

On the path to college: *What matters?*

Topics

- **Pathways**
 - *For college*
 - *For transfer*
 - *For degree completion*
- **What matters most**
- **What can be done**
- **What to assess & when to do it**

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On the Path to College

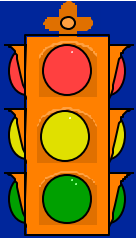
Cabrera & La Nasa (2000)

- This study examined the three tasks that socio-economically (lowest-SES) disadvantaged 8th graders must complete on their path to college.
- Those tasks are:
 - *Securing college qualifications*
 - *Graduating from high school*
 - *Applying to college*

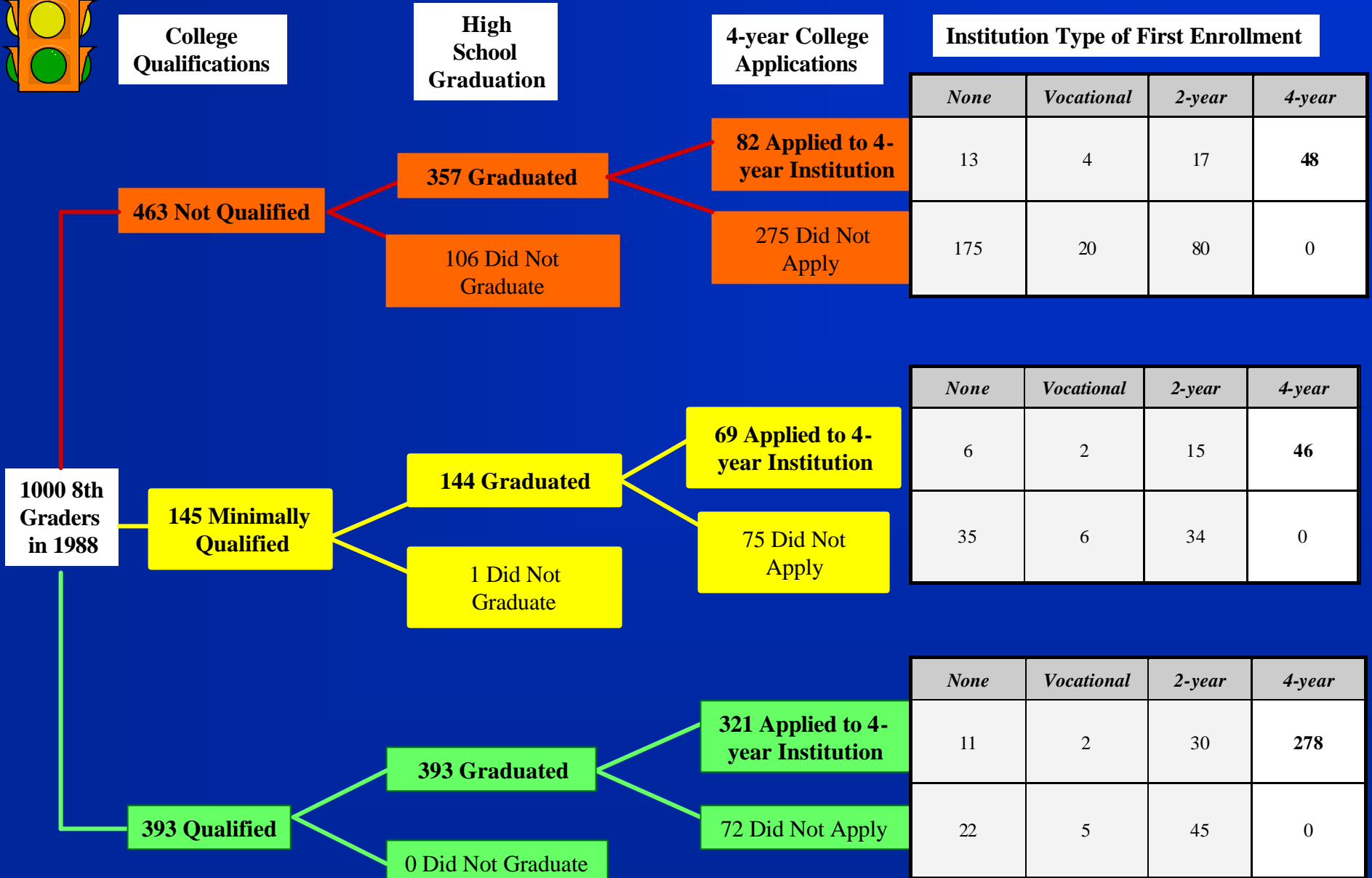
On the path to college

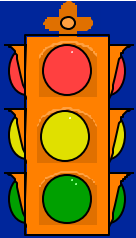
Some methodological notes

- Analyses are based on the National Educational Longitudinal Study of 1988 8th graders (NELS:88)
- Academic qualification index
 - *High school rank*
 - *ACT/SAT scores*
 - *High school grades in academic track courses*
 - *NELS mathematics & reading test scores*

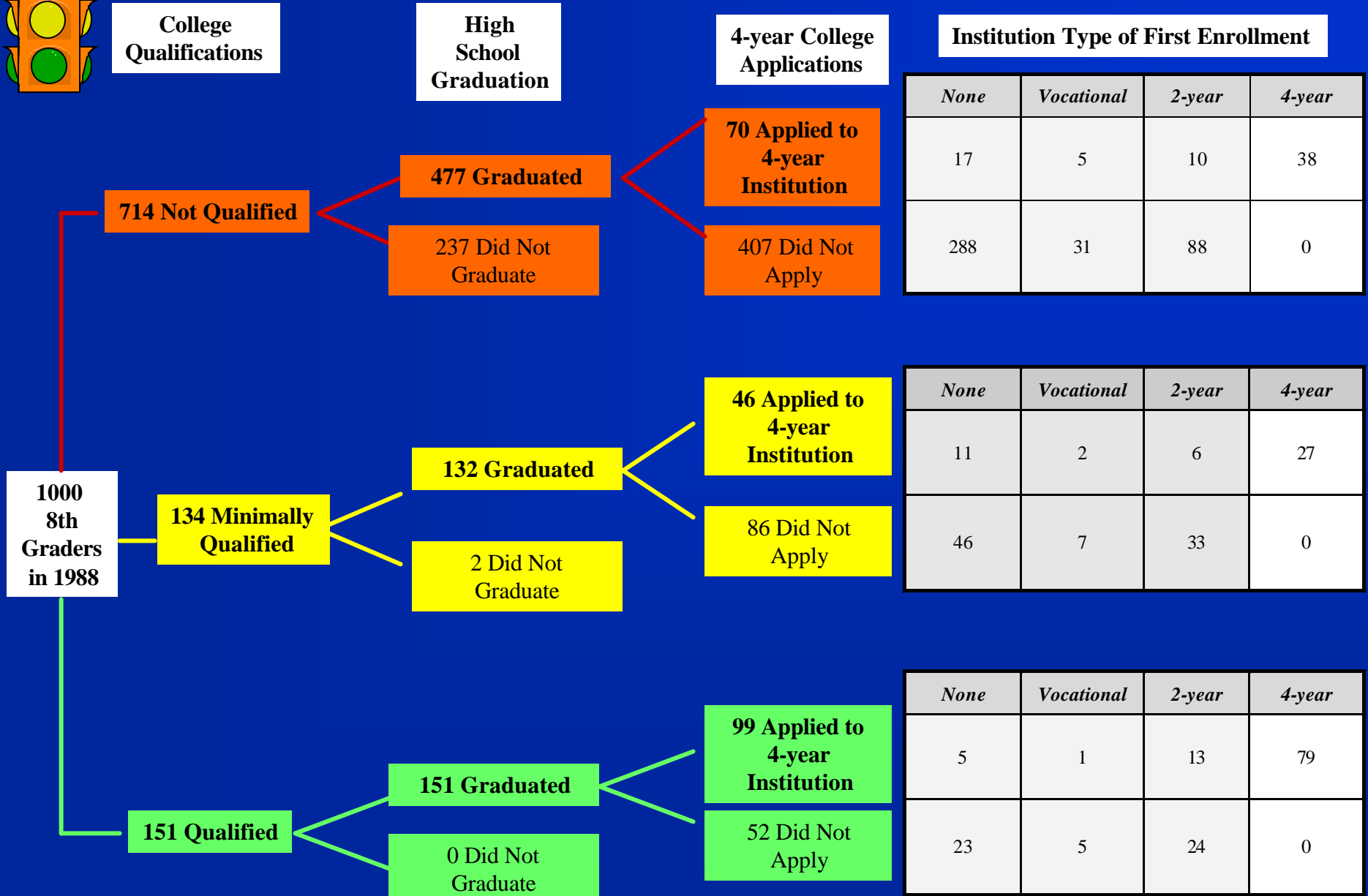


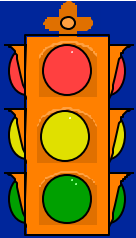
College Choice Process for 1000 1988 8th Grade Students



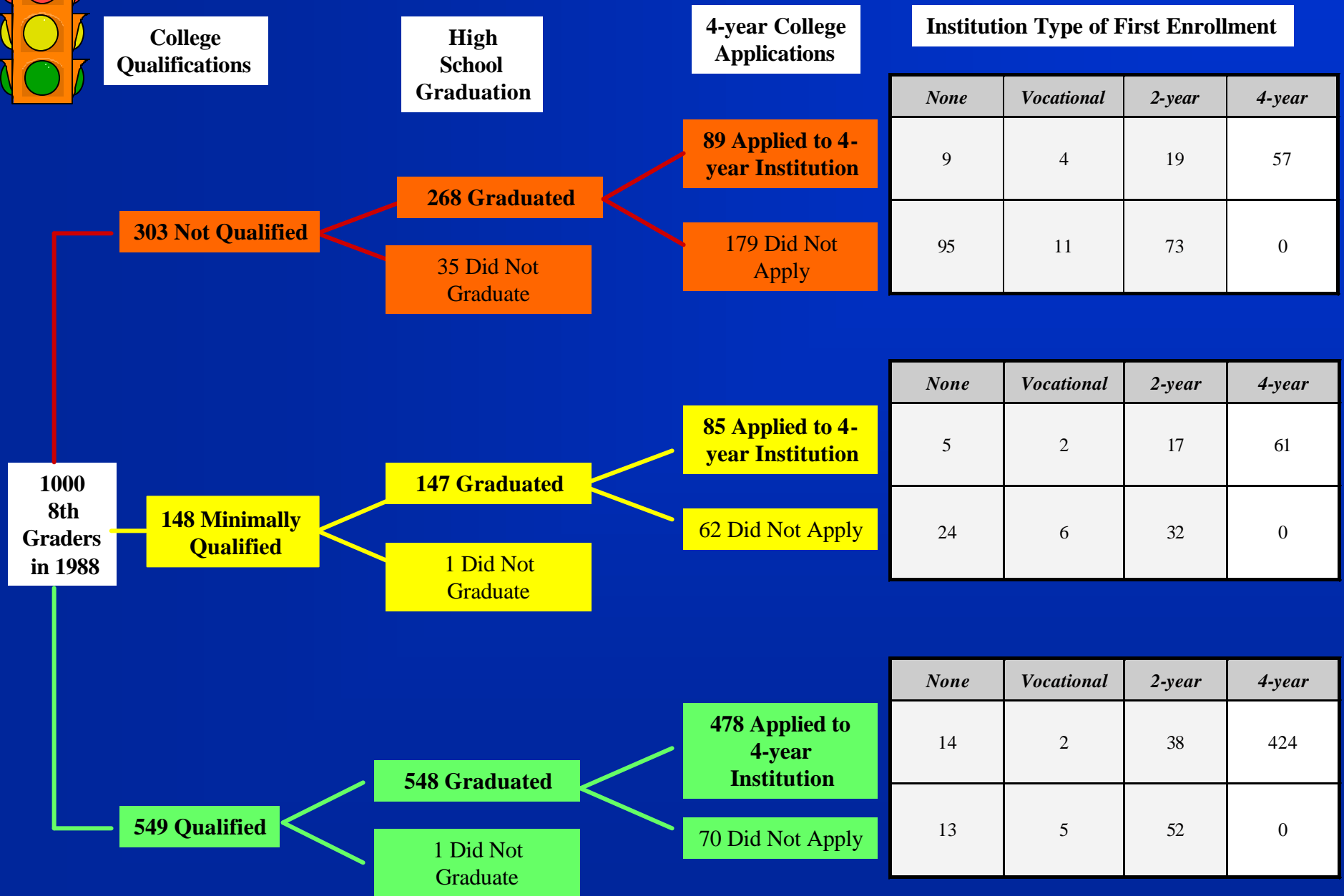


College Choice Process for 1000 Lowest SES Students





College Choice Process for 1000 High SES Students



Who is a lowest-SES 8th grader?

- **77% of lowest socioeconomic status (SES) 8th graders have parents unfamiliar with college.**
- **99.3% of all upper-SES 8th graders grew up among college educated parents.**

Who is a lowest-SES 8th grader?

Poorest 8th graders were more likely to be exposed to at-risk factors:

- *Low grades*
- *History of high school dropouts in the family*
- *Raised by a single parent*
- *Held back a grade*
- *Changing schools more than twice*

Acquisition of College Qualifications

1988 Lowest SES 8th graders

- Only 285 out of 1000 poor 8th graders secured some degree of college qualifications by the end of their senior year.
 - *151 were college-qualified*
 - *134 were minimally college-qualified*

Graduation from High School

1988 Lowest SES 8th graders

- Only 760 out of 1,000 poor 1988 8th graders graduated from high school by 1992

Applying to College

1988 Lowest SES 8th graders

- Only 215 out of 1000 lowest-SES 8th graders applied to a 4-year institution by the end of their high school senior year.
- Only 144 out of 1000 lowest-SES students enrolled in a 4-year institution by 1994

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

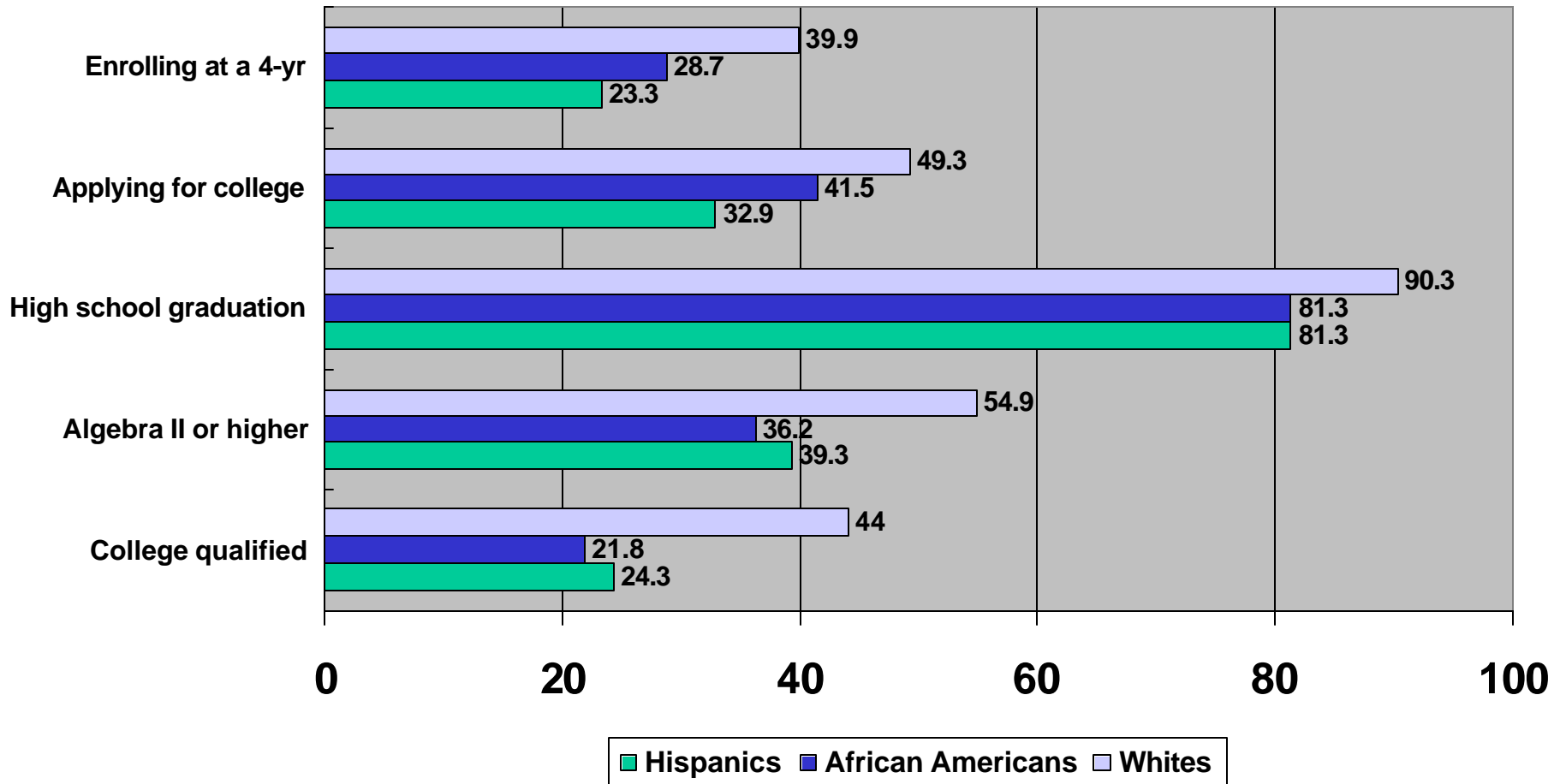
1988 eight graders	Hispanics	African Americans	Whites
Parents with some college.....	47.4%	61.8%	72.9%
<i>Percent showing at-risk factors:</i>			
•Held back one grade.....	20.6%	27.5%	15.4%
•Single parent family.....	20.6%	46.4%	16.9%
•Siblings dropping out from HS.....	20.5%	20.7%	12.2%
•Changing schools 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

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On the path to college

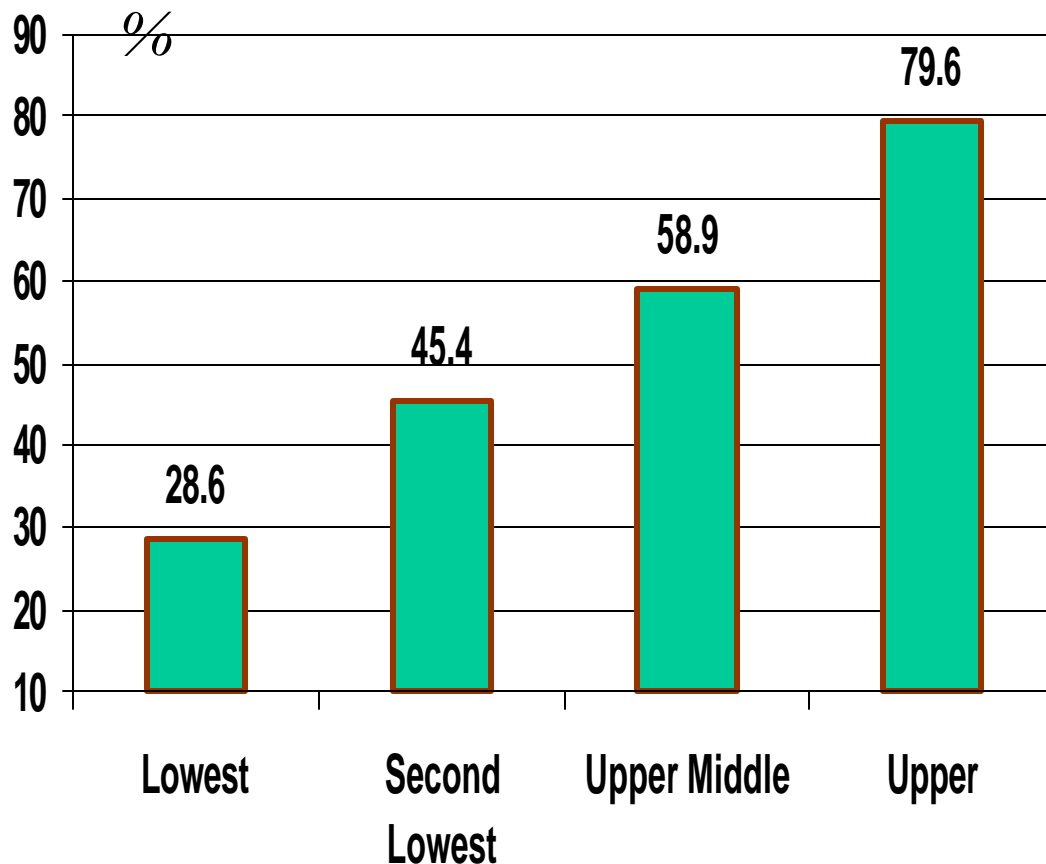
1988 eight graders



Based on National Educational Longitudinal Study 1988

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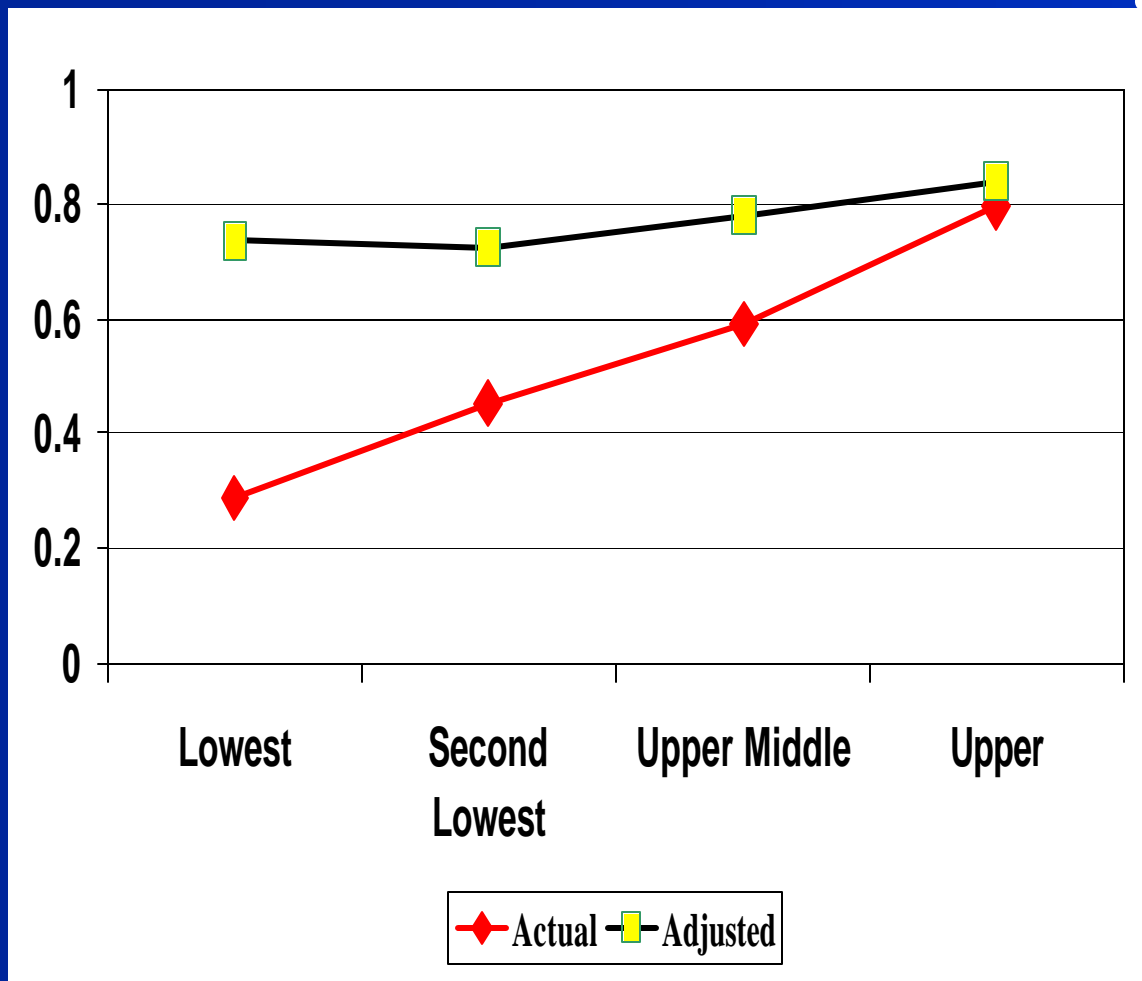
Acquisition of college qualifications



- Becoming college-qualified correlated with socioeconomic status ($r=.377$)
- Lowest-SES students were 51%, 30% and 17% less likely to secure minimal college qualifications than their highest, middle-upper and middle-lowest SES counterparts.

What matters in becoming college-qualified?

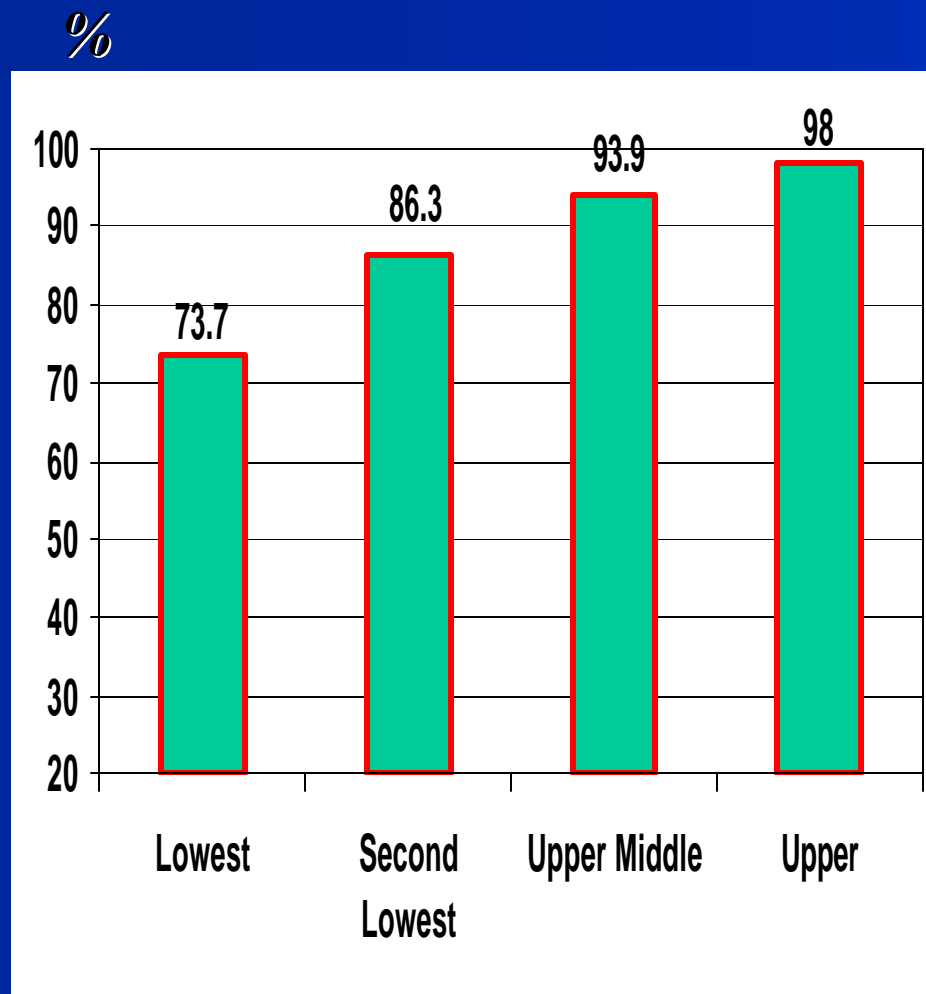
The gap between lowest-SES and upper-SES students narrowed from 51% to 15% once factors such as at-risk characteristics and parental involvement were taken into account



Acquisition of college qualifications: What matters most

Factor	Probability Of Becoming College Qualified
Parental involvement	+ 18.1 %
Planned for college at 8 th grade	+ 16.8 %
Upper SES	+ 14.6 %
At-risk factors at 8 th grade	- 11.0 %
Ability at 8 th grade	+ 2.9 %

High School Graduation

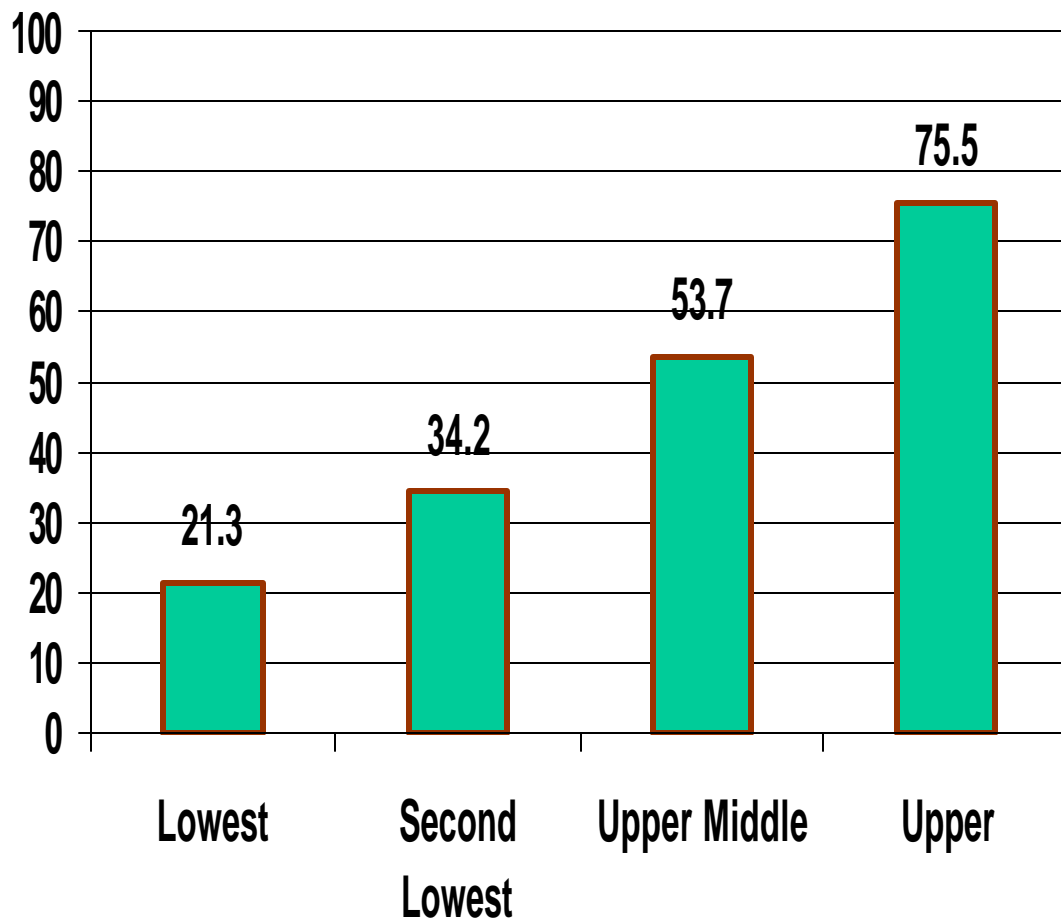


- The rate at which 1988 8th graders graduated from their high school correlated with their SES ($r=.291$)
- The poorest 1988 8th graders' graduation rate lagged nearly 25% behind that of their upper-SES counterparts.

High School Graduation: What matters most?

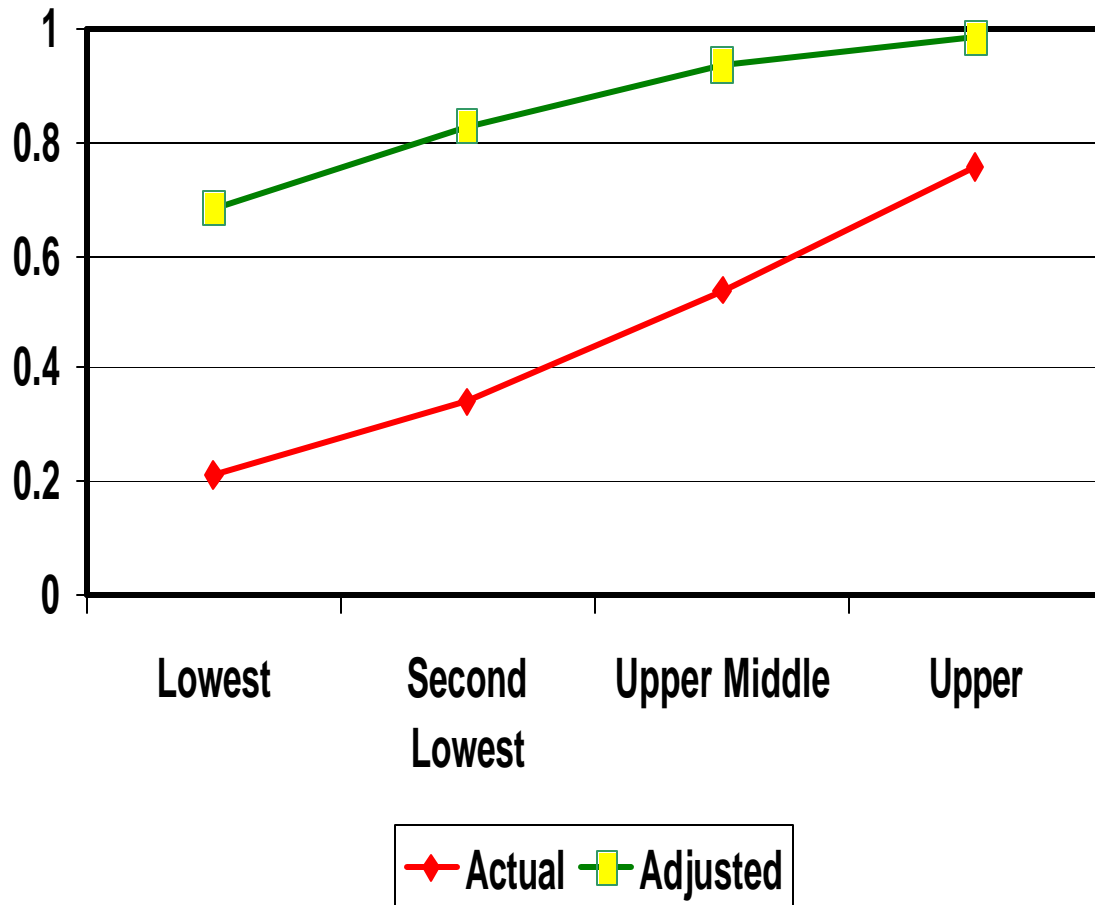
Factor	Probability of HS diploma
Securing college qualifications	+11.4%
Upper SES	+ 7.6 %
Parental involvement	+ 5.3 %
At-risk factors	- 4.6 %

Applying for college



- College application rates varied in direct relation with socioeconomic status ($r=.414$).
- The difference in college application rates between the poorest students and upper-SES students was 54%.

Applying for College: What matters most?



- Controlling for the factors that influence the chance of applying reduced the gap in college application rates between lowest-SES and upper-SES from 54% to 26%.

Factor	Probability of Applying
Degree Aspirations	
Bachelors'	+ 27.6 %
Advanced	+ 33.6 %
Parents' expectations	
Bachelors'	+ 25.5 %
Advanced	+ 21.9 %
College-qualifications	+ 14.0 %
Assistance in:	
College application	+ 11.3 %
College essays	+ 8.1 %
Upper SES	+ 26.4 %
At-risk factors	- 6.5 %

What matters most for each task on the path to college? A summary

Becoming college qualified	HS Graduation	Applying for college
<ul style="list-style-type: none"> •Parental involvement in school activities. •Having planned for college by the 8th grade. •Parental education & income •At-risk factors •Ability 	<ul style="list-style-type: none"> •Becoming college qualified. •Parental education & income. •Parental involvement in school activities. •At-risk factors 	<ul style="list-style-type: none"> •Students' degree aspirations. •Parents' degree expectations. •Becoming college qualified. •Assistance in college application procedures. •Parental education & income •At-risk factors

Pathways to a 4-yr Degree

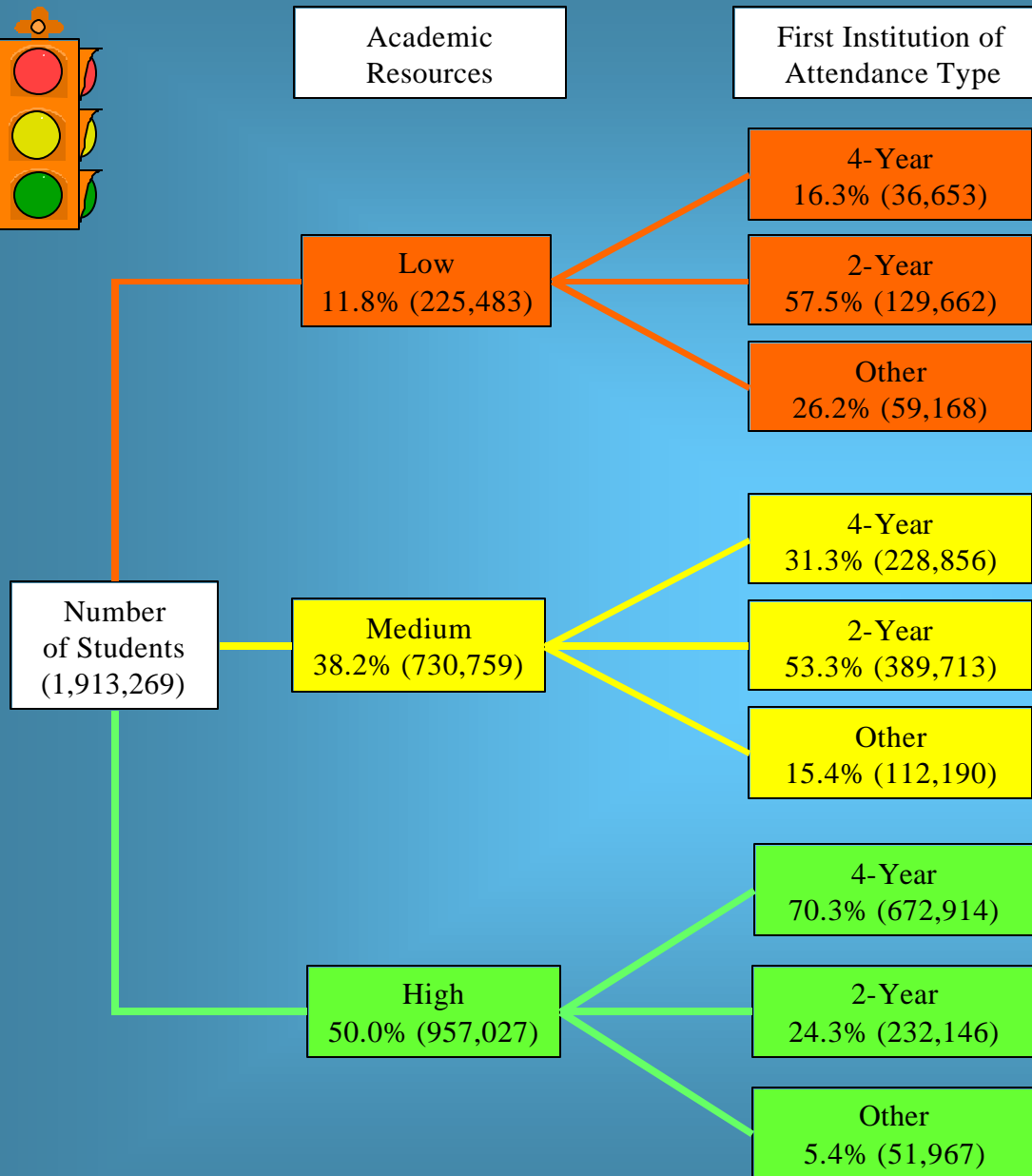
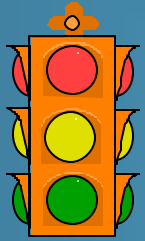
Cabrera, La Nasa & Burkum (2001)

- This study examined postsecondary patterns exhibited by socio-economically (lowest-SES) disadvantaged 12th graders.
- Two major postsecondary behaviors studied
 - *Transfer*
 - *Degree completion*

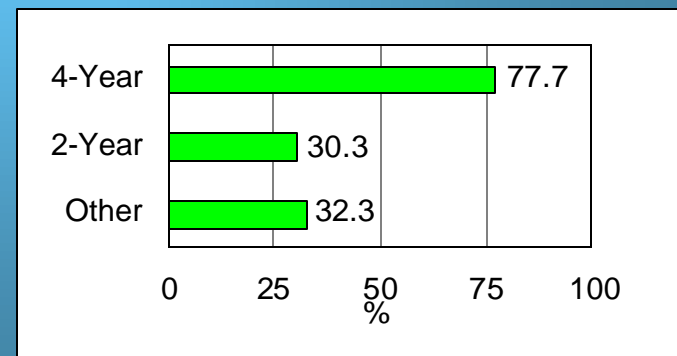
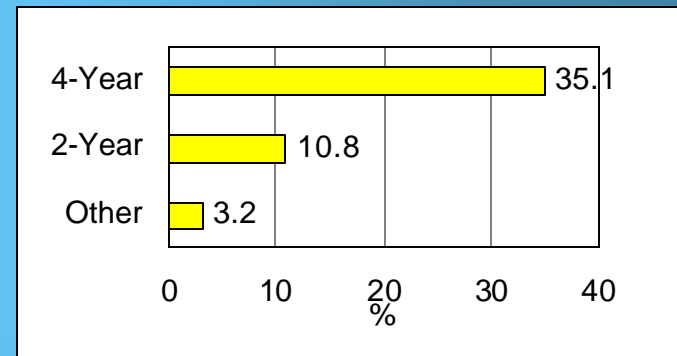
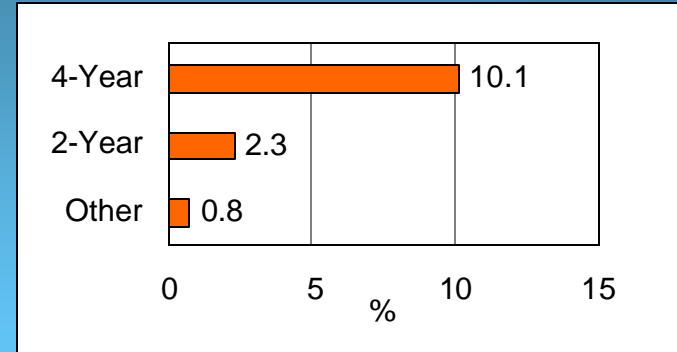
The High School Class of 1982

- **Representative sample of 15,000 high school sophomores.**
- **Follow-ups: 1982, 1984, 1986 & 1992**
- **Data sources:**
 - **Students, parents and records (high school, college & financial aid)**
- **Sample weighted to represent 2,191,861 high school seniors who attended postsecondary education between 1982-84.**

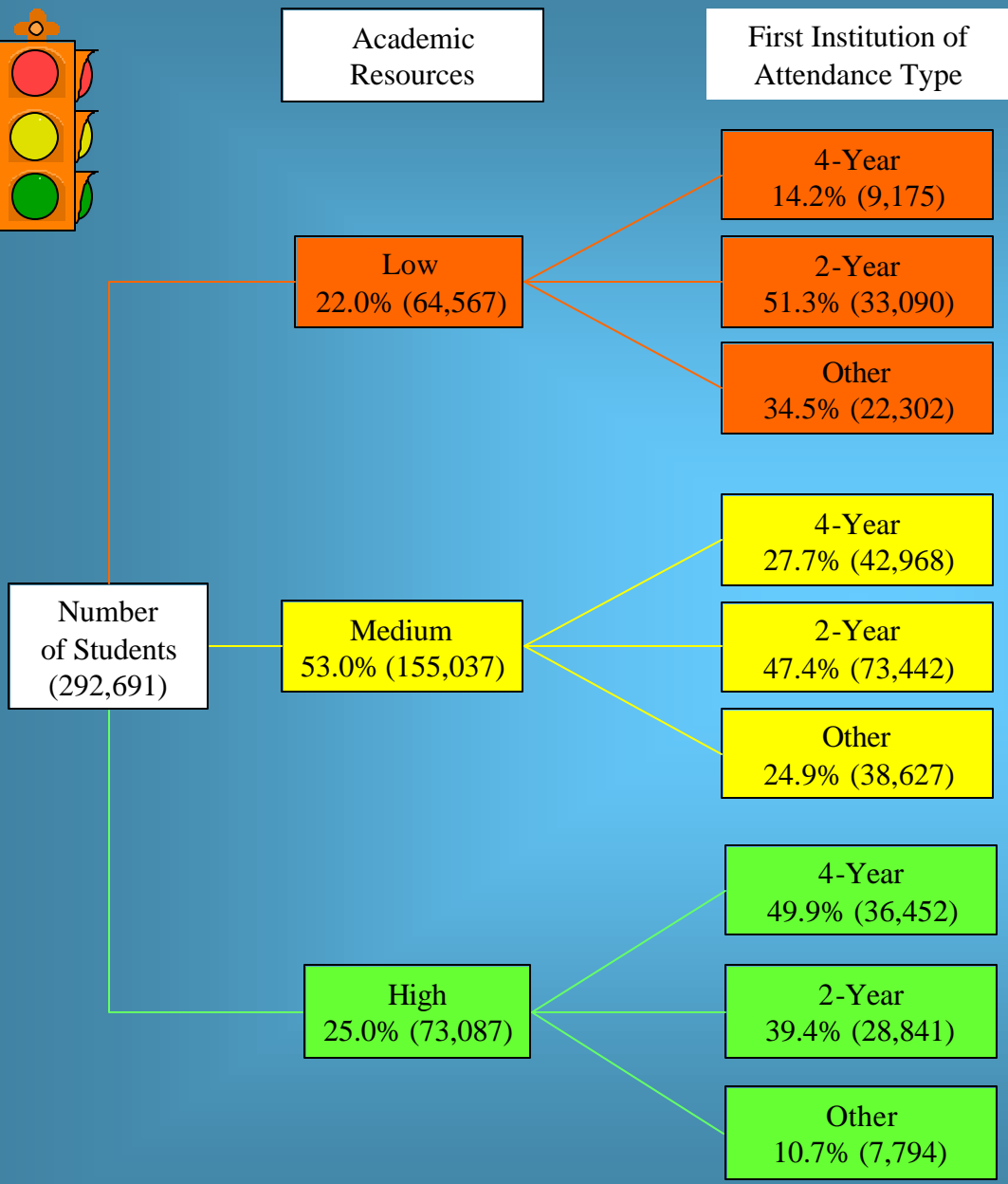
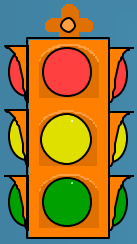
Degree attainment by ACRRES and first institution type for all students



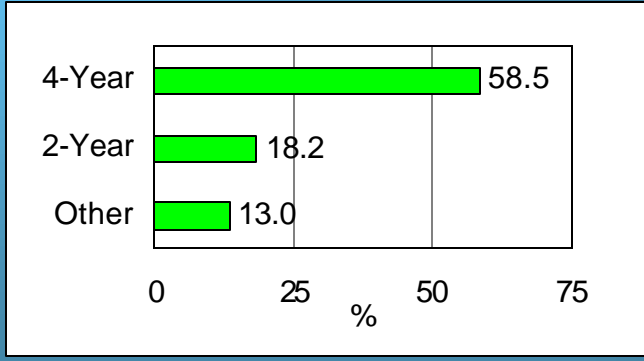
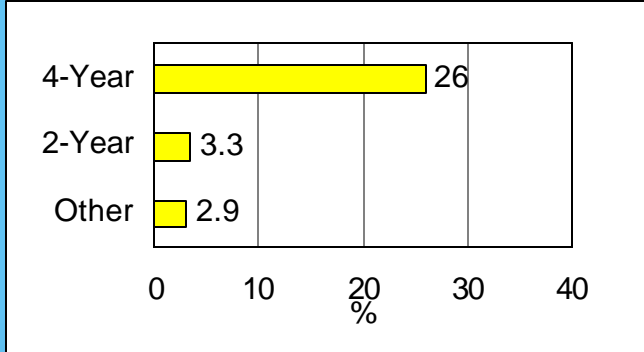
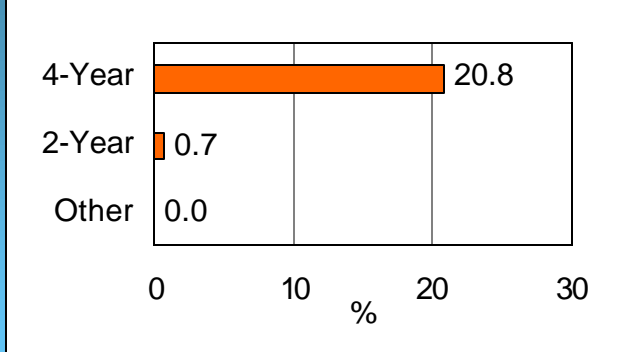
Probability of Securing a 4-Year Degree



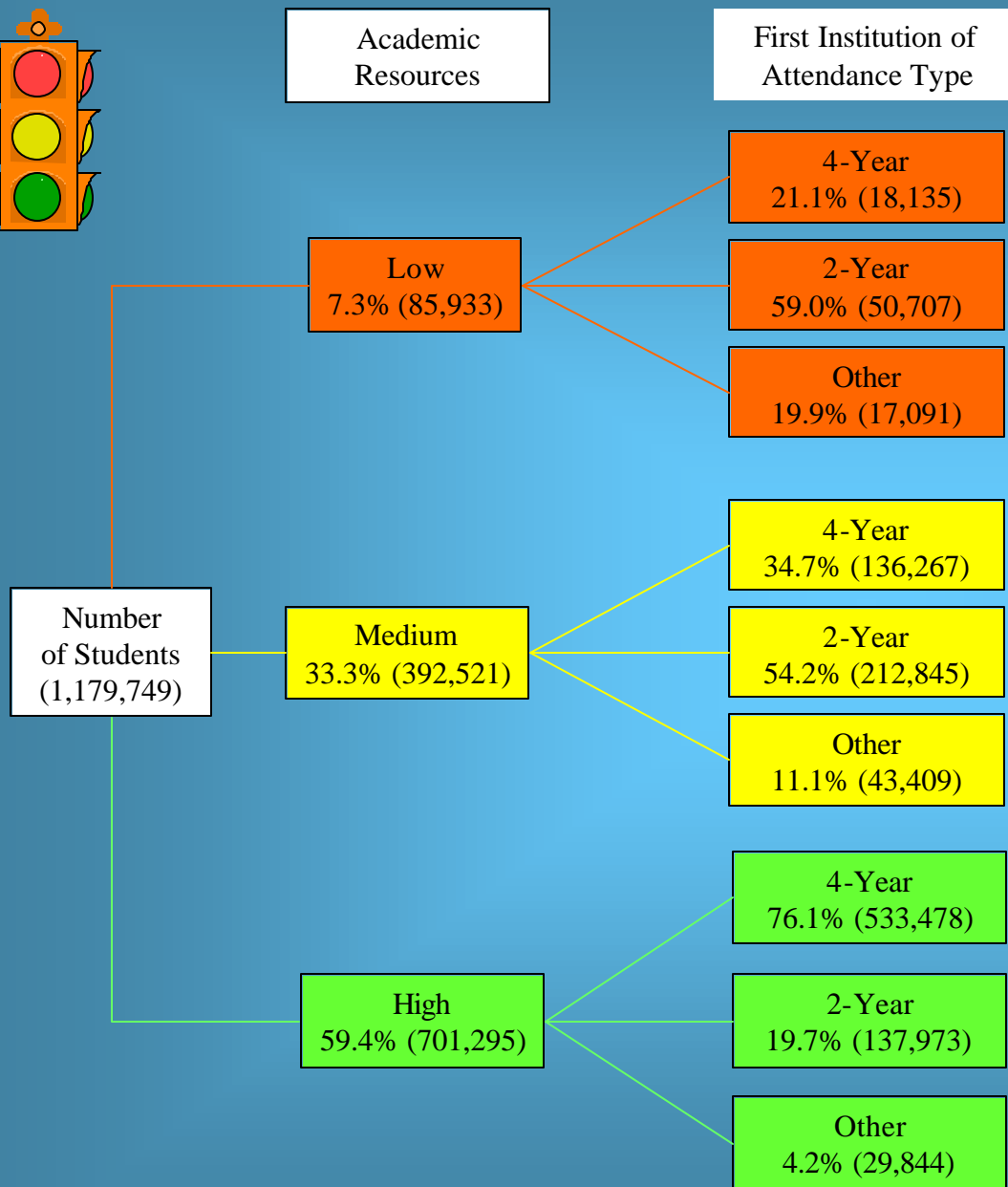
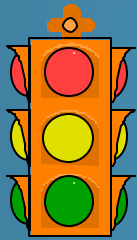
Degree attainment by ACRES and first institution type for Lowest-SES students



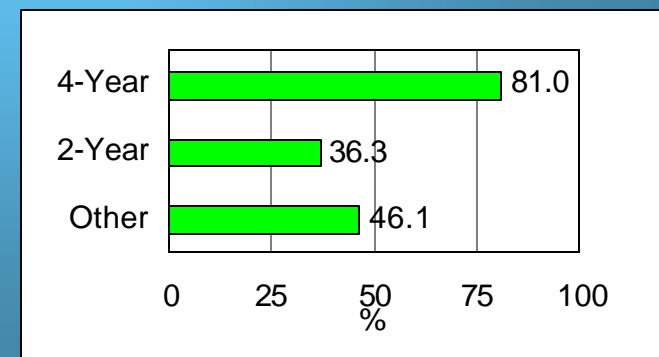
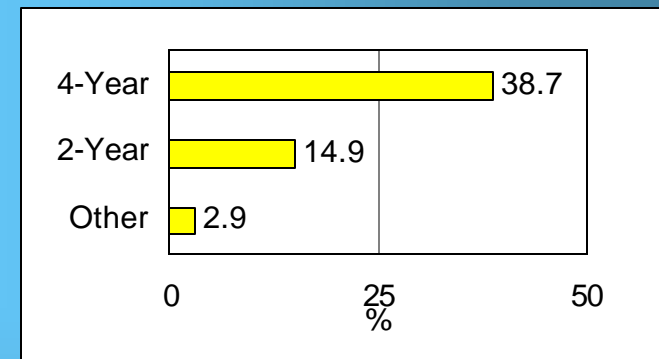
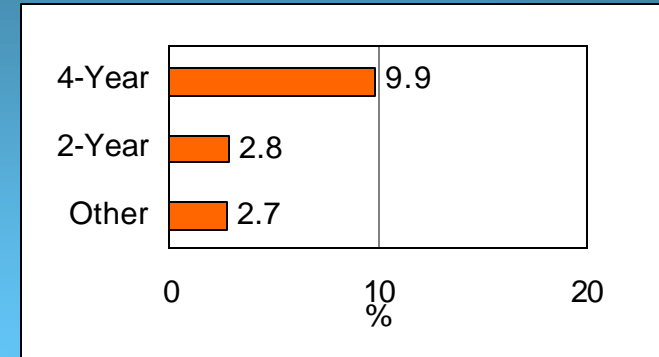
Probability of Securing a 4-Year Degree



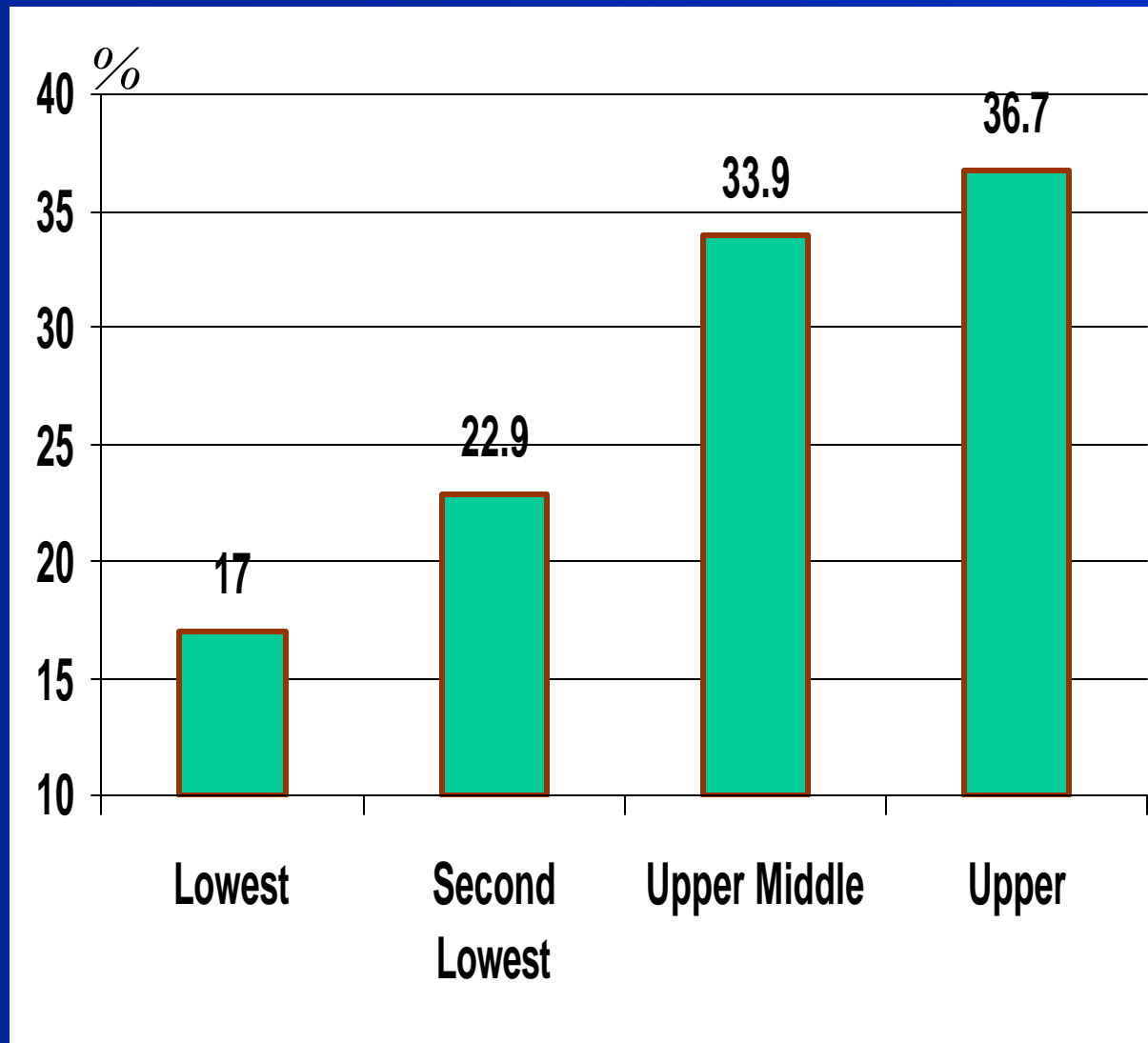
Degree attainment by ACRES and first institution type for Highest-SES students



Probability of Securing a 4-Year Degree

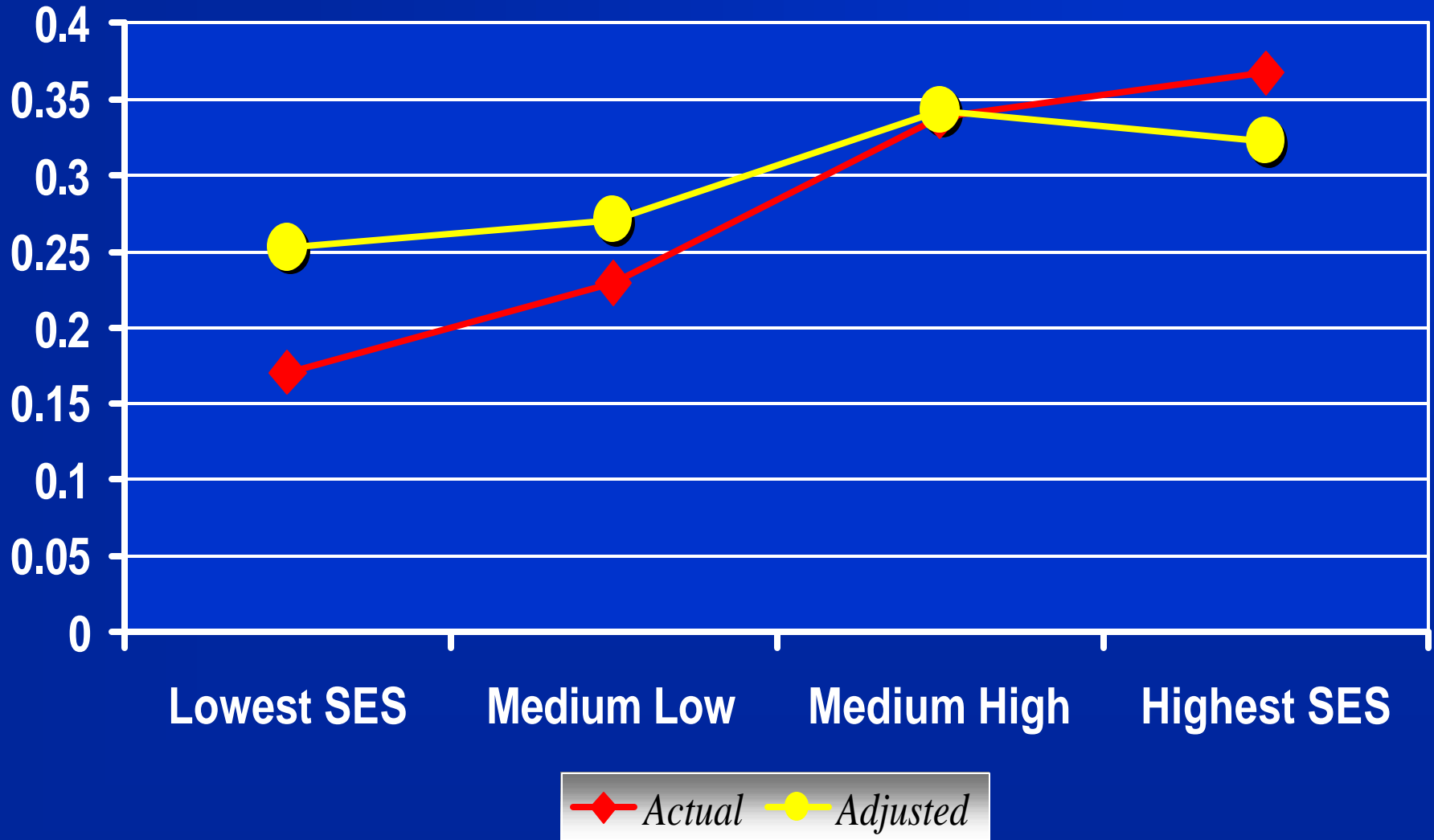


What matters in Transferring?



- **Lowest-SES students were 20%, 17% and 6% less likely to transfer to a 4-year institution than their highest, middle-upper and middle-lowest SES counterparts.**

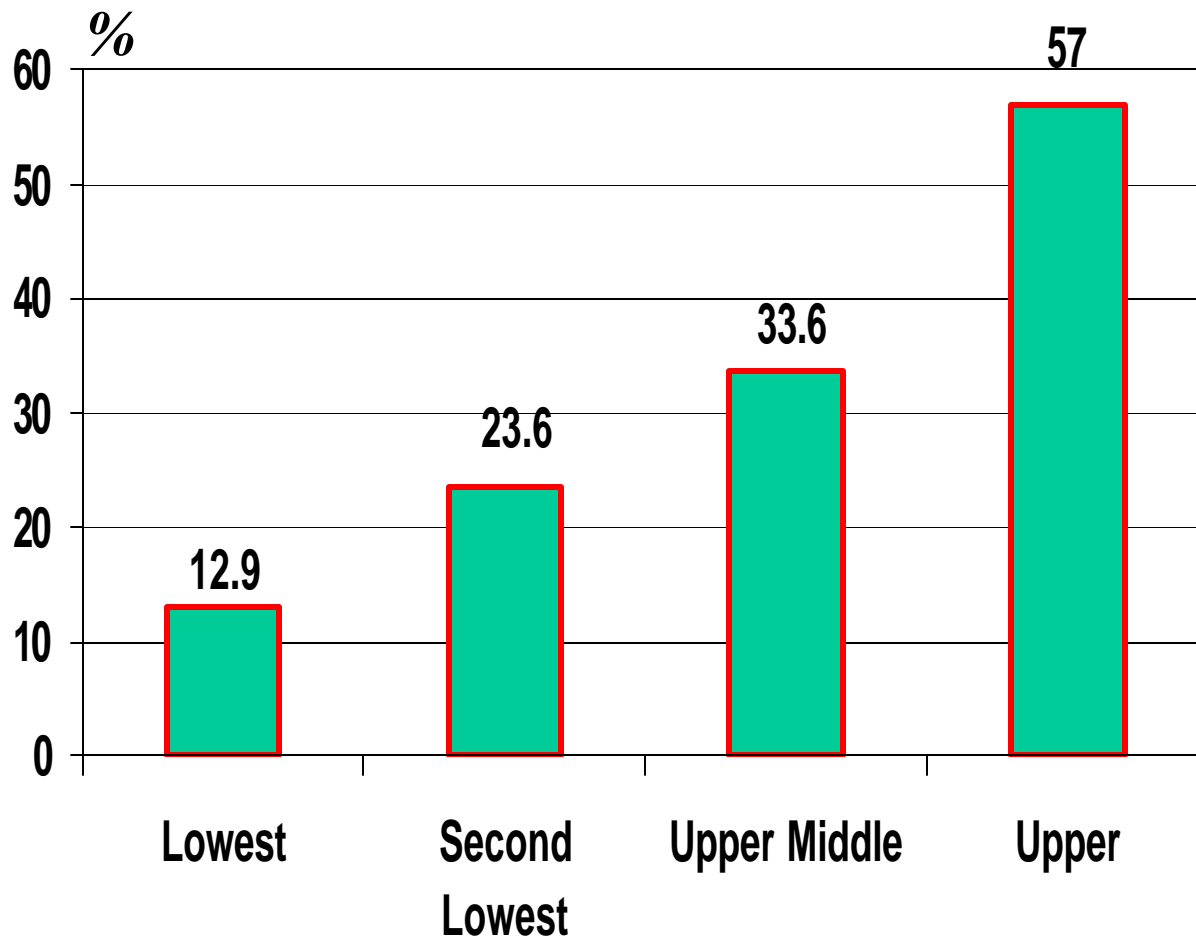
What matters in Transferring?



What matters most for Transferring?

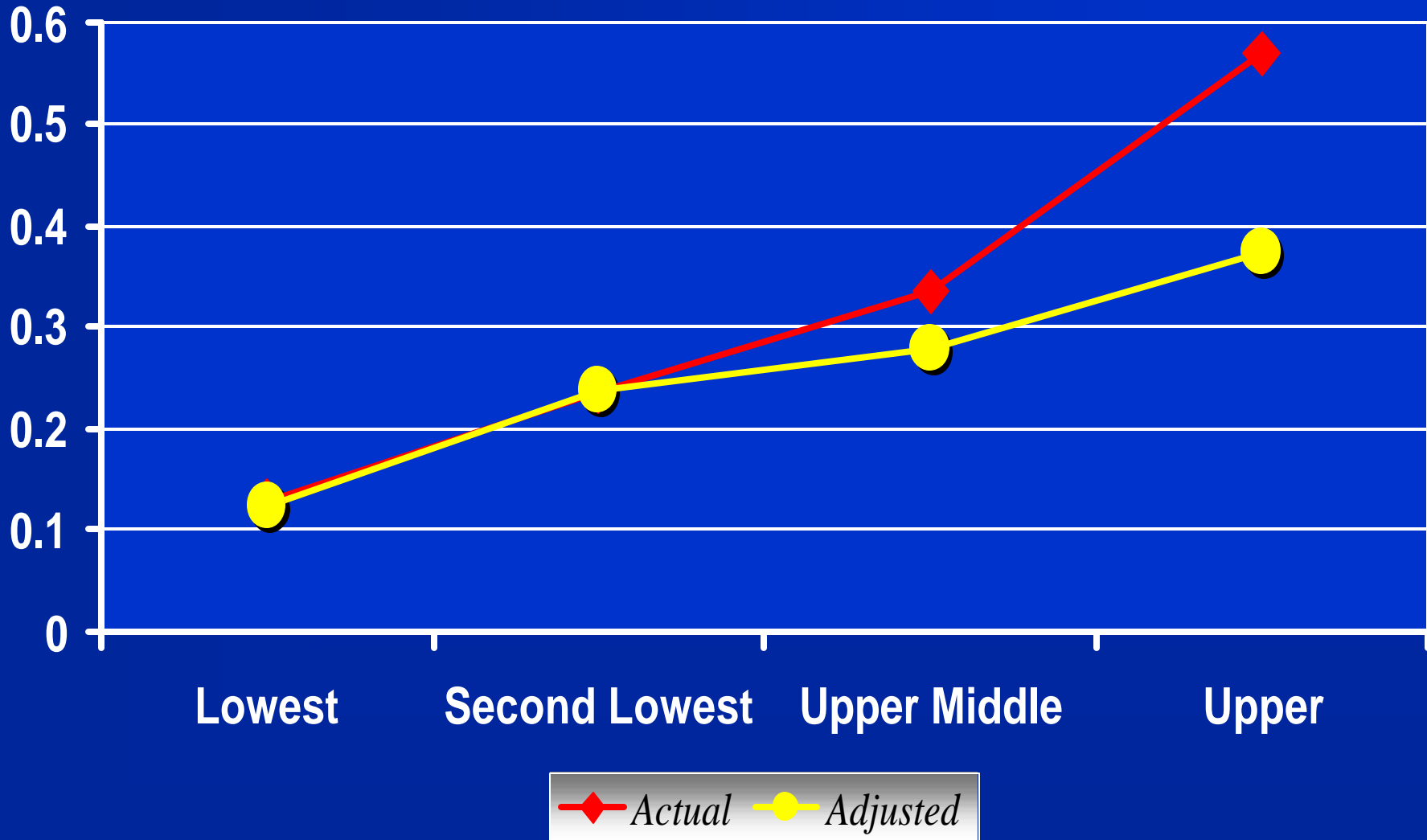
Factor	Probability
Academic resources	+8% – 23%
Educational aspirations	+ 17 %
# of college math & science courses	+ 4% – 36%
Collegiate experiences	+ 2% - 7%
College GPA	9%
Financial support	+6.0% -10.0 %
Children	-19%
Socioeconomic status	-2% - 10%

What matters for Degree Completion?



Poorest students' baccalaureate degree rate lags nearly 44% behind that of their upper-SES counterparts

What matters for Degree Completion?



What matters most for:

Transferring

1. Academic resources
2. Educational aspirations
3. # of college math & science courses
4. Collegiate experiences
5. College GPA
6. Financial support
7. Children
8. Socioeconomic status

What matters most for:

Degree Completion

1. Academic resources
2. Educational aspirations
3. Type of 1st institution attended
4. Continuous enrollment
5. # of college math & science courses
6. Collegiate experiences
7. Financial support
8. College GPA
9. Children
10. Socioeconomic resources
11. % of college courses DWI

Pathways to degree completion

- Nine pathways when considering academic resources and 1st type of institution attended.
- Effectiveness of pathways vary:
 - High academic preparation & attending a 4-year institution is the most effective
 - Poor academic preparation & 2-year is the least effective
- Choosing pathways varies by SES

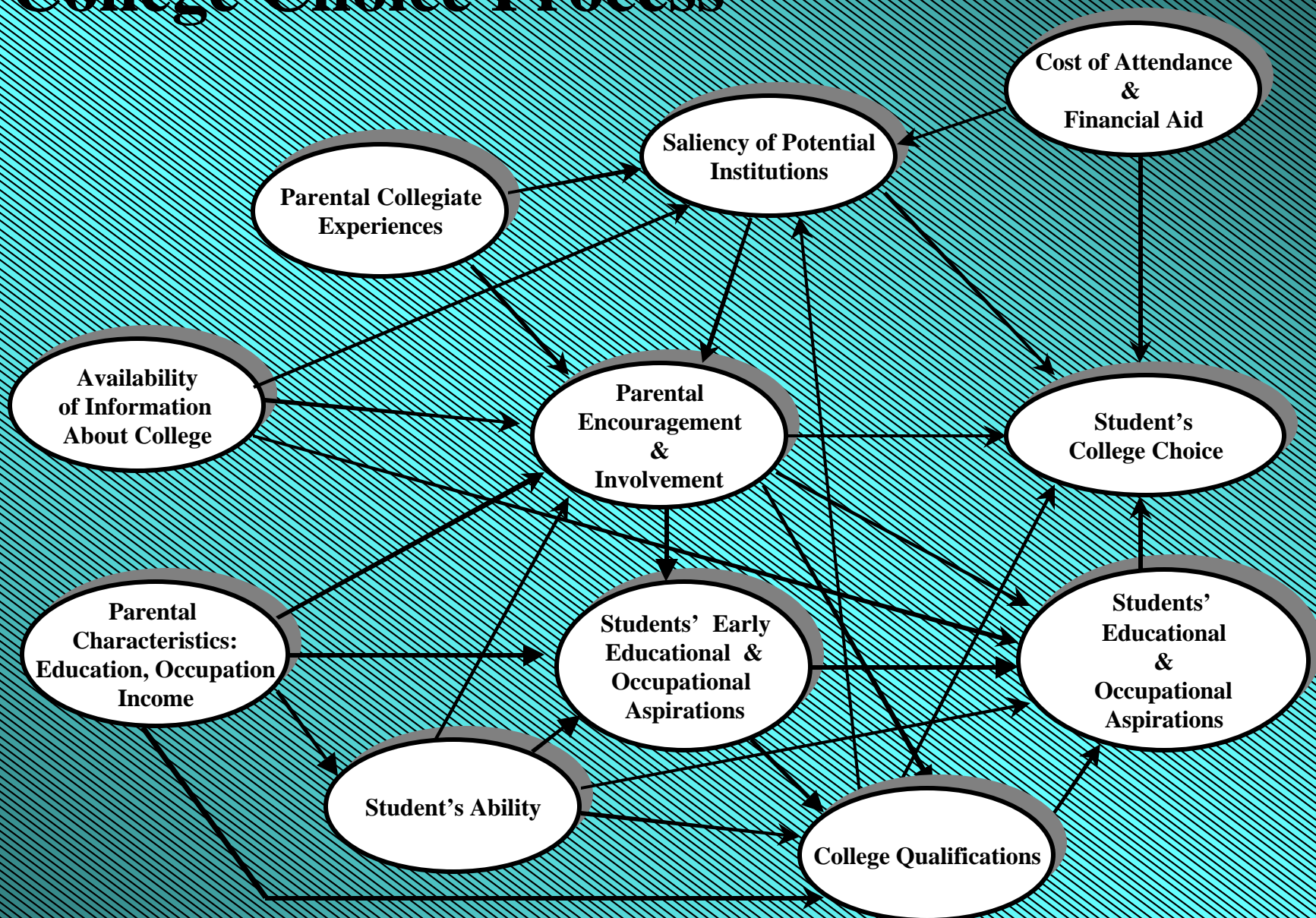
Determinants of Transfer

- *Descriptive statistics show a substantial SES-based GAP*
- *Determinants of transfer have to do more with preparation for college, degree aspirations, performance in college, curricular choices, having children than they do with SES*

Determinants of degree completion

- *Descriptive statistics show a substantial SES-based gap.*
- *SES-based gap though substantially reduced still remains once other factors are taking into account.*
- *Most important factors*
 - *Academic resources*
 - *Educational aspirations*
 - *Type of institution*
 - *Effort (DWI & continuous enrollment)*
 - *Curriculum*
 - *Academic performance*
 - *Children*

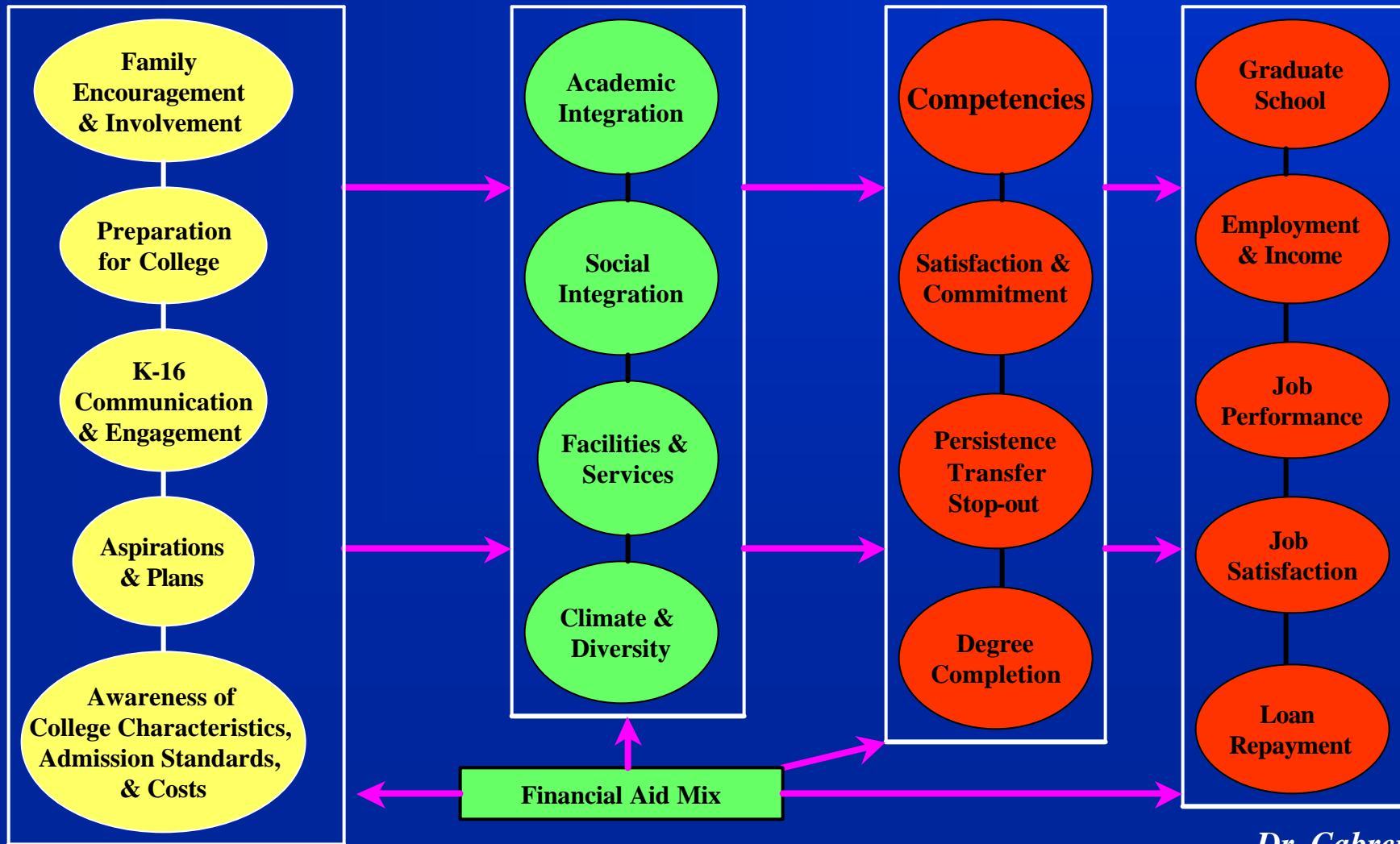
College Choice Process



Cabrera & La Nasa (2000). Understanding the college choice process. Jossey Bass

College Persistence as a Longitudinal Process

College Decision → College Experiences → College Outcomes



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What matters most on the path to college?

Stage	Factors	Outcomes
Predispositions Grade:7 th - 9 th	<ul style="list-style-type: none">• Parental expectations.• Parental encouragement & support• Parental saving for college• Parental involvement in school activities• Socioeconomic status• Parental collegiate experiences• High school academic resources• Student ability• Information about college• Student ability	<ul style="list-style-type: none">• Reading, writing, math & critical thinking skills• Career/Occupational aspirations• Educational aspirations• Planning for college• Enrollment in college bound curriculum

What matters most on the path to college?

Stage	Factors	Outcomes
Search Grades: 10 th -12 th	<ul style="list-style-type: none">● Parental expectations.● Parental encouragement, support & involvement in school.● Educational aspirations.● Occupational aspirations.● Socioeconomic status.● Saliency of potential institutions.● Student ability.● High school academic resources.	<ul style="list-style-type: none">● Listing of tentative institutions.● Narrowing list of tentative institutions.● Securing information on institutions

Source: Cabrera & La Nasa (2000)

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What matters most on the path to college?

Stage	Factors	Outcomes
Choice Grades: 11 th -12 th	<ul style="list-style-type: none"> • Educational aspirations. • Occupational aspirations. • Socioeconomic status. • Parental encouragement. • Perceived institutional attributes (quality, campus life, availability of majors, distance). • Perceived ability to pay (perceived resources, perceived costs). 	<ul style="list-style-type: none"> • Awareness of college expenses & financial aid. • Awareness of institutional attributes & admission standards. • Attaining scholastic aptitudes, attitudes & competencies. • Perceived support from family & friends. • Institutional commitment. • Submission of applications. • Taking PRE-SAT & PRE-ACT • Pre-registration • Attendance. • Application for financial aid.

Source: Cabrera & La Nasa (2000)

What matters most on the path to college?

Stage	Factors	Outcomes
<p>College</p> <p>Freshman Year</p> <p>Junior Year</p>	<p>High school academic resources</p> <p>Parental encouragement & support</p> <p>Campus & classroom climate</p> <p>Collegiate experiences</p> <p><i>-Out-of-classroom</i></p> <p><i>-Intensity & quality of instruction</i></p> <p><i>-Counseling</i></p> <p><i>-Interactions with peers & faculty</i></p> <p>Engagement with the academic & social components of the institution</p> <p>Working on campus</p> <p>College GPA</p> <p>Financial assistance</p> <p>Effort spent in academic related activities</p>	<p>Gains in:</p> <ul style="list-style-type: none"> • <i>Personal development</i> • <i>Problem solving</i> • <i>Critical thinking</i> • <i>Understanding of science & technology</i> • <i>Appreciation for art</i> • <i>Career Maturity</i> • <i>Occupational awareness</i> • <i>Group skills</i> • <i>Tolerance & openness to diversity</i> <p><i>Persistence to graduation</i></p> <p><i>Pursuit of graduate studies</i></p> <p><i>Incorporation into the labor force</i></p>

What can be done?

Stage	Intervention Strategies
Predispositions Grades: 7th –9th	<ul style="list-style-type: none">• Academic tutorial session• Visitations to postsecondary institutions• Assessing academic potential and identifying gaps• Career exploration & decision making workshops• Curriculum planning• Parental involvement• Field trips to workplaces for different occupations• High Teachers' expectations• Parental workshops on college & ways to finance it

What can be done?

Stage	Intervention Strategies
Search Grades: 10th – 12th	<ul style="list-style-type: none">• Counseling on postsecondary programs• Collecting & disseminating information about postsecondary institutions• Academic tutorial sessions• Participation in “College Days” activities

What can be done?

Stage	Intervention Strategies
Choice Grades: 11th – 12th	<ul style="list-style-type: none">• 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

Stage	Intervention Strategies
College Freshman Year Junior Year	<ul style="list-style-type: none"> • Pre-entry assessment & placement of students according to needs • Study and learning workshops • Faculty mentorship programs • Learning communities (cluster programs) • Co-curricular activities and programs • Parental involvement • Recognition of student enclaves & their inclusion in campus governance • Counseling/advising/job placement/summer programs • Career exploration activities • Internships on campus and outside campus • Scholarships • Work study programs • Networking with alumni and potential employers • Scholarships • Financial aid planning and debt advising • Multicultural education • Workshops & training on learning styles • Use of validation strategies in the classroom & out of the classroom

Intervention strategies

- *Academic readiness for college*
 - *College dropout begins in middle school*
 - *Make certain middle and high school curriculum is aligned with college curriculum*
- *Enrollment management*
 - *Should begin as early as the 8th grade*
 - *Learning communities*
 - *Use financial aid as tool for involvement*

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**

***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

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.
- 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. & Burkum, K, R. (June, 2001). *Pathways to a Four-Year Degree: The Higher Education Story of One Generation*. Center for the Study of Higher Education. Penn State University.
- 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.
- 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.