College Readiness Patterns and Postsecondary Outcomes:
A Longitudinal Study of the Illinois High School Class of 2003

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Illinois High School Class of 2003

- Includes 115,677 public high school students
  - Took the ACT in spring of 2002
  - Graduated high school in spring of 2003
- Does not include
  - Graduates of private high schools in Illinois
  - Students from other states who migrated to postsecondary institutions in Illinois
- Study period-fall of 2003 to spring of 2010

Sources of Data

- **ACT**-Prairie State Achievement Examination and the Student Interest Profiler

- **National Student Clearinghouse-**covers 92% of all postsecondary enrollment

- **Illinois High School Report Card**-institutional characteristics of the high schools

- **IPEDS and IBHE-**sector of the postsecondary institutions

- **Barron's**-selectivity of the four-year institutions

Methods

- Census

- Descriptive statistics (SPSS)
  - Cross tabulations
  - Comparisons of means
  - Custom tables

Research Questions

1. How is college readiness distributed among the Illinois high school class of 2003?

2. How is college readiness associated with gender, race, parental income, and region?

3. How do the college readiness benchmark patterns relate to: basic postsecondary enrollment, enrollment at four-year institutions by sector and selectivity, persistence, and bachelor's completion?

4. What happens when we explore some of those outcomes by looking at the interaction of college readiness and key demographic factors?

ACT College Readiness Benchmarks

Test	College Course or Course Area	ACT Score
English	English Composition	18
Reading	Social Sciences	21
Mathematics	College Algebra	22
Science	Biology	24

Minimum ACT test scores required to have a high probability of success in credit-bearing college courses.
Why these courses?

- They are the first credit-bearing courses most commonly taken by freshman.

What is a high probability of success?

- 50 percent chance or better of earning a B or better; and
- 75 percent chance or better of earning at least a C.
  http://www.act.org/research/policymakers/pdf/benchmarks.pdf

ACT and the Class of 2003

	Mean	Median	Standard Deviation
Composite	**19.96**	**19**	**5.25**
Math	20.05	19	5.47
English	19.29	19	6.26
Reading	20.07	19	6.17
Science	19.92	20	5.13

- This was the second graduating class after the ACT was adopted as part of the PSAE (Class of 2002 was the first).
- In Illinois, ACT scores have steadily increased so that the mean scores now are actually higher than the mean scores prior to the ACT being used as part of the PSAE.
  - Since 2001, every high school junior in Illinois takes the ACT.
  - Prior to 2001, only those who anticipated enrolling in college took the ACT.

How is college readiness distributed among the Class of 2003?
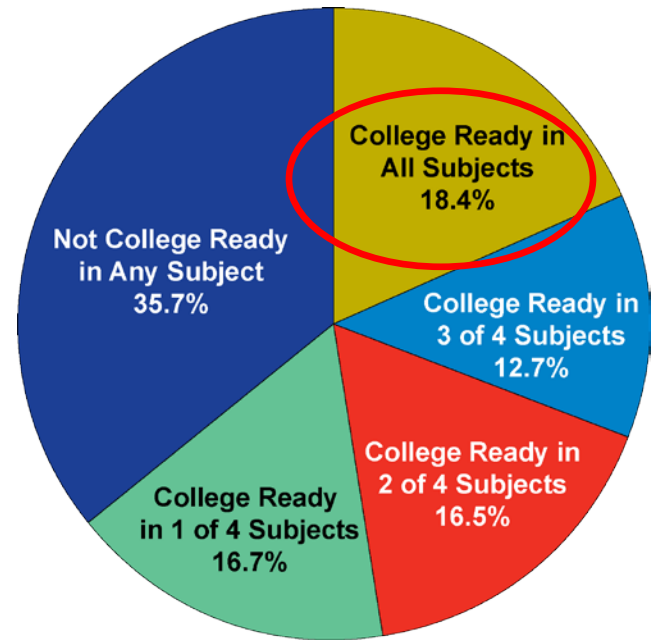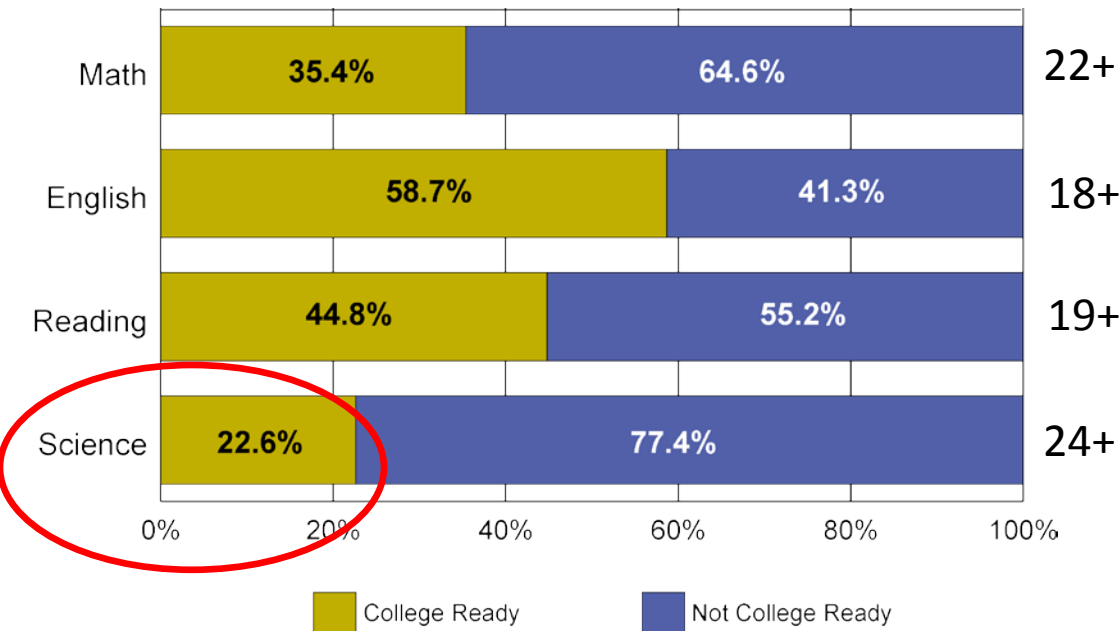
- Negative relationship between the cut scores and proportion of students meeting the given benchmark.

- Overall college readiness (meeting all four) is almost entirely predicated on the test with the highest benchmark-Science.

- 80% of the students meeting the science benchmark, met all of the benchmarks.

How is college readiness distributed among the Class of 2003?

- The proportion of students missing all of the benchmarks was nearly twice that of students meeting all of the benchmarks.

- Nearly a third met at least three of the benchmarks.

- Roughly half met at least two and the other half met one or none.

College Ready in All Subjects 18.4%

College Ready in 3 of 4 Subjects 12.7%

College Ready in 2 of 4 Subjects 16.5%

College Ready in 1 of 4 Subjects 16.7%

Not College Ready in Any Subject 35.7%
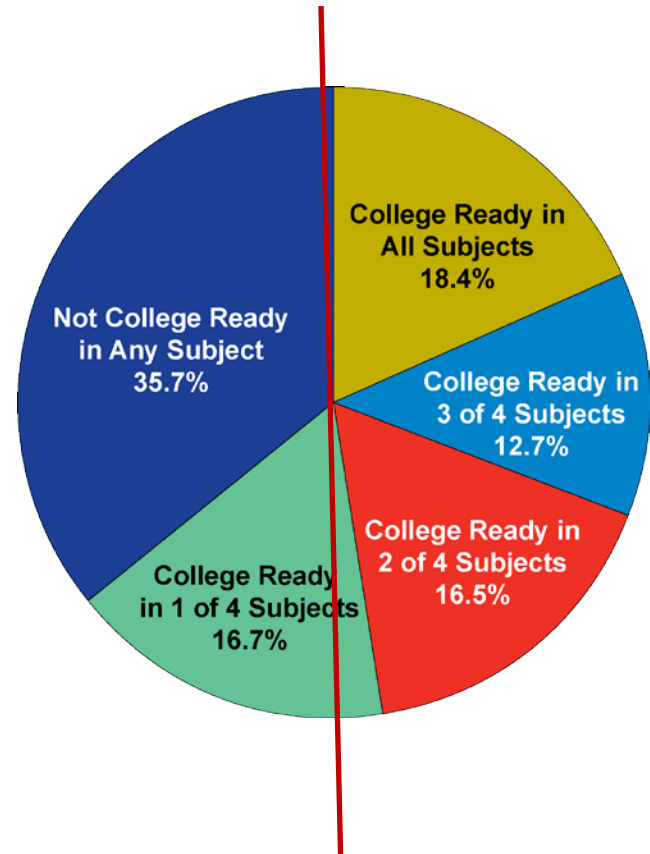
ACT College Readiness

	Math	English	Reading	Science	n	% of Total Enrolled
	≥22	≥18	≥21	≥24	115,677	100.0%
All Subjects	✓	✓	✓	✓	21,246	18.4%
3 of 4 Subjects	✓	✓	✓	⊘	10,743	9.3%
	✓	✓	⊘	✓	1,618	1.4%
	✓	⊘	✓	✓	146	0.1%
	⊘	✓	✓	✓	2,235	1.9%
2 of 4 Subjects	✓	✓	⊘	⊘	4,798	4.1%
	✓	⊘	✓	⊘	539	0.5%
	✓	⊘	⊘	✓	143	0.1%
	⊘	✓	✓	⊘	13,123	11.3%
	⊘	✓	⊘	✓	479	0.4%
	⊘	⊘	✓	✓	121	0.1%
1 of 4 Subjects	✓	⊘	⊘	⊘	1,706	1.5%
	⊘	✓	⊘	⊘	13,709	11.9%
	⊘	⊘	✓	⊘	3633	3.1%
	⊘	⊘	⊘	✓	182	0.2%
None	⊘	⊘	⊘	⊘	41,256	35.7%

- 94% of the cohort fell into one of the seven highlighted groups.

- The other nine groups comprised the remaining 6% of the cohort.

ACT College Readiness

	Math	English	Reading	Science	n	% of Total
	≥22	≥18	≥21	≥24	115,677	100.0%
All Subjects	✓	✓	✓	✓	21,246	18.4%
3 of 4 Subjects	✓	✓	✓	⊘	10,743	9.3%
2 of 4 Subjects	✓	✓	⊘	⊘	4,798	4.1%
	⊘	✓	✓	⊘	13,123	11.3%
1 of 4 Subjects	⊘	✓	⊘	⊘	13,709	11.9%
	⊘	⊘	✓	⊘	3,633	3.1%
None	⊘	⊘	⊘	⊘	41,256	35.7%

- Only one of the patterns includes students meeting the science benchmark.

How is college readiness associated with gender, parental income, and race?

ACT College Readiness Category	M-E-R-S ✓-✓-✓-✓	M-E-R-S ✓-✓-✓-⊘	M-E-R-S ✓-✓-⊘-⊘	M-E-R-S ⊘-✓-✓-⊘	M-E-R-S ⊘-✓-⊘-⊘	M-E-R-S ⊘-⊘-✓-⊘	M-E-R-S ⊘-⊘-⊘-⊘
Gender							
Male	21%	8%	4%	8%	10%	4%	38%
Female	16%	10%	4%	14%	14%	3%	34%
Parental Income							
High	37%	14%	5%	10%	10%	2%	14%
Mid-High	24%	12%	5%	13%	12%	3%	23%
Mid-Low	15%	9%	4%	13%	13%	4%	36%
Low	7%	5%	3%	10%	12%	4%	54%
Race							
African-American	3%	4%	2%	10%	15%	3%	61%
Hispanic	5%	6%	3%	10%	12%	4%	57%
Asian	29%	12%	8%	8%	8%	2%	23%
White	24%	12%	5%	13%	12%	3%	24%

M = Math   E = English   R = Reading   S = Science

How is college readiness associated with select high school characteristics?

ACT College Readiness Category	M-E-R-S ✓-✓-✓-✓	M-E-R-S ✓-✓-✓-⊘	M-E-R-S ✓-✓-⊘-⊘	M-E-R-S ⊘-✓-✓-⊘	M-E-R-S ⊘-✓-⊘-⊘	M-E-R-S ⊘-⊘-✓-⊘	M-E-R-S ⊘-⊘-⊘-⊘
Region							
Chicago	5%	4%	2%	10%	12%	3%	62%
Northeast	24%	11%	5%	11%	11%	3%	29%
Northwest	17%	9%	4%	13%	12%	4%	35%
West Central	17%	9%	4%	13%	13%	3%	35%
East Central	18%	10%	5%	13%	12%	3%	32%
Southwest	15%	9%	4%	12%	13%	4%	36%
Southeast	13%	7%	3%	14%	13%	3%	40%
Locale							
Urban	13%	7%	3%	10%	11%	3%	48%
Suburban	22%	11%	5%	11%	12%	3%	30%
Town	15%	8%	4%	13%	13%	4%	36%
Rural	17%	9%	4%	13%	13%	4%	33%
ITAC Quartile							
High	32%	13%	6%	10%	10%	2%	19%
Mid-High	21%	11%	5%	12%	12%	3%	29%
Mid-Low	15%	9%	4%	12%	13%	4%	38%
Low	7%	5%	2%	10%	13%	4%	55%

M = Math   E = English   R = Reading   S = Science

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Race and Parental Income

	High	Mid-High	Mid-Low	Low
African-American	7.4%	10.9%	26.7%	55.0%
Hispanic	6.9%	14.1%	30.5%	48.5%
Asian	22.2%	22.2%	26.1%	29.5%
White	28.2%	27.3%	26.8%	17.6%
Total	23.3%	23.8%	27.1%	25.8%
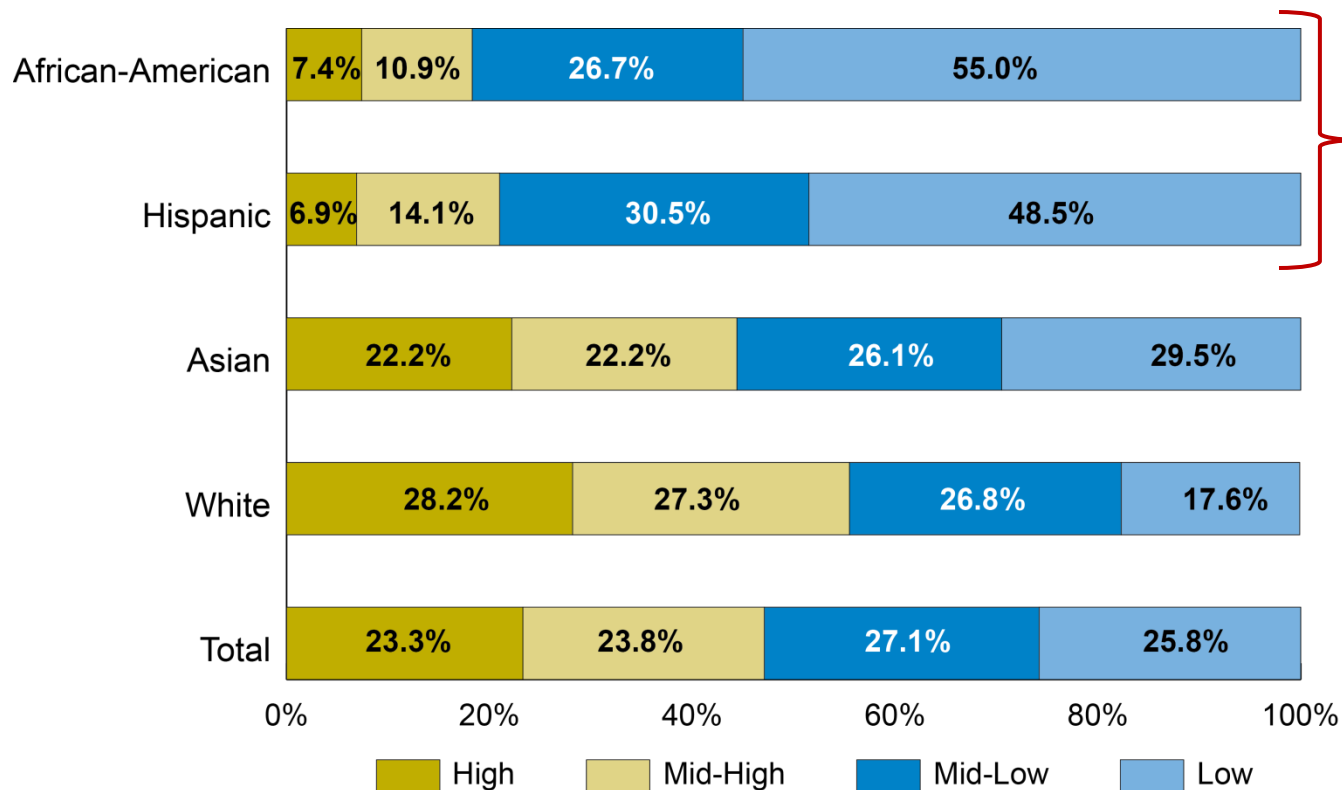
- A disproportionately high number of non-Asian minority students fell into the lower income categories (roughly 80%).
- White and Asian students had a more equal distribution, favoring white students in the upper income categories.
- When looking at educational outcomes and race, one must also consider the concentration of poverty.

How is college readiness associated with basic postsecondary enrollment?

- By the number of benchmarks met.

- By the college readiness patterns.

- By the interaction of race and college readiness.

- By the interaction of income and college readiness.

- By the interaction of region and college readiness.

Basic Enrollment Patterns by the Number of ACT Benchmarks Met

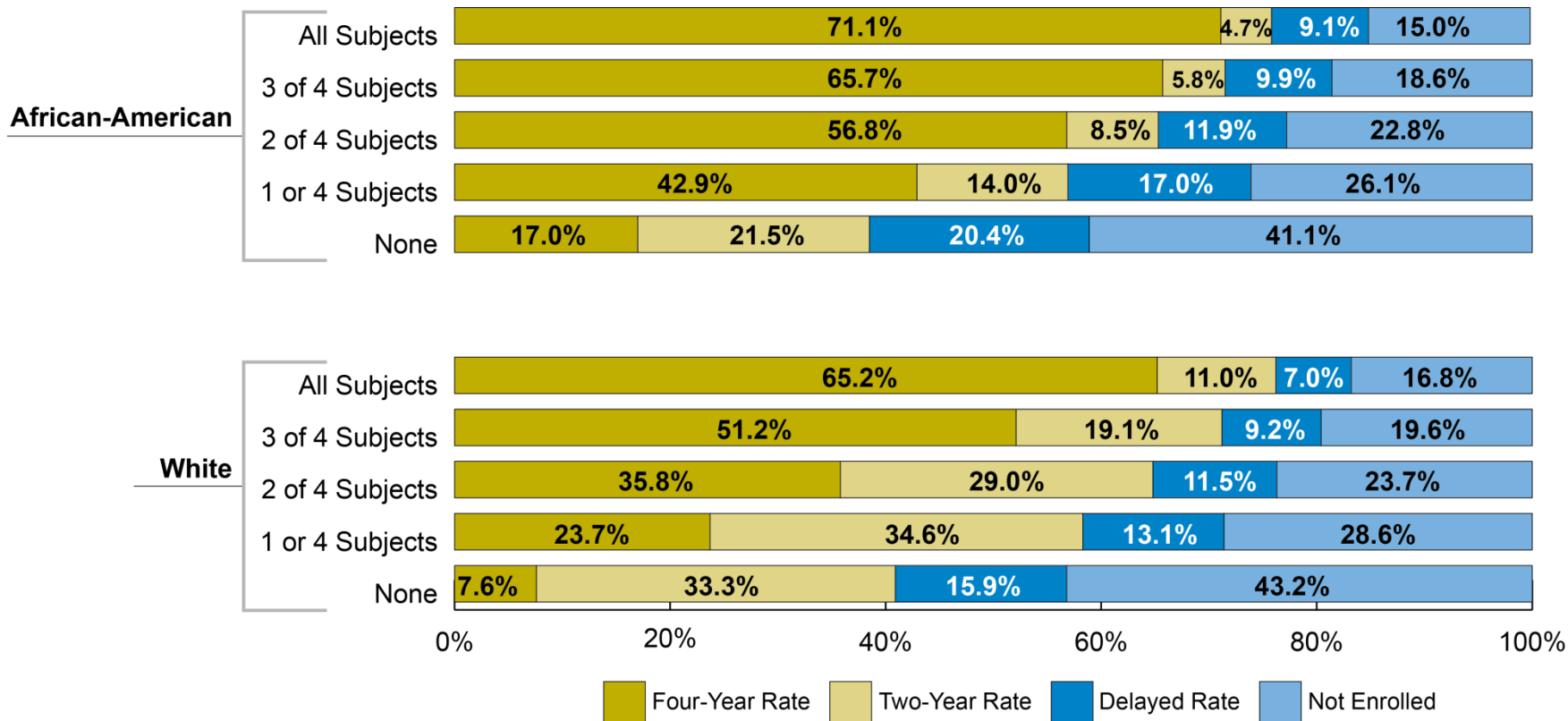|	Four-Year Rate	Two-Year Rate	Delayed Rate	Not Enrolled
All Subjects	65.2%	10.4%	7.3%	17.1%
3 of 4 Subjects	52.1%	18.2%	9.6%	20.1%
2 of 4 Subjects	37.0%	25.9%	12.1%	24.9%
1 of 4 Subjects	25.3%	29.9%	14.4%	30.4%
None	8.9%	26.4%	17.8%	46.9%
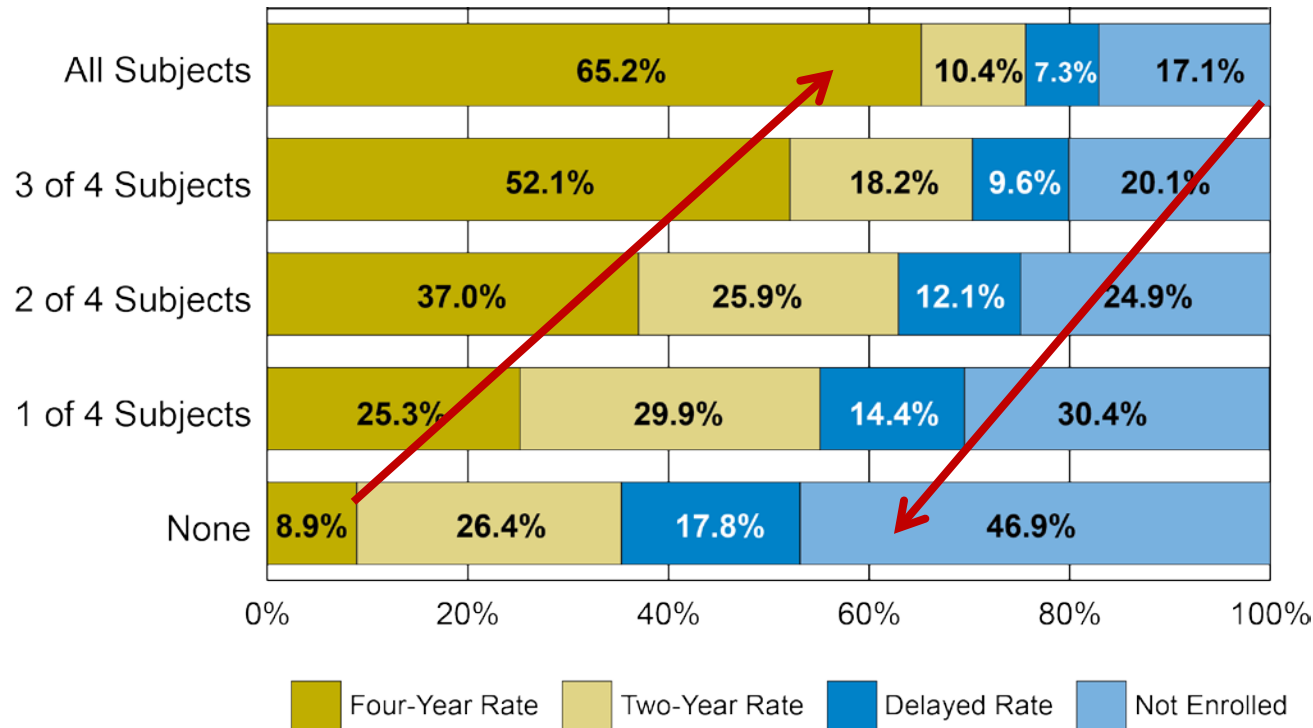
- The greater the number of benchmarks met, the higher the likelihood of initial four-year enrollment and the lower the likelihood of not enrolling or delaying enrollment.

- Students meeting two or fewer benchmarks had a higher likelihood of initially enrolling at a community college.

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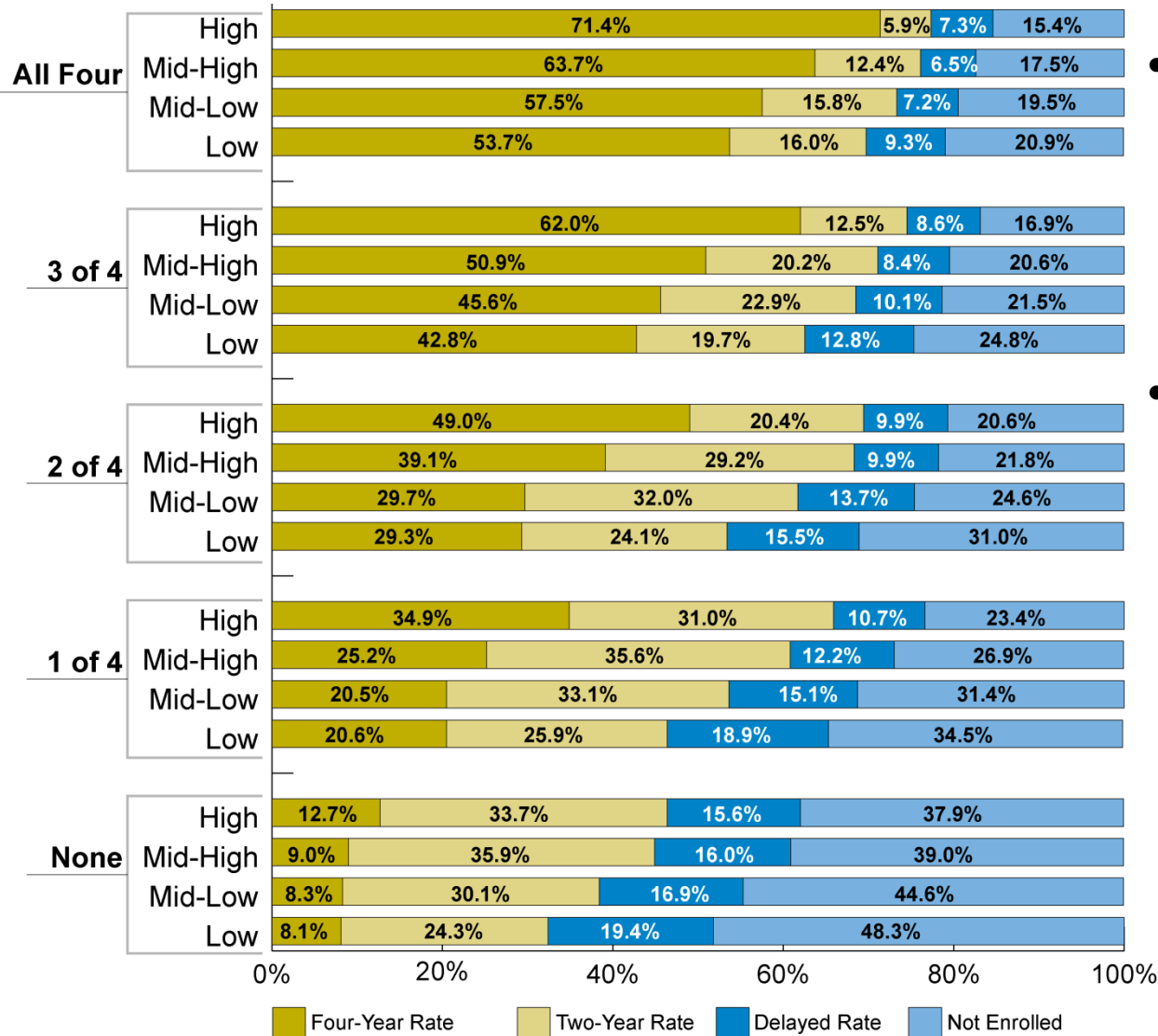# Basic Enrollment Patterns by ACT College Readiness Category

ACT College Readiness						Basic Enrollment Patterns			
Math	English	Reading	Science	n	% of Total Enrolled	Four-Year Rate	Two-Year Rate	Delayed Rate	Not Enrolled
≥22	≥18	≥21	≥24	115,677	100.0%	32.1%	22.9%	13.3%	31.6%
✓	✓	✓	✓	21,246	18.4%	65.2%	10.4%	7.3%	17.1%
✓	✓	✓	⊘	10,743	9.3%	54.3%	17.0%	9.4%	19.3%
✓	✓	⊘	✓	1,618	1.4%	54.8%	18.0%	7.0%	20.1%
✓	⊘	✓	✓	146	0.1%	37.0%	26.0%	13.7%	23.3%
⊘	✓	✓	✓	2,235	1.9%	40.6%	23.4%	12.2%	23.8%
✓	✓	⊘	⊘	4,798	4.1%	46.1%	22.3%	9.7%	21.9%
✓	⊘	✓	⊘	539	0.5%	30.6%	32.1%	12.2%	25.0%
✓	⊘	⊘	✓	143	0.1%	37.1%	25.9%	11.2%	25.9%
⊘	✓	✓	⊘	13,123	11.3%	34.1%	27.0%	13.0%	25.9%
⊘	✓	⊘	✓	479	0.4%	35.3%	25.9%	13.2%	25.7%
⊘	⊘	✓	✓	121	0.1%	28.1%	24.8%	14.0%	33.1%
✓	⊘	⊘	⊘	1,706	1.5%	25.1%	29.1%	13.4%	32.3%
⊘	✓	⊘	⊘	13,709	11.9%	27.3%	30.2%	13.8%	28.7%
⊘	⊘	✓	⊘	3633	3.1%	17.6%	29.6%	17.1%	35.6%
⊘	⊘	⊘	✓	182	0.2%	22.0%	24.7%	19.8%	33.5%
⊘	⊘	⊘	⊘	41,256	35.7%	8.9%	26.4%	17.8%	46.9%

Interaction of Race & College Readiness and Basic Enrollment

African-American

Category	Four-Year Rate	Two-Year Rate	Delayed Rate	Not Enrolled
All Subjects	71.1%	4.7%	9.1%	15.0%
3 of 4 Subjects	65.7%	5.8%	9.9%	18.6%
2 of 4 Subjects	56.8%	8.5%	11.9%	22.8%
1 or 4 Subjects	42.9%	14.0%	17.0%	26.1%
None	17.0%	21.5%	20.4%	41.1%

White

Category	Four-Year Rate	Two-Year Rate	Delayed Rate	Not Enrolled
All Subjects	65.2%	11.0%	7.0%	16.8%
3 of 4 Subjects	51.2%	19.1%	9.2%	19.6%
2 of 4 Subjects	35.8%	29.0%	11.5%	23.7%
1 or 4 Subjects	23.7%	34.6%	13.1%	28.6%
None	7.6%	33.3%	15.9%	43.2%

Legend: Four-Year Rate, Two-Year Rate, Delayed Rate, Not Enrolled

- Across all college readiness categories, African-American students maintained higher rates of initial four-year enrollment relative to similarly ready white students.

- White students generally had the highest rates of initial community college enrollment.

Interaction of College Readiness & Parental Income and Basic Enrollment

		Four-Year Rate	Two-Year Rate	Delayed Rate	Not Enrolled
All Four	High	71.4%	5.9%	7.3%	15.4%
	Mid-High	63.7%	12.4%	6.5%	17.5%
	Mid-Low	57.5%	15.8%	7.2%	19.5%
	Low	53.7%	16.0%	9.3%	20.9%
3 of 4	High	62.0%	12.5%	8.6%	16.9%
	Mid-High	50.9%	20.2%	8.4%	20.6%
	Mid-Low	45.6%	22.9%	10.1%	21.5%
	Low	42.8%	19.7%	12.8%	24.8%
2 of 4	High	49.0%	20.4%	9.9%	20.6%
	Mid-High	39.1%	29.2%	9.9%	21.8%
	Mid-Low	29.7%	32.0%	13.7%	24.6%
	Low	29.3%	24.1%	15.5%	31.0%
1 of 4	High	34.9%	31.0%	10.7%	23.4%
	Mid-High	25.2%	35.6%	12.2%	26.9%
	Mid-Low	20.5%	33.1%	15.1%	31.4%
	Low	20.6%	25.9%	18.9%	34.5%
None	High	12.7%	33.7%	15.6%	37.9%
	Mid-High	9.0%	35.9%	16.0%	39.0%
	Mid-Low	8.3%	30.1%	16.9%	44.6%
	Low	8.1%	24.3%	19.4%	48.3%

- In terms of four-year enrollment, college readiness did not mitigate the importance of parental income.

- Parental Income was positively related to the likelihood of enrolling at a four-year institution across readiness categories.
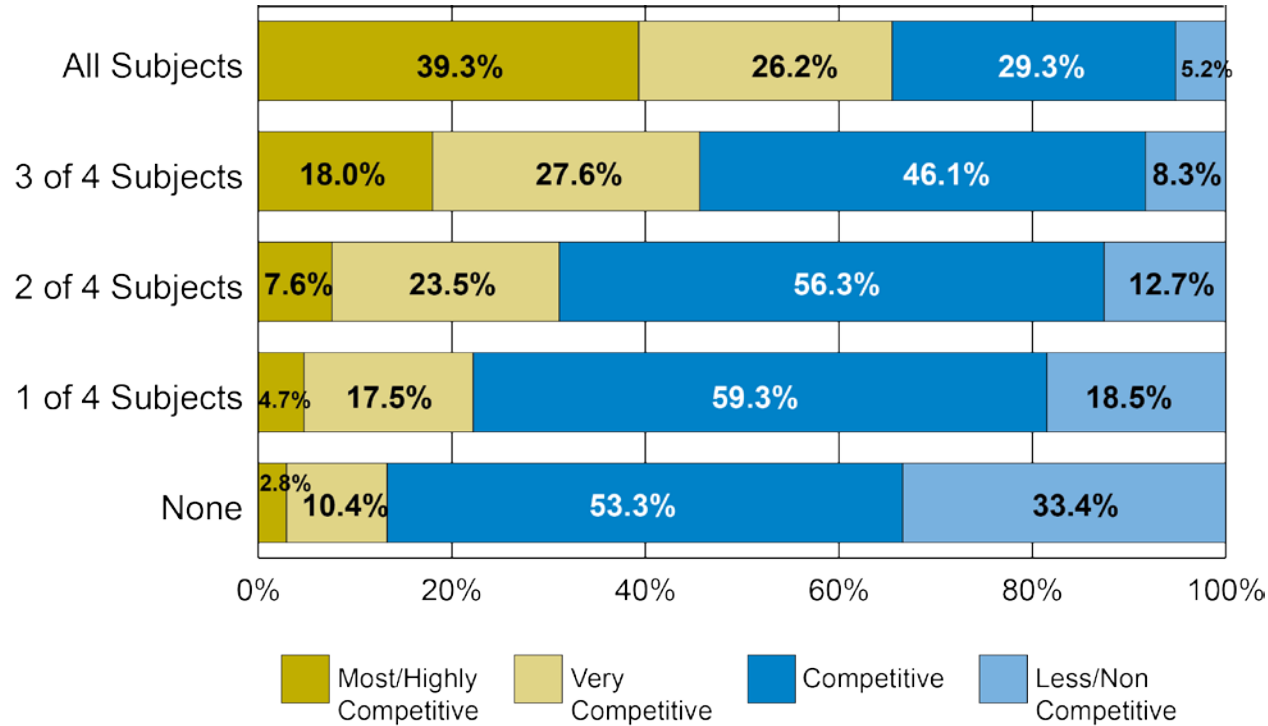
Region and College Readiness* on Basic Enrollment

*Students Meeting All Four Benchmarks
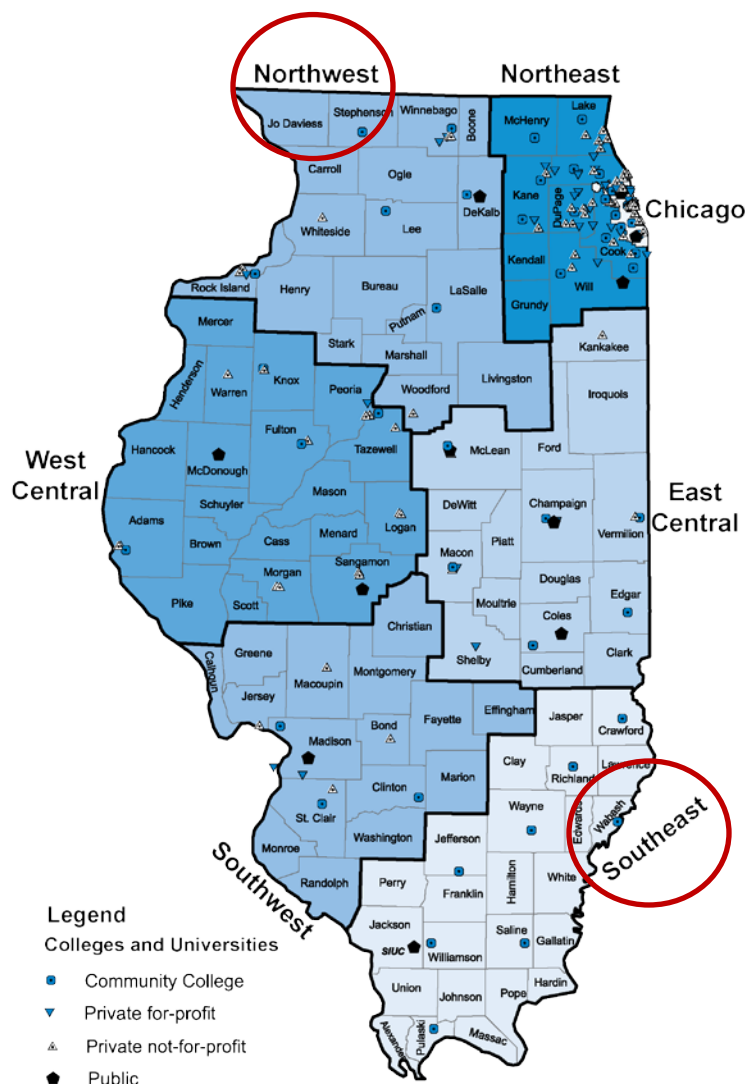
Region	Four-Year Rate	Two-Year Rate
Chicago	68.9%	3.6%
Northeast	68.4%	7.7%
Southwest	62.9%	12.8%
West Central	60.4%	14.6%
East Central	59.5%	14.8%
Northwest	53.7%	20.6%
Southeast	52.3%	23.5%

How is college readiness associated with selectivity?

	Most/Highly Competitive	Very Competitive	Competitive	Less/Non Competitive
All Subjects	39.3%	26.2%	29.3%	5.2%
3 of 4 Subjects	18.0%	27.6%	46.1%	8.3%
2 of 4 Subjects	7.6%	23.5%	56.3%	12.7%
1 of 4 Subjects	4.7%	17.5%	59.3%	18.5%
None	2.8%	10.4%	53.3%	33.4%

Most/Highly Competitive

- Illinois Wesleyan
- Northwestern University
- University of Illinois at Urbana-Champaign
- University of Chicago

Very Competitive

- Bradley University
- DePaul University
- Loyola University
- University of Illinois at Chicago

Competitive

- Illinois State University
- Northern Illinois University
- Southern Illinois University Carbondale
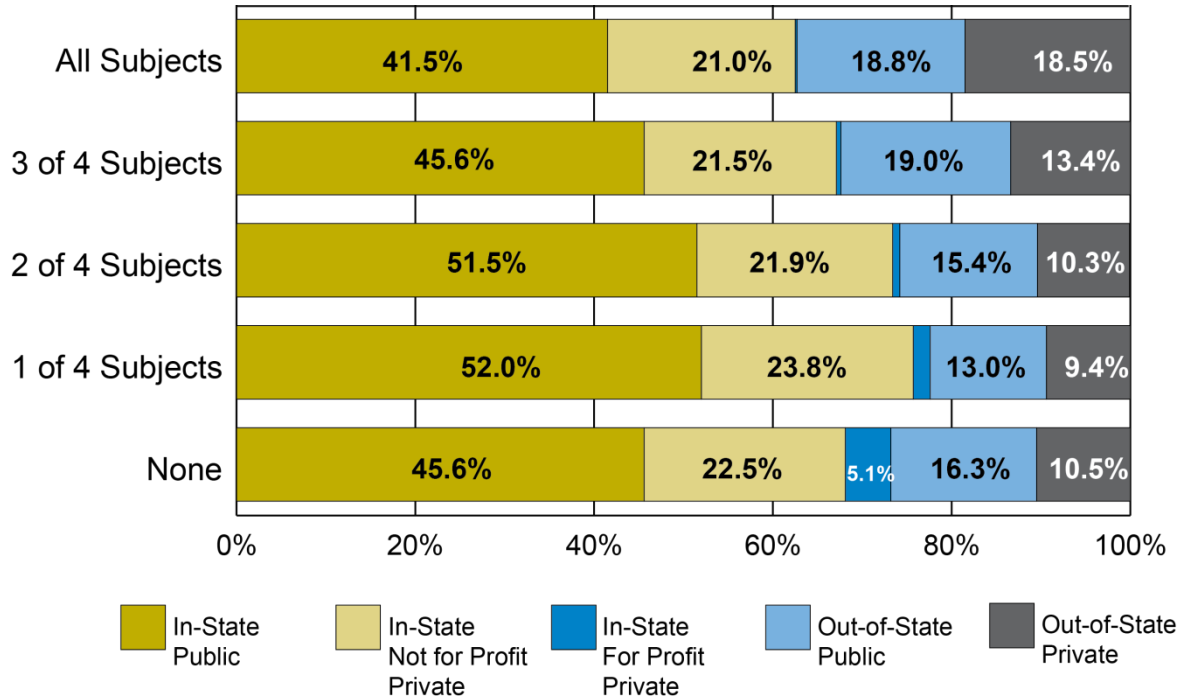- Western Illinois University

Less/Non Competitive

- Northeastern Illinois University
- Roosevelt University
- Southern Illinois University Edwardsville
- Columbia College Chicago

How is college readiness associated with selectivity?

ACT College Readiness				Selectivity			
Math	English	Reading	Science	Most/Highly Competitive	Very Competitive	Competitive	Less/Non Competitive
≥22	≥18	≥21	≥24	Row N %	Row N %	Row N %	Row N %
✓	✓	✓	✓	39.3%	26.2%	29.3%	5.2%
✓	✓	✓	⊘	19.6%	28.4%	44.0%	7.9%
✓	✓	⊘	✓	16.8%	28.8%	47.1%	7.3%
⊘	✓	✓	✓	8.8%	21.1%	58.8%	11.2%
✓	✓	⊘	⊘	9.5%	27.5%	53.4%	9.5%
⊘	✓	✓	⊘	6.9%	21.6%	57.5%	14.0%
✓	⊘	⊘	⊘	3.8%	22.2%	57.7%	16.3%
⊘	✓	⊘	⊘	5.1%	17.8%	58.8%	18.3%
⊘	⊘	✓	⊘	2.9%	12.7%	63.0%	21.5%
⊘	⊘	⊘	⊘	2.8%	10.4%	53.3%	33.4%

- Demonstrates the impact of meeting the math and English benchmarks on the likelihood of enrolling at a more selective institution.

How is college readiness associated with sector?

	In-State Public	In-State Not for Profit Private	In-State For Profit Private	Out-of-State Public	Out-of-State Private
All Subjects	41.5%	21.0%		18.8%	18.5%
3 of 4 Subjects	45.6%	21.5%		19.0%	13.4%
2 of 4 Subjects	51.5%	21.9%		15.4%	10.3%
1 of 4 Subjects	52.0%	23.8%		13.0%	9.4%
None	45.6%	22.5%	5.1%	16.3%	10.5%

- Students meeting all of the benchmarks were most likely to enroll out-of-state.
- A surprisingly high proportion of students missing all of the benchmarks enrolled out-of-state as well.
- Students meeting fewer benchmarks were more likely to enroll at for-profit institutions.
- The proportion of students enrolling at in-state NFP private institutions was fairly similar across the college readiness groups.

# How is college readiness associated with sector?

ACT College Readiness				4-Year Starters by Sector				
Math	**English**	**Reading**	**Science**	**In-State Public**	**In-state Not-for-Profit Private**	**In-state For Profit Private**	**Out of State Public**	**Out of State Private**
≥22	≥18	≥21	≥24	Row N %	Row N %	Row N %	Row N %	Row N %
✓	✓	✓	✓	41.5%	21.0%	0.2%	18.8%	18.5%
✓	✓	✓	⊘	44.3%	21.8%	0.4%	19.5%	14.0%
✓	✓	⊘	⊘	52.5%	20.4%	0.7%	16.7%	9.8%
⊘	✓	✓	⊘	50.7%	23.0%	0.9%	14.9%	10.6%
✓	⊘	⊘	⊘	54.1%	20.5%	4.7%	12.4%	8.4%
⊘	✓	⊘	⊘	51.3%	24.5%	1.5%	13.4%	9.3%
⊘	⊘	✓	⊘	54.8%	21.8%	2.0%	10.8%	10.6%
⊘	⊘	⊘	⊘	45.6%	22.5%	5.1%	16.3%	10.5%

- Regarding enrollment at for-profit institutions, students meeting the benchmark in math only, had the second highest rate.

How is college readiness associated with persistence?
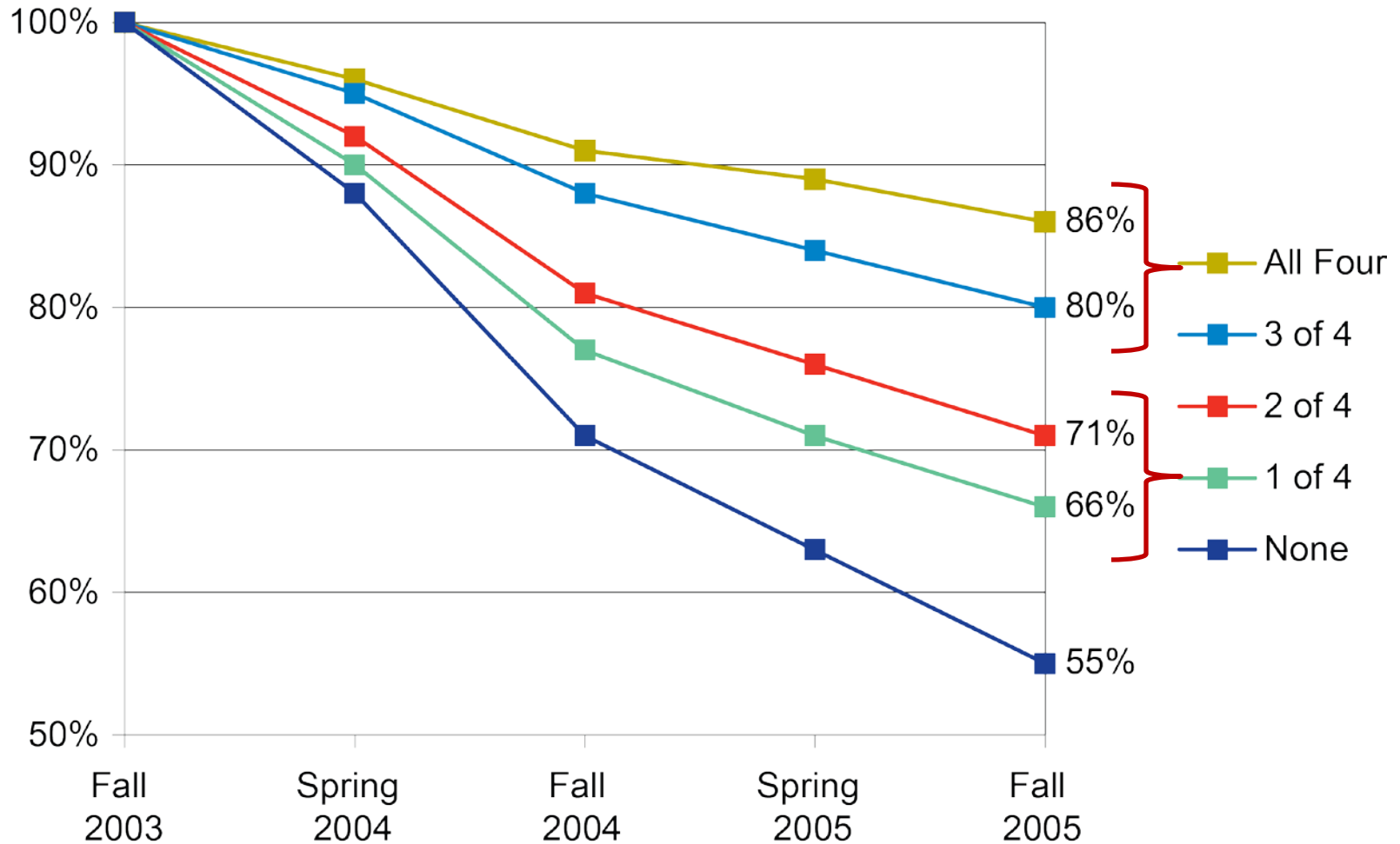
# Persistence into Fall 2005 by ACT College Readiness Category

ACT College Readiness						Persistence Among 4-Year Starters			
Math	English	Reading	Science	Four-Year Starters (n)	% of Total Enrolled	Persisted Spring 2004	Persisted Fall 2004	Persisted Spring 2005	Persisted Fall 2005
≥22	≥18	≥21	≥24	37,165	100%	93.8%	84.6%	80.3%	76.1%
✓	✓	✓	✓	13,849	37.3%	96.5%	91.2%	88.6%	85.7%
✓	✓	✓	⊘	5,833	15.7%	95.4%	88.5%	85.1%	81.6%
✓	✓	⊘	✓	887	2.4%	94.9%	86.6%	82.6%	79.0%
✓	⊘	✓	✓	54	0.1%	94.4%	88.9%	87.0%	81.5%
⊘	✓	✓	✓	907	2.4%	94.4%	83.2%	78.4%	74.3%
✓	✓	⊘	⊘	2,214	6.0%	93.9%	85.5%	81.2%	77.4%
✓	⊘	✓	⊘	165	0.4%	95.2%	78.8%	73.9%	70.3%
✓	⊘	⊘	✓	53	0.1%	90.6%	73.6%	67.9%	62.3%
⊘	✓	✓	⊘	4,479	12.1%	91.5%	78.3%	73.1%	67.6%
⊘	✓	⊘	✓	169	0.5%	94.1%	85.3%	70.6%	64.7%
⊘	⊘	✓	✓	34	0.1%	94.1%	80.5%	72.2%	68.0%
✓	⊘	⊘	⊘	429	1.2%	91.6%	79.5%	73.9%	68.8%
⊘	✓	⊘	⊘	3,747	10.1%	91.0%	78.0%	72.4%	67.3%
⊘	⊘	✓	⊘	641	1.7%	87.8%	73.3%	63.8%	58.2%
⊘	⊘	⊘	✓	40	0.1%	75.0%	65.0%	55.0%	52.5%
⊘	⊘	⊘	⊘	3,664	9.9%	87.6%	71.2%	62.5%	54.6%

How is college readiness associated with bachelor's completion?

- By the interaction of college readiness and race.

- By the interaction of college readiness and income.

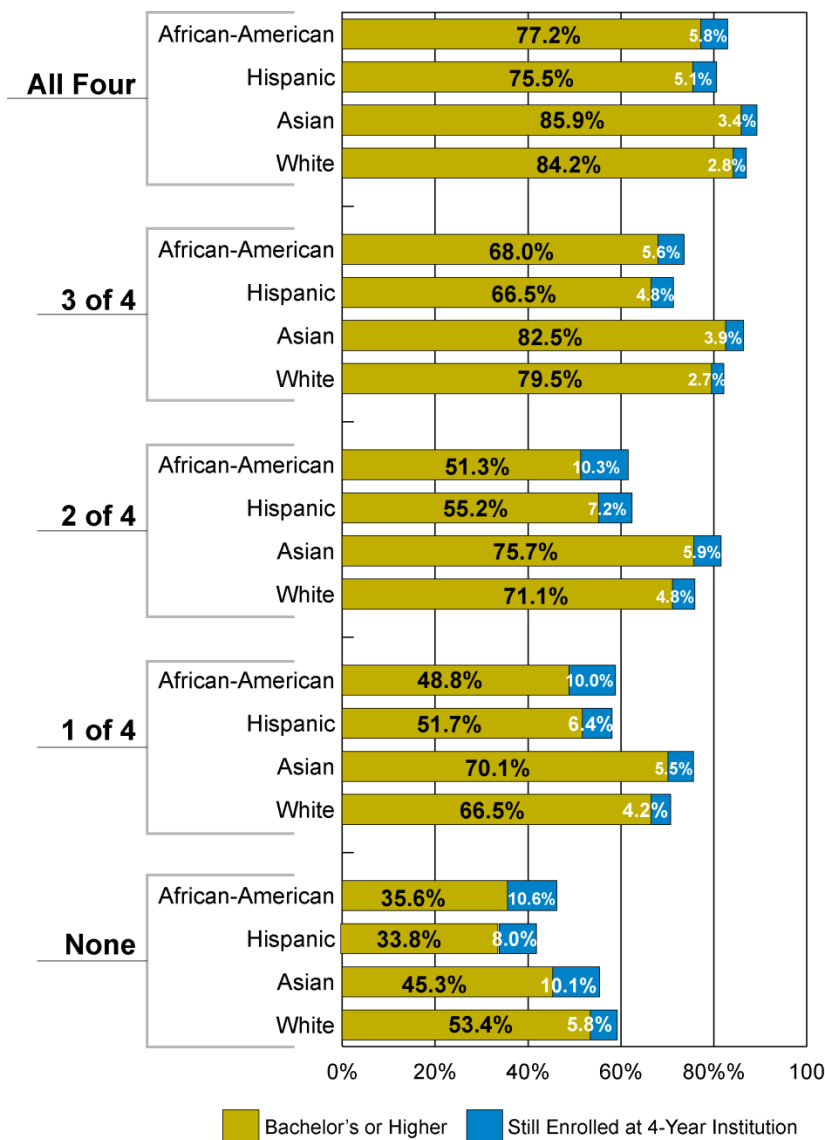- By the interaction of selectivity and college readiness.

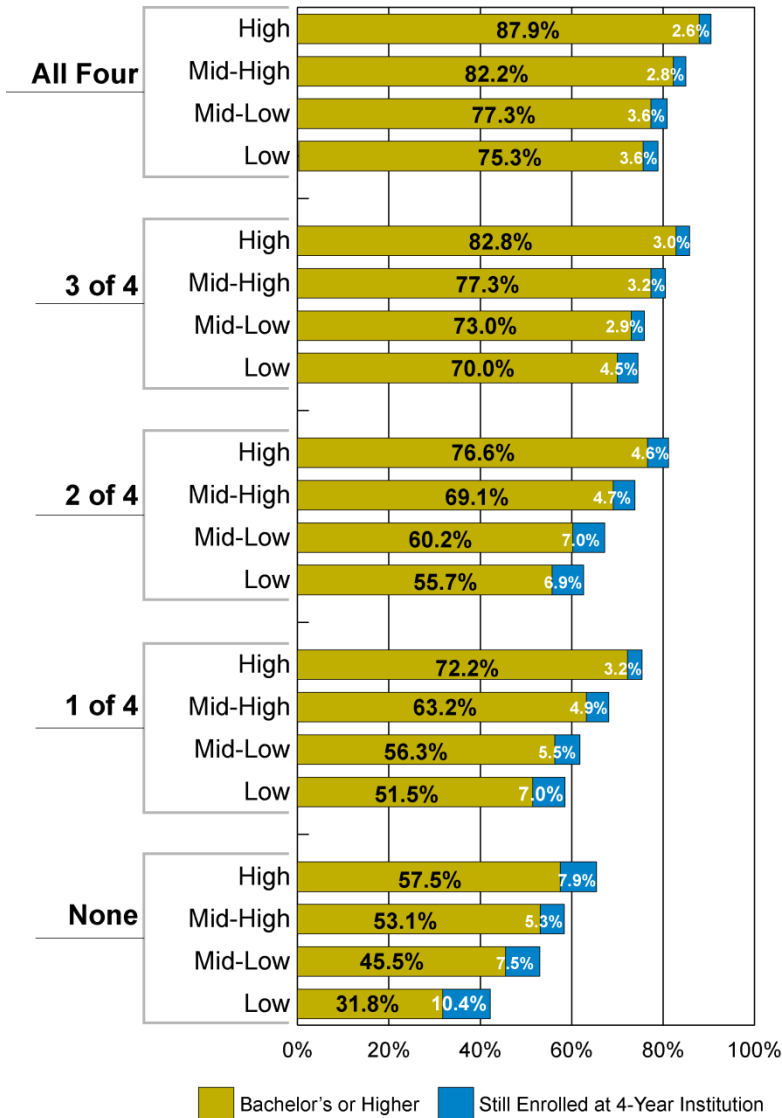# How is college readiness associated with bachelor's completion?
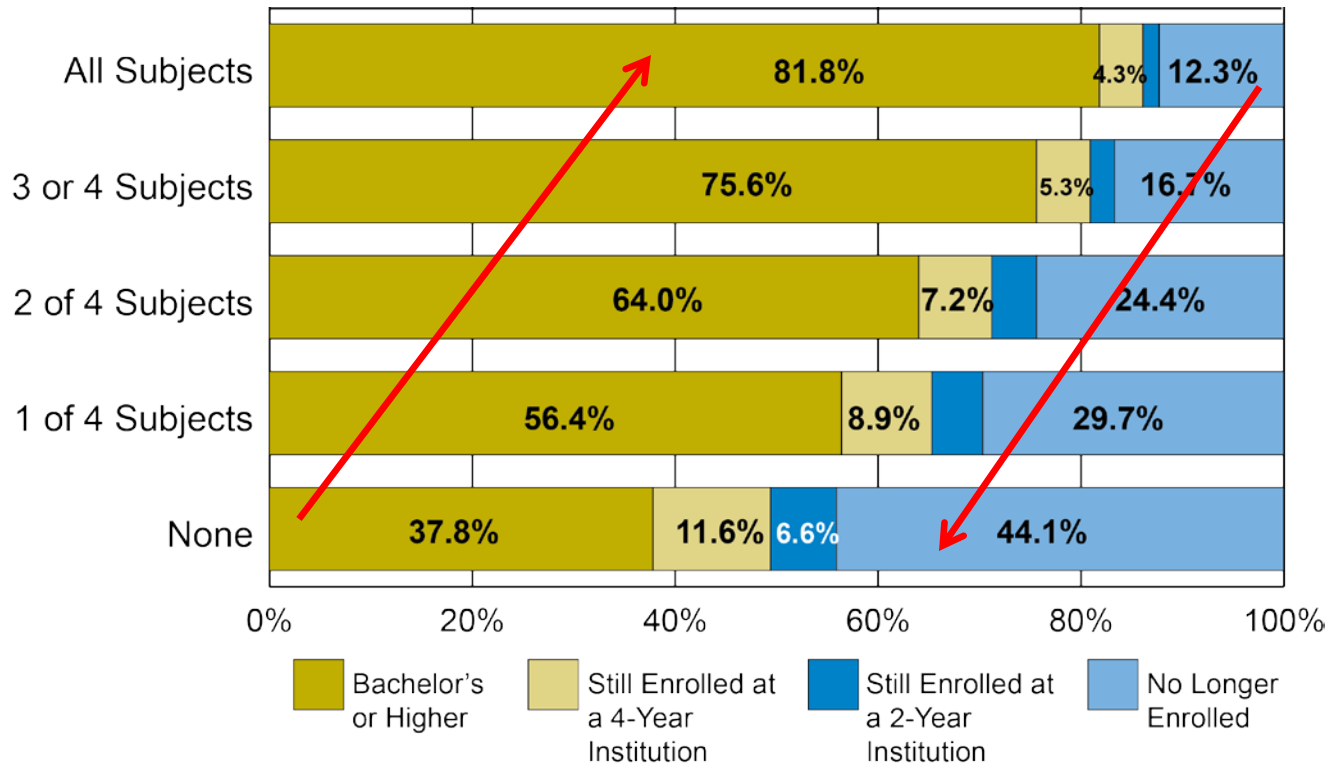
Within seven academic years of initial enrollment-fall of 2003 through spring of 2010.

Interaction of Race & College Readiness and Bachelor's Completion

- Non-Asian minority students had lower rates of degree completion across all readiness categories.

- They also had a higher proportion still in the educational pipeline.

- Asian students maintained a slight advantage over their white peers in all college readiness categories with the exception of one;

- White students missing all of the benchmarks had a degree completion rate over 53%.

All Four
	Bachelor's or Higher	Still Enrolled
African-American	77.2%	5.8%
Hispanic	75.5%	5.1%
Asian	85.9%	3.4%
White	84.2%	2.8%

3 of 4
	Bachelor's or Higher	Still Enrolled
African-American	68.0%	5.6%
Hispanic	66.5%	4.8%
Asian	82.5%	3.9%
White	79.5%	2.7%

2 of 4
	Bachelor's or Higher	Still Enrolled
African-American	51.3%	10.3%
Hispanic	55.2%	7.2%
Asian	75.7%	5.9%
White	71.1%	4.8%

1 of 4
	Bachelor's or Higher	Still Enrolled
African-American	48.8%	10.0%
Hispanic	51.7%	6.4%
Asian	70.1%	5.5%
White	66.5%	4.2%

None
	Bachelor's or Higher	Still Enrolled
African-American	35.6%	10.6%
Hispanic	33.8%	8.0%
Asian	45.3%	10.1%
White	53.4%	5.8%

Legend: Bachelor's or Higher / Still Enrolled at 4-Year Institution

Interaction of Parental Income & College Readiness and Bachelor's Completion

		Bachelor's or Higher	Still Enrolled at 4-Year Institution
All Four	High	87.9%	2.6%
	Mid-High	82.2%	2.8%
	Mid-Low	77.3%	3.6%
	Low	75.3%	3.6%
3 of 4	High	82.8%	3.0%
	Mid-High	77.3%	3.2%
	Mid-Low	73.0%	2.9%
	Low	70.0%	4.5%
2 of 4	High	76.6%	4.6%
	Mid-High	69.1%	4.7%
	Mid-Low	60.2%	7.0%
	Low	55.7%	6.9%
1 of 4	High	72.2%	3.2%
	Mid-High	63.2%	4.9%
	Mid-Low	56.3%	5.5%
	Low	51.5%	7.0%
None	High	57.5%	7.9%
	Mid-High	53.1%	5.3%
	Mid-Low	45.5%	7.5%
	Low	31.8%	10.4%

- Students from wealthier families had higher rates of bachelor's completion across all college-readiness categories.

- High income students meeting two benchmarks had a similar likelihood of bachelor's completion rate as lower income students meeting all of the benchmarks.

- Keep in mind that students from wealthier families tended to enroll at more selective institutions.

Interaction of Selectivity & College Readiness on Bachelor's Completion

Selectivity	End of Study Status			
	Bachelor's or Higher	Still Enrolled at Four-Year	Still Enrolled at Two-Year	No Longer Enrolled
Most/Highly Competitive				
All Four	92.2%	1.7%	0.6%	5.5%
3 of 4	89.2%	2.1%	1.0%	7.7%
2 of 4	82.5%	4.2%	1.1%	12.3%
1 of 4	74.3%	2.3%	3.6%	19.8%
None	72.7%	7.1%	2.0%	18.2%
Very Competitive				
All Four	83.2%	3.4%	1.3%	12.1%
3 of 4	82.4%	3.5%	1.6%	12.4%
2 of 4	72.0%	5.7%	3.1%	19.2%
1 of 4	68.4%	5.6%	4.0%	22.0%
None	55.9%	8.7%	4.9%	30.5%
Competitive				
All Four	76.6%	3.8%	2.0%	17.6%
3 of 4	74.2%	3.1%	2.3%	20.4%
2 of 4	66.4%	5.4%	3.4%	24.9%
1 of 4	62.2%	5.6%	4.4%	27.8%
None	46.7%	8.2%	4.7%	40.4%
Less/Non Competitive				
All Four	63.6%	4.7%	2.5%	29.2%
3 of 4	60.3%	4.5%	3.7%	31.5%
2 of 4	49.8%	9.3%	4.2%	36.8%
1 of 4	42.8%	9.3%	4.2%	43.7%
None	27.5%	10.9%	6.6%	55.0%

- Students meeting two of four benchmarks from the most selective institutions had similar rates of bachelor's completion as students meeting all four benchmarks enrolling at very competitive institutions.

- The least prepared students enrolling at the most selective institutions outperformed the best prepared students at less selective institutions.

Discussion

- College readiness, as measured by the ACT benchmarks, is not evenly distributed across the demographic factors we explored.
    - The uneven distribution of poverty (as proxied by parental income) is probably the driving factor behind the racial gaps and partially explains the regional differences.

- Meeting all or more of the benchmarks was related to an increased likelihood of postsecondary success, particularly for higher income students and those enrolling at more selective institutions.
    - Meeting the benchmark in Science was related to a high probability of meeting all of the benchmarks.

- When we looked at the more nuanced readiness patterns, meeting the English and/or Math benchmarks appeared to have more of a positive impact on the postsecondary outcomes than meeting the Science or Reading benchmarks.
    - Bettinger, Evans, and Pope (2011)
    - Lichtenberger (2011)

How do the tests relate to each other?

	English	Math	Reading	Science
English	1	.766	.810	.772
Math	.766	1	.718	.817
Reading	.810	.718	1	.758
Science	.772	.817	.758	1

- The tests are all highly correlated, particularly Math and Science & English and Reading.

- So perhaps multicollinearity is an issue.

- However, in the end the relatively high cut-score in Science, requires a similar performance on the other tests.

  — There aren't many students who perform well on one test and poorly, or even not so well, on another.

  — Students meeting the benchmark in Science, tend to perform well above the benchmarks on the other tests.
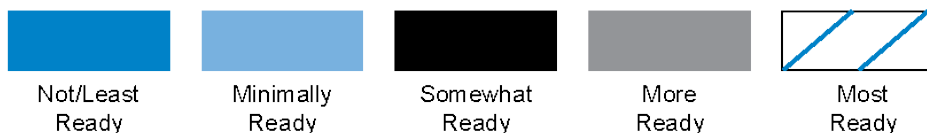
Median ACT Scores and College Readiness
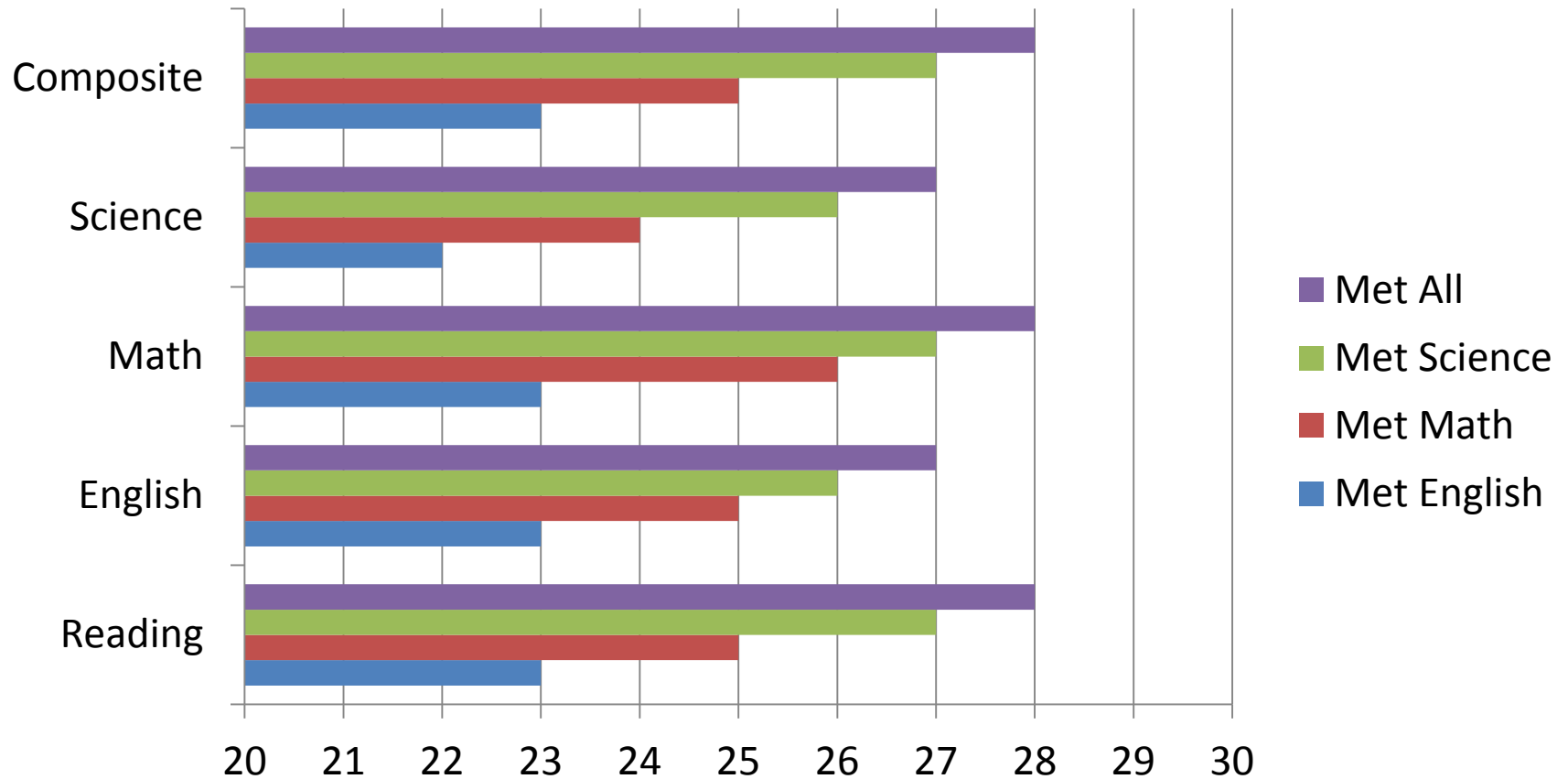
- In terms of median scores, students meeting the science benchmark came closest to the students meeting all of the benchmarks.

Redefining College Readiness

ACT	High School GPA (self-reported)				
	≤ 2.4	2.5 - 2.9	3.0 - 3.4	3.5 - 4.0	Missing
<20	19.7%	8.0%	6.5%	1.9%	14.6%
20-22	3.1%	3.5%	5.2%	2.9%	4.0%
23-25	1.1%	1.7%	4.2%	4.8%	2.7%
26+	0.4%	0.8%	2.7%	9.5%	2.8%

Not/Least Ready · Minimally Ready · Somewhat Ready · More Ready · Most Ready

- Keep it multi-dimensional and focus more closely on English and Mathematics.

Questions

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