

# On the path to college: *What matters?*

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## 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)**

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

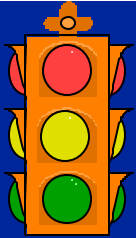
# On the path to college

## Some methodological notes

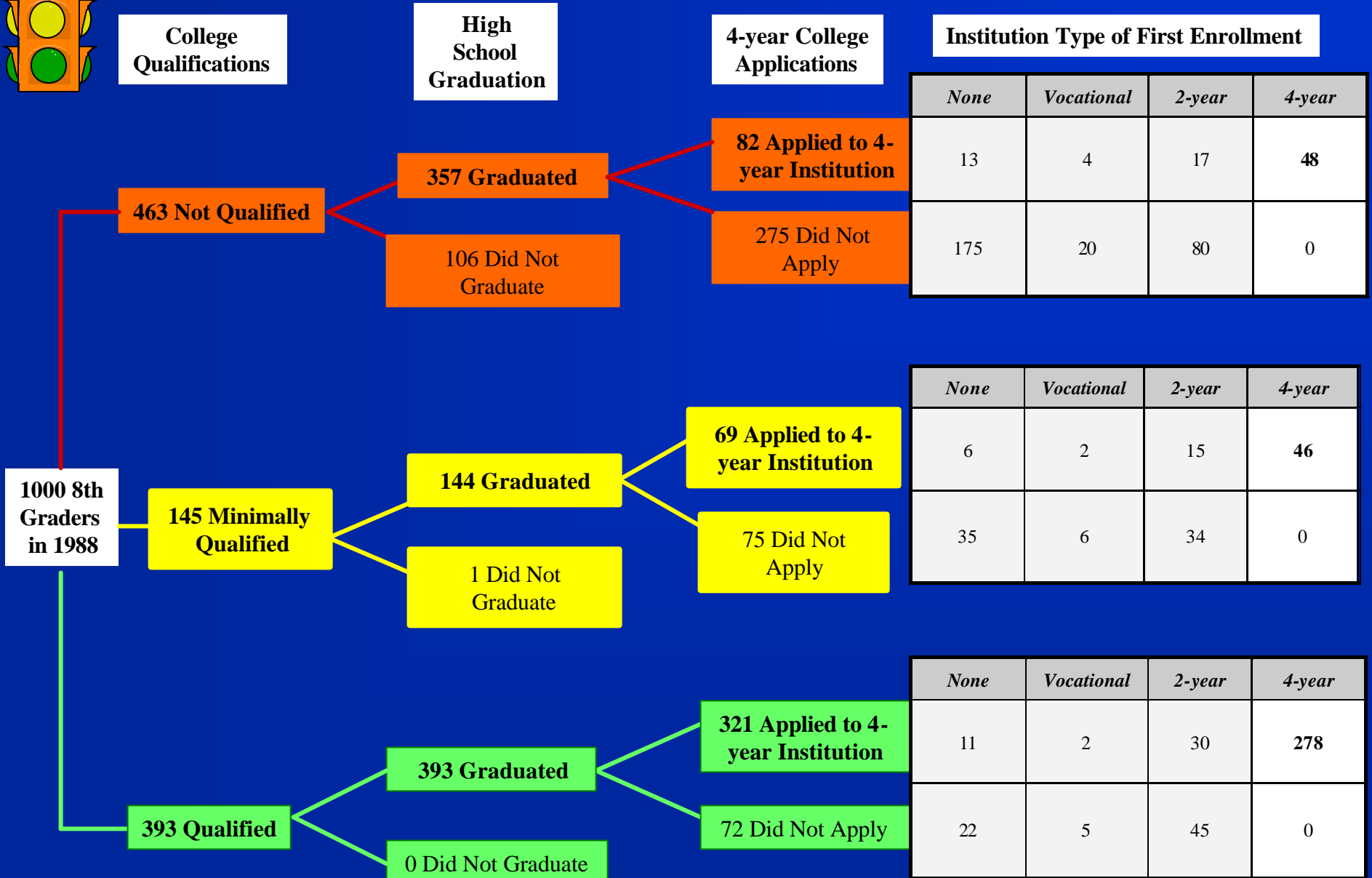
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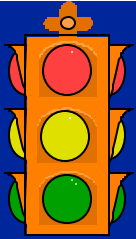
- Analyses are based on the National Educational Longitudinal Study of 1988 8<sup>th</sup> graders (NELS:88)
- Academic qualification index
  - *High school rank*
  - *ACT/SAT scores*
  - *High school grades in academic track courses*
  - *NELS mathematics & reading test scores*

**What are an 8<sup>th</sup>  
grader's chances to  
enroll at a  
postsecondary  
institution?**

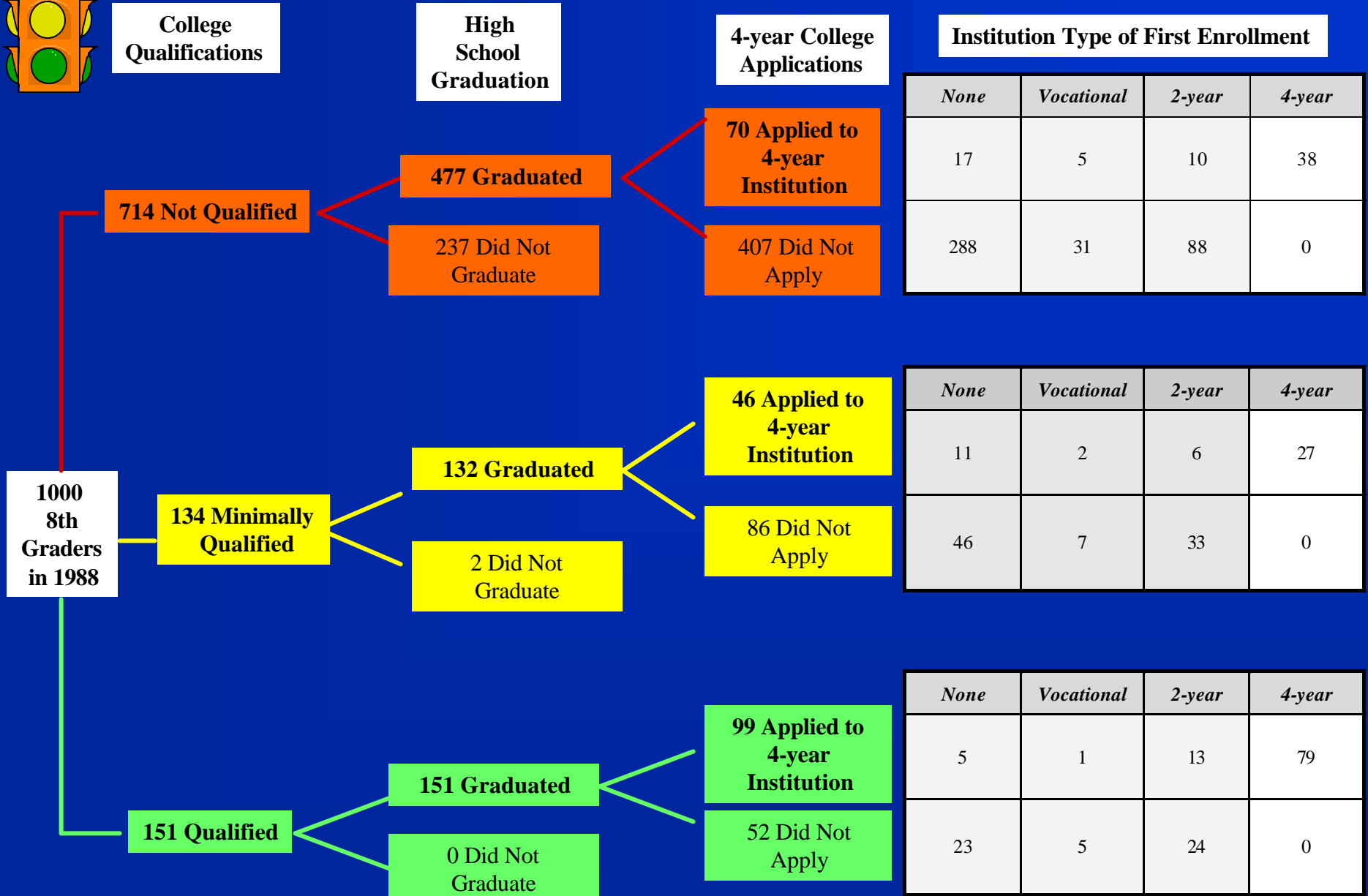


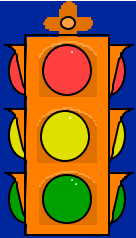
# College Choice Process for 1000 1988 8<sup>th</sup> Grade Students



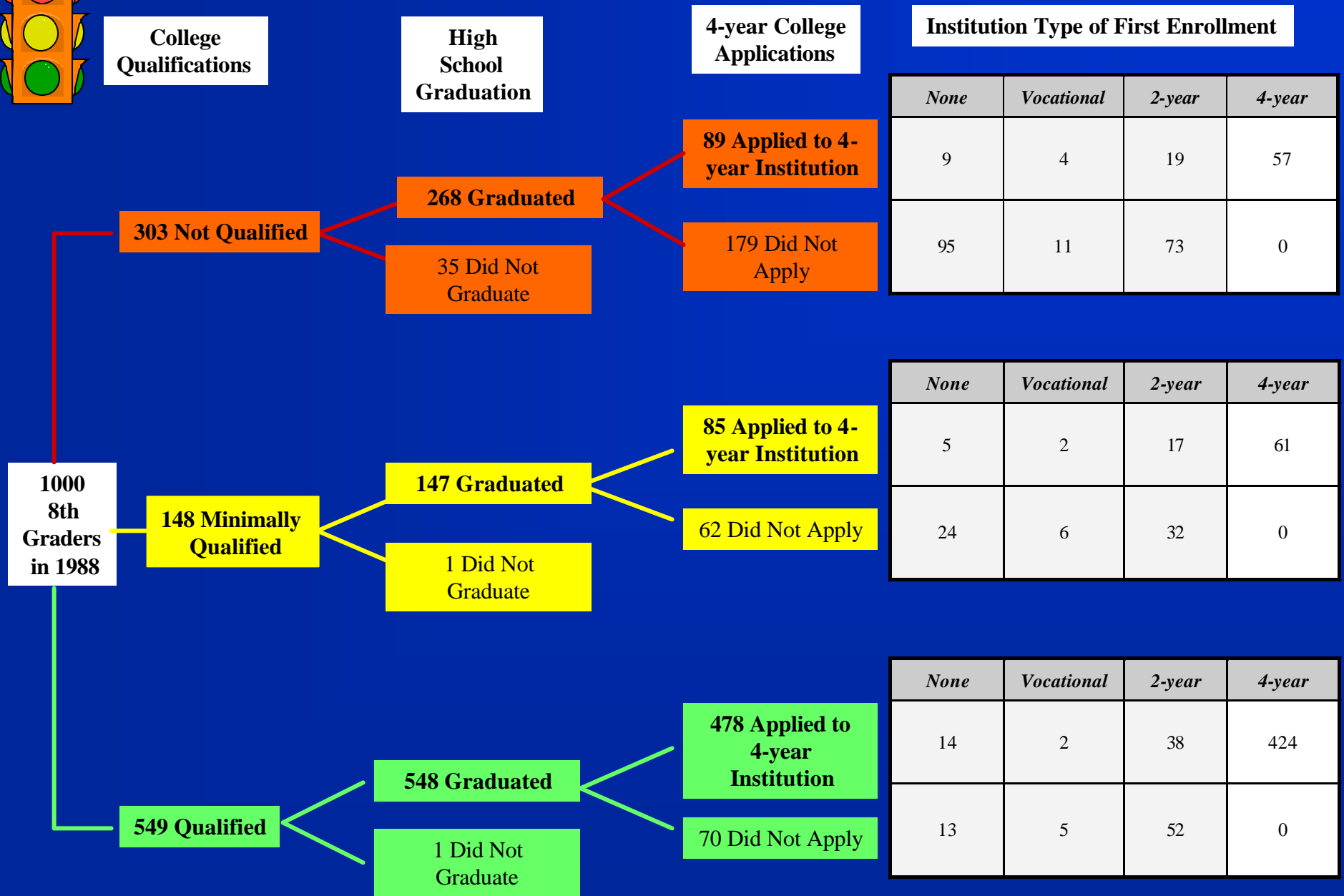


# College Choice Process for 1000 Lowest SES Students





# College Choice Process for 1000 High SES Students



# *Who is a lowest-SES 8<sup>th</sup> grader?*

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



# *Who is a lowest-SES 8<sup>th</sup> grader?*

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**Poorest 8<sup>th</sup> 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 8<sup>th</sup> graders*

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- Only 285 out of 1000 poor 8<sup>th</sup> 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 8<sup>th</sup> graders*

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

# *Applying to College*

## *1988 Lowest SES 8<sup>th</sup> graders*

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- Only 215 out of 1000 lowest-SES 8<sup>th</sup> 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  
members of the 1988  
8<sup>th</sup> grade cohort who  
are of minority  
origin.**

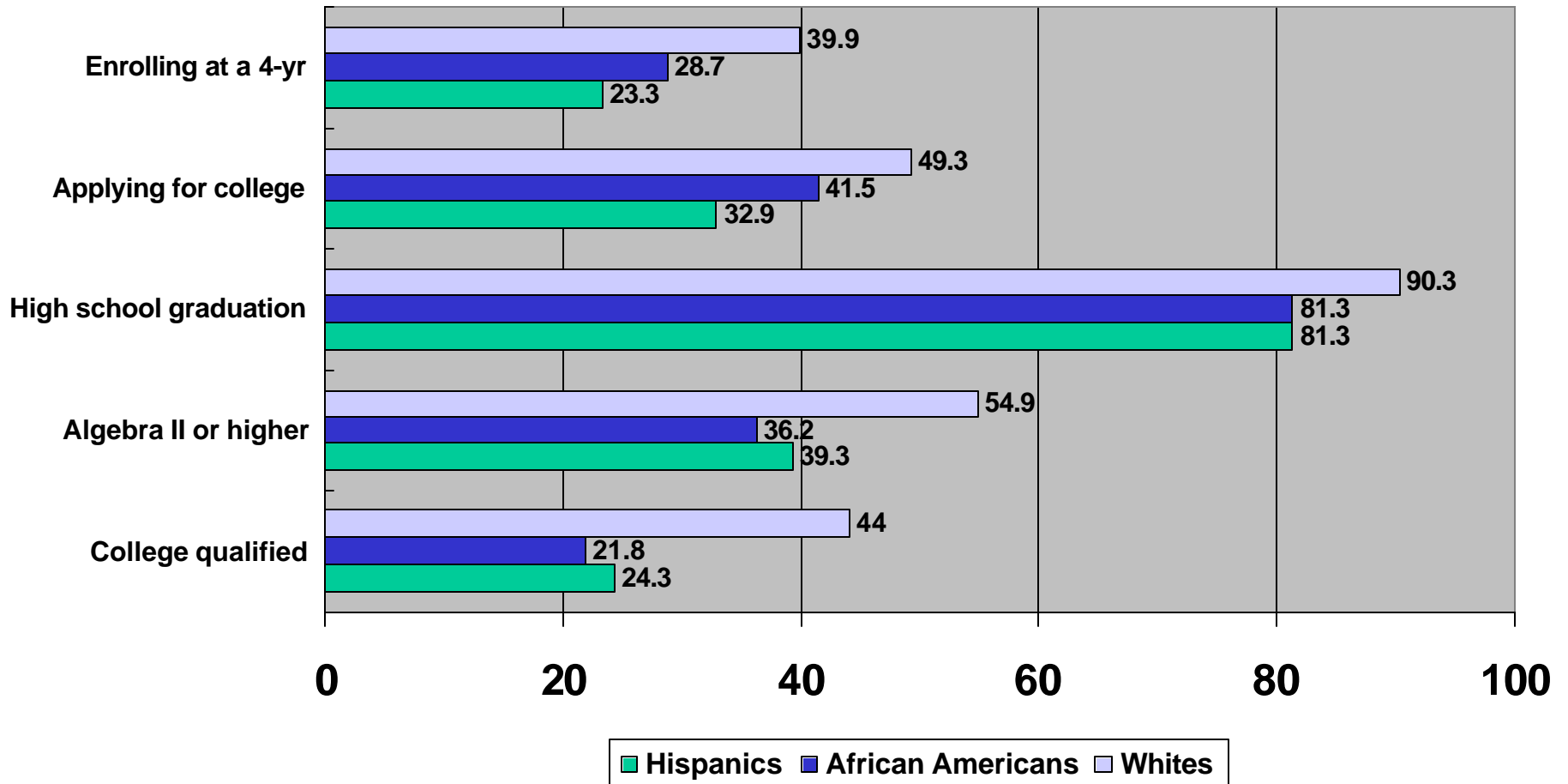
1988 eight graders	Hispanics	African Americans	Whites
Parents with some college.....	47.4%	61.8%	72.9%
<i>Percent showing at-risk factors:</i>			
•Held back one grade.....	20.6%	27.5%	15.4%
•Single parent family.....	20.6%	46.4%	16.9%
•Siblings dropping out from HS.....	20.5%	20.7%	12.2%
•Changing schools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

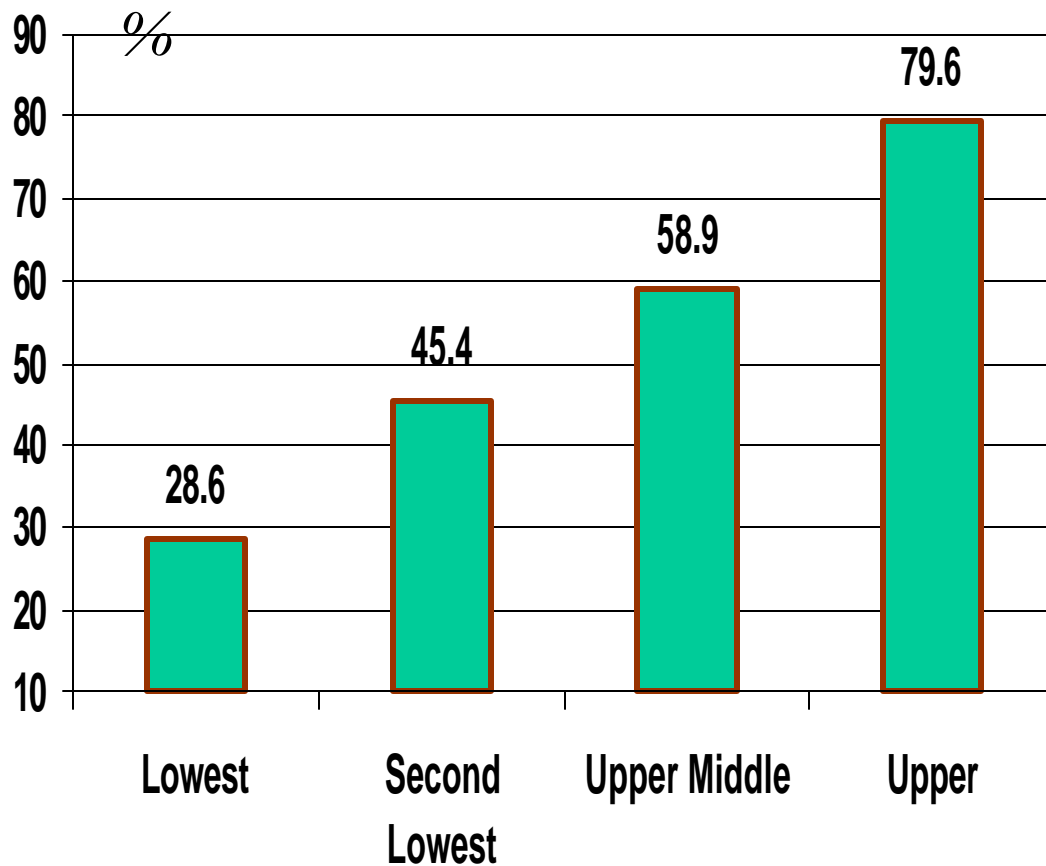
1988 eight graders



Based on National Educational Longitudinal Study 1988

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# *Acquisition of college qualifications*

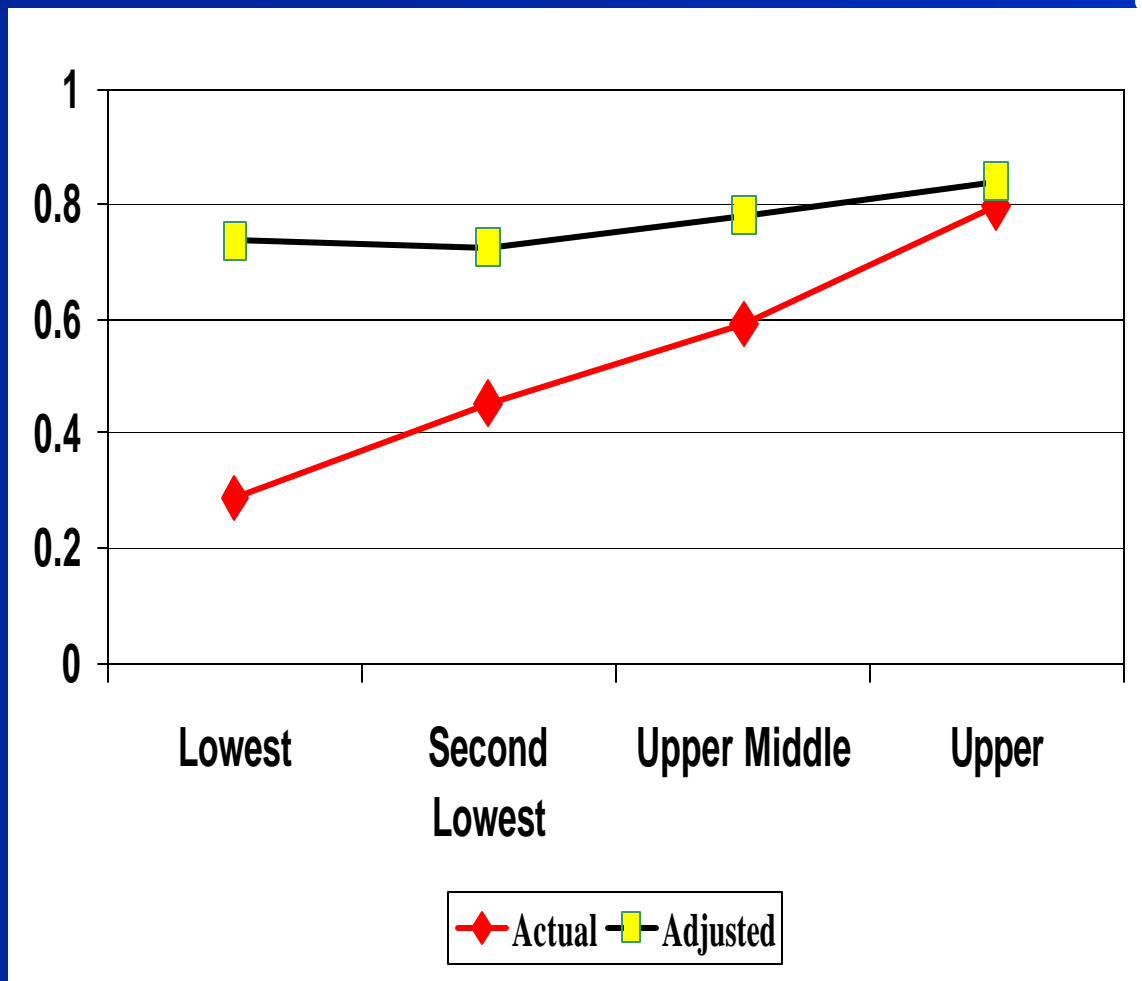


- Becoming college-qualified correlated with socioeconomic status ( $r=.377$ )
- Lowest-SES students were 51%, 30% and 17% less likely to secure minimal college qualifications than their highest, middle-upper and middle-lowest SES counterparts.



# What matters in becoming college-qualified?

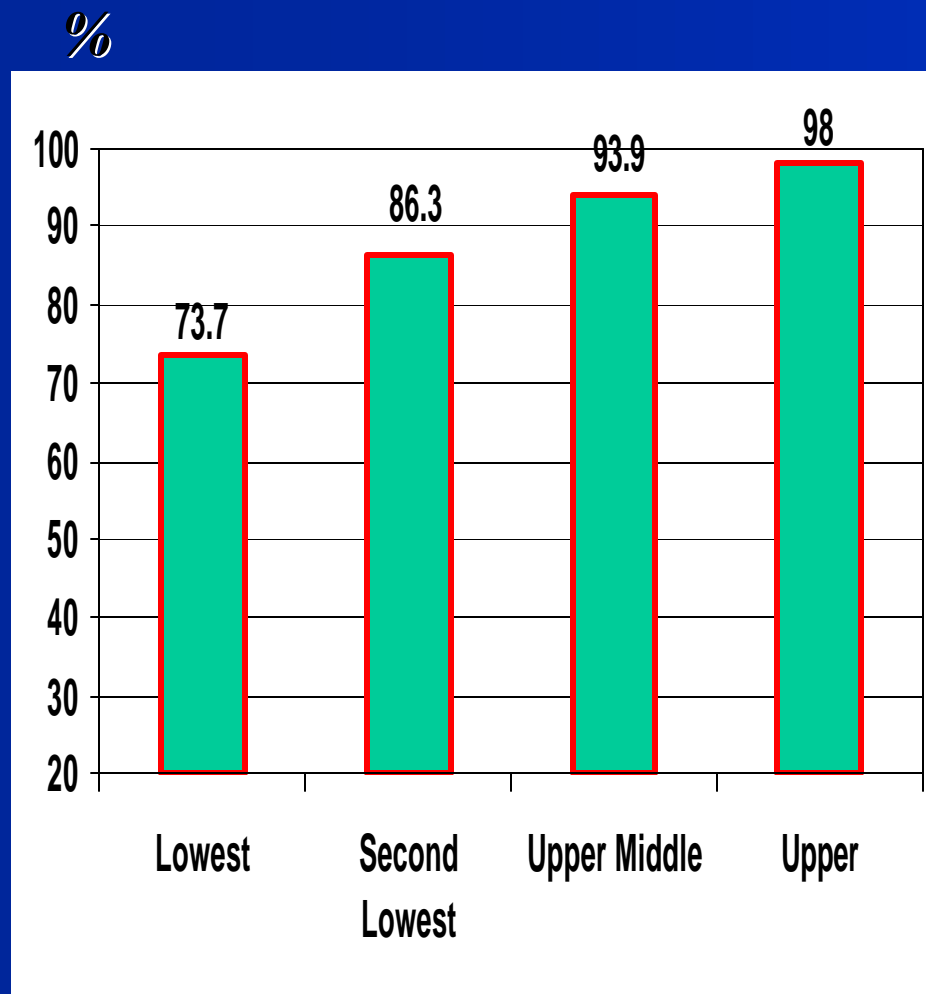
The gap between lowest-SES and upper-SES students narrowed from 51% to 15% once factors such as at-risk characteristics and parental involvement were taken into account



# *Acquisition of college qualifications: What matters most*

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

# High School Graduation

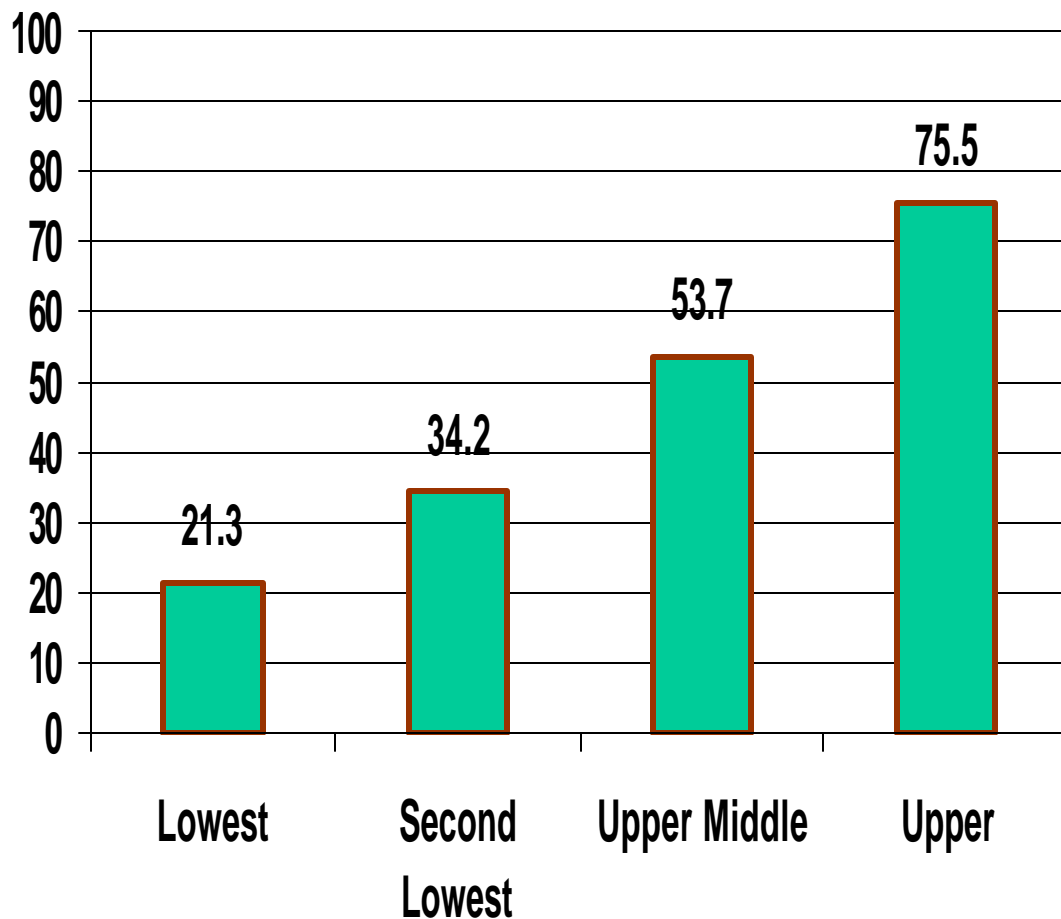


- The rate at which 1988 8<sup>th</sup> graders graduated from their high school correlated with their SES ( $r=.291$ )
- The poorest 1988 8<sup>th</sup> graders' graduation rate lagged nearly 25% behind that of their upper-SES counterparts.

# *High School Graduation: What matters most?*

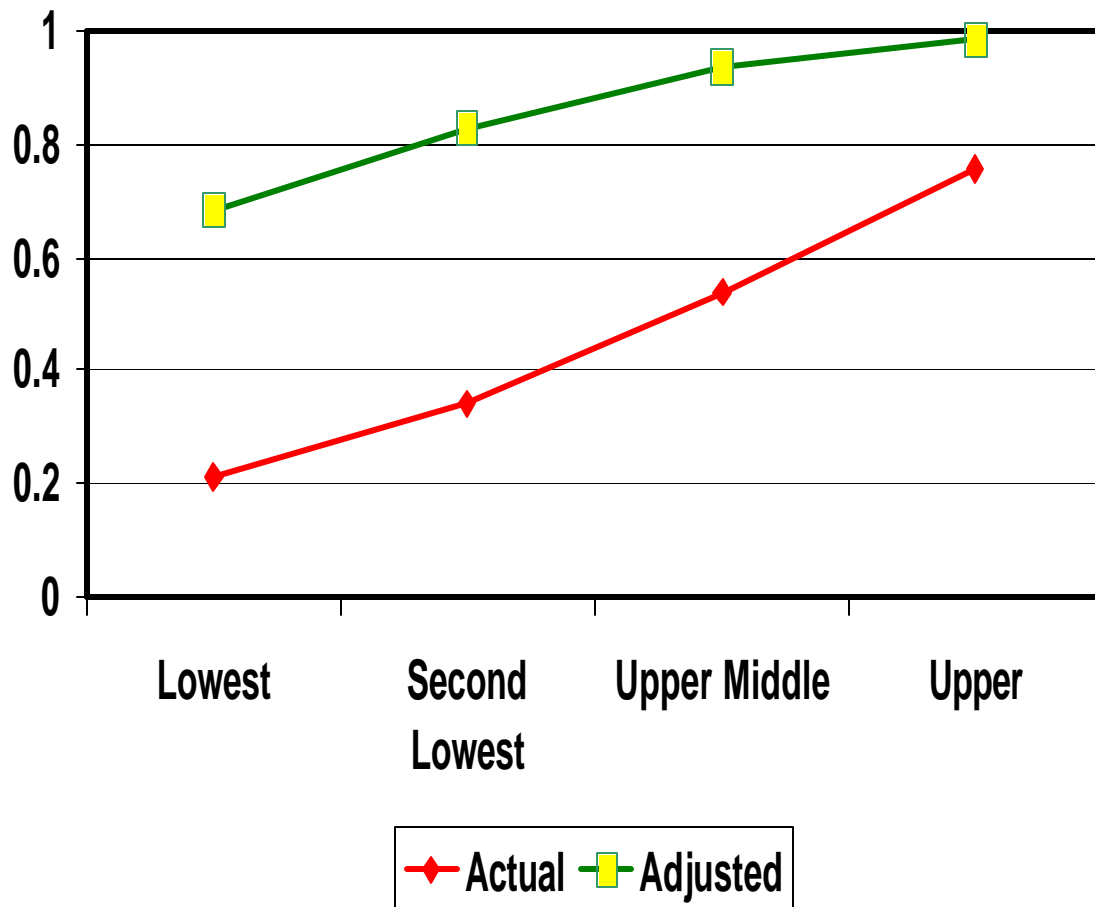
<b>Factor</b>	<b>Probability of HS diploma</b>
<b>Securing college qualifications</b>	<b>+11.4%</b>
<b>Upper SES</b>	<b>+ 7.6 %</b>
<b>Parental involvement</b>	<b>+ 5.3 %</b>
<b>At-risk factors</b>	<b>- 4.6 %</b>

# *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
<b>Degree Aspirations</b>	
<b>Bachelors'</b>	+ <b>27.6 %</b>
<b>Advanced</b>	+ <b>33.6 %</b>
<b>Parents' expectations</b>	
<b>Bachelors'</b>	+ <b>25.5 %</b>
<b>Advanced</b>	+ <b>21.9 %</b>
<b>College-qualifications</b>	+ <b>14.0 %</b>
<b>Assistance in:</b>	
<b>College application</b>	+ <b>11.3 %</b>
<b>College essays</b>	+ <b>8.1 %</b>
<b>Upper SES</b>	+ <b>26.4 %</b>
<b>At-risk factors</b>	- <b>6.5 %</b>

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



# Pathways to a 4-yr Degree

Cabrera, La Nasa & Burkum (2001)

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

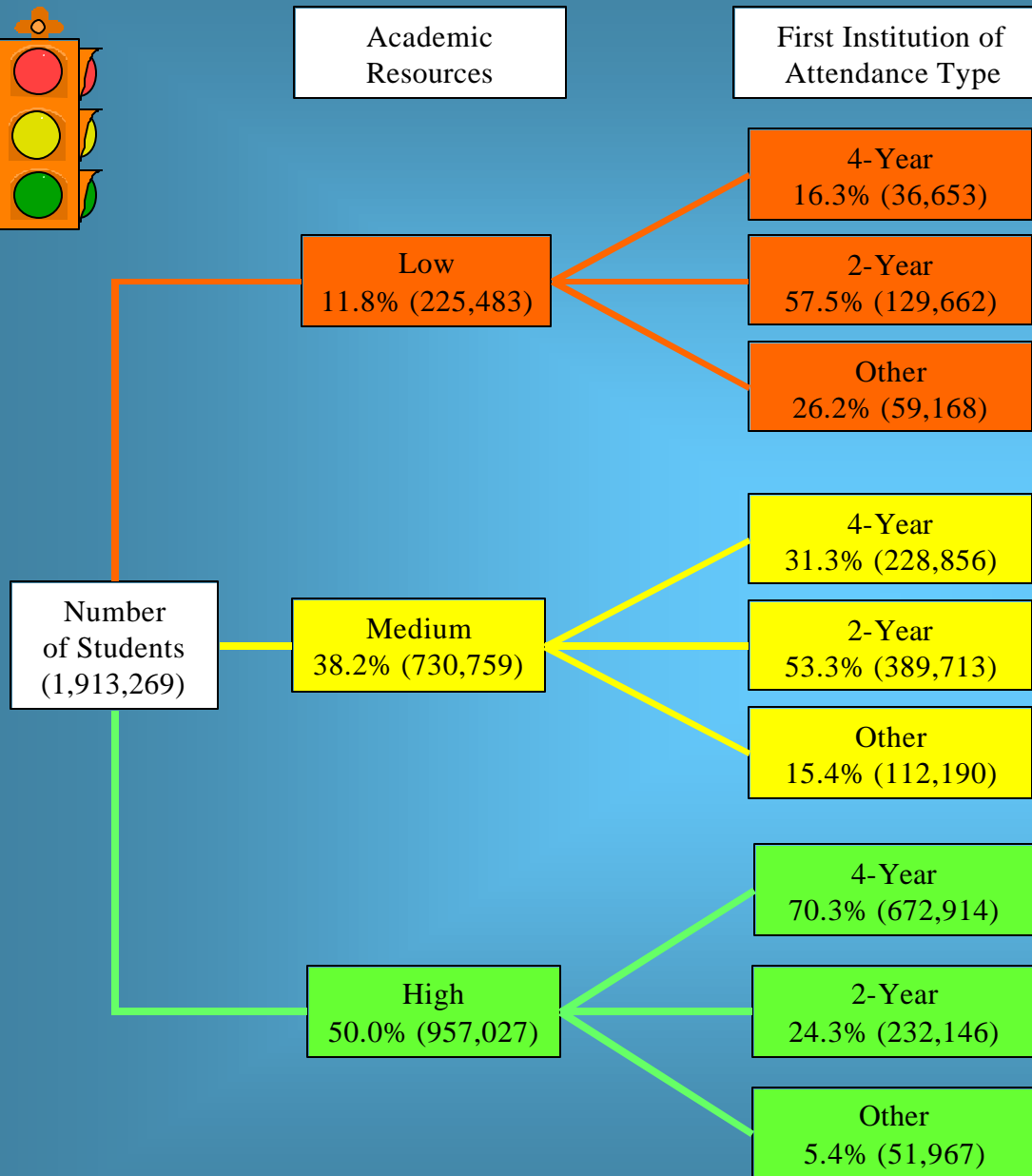
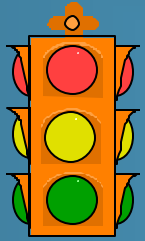
# The High School Class of 1982

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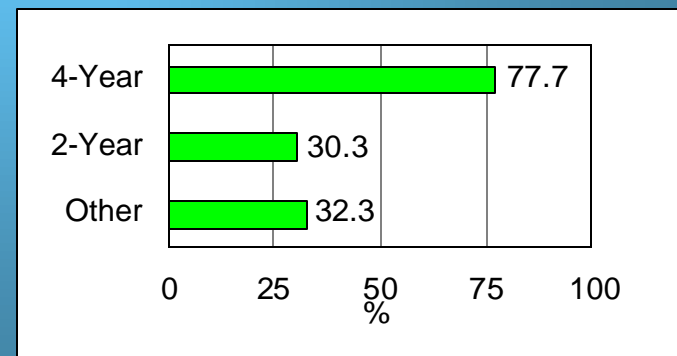
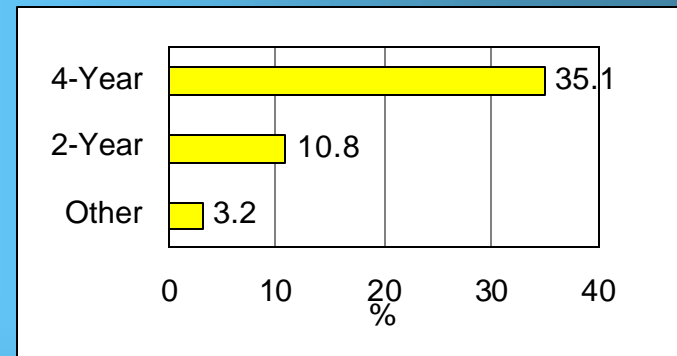
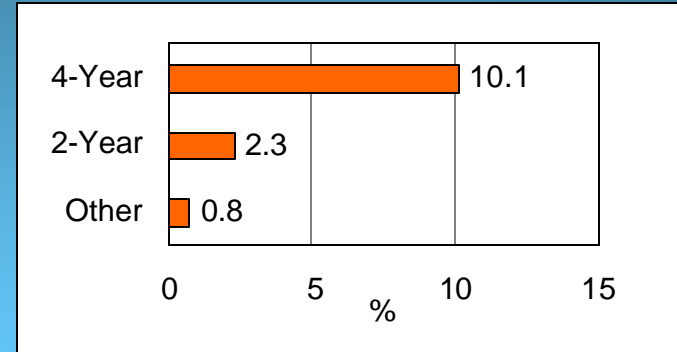
- **Representative sample of 15,000 high school sophomores.**
- **Follow-ups: 1982, 1984, 1986 & 1992**
- **Data sources:**
  - **Students, parents and records (high school, college & financial aid)**
- **Sample weighted to represent 2,191,861 high school seniors who attended postsecondary education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

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

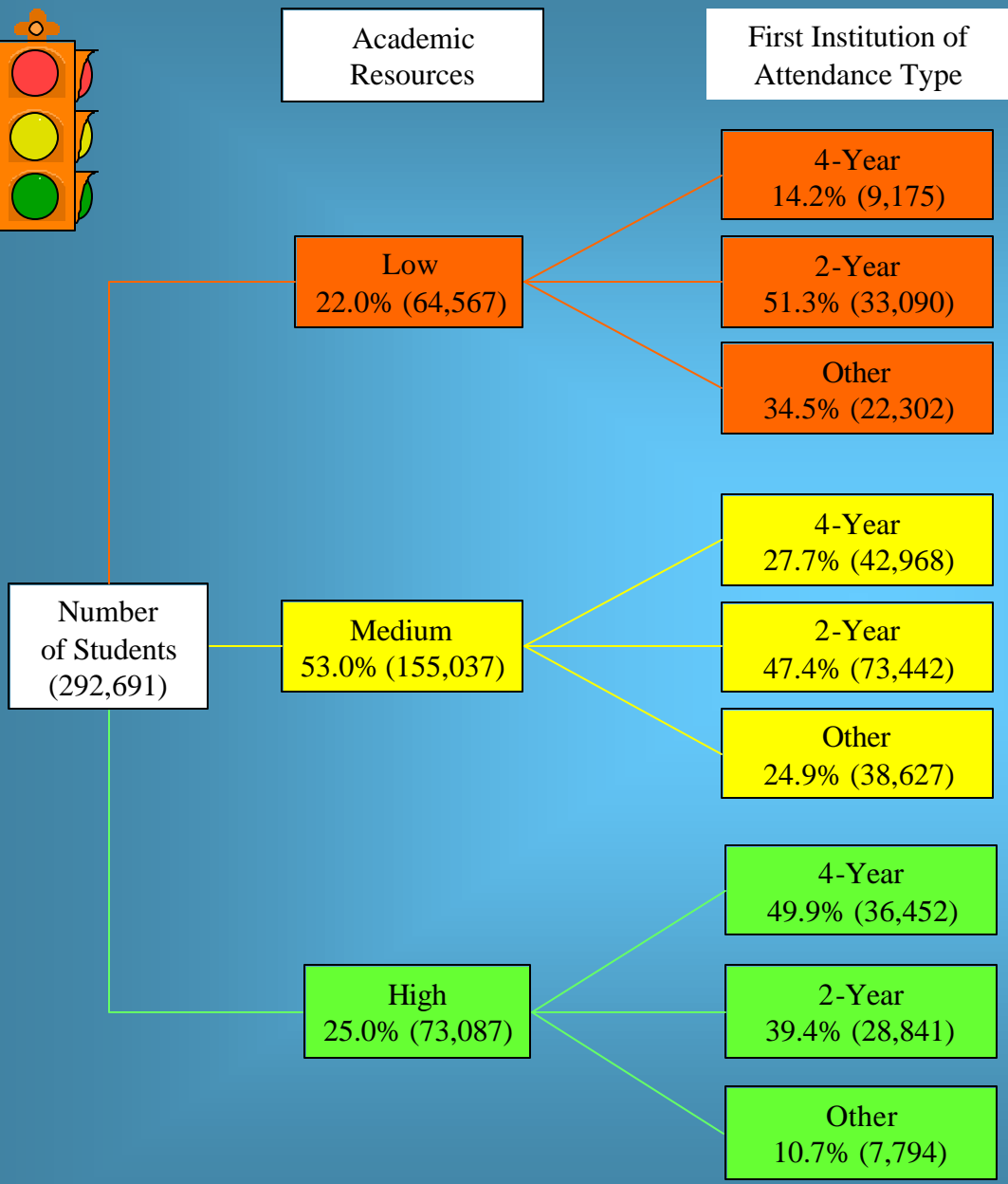
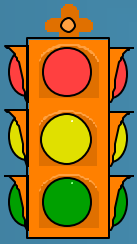
# Degree attainment by ACRRES and first institution type for all students



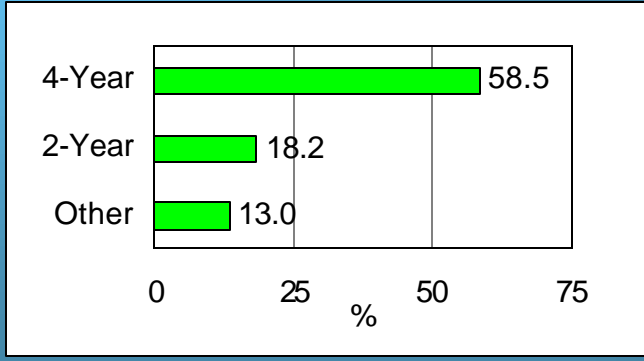
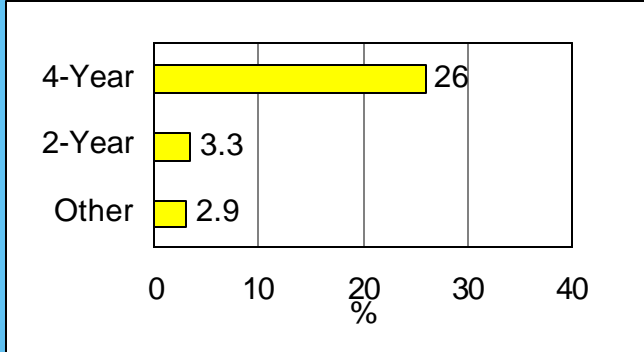
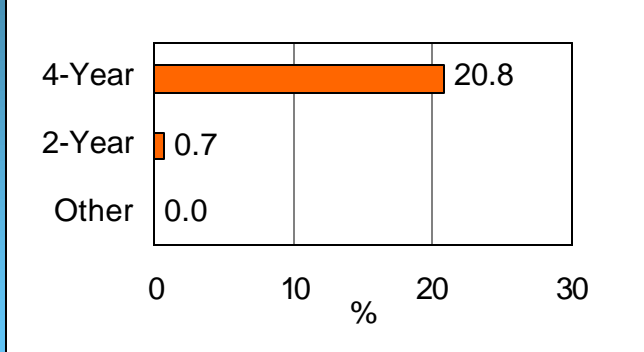
Probability of Securing a 4-Year Degree



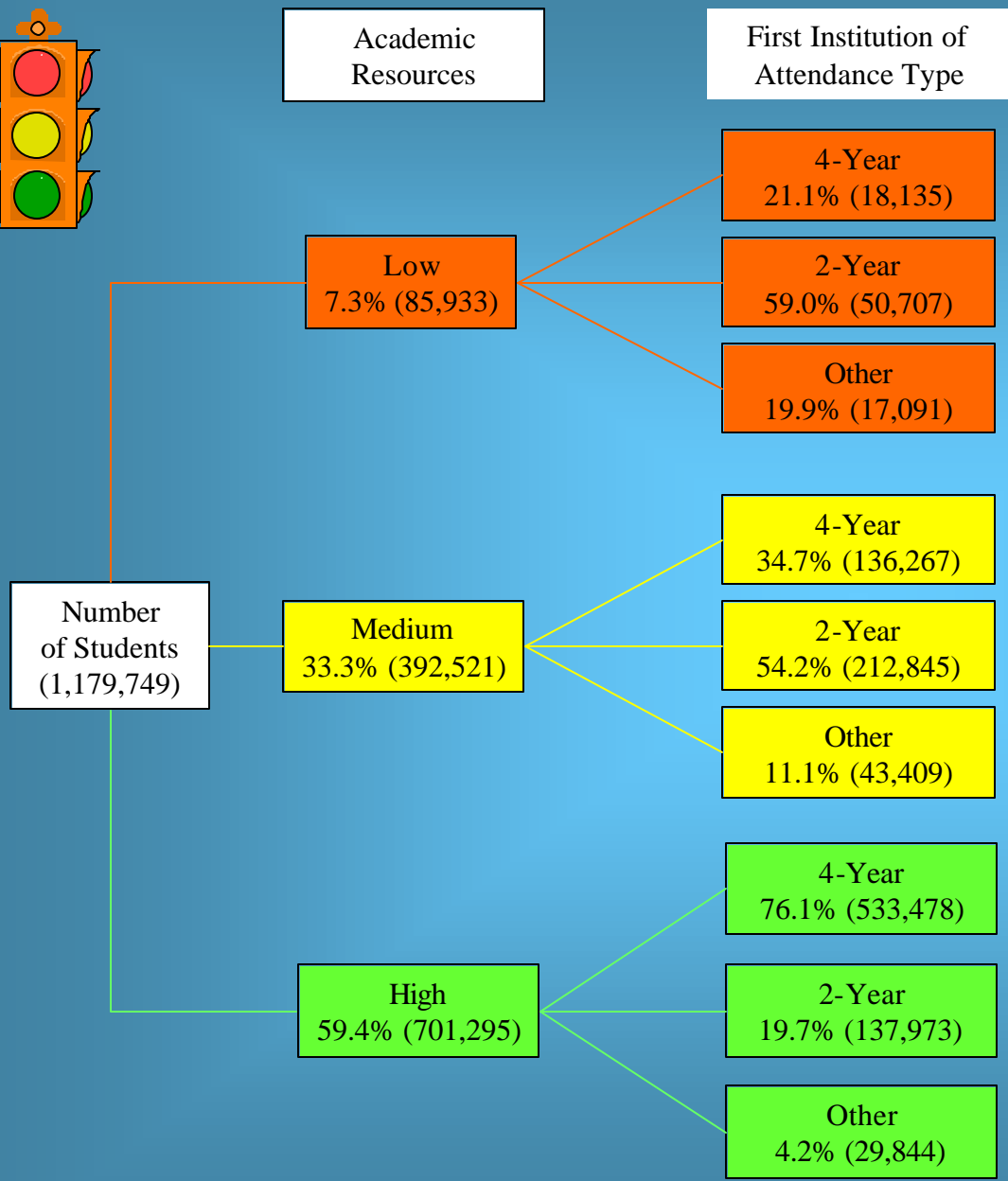
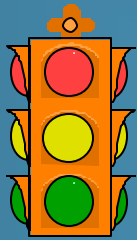
# Degree attainment by ACREs and first institution type for Lowest-SES students



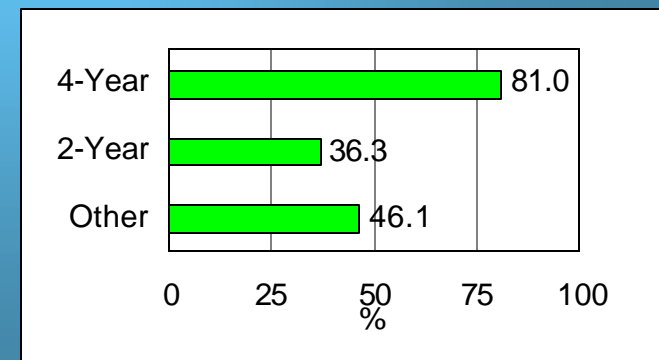
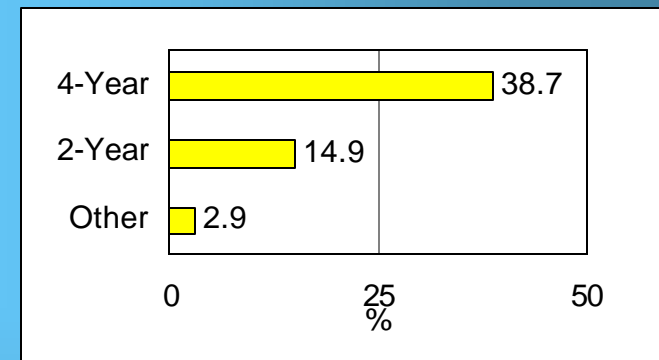
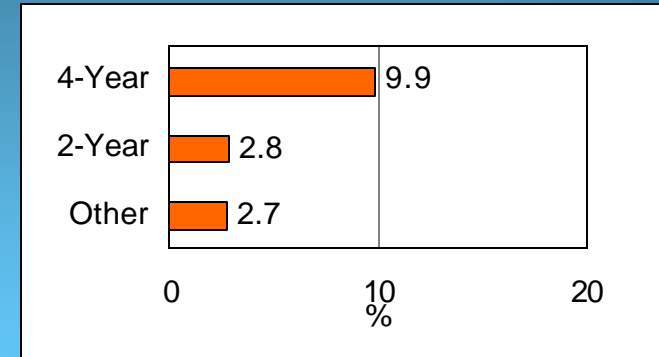
**Probability of Securing a 4-Year Degree**



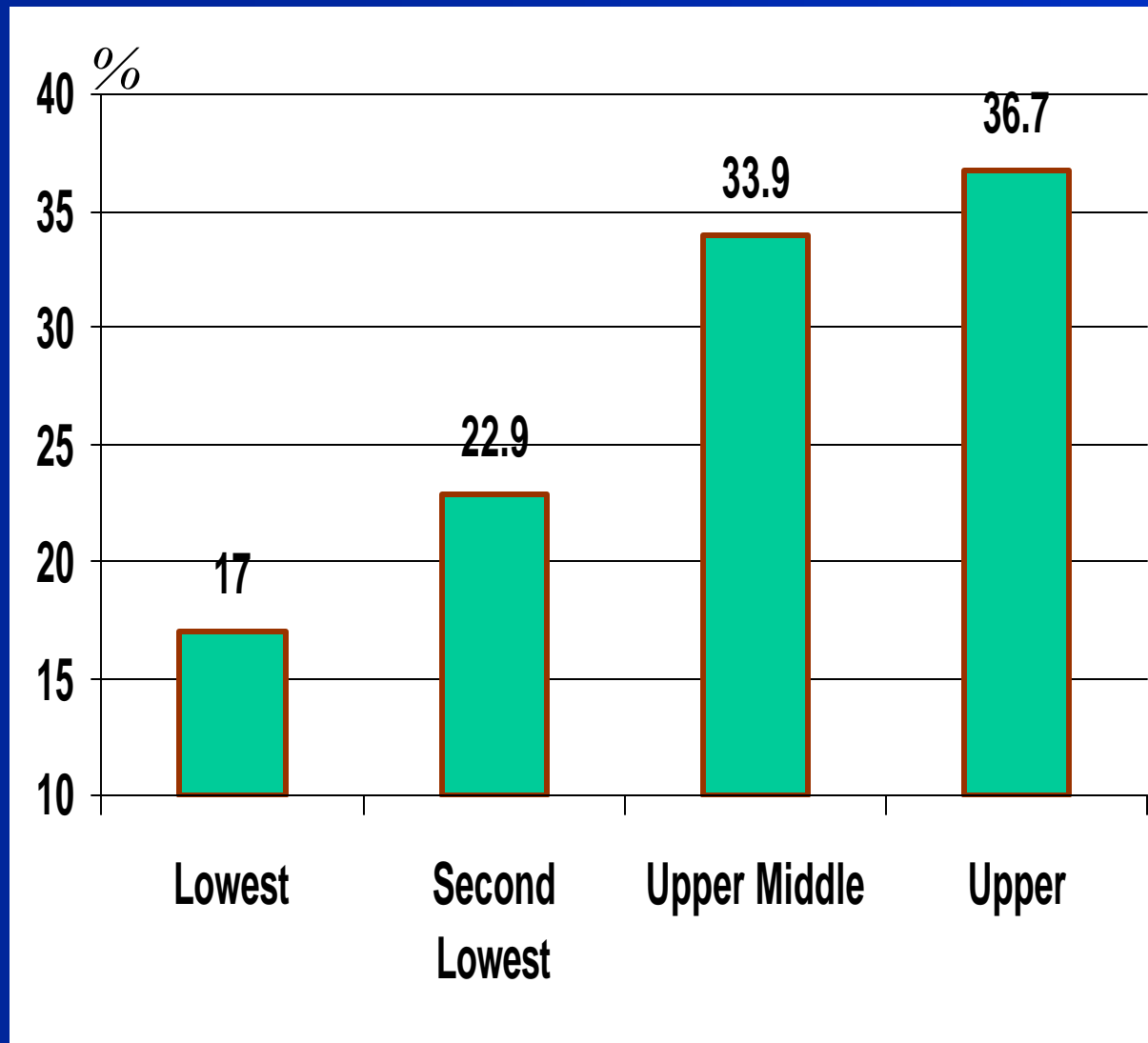
# Degree attainment by ACRES and first institution type for Highest-SES students



Probability of Securing a 4-Year Degree

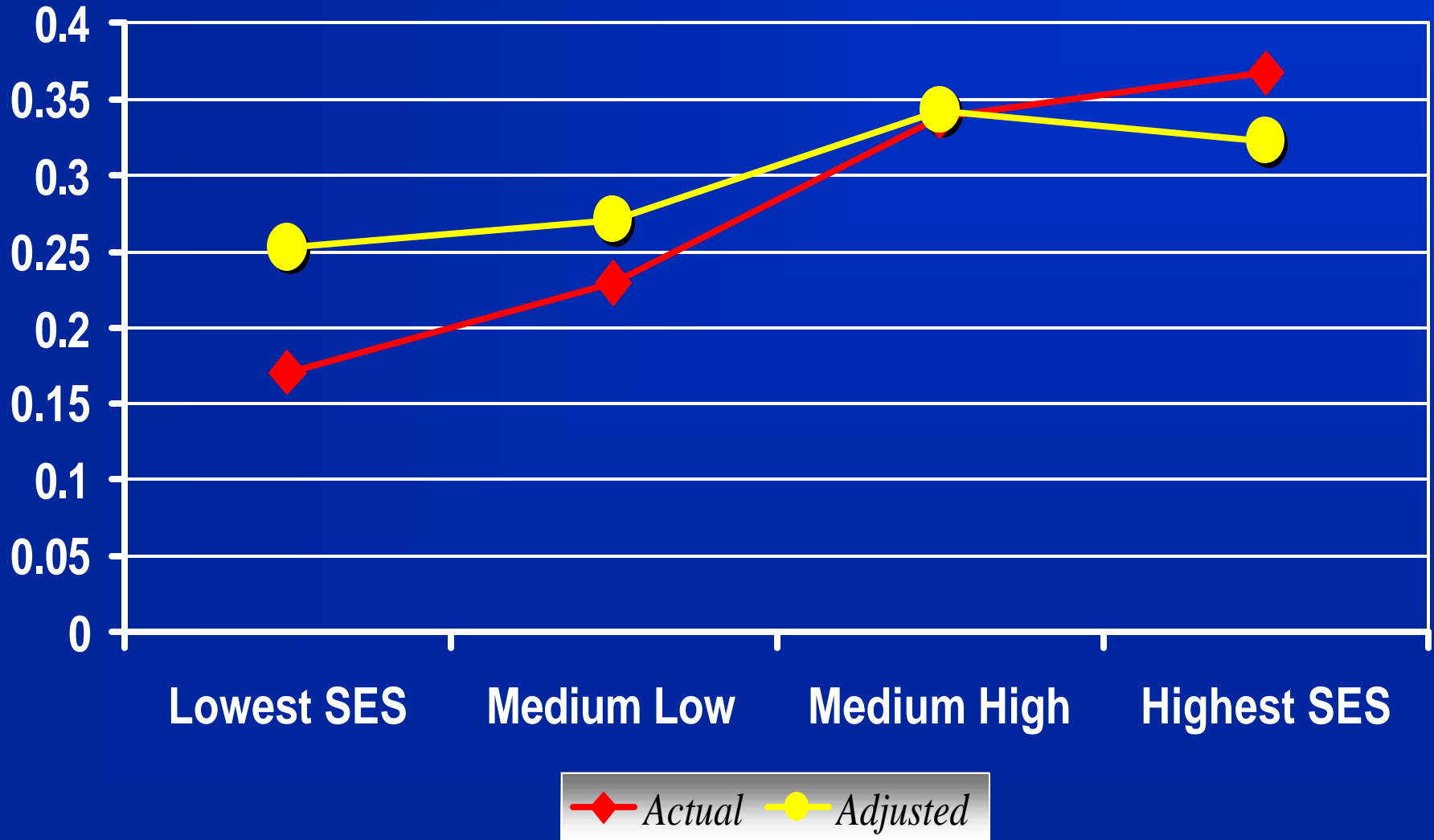


# *What matters in Transferring?*



- **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?*





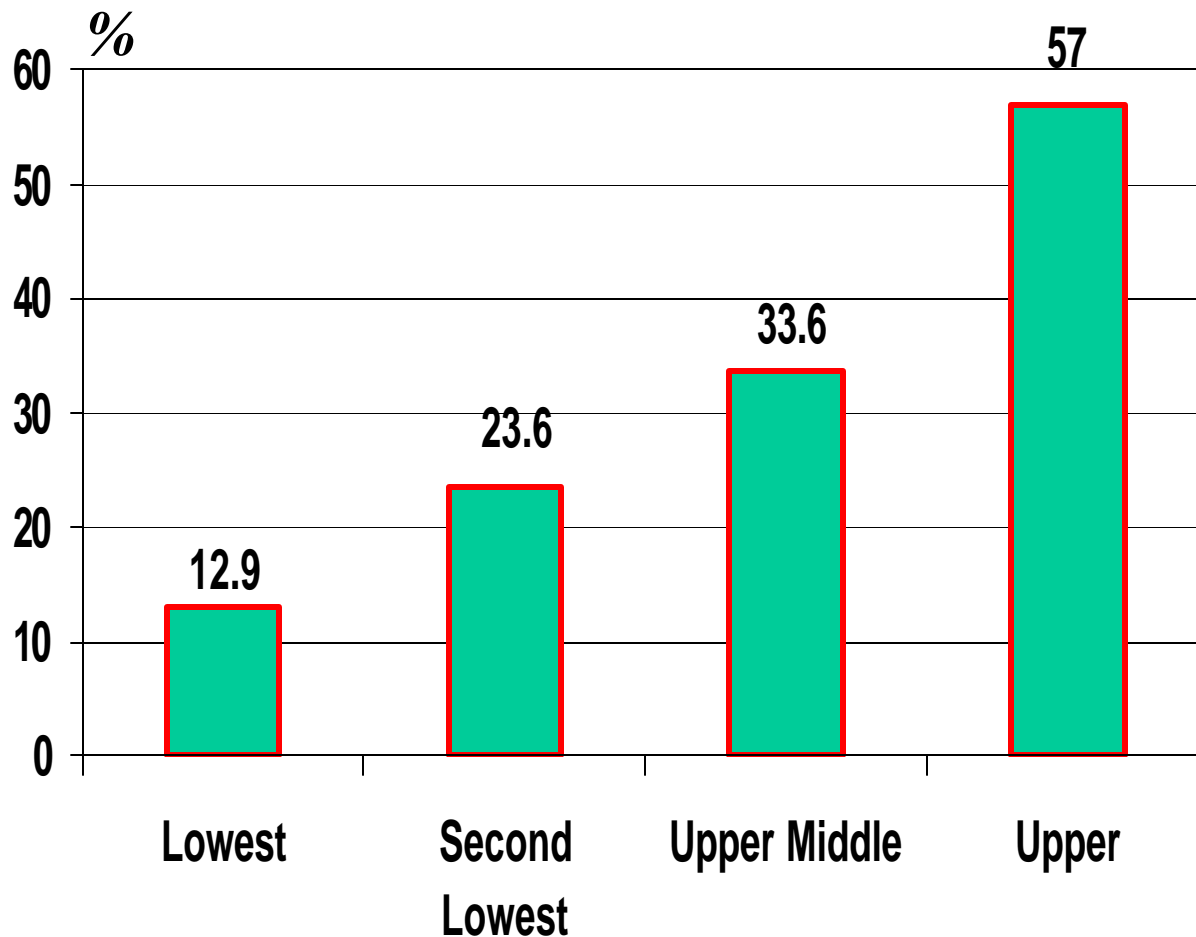
**What matters most  
for transferring  
from the 2-year  
sector to the 4-year  
sector?**

## *What matters most for:*

### Transferring

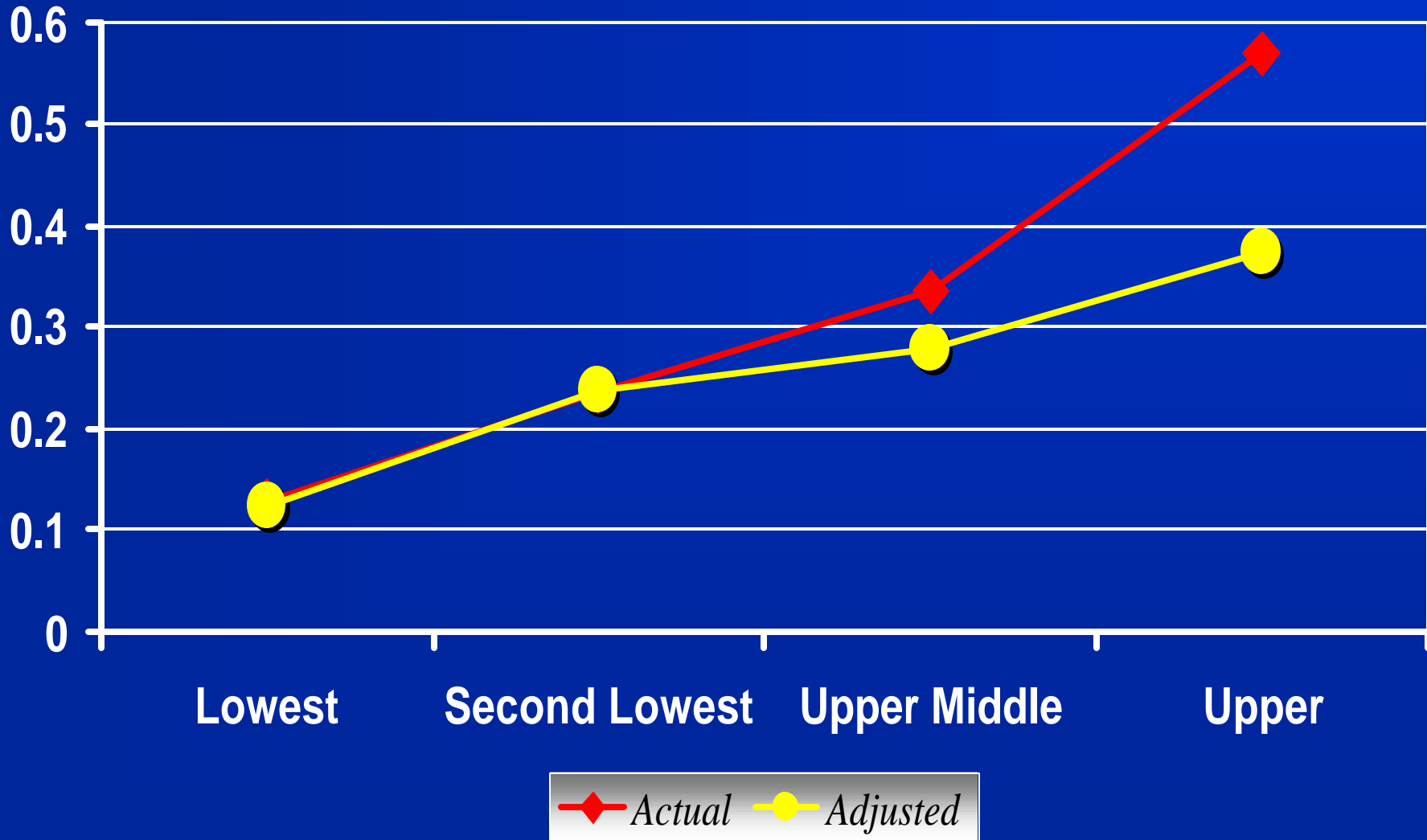
1. Preparation for college
2. Educational aspirations
3. Number of college math & science courses taken
4. Collegiate experiences
5. College GPA
6. Financial support
7. Children
8. Socioeconomic status

# *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 getting  
a bachelor's  
degree within 10  
years?**

# *What matters most for:*

## Degree Completion

1. Preparation for college
2. Educational aspirations
3. Type of 1<sup>st</sup> 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 dropped, left incomplete, or withdrew

# Pathways to degree completion

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- **Nine pathways when considering academic preparation for college and first type of postsecondary institution attended.**
- **Effectiveness of pathways vary:**
  - **High academic preparation for college & 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

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- *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*

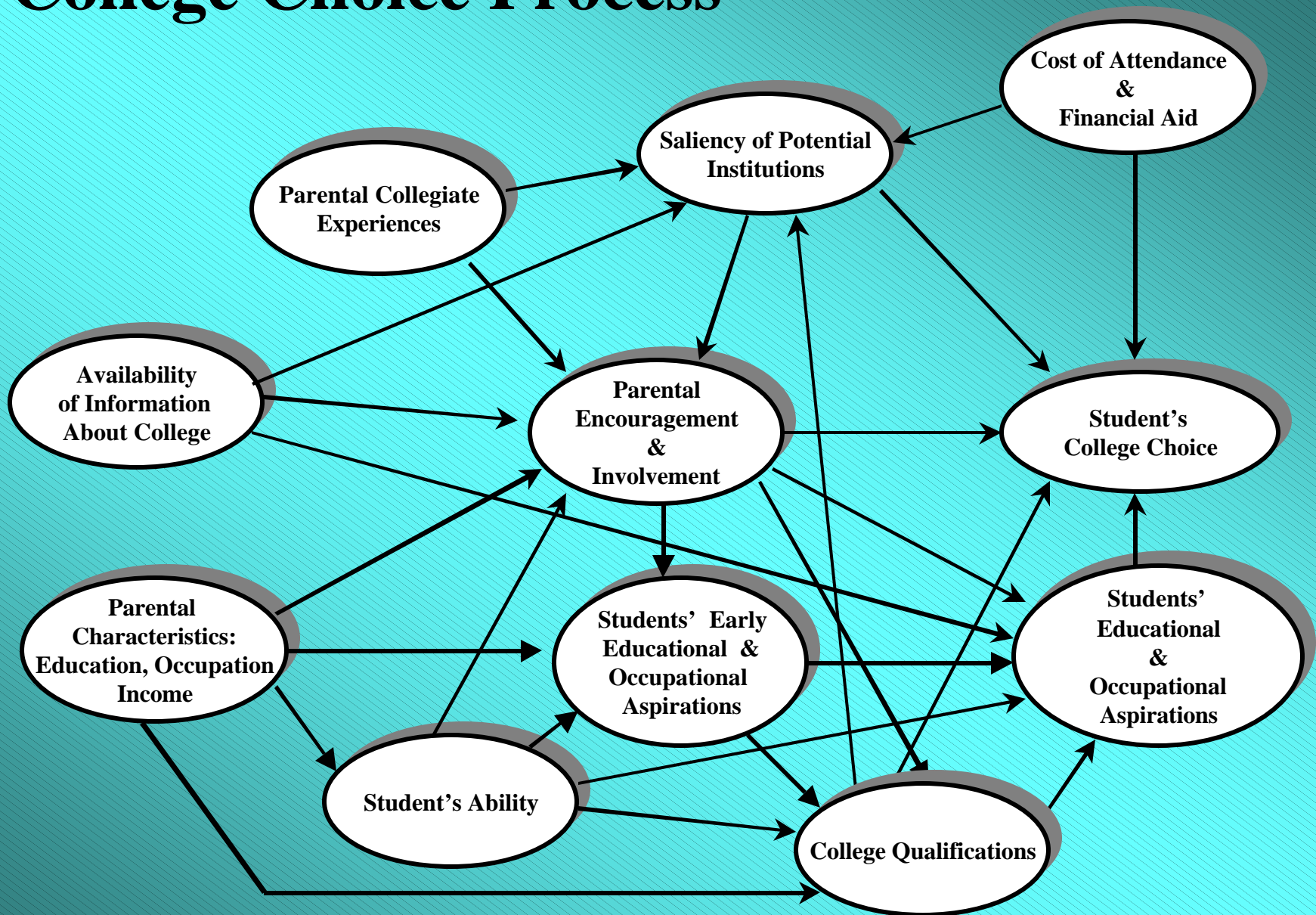


# Determinants of degree completion

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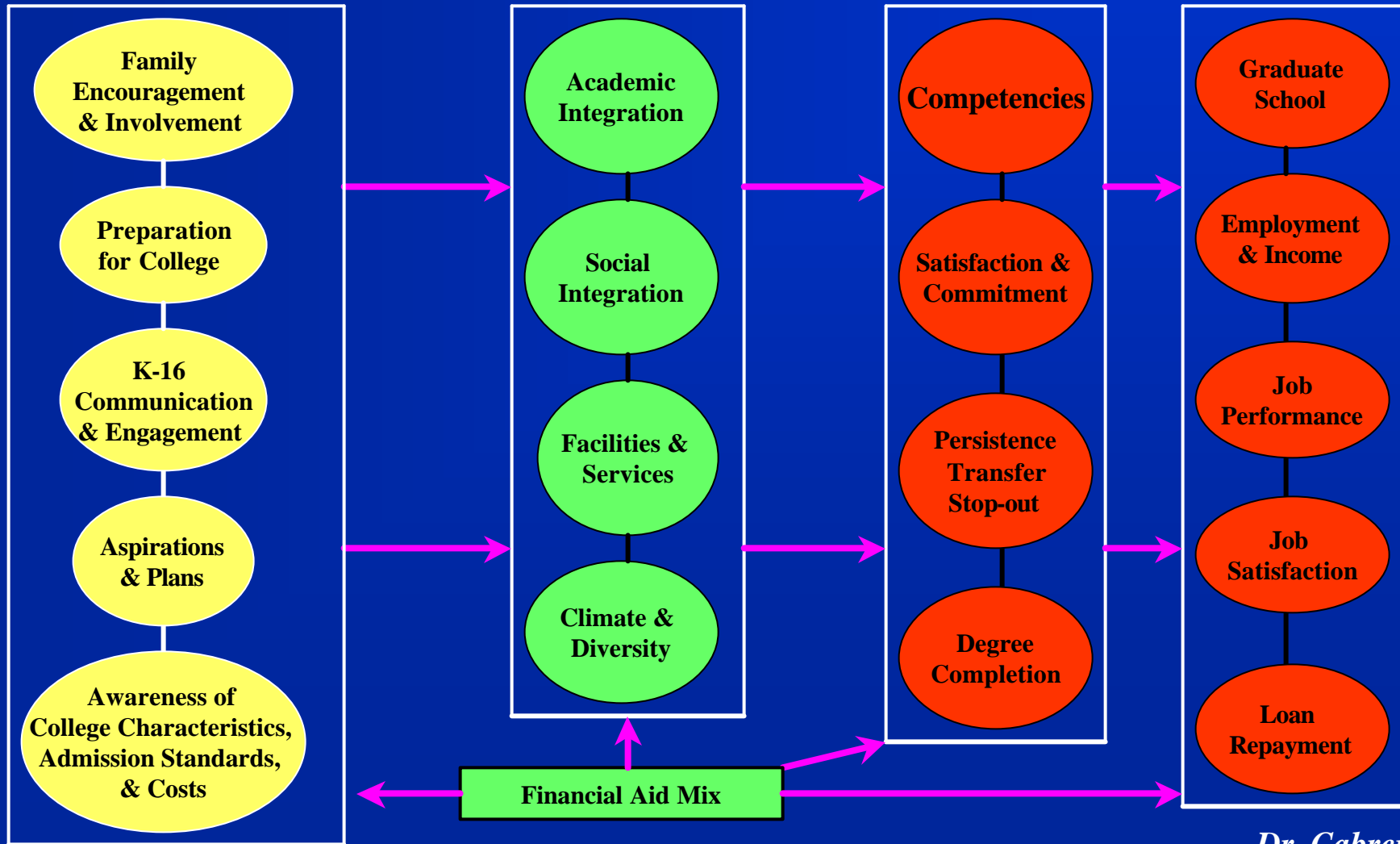
- *Descriptive statistics show a substantial SES-based gap.*
- *SES-based gap though substantially reduced still remains once other factors are taking into account.*
- *Most important factors*
  - *Preparation for college (ACRES)*
  - *Educational aspirations*
  - *Type of institution*
  - *Effort (DWI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

# College Choice Process



# 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 Grades: 7 <sup>th</sup> - 9 <sup>th</sup>	<ul style="list-style-type: none"><li>● Parental expectations, encouragement, support &amp; involvement in school activities</li><li>● Parental saving for college</li><li>● Parental involvement in school activities</li><li>● Socioeconomic status</li><li>● Parental collegiate experiences</li><li>● Academic preparation for college</li><li>● Student ability</li><li>● Information about college</li></ul>	<ul style="list-style-type: none"><li>● Reading, writing, math &amp; critical thinking skills</li><li>● Career/Occupational aspirations</li><li>● Educational aspirations</li><li>● Planning for college</li><li>● Enrollment in college bound curriculum</li></ul>

# *What matters most on the path to college?*

Stage	Factors	Outcomes
Search Grades: 10 <sup>th</sup> -12 <sup>th</sup>	<ul style="list-style-type: none"><li>• Parental expectations encouragement, support &amp; involvement in school activities</li><li>• Educational aspirations.</li><li>• Occupational aspirations.</li><li>• Planning for college</li><li>• Socioeconomic status.</li><li>• Saliency of potential institutions.</li><li>• Academic preparation for college</li><li>• Student ability</li></ul>	<ul style="list-style-type: none"><li>• Listing of tentative institutions.</li><li>• Narrowing list of tentative institutions.</li><li>• Securing information on institutions</li><li>• Taking Pre-SAT &amp; Pre-ACT</li></ul>

# *What matters most on the path to college?*

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

Sources: Cabrera & La Nasa (2000) & Nora & Cabrera (1992)

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# *What matters most on the path to college?*

Stage	Factors	Outcomes
<p><b>College</b></p> <p><b>Freshman Year</b></p> <p><b>Junior Year</b></p>	<p><b>Academic preparation for college</b></p> <p><b>Parental encouragement &amp; support</b></p> <p><b>Campus &amp; classroom climate</b></p> <p><b>Collegiate experiences</b></p> <ul style="list-style-type: none"> <li><i>-Out-of-classroom</i></li> <li><i>-Intensity &amp; quality of instruction</i></li> <li><i>-Counseling</i></li> <li><i>-Interactions with peers &amp; faculty</i></li> </ul> <p><b>Engagement with the academic &amp; social components of the institution</b></p> <p><b>Working on campus</b></p> <p><b>College GPA</b></p> <p><b>Financial assistance</b></p> <p><b>Effort spent in academic related activities</b></p>	<p><b>Gains in:</b></p> <ul style="list-style-type: none"> <li>• <i>Personal development</i></li> <li>• <i>Problem solving</i></li> <li>• <i>Critical thinking</i></li> <li>• <i>Understanding of science &amp; technology</i></li> <li>• <i>Appreciation for art</i></li> <li>• <i>Career Maturity</i></li> <li>• <i>Occupational awareness</i></li> <li>• <i>Group skills</i></li> <li>• <i>Tolerance &amp; openness to diversity</i></li> </ul> <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?*

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

Sources: Cabrera & La Nasa (2000), Gándara & Bial (2001) & Nora & Cabrera (1992).

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# *What can be done?*

<b>Stage</b>	<b>Intervention Strategies</b>
<b>Search Grades: 10<sup>th</sup> – 12<sup>th</sup></b>	<ul style="list-style-type: none"><li>• <b>Counseling on postsecondary programs</b></li><li>• <b>Collecting &amp; disseminating information about postsecondary institutions</b></li><li>• <b>Academic tutorial sessions</b></li><li>• <b>Participation in “College Days” activities</b></li><li>• <b>Peer group support</b></li><li>• <b>‘Untracking’ &amp; augmenting curriculum offerings</b></li></ul>

Sources: Cabrera & La Nasa (2000), Gándara & Bial (2001) & Nora & Cabrera (1992).

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# *What can be done?*

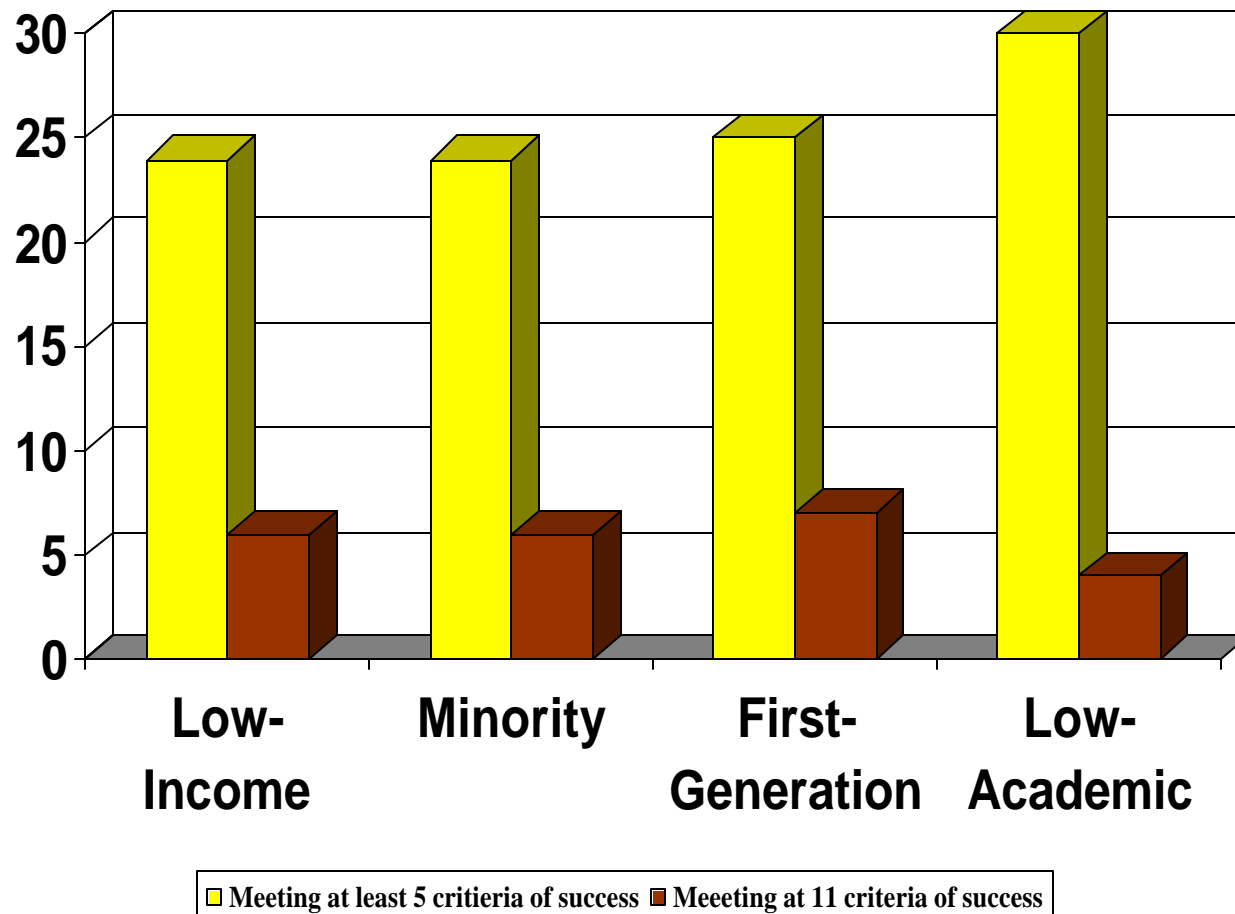
Stage	Intervention Strategies
<b>Choice</b> <b>Grades:</b> <b>11<sup>th</sup> – 12<sup>th</sup></b>	<ul style="list-style-type: none"><li>• <b>Assistance in filling out FAFSA</b></li><li>• <b>Assistance in filling out college application forms and meeting requirements</b></li><li>• <b>Collecting and disseminating information about sources of financial aid</b></li><li>• <b>Tutorial sessions &amp; summer programs to enhance student academic ability</b></li><li>• <b>Peer groups</b></li><li>• <b>‘Untracking’ &amp; augmenting curriculum offerings</b></li></ul>

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

**What percentage of  
pre-college outreach  
address *what*  
matters for college  
enrollment?**

# Percentage of Pre-College Outreach Programs Having Components Related to College Enrollment

(Based on a 1999-2000 National Survey of 1,110 programs)



Adapted from Perna (2002). Precollege programs: Characteristics of programs serving historically underrepresented groups of students. *Journal of College Student Development*, 43 (1), 64-81.

# Intervention strategies

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- *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 8<sup>th</sup> grade*
  - *Use learning communities from 8<sup>th</sup> grade to college*
  - *Use financial aid as tool for involvement & engagement with the academic and social components of the institution*

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

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- **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 <sup>th</sup> –10 <sup>th</sup> )	High School Application & readiness (11 <sup>th</sup> -12 <sup>th</sup> )	Freshman Year	Junior Year	Outcomes
<i>School information &amp; transcript</i> Academic Resources School district profile	<i>School information &amp; transcript</i> Academic Resources School district profile	<i>Campus information &amp; transcripts</i> Enrollment information Financial aid data Campus profile	<i>Campus information &amp; transcripts</i> Enrollment information Financial aid data Campus profile	<i>Campus information &amp; 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

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