent) (Nunez and Cuccaro-Alamin, 1998).

---

Beginning postsecondary students who are first-generation are more likely than their non-first-generation counterparts to believe it is important to be well-off financially (61 percent vs. 49 percent), to give their own children a better opportunity (85 percent vs. 77 percent), and to live close to parents and relatives (21 percent vs. 14 percent) (Nunez and Cuccaro-Alamin, 1998).

---

Beginning postsecondary students who were first-generation were more likely than their non-first-generation counterparts to record low levels of academic integration (30 percent vs. 19 percent), as determined by students' responses to questions regarding how often they attend career-related events, meet with academic advisors,

or participate in study groups. Interestingly, these differences exist at public 2-year schools (40 percent vs. 29 percent) while being virtually nonexistent at public 4-year schools (16 percent vs. 15 percent) (Nunez and Cuccaro-Alamin, 1998).

---

First-generation students also tend to have lower levels of social integration than non-first-generation students (38 percent vs. 19 percent), meaning they are less likely to go places with friends from school or to participate in school clubs. Unlike academic integration, these differences exist at both public 2-year institutions (48 percent vs. 29 percent) and at public 4-year (22 percent vs. 12 percent) (Nunez and Cuccaro-Alamin, 1998).

---

First-generation students are likely to perceive less support from their families for attending college (Thayer, 2000).

---

From interviews Richardson and Skinner (1992) found that first-generation students who attended community colleges typically attended part-time and were more likely than their classmates to have significant work and family responsibilities (Hsiao, 1992).

---

First-generation minority students in one study expressed a need “to find places to study, meet friends, or seek support ... spaces that provided some measure of ‘comfortability’” on campus (Hsiao, 1992).

---

“The biggest challenge that these kids have to face is, how do they balance what they see as their responsibility to help out at home now that they are young adults and, at the same time, follow their dream of going on to college?” says Mr. Arciniega, president of California State University at Bakersfield (Schmidt, 2003).

### *Full-time employment duties*

In terms of enrollment, beginning students who are first-generation students are more likely than their non-first-generation counterparts to: attend part-time (30 percent vs. 13 percent), live off-campus or with family or relatives (84 percent vs. 60 percent), not be in a bachelor’s degree program (88 percent vs. 43 percent), delay entering after high school graduation (46 percent vs. 19 percent), receive aid (51 percent vs. 42

percent), or work full-time while enrolled (33 percent vs. 24 percent) (Nunez and Cuccaro-Alamin, 1998).

---

Beginning postsecondary students who were first-generation were more likely than their non-first-generation counterparts to cite, in choosing an institution, cost-related reasons such as receiving financial aid (36 percent vs. 25 percent) and having a shorter time to finish (35 percent vs. 21 percent). They were also more likely to cite location-related reasons such as the ability to live at home (56 percent vs. 35 percent), the ability to go to school and work at the same time (53 percent vs. 36 percent), and the ability to get a job at school (21 percent vs. 13 percent) (Nunez and Cuccaro-Alamin, 1998).

---

From interviews Richardson and Skinner (1992) found that first-generation students who attended community colleges typically attended part-time and were more likely than their classmates to have significant work and family responsibilities (Hsiao, 1992).

### *Employment and graduate school rates*

As of 1994, similar proportions of first-generation students who began postsecondary education in 1989-1990 and who attained a certificate, associate's degree, or bachelor's degree were employed as were non-first-generation students. In addition, no differences were found in average annual salaries among bachelor's degree recipients according to first-generation status (Nunez and Cuccaro-Alamin, 1998).

---

As of 1994, first-generation students who had obtained a bachelor's degree were less likely than non-first-generation degree recipients to be enrolled in graduate school (23 percent vs. 30 percent) (Nunez and Cuccaro-Alamin, 1998).

## **Pre-college Intervention Efforts**

### *Motivating factors*

Research has shown that, for first-generation students, the motivation to enroll in college is a deliberate attempt to improve their social, economic, and occupational standing (Ayala and Striplen, 2002).

---

Families of first-generation students sometimes discourage them from going to college and this can lead to alienation from family support. First-generation students are also susceptible to doubts about their academic and motivational abilities: they may think they are not college material. Overcoming these personal challenges is crucial to a successful transfer to a four-year college (Striplin, 1999).

---

Effective programs affirm and help students understand that academic success is not attained through individual achievement alone, but through an axis of support (Gullatt and Jan, 2003).

---

Exposure to college-level work on college campuses, as part of a college preparation program, gives disadvantaged students a vision of themselves undertaking and succeeding in postsecondary education (Gullatt and Jan, 2003).

---

Cohen and Brawer (1996) found that when asked “What forces within your own institution contribute to or facilitate transfer?” the largest number of respondents said counseling and advising services, and faculty advisors (Striplin, 1999).

### *Access and enrichment*

College access and enrichment programs, as examined by Gullatt and Jan, are defined as student-centered, that is, programs that target primarily individual students: their function is to supplement and extend a student’s weekday curricular and extracurricular experiences (Gullatt and Jan, 2003).

---

Services provided by pre-collegiate outreach programs aim to counter negative school or community influences such as lack of rigorous curriculum, poorly trained teachers, and lack of role models, by providing the missing elements that help students aspire to, prepare for, and obtain college enrollment. Programs attempt to provide students with the social capital necessary to achieve college enrollment, and generally provide a series of interventions that emphasize academic preparation as well as the development of attitudes and beliefs about college that will result in a positive outcome (Gullatt and Jan, 2003).

---



Three common types of pre-collegiate academic development programming are: *Informational Outreach* – primarily information dissemination and advising, with little or no academic intervention in the way of actual instruction; *Career-Based Outreach* – academic, motivational, and informational interventions designed around students’ career aspirations and intended to link those aspirations with college majors; and, *Academic Support* – instructional services designed to increase student performance in college preparation classes or to improve students’ opportunities to enroll in such classes (Gullatt and Jan, 2003).

---

Career Beginnings is a career-based outreach programs that has offices in Austin, Texas, and in Denver, Colorado. Career Beginnings targets high school juniors with average grades who are from economically and/or educationally disadvantaged families and works with them until they graduate from high school. Evaluation outcomes indicate that program participants started college “on schedule” more often and worked less while in college. However, first year college retention rates were similar for students in the control group and program participants (Gullatt and Jan, 2003).

### *Upward Bound*

Upward Bound is one of three programs known as TRIO; the other two programs are Talent Search and Student Support Services. Upward Bound is a federally funded program that prepares primarily high school students for post-secondary education through providing instruction in literature, composition, math, sciences, and study and problems-solving skills. Upward Bound is conducted mainly on college campuses. Talent Search focuses on college information and awareness for students in grades 6-12. Student Support Services provide college retention services (Gullatt and Jan, 2003).

---

Upward Bound works with small groups of students, operates with performance-based, measurable objectives, and focuses on eliminating the perception that financial aid is unavailable or inaccessible (Gullatt and Jan, 2003).

---

Upward Bound program targets students who have completed the 8<sup>th</sup> grade, whose family incomes are below 150 percent of the poverty line, and/or who are potentially the first in their families to go to college. Upward Bound provides academic support to students. Longitudinal survey data indicate participants were more likely to remain in school than non-participants (35 percent versus 28 percent) (Gullatt and Jan, 2003).

---

The Upward Bound program emerged as part of the Economic Opportunity Act of 1964. GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) is a federally funded program which began awarding grants to schools and college in 1999. With a shared focus on first-generation, low-income students, both programs reach large numbers of disadvantaged students nationwide (Gullatt and Jan, 2003).

---

GEAR UP is a partnership between low-performing, high poverty middle schools, universities, businesses, and community based agencies, which provides high school students with exposure to a pre-college curriculum. GEAR UP provides scholarships to participants as financial aid (Gullatt and Jan, 2003).

---

GEAR UP programs attempt to improve student performance within the environment of the school itself (Gullatt and Jan, 2003).

### *Key components of successful academic programs*

- Set high standards for program staff and students.
- Provide personalized attention to each student.
- Provide adult role models.
- Facilitate peer support.
- Integrate the program within K-12 schools.
- Provide strategically timed interventions.
- Make long term investments in students.
- Provide students with a bridge between school and society.
- Provide scholarship assistance.
- Design evaluations that attribute results to interventions.

## College Intervention Efforts

### *Retention efforts*

As a growing population in higher education, first-generation students represent a unique group with distinct goals, motivations, and constraints (Ayala and Striplen, 2002).

---

Research has shown that, for first-generation students, the motivation to enroll in college is a deliberate attempt to improve their social, economic, and occupational standing (Ayala and Striplen, 2002).

---

Studies have shown that the greatest proportion of students who leave are likely to do so within the first four semesters. Thus, retention strategies are key early in the student's experience (Thayer, 2000).

---

The experience of first-generation students varies depending on their income background and their ethnicity. Those from middle income backgrounds find adjustment to college less difficult than first-generation students from ethnic minority or low-income backgrounds (Thayer, 2000).

---

Strategies that work for first-generation and low-income students are likely to be successful for the general population as well. However, the reverse is not true (Thayer, 2000).

---

The greatest gains in retention rates will result from focusing not only on the selection process, but also the student-environment interaction after college entry (Thayer, 2000).

---

Some institutions adopt retention strategies because first-generation and low-income students may be among those at highest risk of dropping out, and it helps the institution show their commitment to racial and cultural diversity. The strategies that

are effective for increasing the persistence of first-generation and low-income students are also successful for the general campus population (Thayer, 2000).

---

Effective retention strategies will be multifaceted, and will assist students in developing a sense of social security accompanied by a sense of academic competence (Thayer, 2000).

---

Angie S. Runnels, president of St. Philip’s College, a public two-year institution in San Antonio, Texas, which has an enrollment that is about one-fifth black and one-half Hispanic, says, “We are particularly interested in students who are the first-generation in their families to experience college.” The college offers support services such as tutoring programs, instructional laboratories focused on reading, writing, and mathematics, and student counseling (Schmidt, 2003).

### *Learning communities and structured freshman year programs*

According to a “best practices’ study, a common practice of high-performing Student Support Services programs, which are part of TRIO, is a “structured freshman year” program. This study emphasizes the importance of organizing to promote positive academic experiences for students early in their freshman year (Thayer, 2000).

---

Some Student Support Services programs are implementing “learning community” type strategies. These learning communities help students form supportive peer groups that extend beyond the classroom (Thayer, 2000).

---

One such learning community concept is integrated course clusters. For example, a math course is linked with a study skills class and a tutorial that are team-taught, and all count for credit (Skagit Valley College, Washington). Another learning community has a summer program where students interact not only with their course instructors, but also with a peer mentor and an advisor (Drexel University, Pennsylvania). Students enter the fall with confidence, knowing how to “get things done” (Thayer, 2000).

## *Career exploration programs*

Exploring careers begins with not only learning about oneself, but also learning about one's family history. The students' relationship between learning and the world of work, their definitions of concepts such as higher education, career, and success, are discussed in class (Ayala and Striplen, 2002).

---

The career introduction model is an early intervention strategy intended to support first-generation freshmen enrolled in the Educational Opportunity Program (EOP) at California State University, Sacramento (CSUS). This interactive approach assists students in connecting their academic pathway to their career pathway (Ayala and Striplen, 2002).

---

For the career introduction model, a group of 10-12 students is gathered in the career center workshop room. The group is given a brief introduction and explanation of the activities they will be asked to perform. The group is then divided into four sub groups. Each student is given a worksheet, and the groups rotate through four stations. At station 1 students utilize the career resource library to locate an occupational title. Station 2 requires students to use computerized career guidance software to locate and print out a description of their choice. Station 3 familiarizes students with the student employment area, and how to use the job board database. At station 4 students are instructed to ask the receptionist for things like how to sign up for a workshop, the center's hours, and the website. Afterward, the groups reassemble for a debriefing of their experience (Ayala and Striplen, 2002).

---

The career introduction model is integrated with several courses that include classroom activities (Ayala and Striplen, 2002).

---

As society evolves, so does the concept and understanding of career. Apply to this the worldview and understanding of the new immigrant, the bilingual student born and raised in this country, and other many layered factors such as culture, generation, and gender difference, and one can glimpse the monumental task that faces the instructor and career counselor (Ayala and Striplen, 2002).

## Bibliography

- Adelman, Clifford. 1999. *Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*. (ERIC ED431363). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement. [www.eric.ed.gov](http://www.eric.ed.gov).
- A Shared Agenda: A Leadership Challenge to Improve College Access and Success*. 2004. Pathways to College Network: The Education Resource Institute (TERI). Boston, MA: Pathways to College Network Clearinghouse. [www.pathwaystocollege.com](http://www.pathwaystocollege.com)
- Ayala, Connie, and Al Striplen. 2002. *A Career introduction Model for First-Generation College Freshmen Students* (ERIC ED469996). Thriving in Challenging and Uncertain Times, ed. Garry R. Walz, Richard Knowdell, and Chris Kirkman, 57-62. Greensboro, NC: ERIC Clearinghouse on Counseling and Student Services. [www.eric.ed.gov](http://www.eric.ed.gov).
- Choy, Susan P. 2001. *Students Whose Parents Did Not Go To College: Postsecondary Access, Persistence, and Attainment* (NCES 2001-126). Washington, DC: U.S. Department of Education, National Center for Education Statistics. <http://nces.ed.gov/pubs2001/2001126.pdf>.
- Edmonson, Stacey, Alice Fisher, and Judy Christensen. 2003. *Project CONNECT: A University's Effort to Close the Gaps* (ERIC ED477438). Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, April 21-25, 2003)
- Gullatt, Yvette, and Wendy Jan. 2003. *How Do Pre-Collegiate Academic Outreach Programs Impact College-Going among Underrepresented Students?* Washington, DC: Pathways to College Network Clearinghouse.
- Hsiao, Karin Petersen. Nov. 1992. *First-Generation College Students* (ERIC ED351079) ERIC Digest, November. Office of Educational Research and Improvement. Los Angeles, CA: ERIC Clearinghouse Products (071). [www.eric.ed.gov](http://www.eric.ed.gov)
- Jones, Rhonda. 2003. *Pre-College Academic Programs and Interventions*. Washington, DC: Pathways to College Network Clearinghouse.
- Nunez, Anne-Marie, Stephanie Cuccaro-Alamin. 1998. *First Generation Students: Undergraduates Whose Parents Never Enrolled in Postsecondary Education*. Washington, DC: U.S. Department of Education, National Center for Education Statistics (NCES).
- Schmidt, Peter. 2003. *Academe's Hispanic Future: The nation's largest minority group faces big obstacles in higher education, and colleges struggle to find the right ways to help*. The Chronicle of Higher Education, v. 50, Issue 14 (28 November): A8. <http://chronicle.com>
- Striplin, Jenny J. 1999. *Facilitating Transfer for First-Generation Community College Students* (ERIC ED430627). ERIC Digest, June. [www.eric.ed.gov](http://www.eric.ed.gov).
- Thayer, Paul B. 2000. *Retention of Students from First Generation and Low Income Backgrounds* (ERIC ED446633). Opportunity Outlook (May), 2-8.
- Vargas, Joel H. 2004. *College Knowledge: Addressing Information Barriers to College*. Boston, MA: College Access Services: The Education Resources Institute (TERI). [www.teri.org](http://www.teri.org)
- Warburton, Edward C., Rosio Bugarin, and Anne-Marie Nunez. 2001. *Bridging the Gap: Academic Preparation and Postsecondary Success of First-Generation students*. Education Statistics Quarterly, 3 (fall): 73-77. [http://nces.ed.gov/programs/quarterly/vol\\_3/3/q4-2.asp](http://nces.ed.gov/programs/quarterly/vol_3/3/q4-2.asp)