

Pathways to a 4-year degree: The case of underrepresented students

Topics

- **What matters & when**
- **What we have learned from two cohorts**
- **Pathways to college for low-SES middle students**
- **Pathways to college for Latino 8th graders**

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What factors are the best predictors of persistence in college?

1. Middle school
2. Collegiate experiences
3. Family & community related
4. 1 and 3

What we have learned as to what matters most on the path to a four-year degree

Prepared by Alberto F. Cabrera & Helen Caffrey, December 12, 2001

STAGES	FACTORS/PREDICTORS	OUTCOMES	INTERVENTION STRATEGIES
<p>Predispositions: Grades: 7th-9th</p>	<p>Parental expectations, encouragement & support Parental Saving for College Parental involvement in school activities Socioeconomic Status Parental Collegiate Experiences Information About College Student Ability</p>	<p>Career/Occupational Aspirations Educational Aspirations Planning for college Enrollment in College-Bound Curriculum Reading, writing, math, critical thinking skills & competencies (preparation for college)</p>	<p>Career exploration & decision making workshops Academic tutorial session Visitations to postsecondary institutions Assessing academic potential and identifying gaps Curriculum planning Parental involvement Field trips to workplaces for different occupations High Teachers' expectations Parental workshops on college and ways to finance it</p>
<p>Search Grades: 10th-12th</p>	<p>Parental encouragement, support & involvement in school activities Educational & Occupational Aspirations Planning for college Socioeconomic Status Salience of Potential Institutions Preparation for college Student Ability</p>	<p>Listing of Tentative Institutions Narrowing List of Tentative Institutions Securing Information on Institutions Taking Pre-SAT & Pre-ACT</p>	<p>Consulting on postsecondary programs Collecting and disseminating information about postsecondary institutions Academic tutorial sessions Participation in "College Days" activities</p>
<p>Choice Grades: 11th-12th</p>	<p>Educational & occupational Aspirations Planning for college Socioeconomic Status Student Ability Parental Encouragement Perceived Institutional Attributes (quality/campus life/sports availability/distance) Perceived Ability to Pay (perceived resources/perceived costs) Preparation for college</p>	<p>Awareness of College Expenses & Financial Aid Awareness of Institutional Attributes & Admision Standards Attaining Scholastic Aptitudes, Attitudes & Competencies Support from Family & Friends Institutional Commitment Submission of Applications Pre-Registration Attendance Applications for Financial Aid</p>	<p>Assistance in filling out FAFSA Assistance in filling out college application forms and meeting requirements Collecting and disseminating information about sources of financial aid Tutorial sessions & summer programs to enhance student academic ability & exposure to college</p>
<p>College freshman year Junior year</p>	<p>Preparation for college Parental encouragement & support Collegiate aspirations Campus and classroom climate Collegiate experiences <ul style="list-style-type: none"> • Out-of-classroom • Quality & intensity of instruction • Counseling • Interactions with peers & instructors Engagement with the academic and social components of the institution Intensity & quality of curriculum Working on campus Effort spent in academic related activities College GPA Financial assistance</p>	<p>Gains in:</p> <ul style="list-style-type: none"> • Personal development • Problem solving • Critical thinking • Understanding science & technology • Appreciation for art • Career maturity • Occupational awareness • Professional & occupational competencies • Ability to work in teams • Tolerance & openness to diversity • Work ethic <p>Persistence to graduation Pursuit of graduate studies Incorporation into the labor force</p>	<p>Pre-entry assessment & placement of students according to needs Study & learning workshops Active learning & collaborative pedagogies in the classroom and out of the classroom Faculty mentorship programs Learning communities (cluster programs) Freshman year experiences (orientation & academic programs) Co-curricular activities Recognition of student enclaves & their inclusion in campus governance Counseling/advising/job placements/summer program/internships Career exploration activities Networking with alumni & potential employers Scholarships Financial aid planning & debt advising Work study programs Multicultural education Workshops & training on learning styles Use of validation strategies in the classroom and out of the classroom</p>

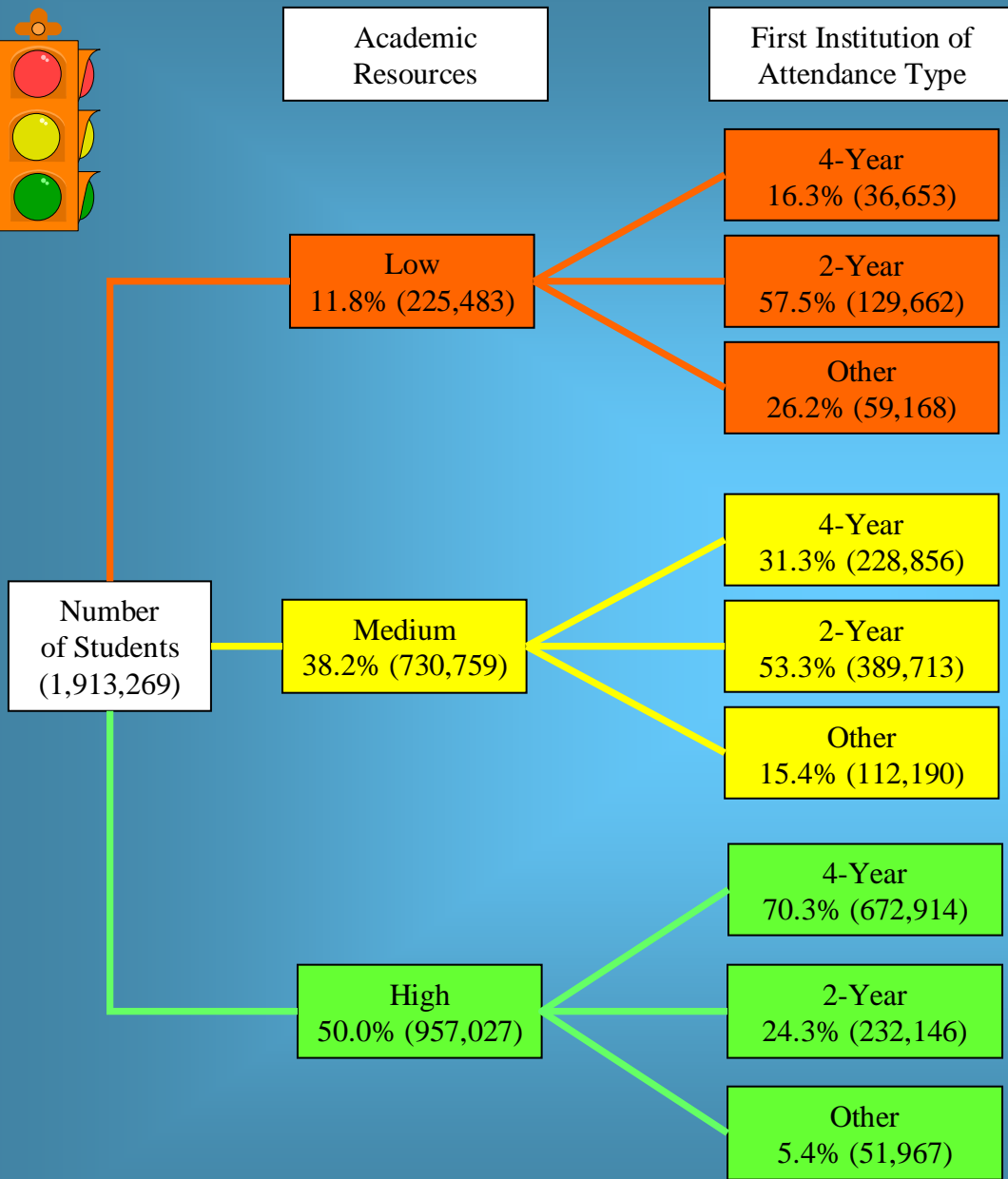
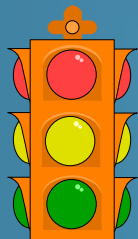
Pathways to Postsecondary Education

The tale of two cohorts:

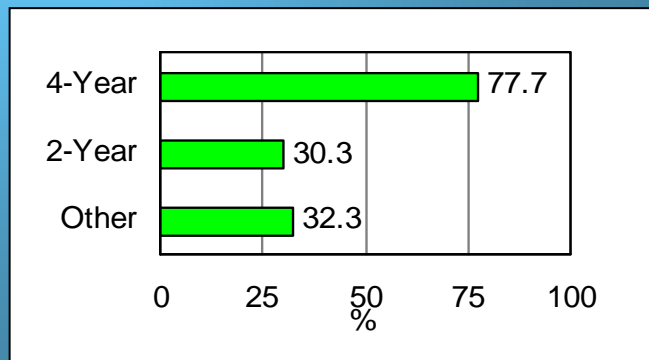
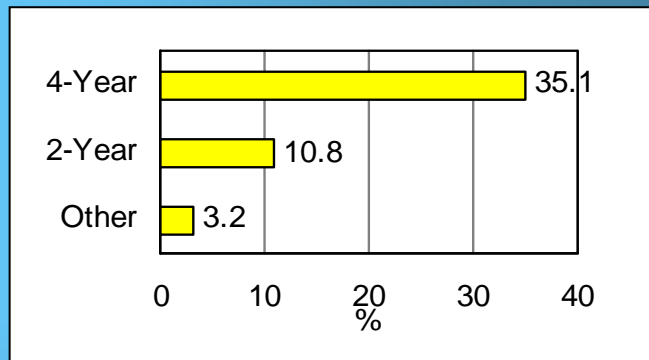
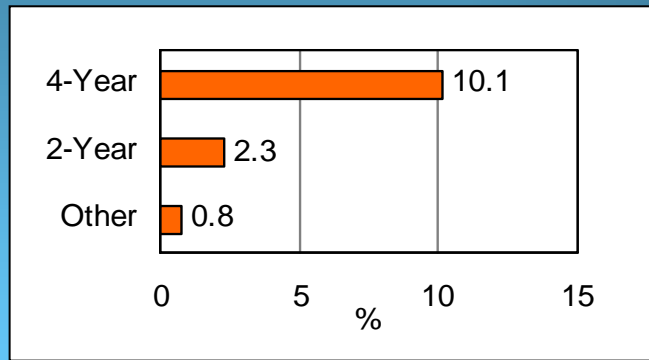
- 1. 1980 High school sophomore cohort*
- 2. 1988 8th grader cohort*

**What are the chances for
a high school
sophomore to
eventually secure a
bachelor's degree
within 10 years?**

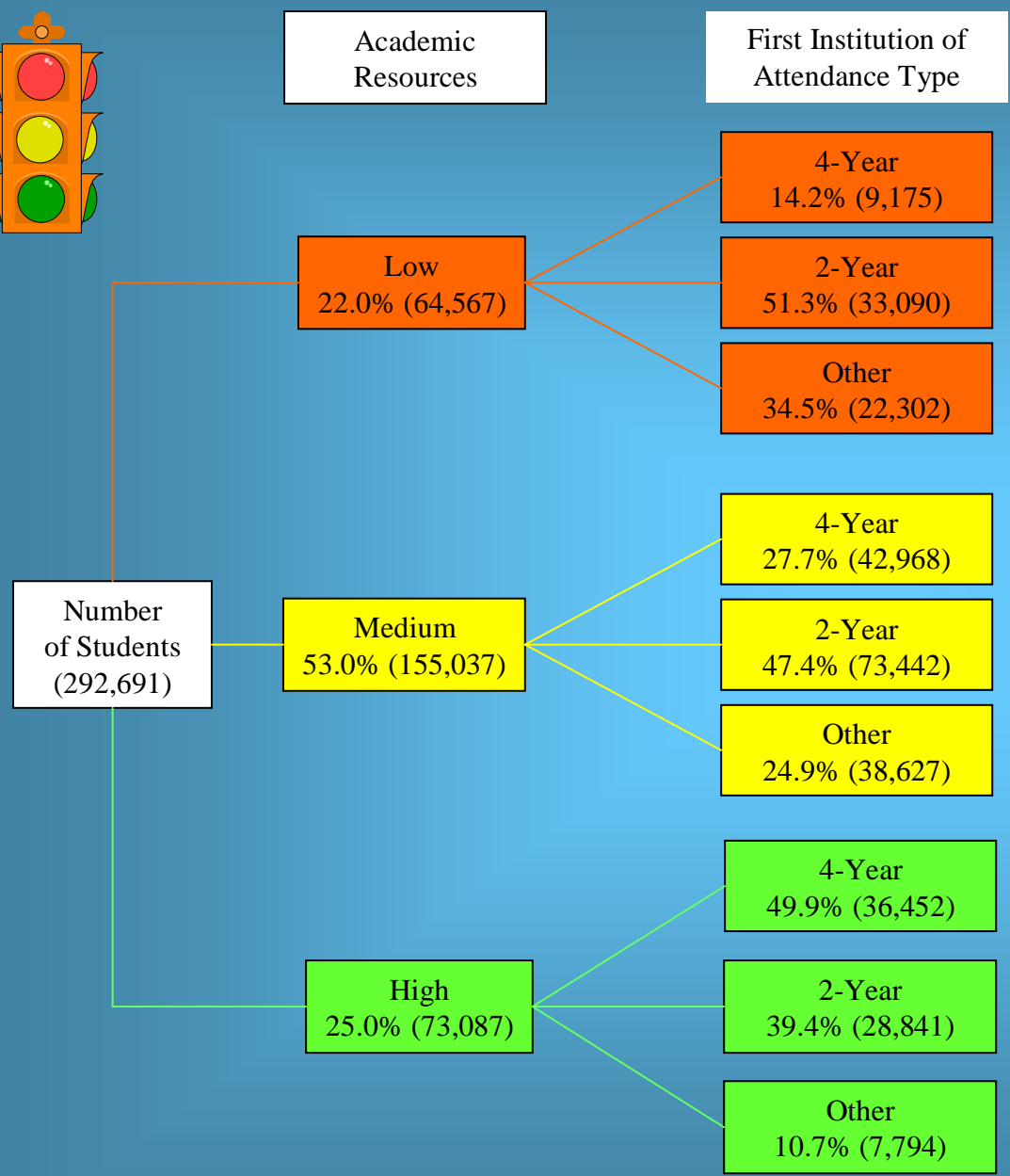
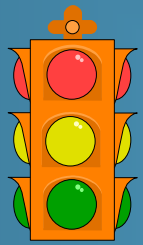
Degree attainment by academic resources and first institution type for all students



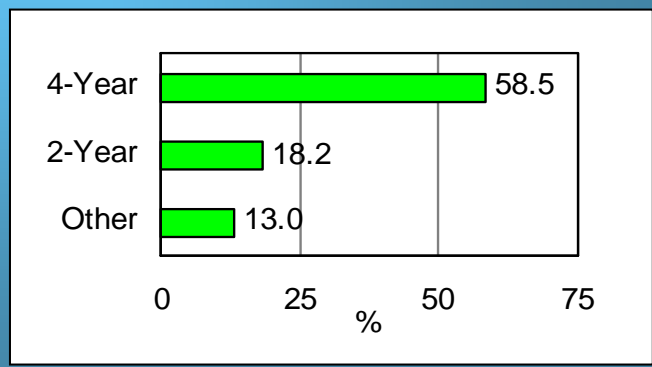
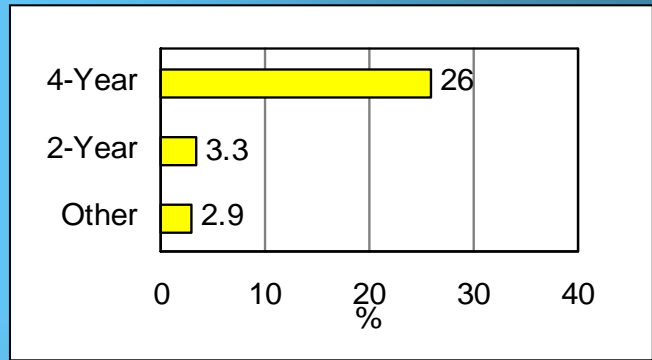
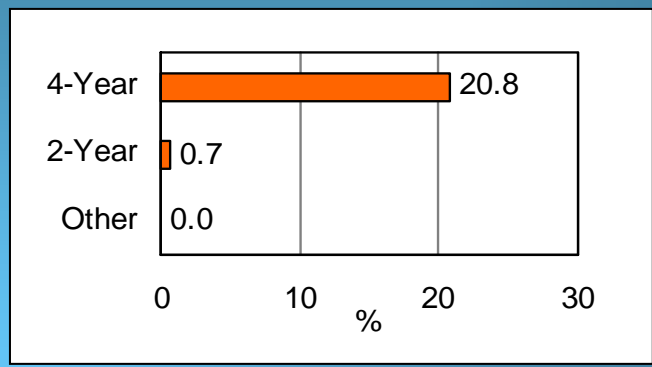
Probability of Securing a 4-Year Degree



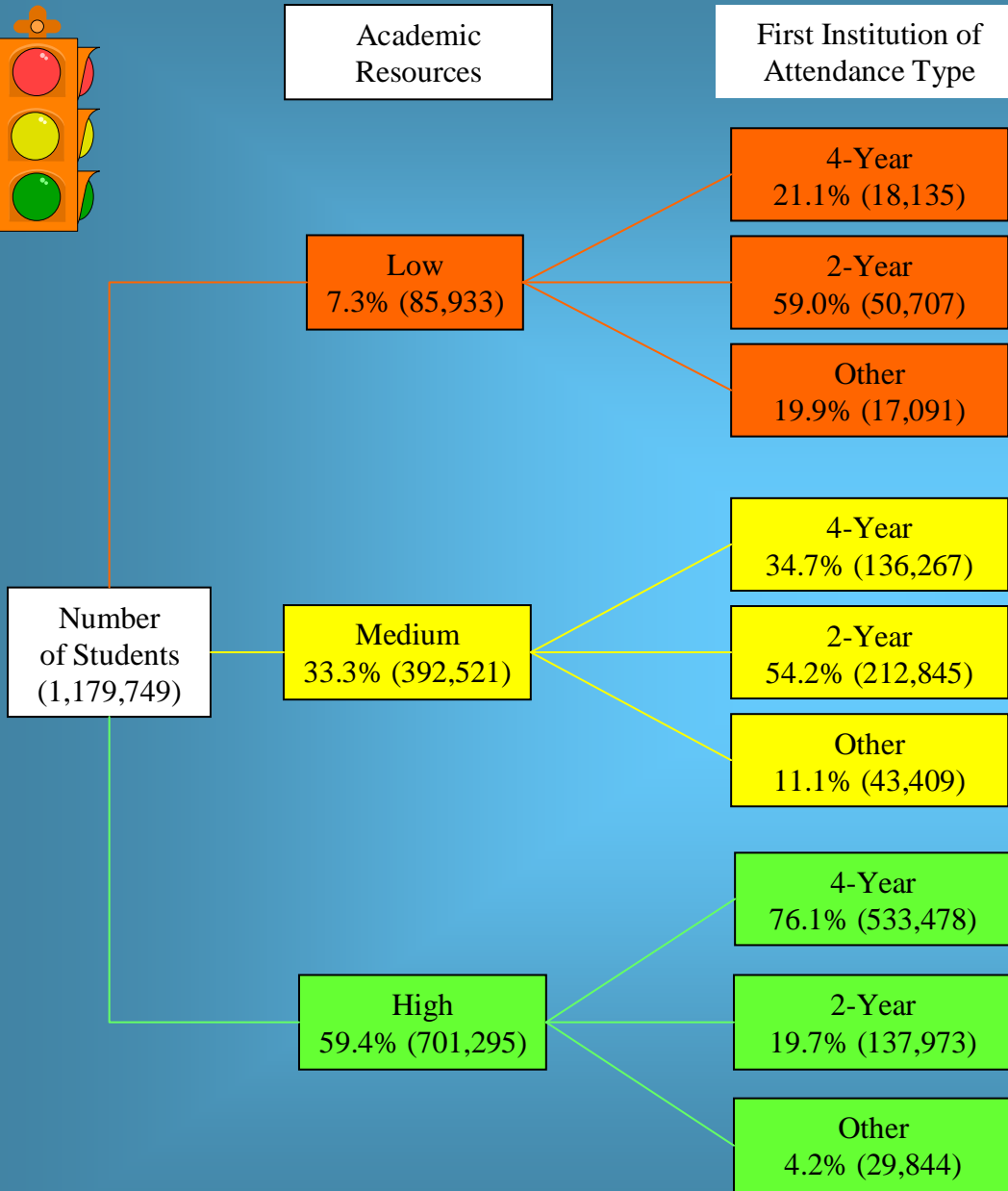
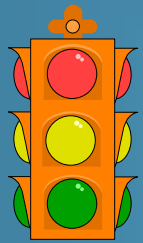
Degree attainment by academic resources and first institution type for Lowest-SES students



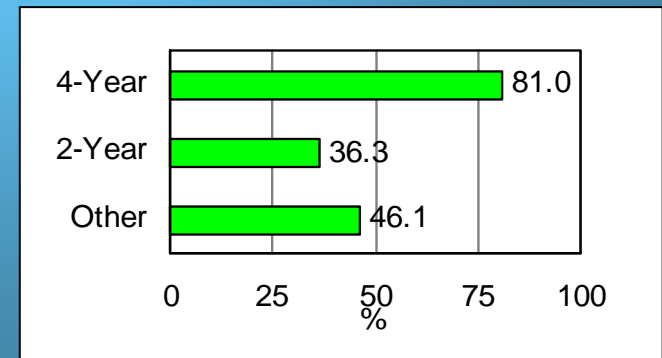
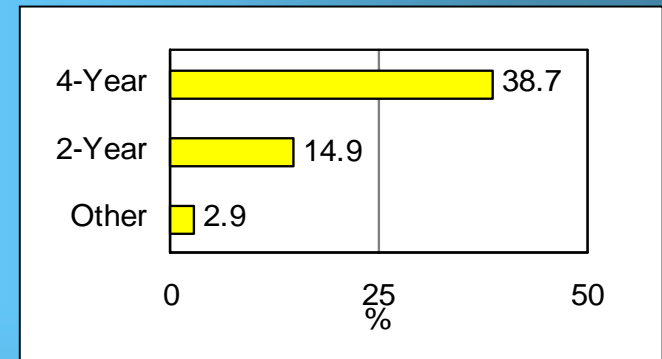
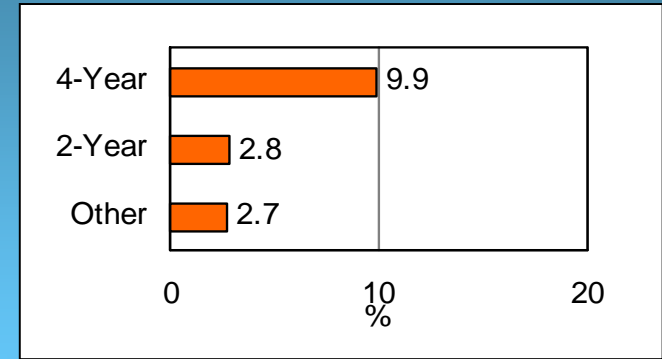
Probability of Securing a 4-Year Degree



Degree attainment by academic resources and first institution type for Highest -SES students



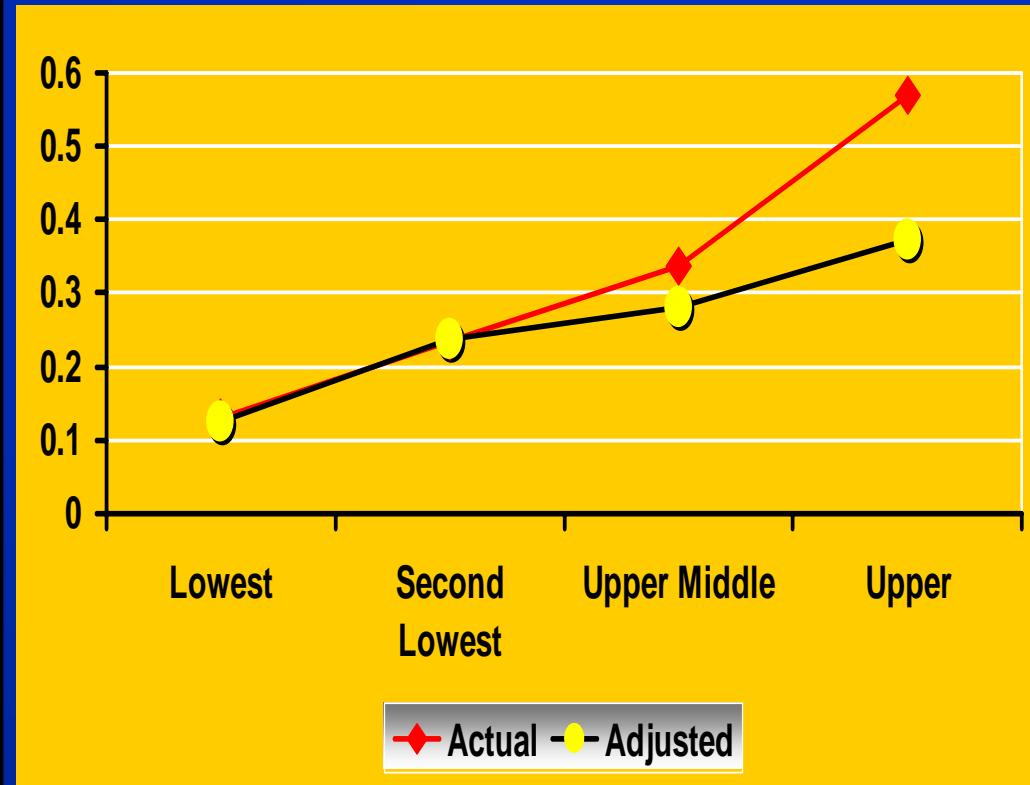
Probability of Securing a 4-Year Degree



Most of what matters for degree completion are school-related factors

And, addressing those educational related factors can reduce the SES-gap

1. Preparation for college
2. Educational aspirations
3. Type of 1st institution attended
4. Continuous enrollment
5. Number of college math & science courses taken
6. Collegiate experiences
7. Financial support
8. College GPA
9. Children
10. Socioeconomic resources
11. Percentage of college courses drooped, left incomplete, or withdrew



Pathways to Postsecondary Education for Latino 8th graders

What percentage of 8th grade Latino students went on to postsecondary education after completion of high school?

1. 27%

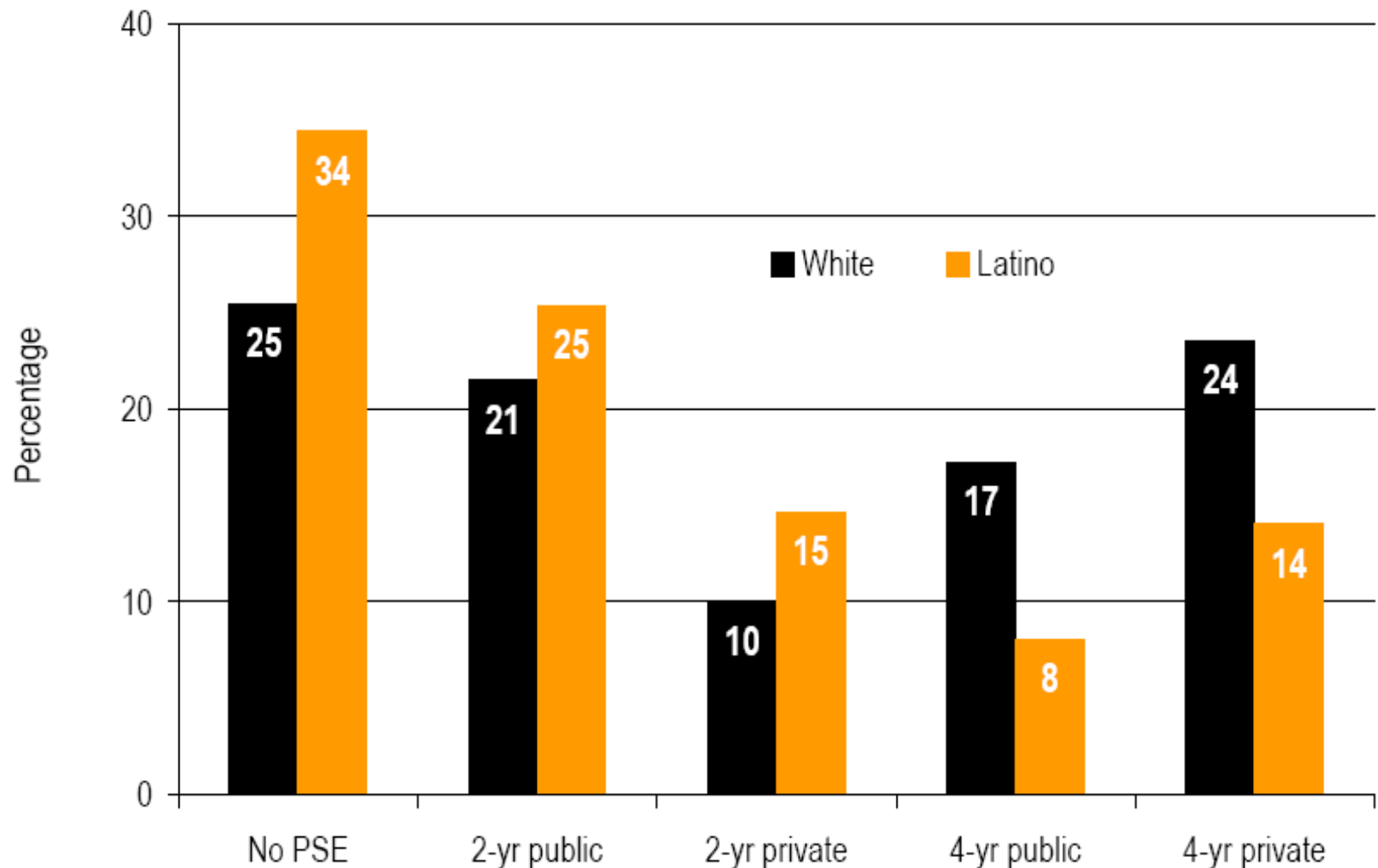
2. 66%

3. 48%

4. 73%

5. Not a clue

Exhibit I-15. First Type of Postsecondary Institution Attended by 1988 8th-Grade NELS Latino and White Youth



Among Latino 8th graders who became postsecondary education attendees, what percentage of them secured a bachelor's degree?

1. 14%

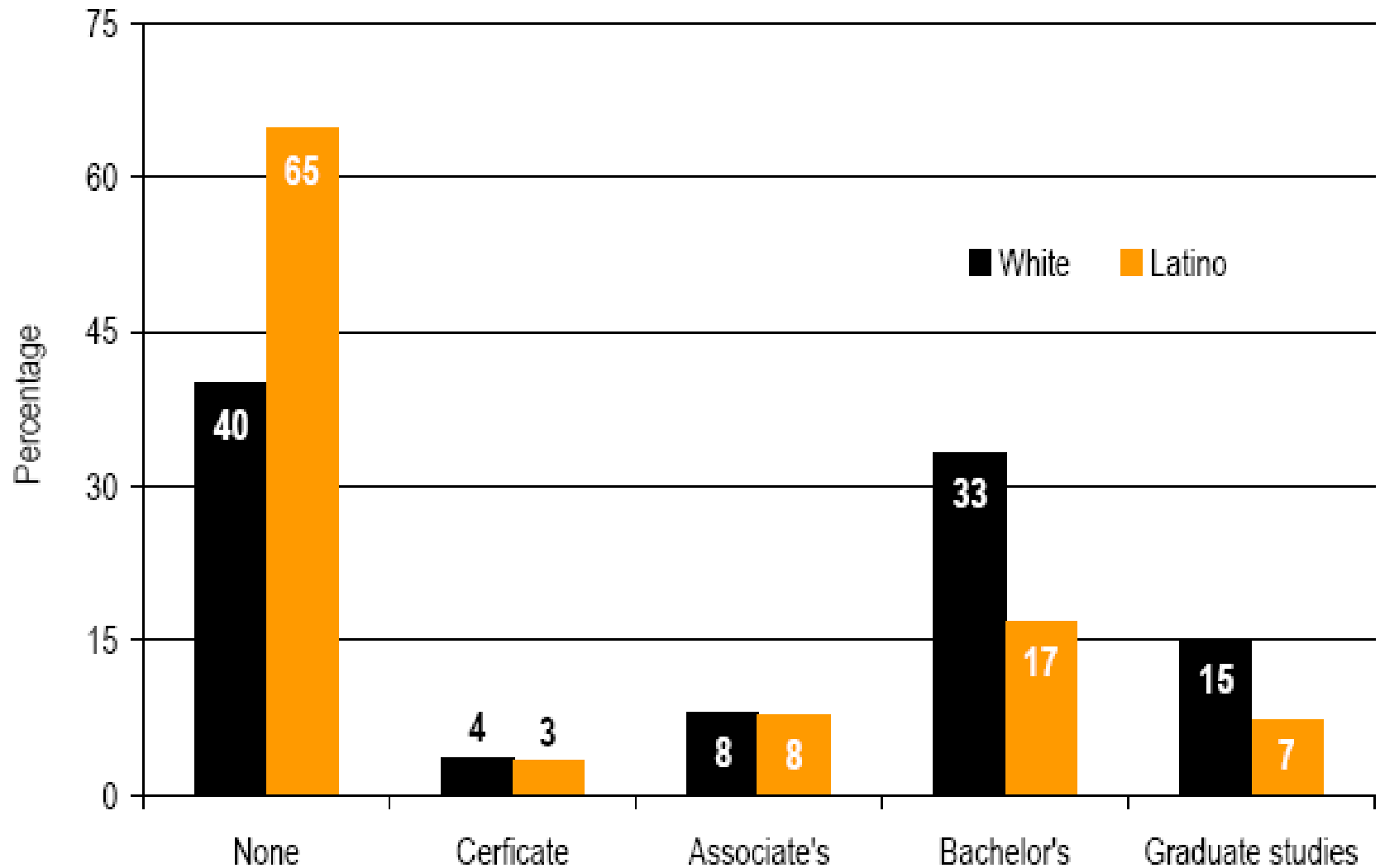
2. 24%

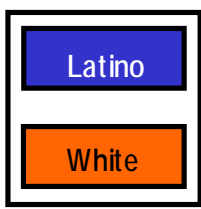
3. 44%

4. 84%

5. Not a clue

Exhibit I-17. Distribution of 1988 8th-Grade NELS White and Latino Students by Highest Degree Attained by 2000



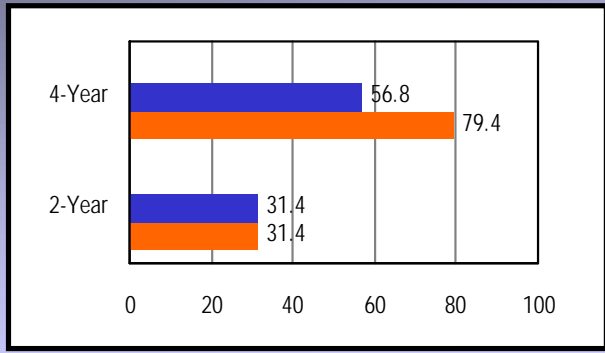
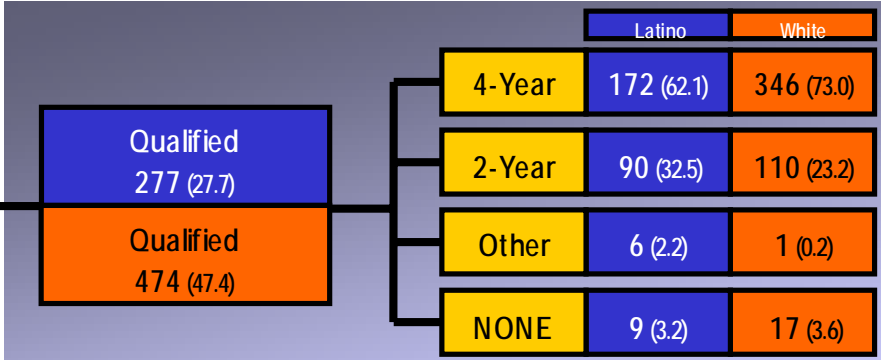
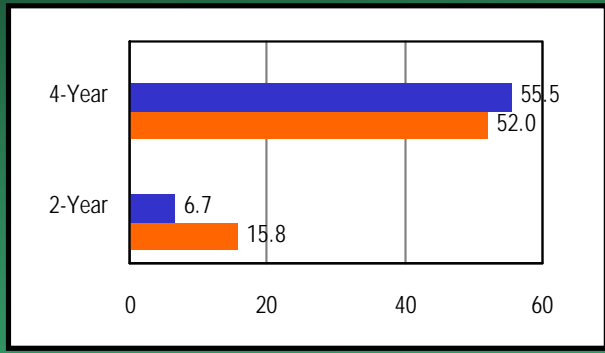
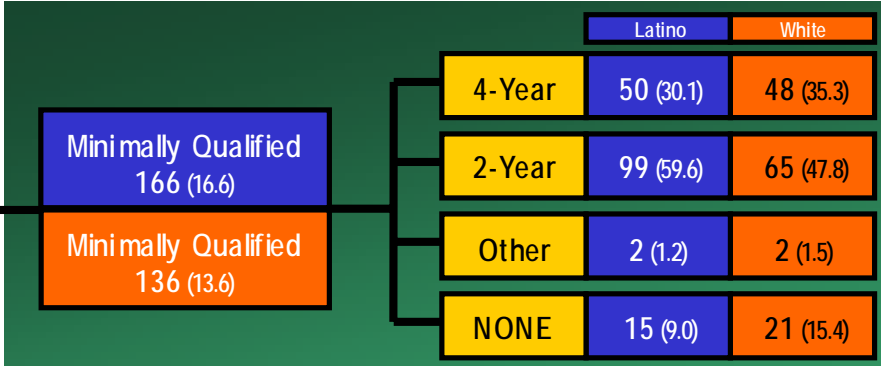
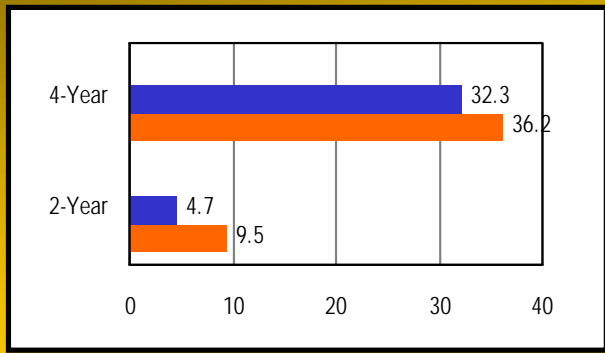
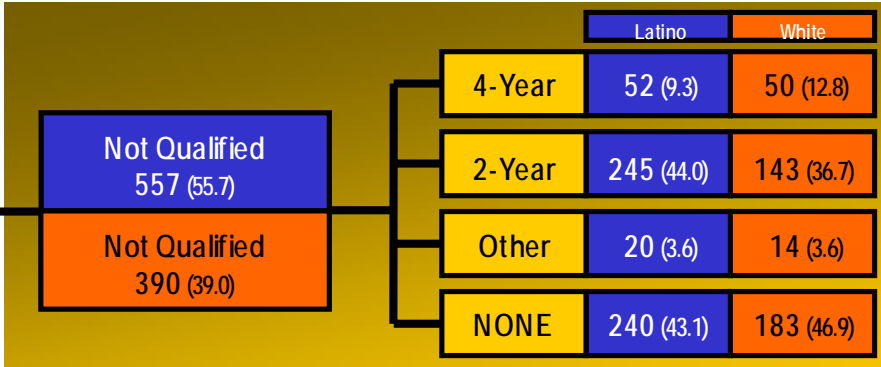


1000 8th graders

College Qualifications

First PSE attended

Probability of Securing 4-Year Degree

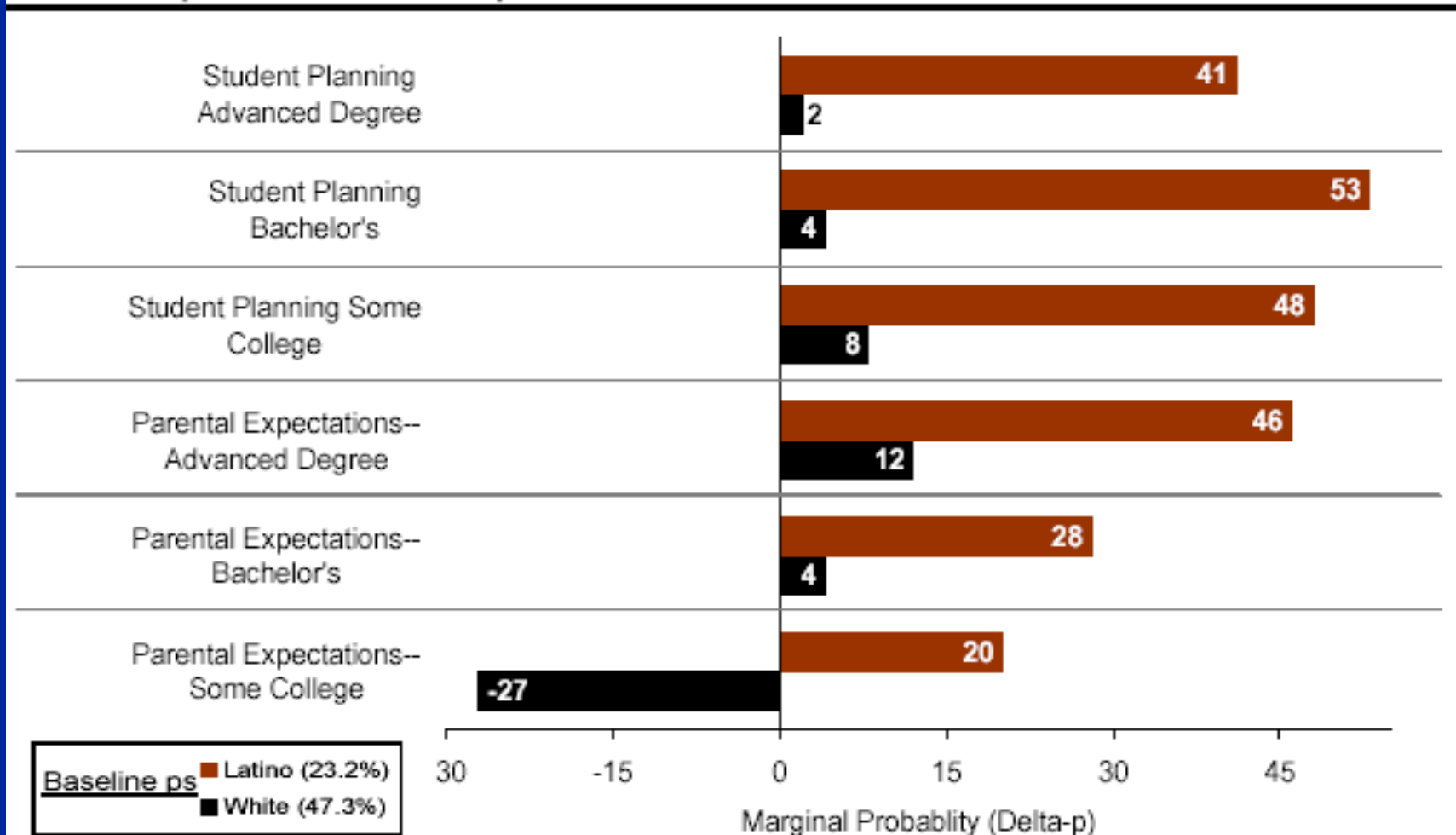


Source Swail, Cabrera & Lee (2004). Latino youth and the pathway to college

Middle school experiences

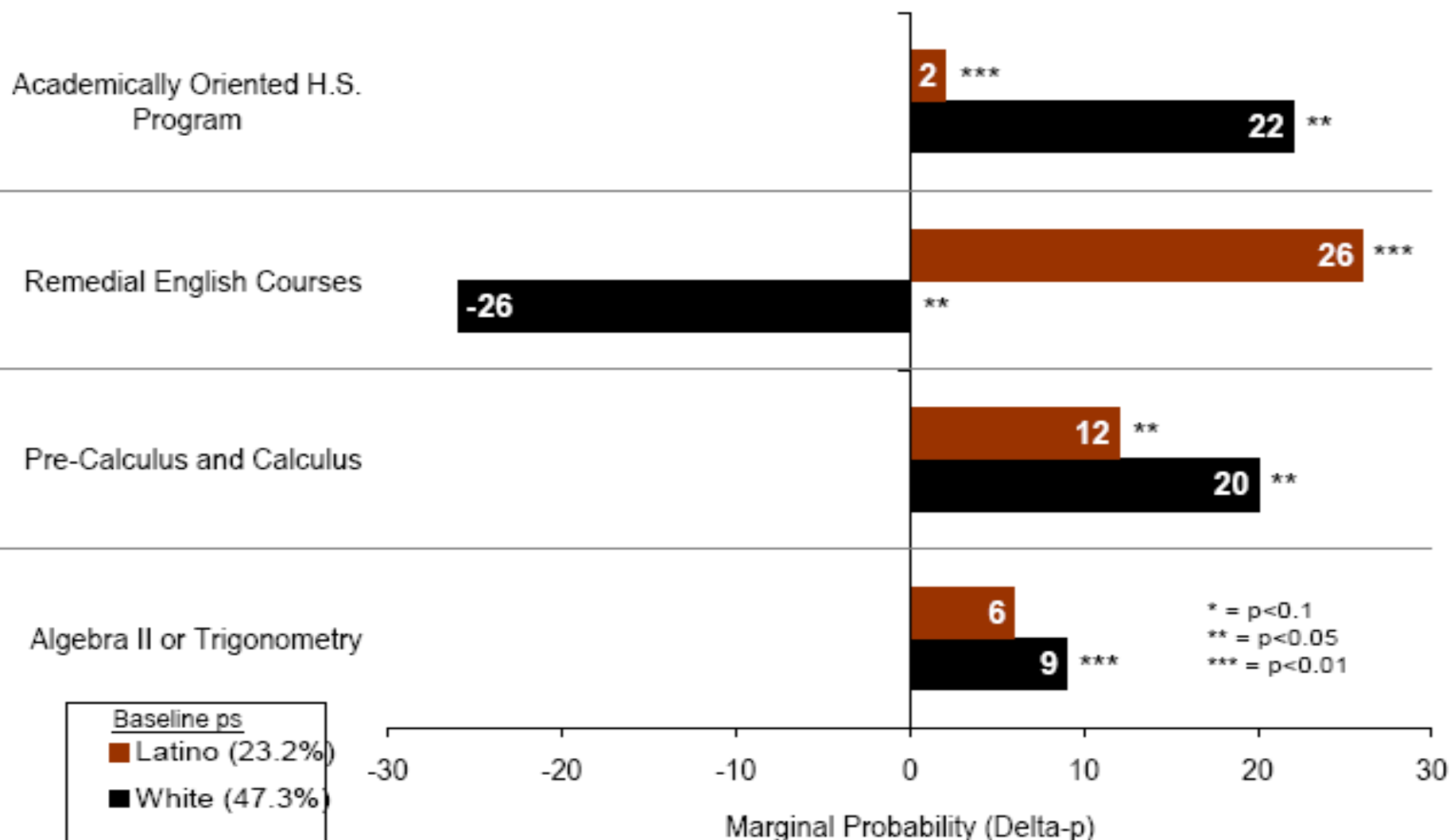
The role of planning & parental expectations for Latino middle school

Exhibit III-5. Percent Change in the Probability of Completing a Four-Year Degree Due to Expectations and Aspirations



The role of academic preparation

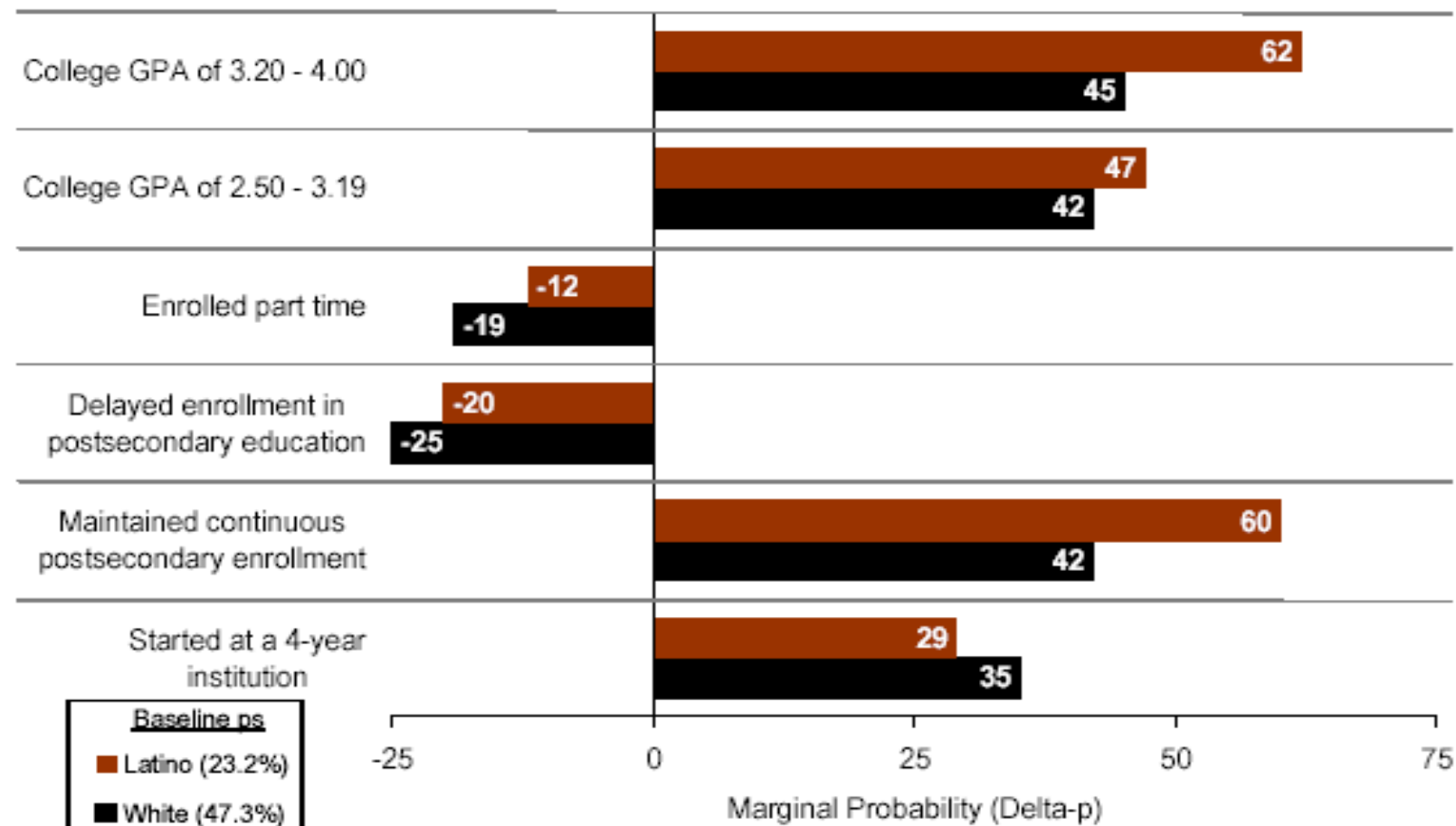
Exhibit III-6. Percent Change in the Probability of Completing a Four-Year Degree Due to Academic Preparation



Postsecondary experiences

Postsecondary experiences: Performance in college

Exhibit III-7. Percent Change in the Probability of Completing a Four-Year Degree Due to Postsecondary Activities



In Conclusion...

Latino students are much more likely to earn a BA or higher if they:

- are supported by their families in the pursuit of a postsecondary education*
- create a plan by the eighth grade*
- take three years of mathematics or more*
- start at a four-year institution*
- maintain continuous enrollment*
- Earn a GPA of 2.50 or above*

Thank you!

Recommended Readings

- McDonough. How social class and schools structure opportunity. In Stage et. al. Theoretical perspectives on college students (pp. 75-83).
- Perna, W. L. (2002). Precollege outreach programs: Characteristics of programs serving historically underrepresented groups of students. *Journal of College Student Development*, 43(1), 64-83.
- Swail, W. S., Redd, K. & Perna, L. W. (2003). Retaining minority students in Higher Education: A framework for success. ASHE-ERIC, 30(2). DC.: George Washington University.
- Swail, W. S., Cabrera, A. F. & Lee, Ch. (2004). *Latino youth and the pathway to college*. The Pew Hispanic Center/USC Annenberg School for Communications .Washington, DC: Educational Policy Institute, Inc.
- Swail, W. S., Cabrera, A. F., Lee, Ch. & Williams, A. (2005). *Latino students & the educational pipeline: pathways to the bachelor's degree*. Washington, DC: Educational Policy Institute, Inc.

Recommended Readings

- **Adelman, C. (1999).** *Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment.* Document # PLLI 1999-8021. Washington DC: U.S. Department of Education, Office of Educational Research and Improvement.
- **Bensimon, E. M., Polkinghorne, D. E., Bauman, G. L. & Vallejo, E. (2004).** Doing research that makes a difference. *Journal of Higher Education*, 75(1), pp. 104-126.
- **Cabrera, A. F. & La Nasa, S. M. (2000).** Understanding the college choice of disadvantaged students. *New Directions for Institutional Research.* San Francisco: Jossey-Bass
- **Cabrera, A. F. & La Nasa, S. M. (2001).** On the path to college: Three critical tasks facing America's disadvantaged. *Research in Higher Education*, 42(2), 119-150.
- **Cabrera, A. F., Burkum, K. R. & La Nasa, S. M. (2005).** Pathways to a four year degree: Determinants of transfer and degree completion. In A. Seidman (Ed.). *College Student Retention: A Formula for Student Success.* ACE/Praeger series on Higher Education.

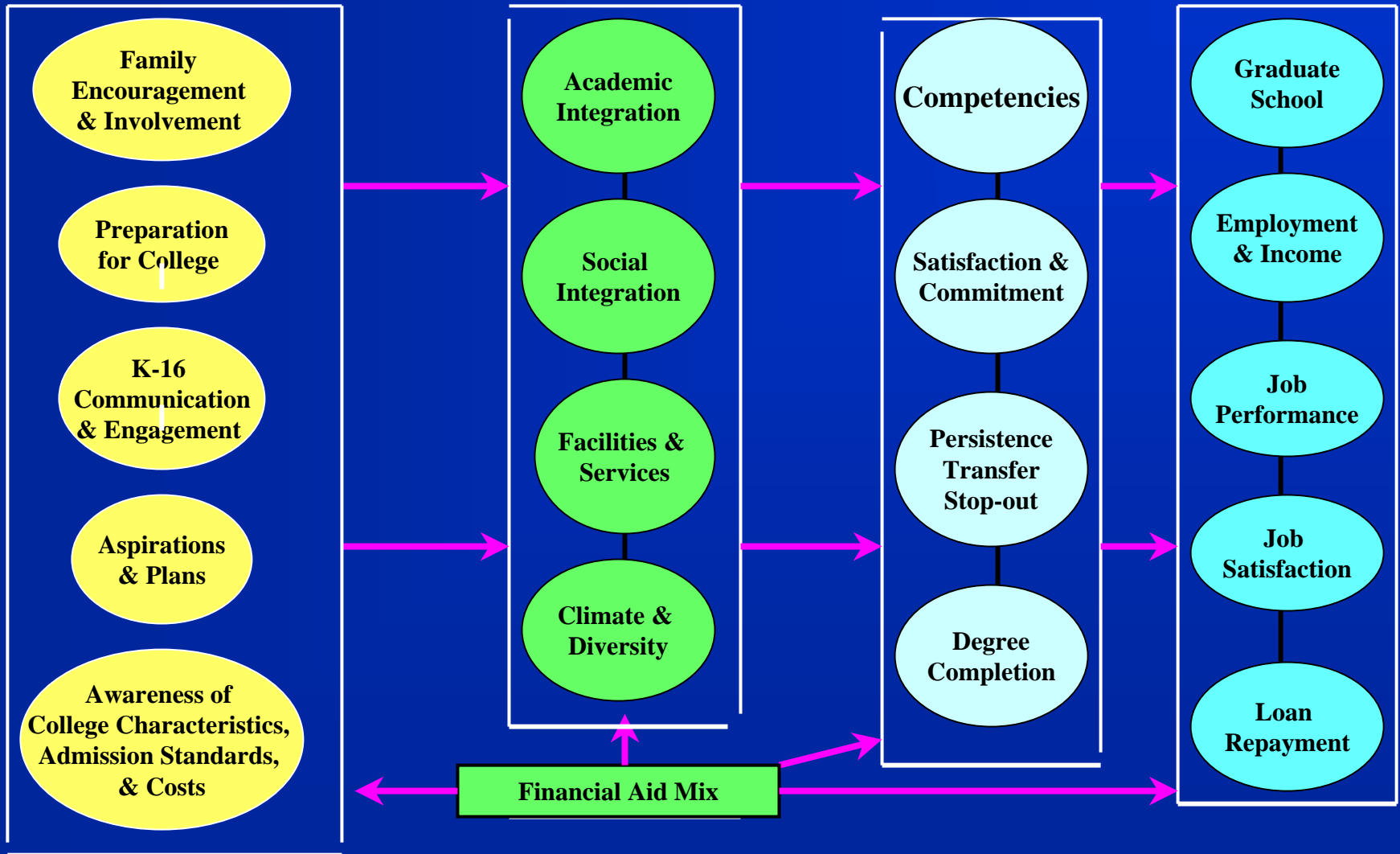
Recommended Readings

- **Gándara, P. & Bial, D. (2001).** *Paving the way to Postsecondary Education: K-12 Intervention Programs for Underrepresented Youth.* NCES 2001-205. Washington: National Center for Education Statistics.
- **Hossler, D., Schmit, J., & Vesper, N. (1999).** *Going to college: How social, economic, and educational factors influence the decisions students make.* Maryland, Baltimore: John Hopkins University Press.
- **Kirst, W. & Venezia (2004).** *From High School to College: Improving opportunities for success in postsecondary education.* San Francisco: CA: Jossey-Bass.
- **McDonough.** How social class and schools structure opportunity. In Stage et. al. *Theoretical perspectives on college students* (pp. 75-83).

**Additional Material to
be shown if time
permits or as a result
of Q&A**

College Persistence as a Longitudinal Process

College Decision → College Experiences → College Outcomes



Who's in the Colorado college pipeline

For every 100 Colorado 9th grader,

- **85 graduate from high school**
- **37 immediately enroll in college**
- **75 are still enrolled their sophomore year**
- **53 graduate within 6 years if enrolled full time**

• **Based on Measuring UP 2004 State Report Card for Colorado**

Persistence to Degree Completion

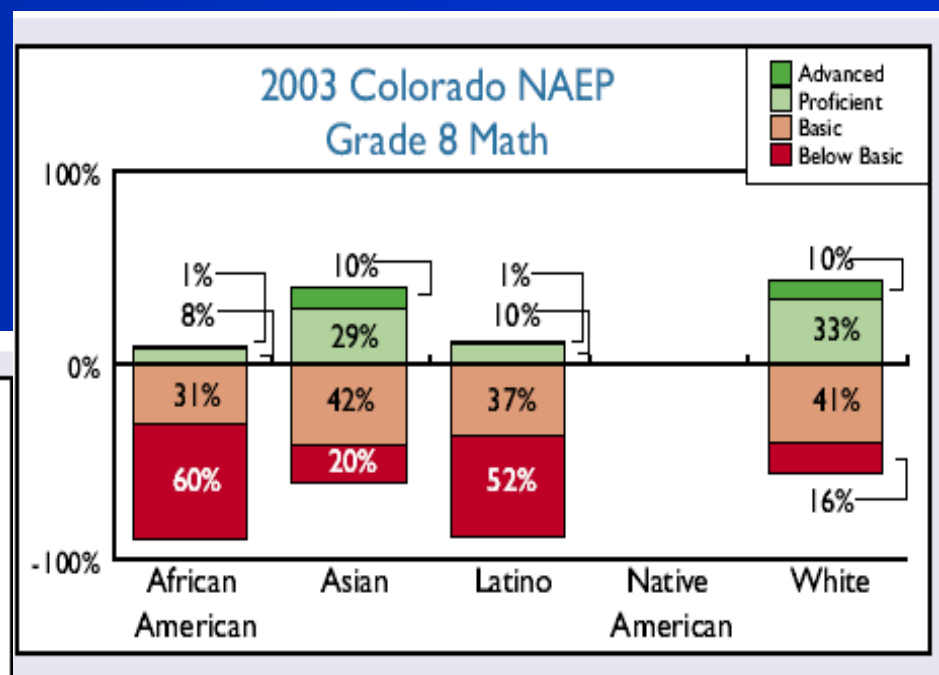
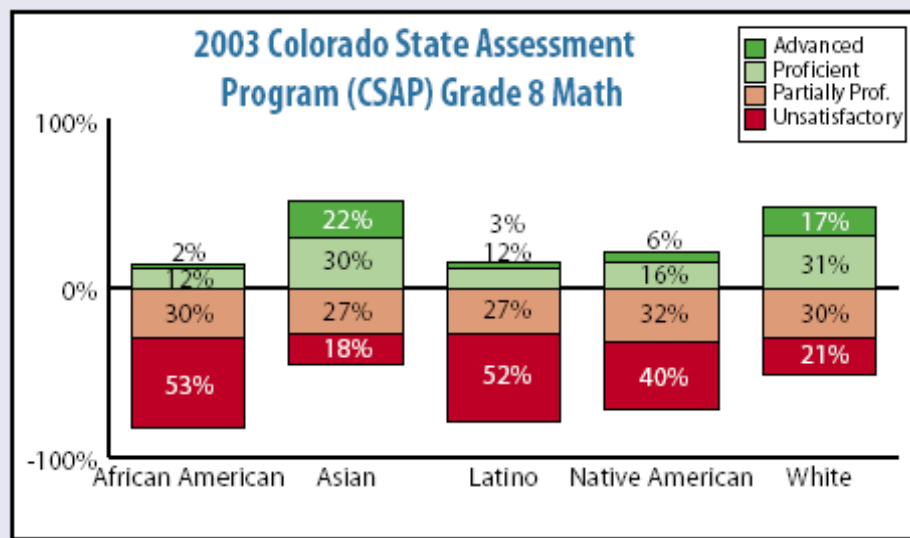
Six Year Graduation Rates in 2003

Institution	Colorado		Peer Group	
	All	Latinos	All	Latinos
Colorado State U.	62.1	58.7	86.4	80.8
Fort Lewis C.	31.1	31.0	62.3	42.7
Mesa State C.	28.1	24.6	62.3	42.7
Metro	19.7	11.6	53.7	47.0
UC-Boulder	67.8	57.0	86.4	80.8
UC-Colorado Springs	38.9	40.5	75.8	74.0
UC-Denver	39.2	33.7	72.9	68.4
UC-Pueblo	31.7	27.3	75.8	74.0
UNC	47.1	34.4	72.9	68.4
Western SC	30.8	11.1	62.3	42.7
University of Denver	70.5	63.3	96.1	94.5

Source: 2005 Education Trust. College Results on Line

Dr. Cabrera

Academic Resources among Colorado 8th graders



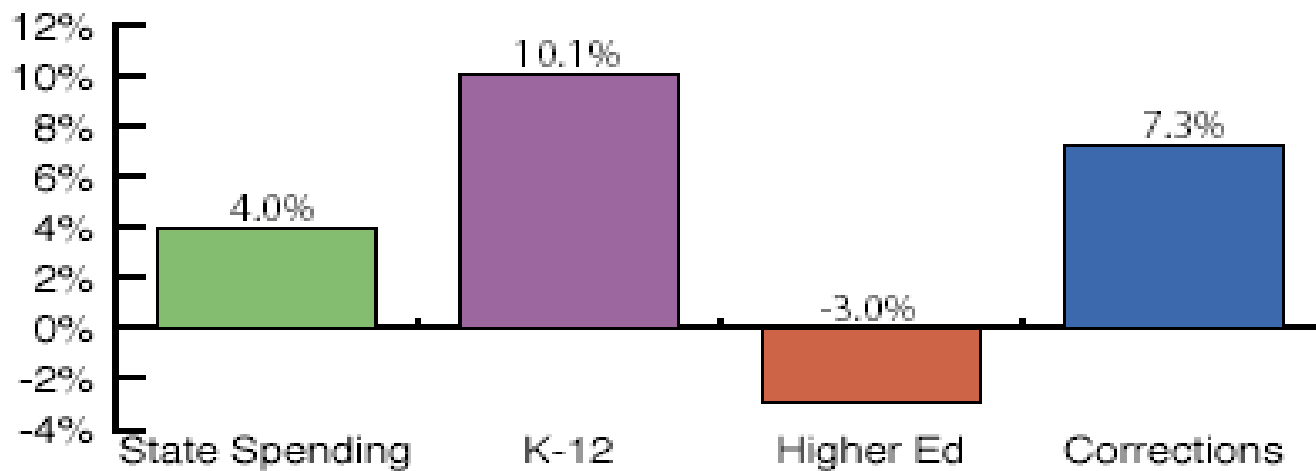
Colorado High School & College Success

	Population, age 5-24	Public K-12	Two Year Colleges	Four Year Colleges
African-American	4%	6%	6%	3%
Asian	2%	3%	3%	4%
Latino	20%	23%	15%	8%
Native American	1%	1%	1%	1%
White	60%	67%	69%	72%
Other	13%	N/A	5%	13%
Total	100%	100%	100%	100%
Number	1,385,583	742,145	162,291	232,025



Colorado

Average Annual Growth in State Spending on
K-12 and Higher Education, 2001-2003



Source:



The Education Trust • EdWatch Online 2004 State Summary Reports • www.edtrust.org

Policy Implications

Middle School

- College Knowledge
- Aspirations/Motivation
- Parental Expectations
- Having a Plan

Policy Implications

High School

- Algebra I by 9th Grade
- Remedial English
- Advising/Counseling
- Continuous Enrollment

Policy Implications

Postsecondary Education

- Continuous Enrollment
- Academic Support/Safety Nets
- Academic Performance (GPA)
- Financial Aid

Intervention strategies need to be *Holistic, Sustained* over time and involve *Multiple Partners*

- **Elementary Schools**
- **Middle Schools**
- **Two-Year Institutions**
- **Four-Year Institutions**
- **Business organizations**
- **Community organizations**
- **PTAs**
- **GEAR-UP**
- **TRIO**

Critical tasks for members of the 1988 8th grade cohort who are minority.

At Risk Factors

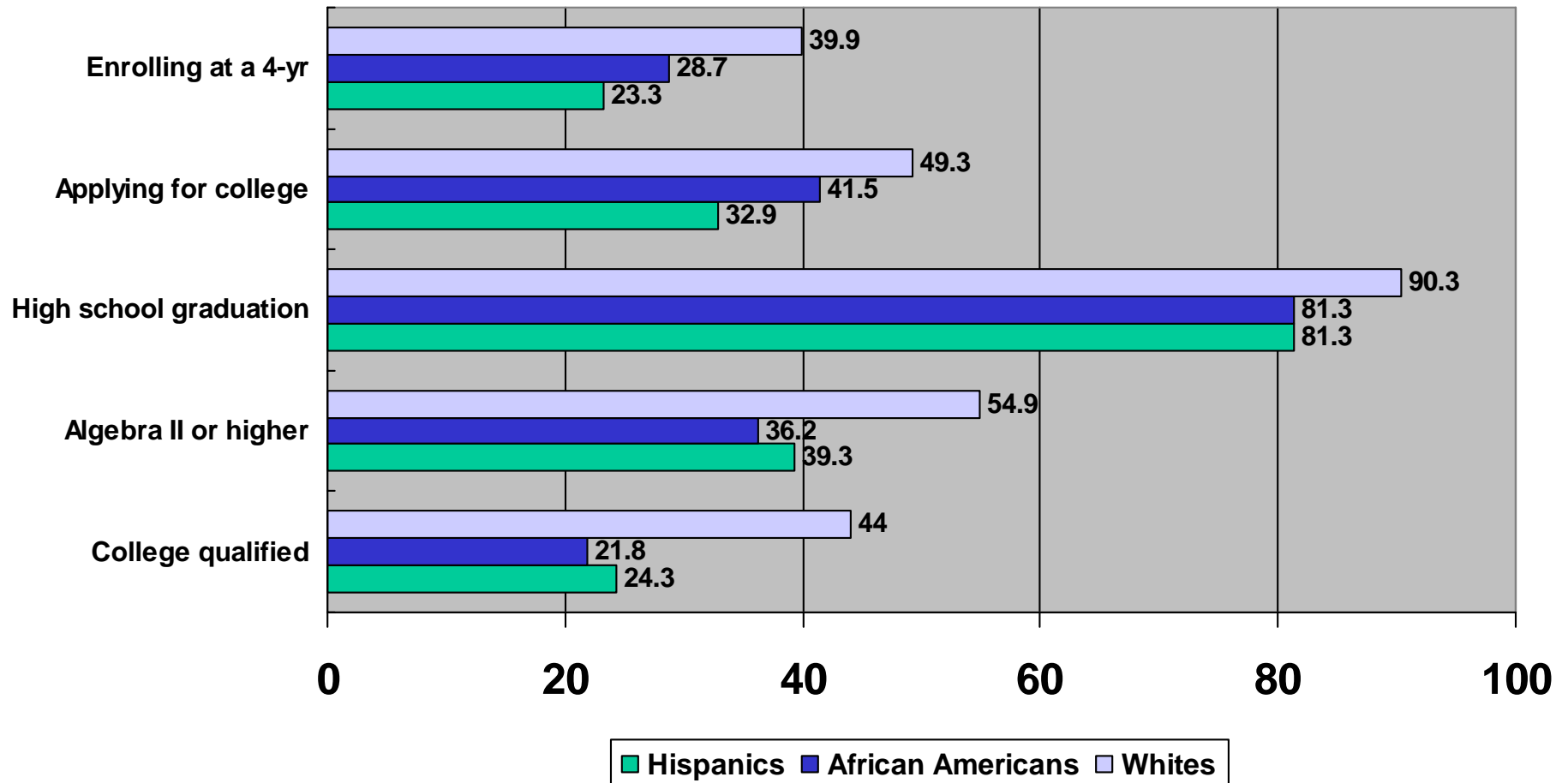
- 1. Raised by single parent*
- 2. Parents with no High school degree*
- 3. Having siblings who dropout from HS*
- 4. Being home alone for more than 3hrs*
- 5. Limited English proficiency*
- 6. Family income less than \$15,000*
- 7. Held back in school*
- 8. Changed HS more than twice*
- 9. Having a C or less GPA*
- 10. Having children during HS years*

1988 eight graders	Latinos	African Americans	Whites
Parents with some college.....	47.4%	61.8%	72.9%
<i>Percent showing at-risk factors:</i>			
• Held back one grade.....	20.6%	27.5%	15.4%
• Single parent family.....	20.6%	46.4%	16.9%
• Siblings dropping out from HS.....	20.5%	20.7%	12.2%
• Changing schools more than twice...	32.5%	35.6%	28.5%
• Averaging C or less.....	44.4%	47.1%	33.6%

Based on National Educational Longitudinal Study 1988

On the path to college

1988 eight graders



What to assess &
when to do it?

Preparation for College		Collegiate Experiences		Graduation/ Post College
Middle School Aspirations & readiness (7 th –10 th)	High School Application & readiness (11 th -12 th)	Freshman Year	Junior Year	Outcomes
<i>School information & transcript</i> Academic Resources School district profile	<i>School information & transcript</i> Academic Resources School district profile	<i>Campus information & transcripts</i> Enrollment information Financial aid data Campus profile	<i>Campus information & transcripts</i> Enrollment information Financial aid data Campus profile	<i>Campus information & transcripts</i> Time to degree Major & changes Transfer Stop-out, return,drop
<i>Student Survey</i> Family education Occupation Encouragement Family involvement Saving for college Aspirations Plans & intentions	<i>Student Survey</i> Family education Knowledge of careers Family involvement Information about universities Plans & intentions Transfer plans Intended major Inquire process	<i>Student survey</i> Orientation & advisement Remediation Faculty & peer interactions Classroom & learning experiences Family & work responsibilities Faculty survey	<i>Student survey</i> Advising Faculty & peer interactions Classroom & learning experiences Family & work responsibilities Faculty survey	<i>Alumni Survey</i> Grad school Degrees earned Occupation/Income Job/Career/ Satisfaction Adequacy of college Preparation Leadership, service Awards, recognition Alumni giving