

A Longitudinal Study of Illinois High School Graduates with Disabilities: A Six-Year Analysis of Postsecondary Enrollment and Completion

AHEAD 2011: Sustainable Access Through Partnership

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- The IERC undertakes independent research and policy analysis, often in collaboration with other researchers, that informs and strengthens Illinois' commitment to providing a seamless system of educational opportunities for its citizens.
- Through publications, presentations, participation on committees, and an annual research symposium, the IERC brings objective and reliable evidence to the work of state policy makers and practitioners.
- IERC has a legislated responsibility to provide and coordinate research to inform the work of the Illinois P-20 Council.
- Located at Southern Illinois University Edwardsville (St. Louis-Area)

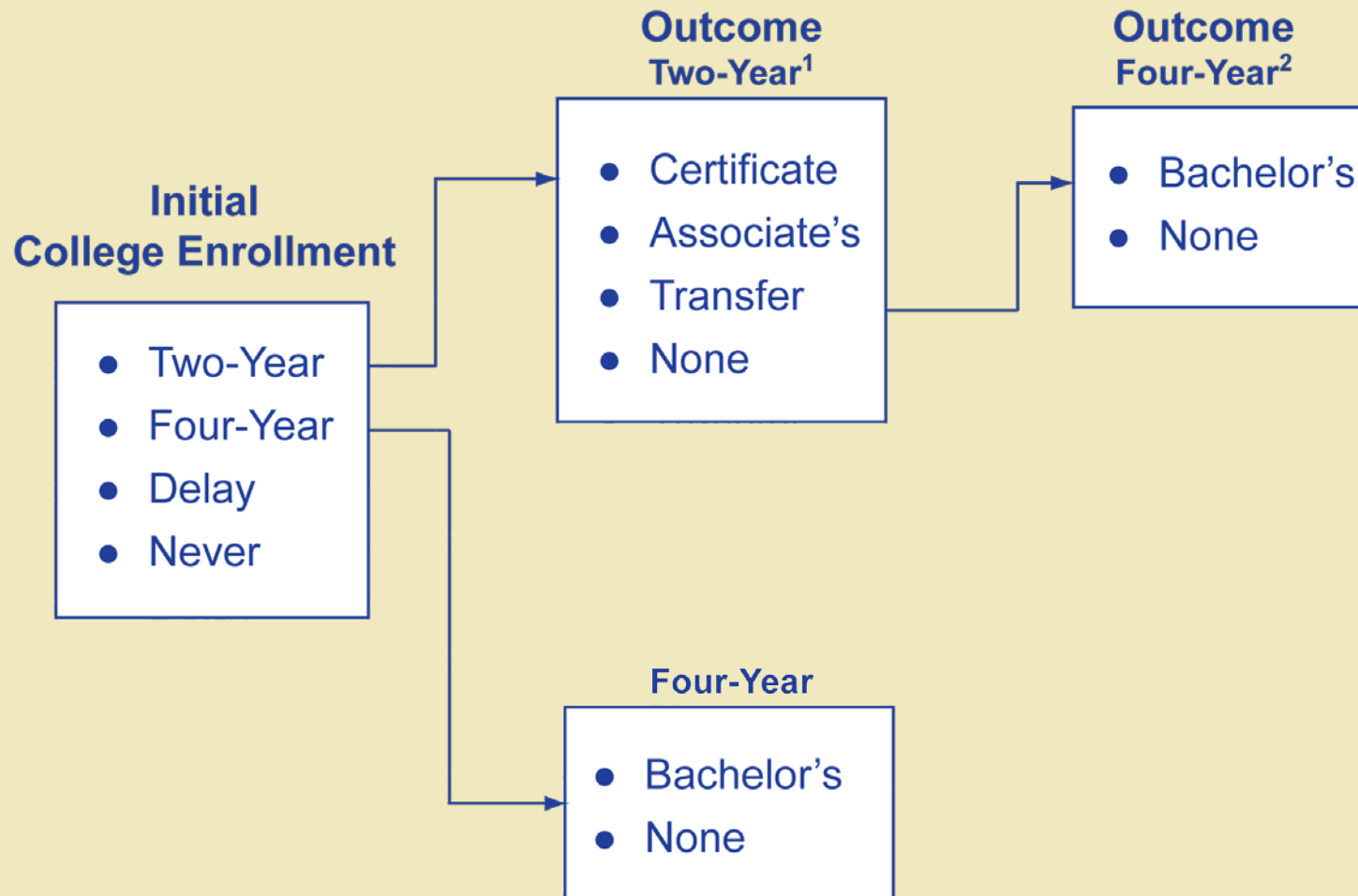
Illinois High School Class of 2002

- Who is included in the cohort
 - 113,135 public high school students who took the Prairie State Achievement Exam (PSAE)/ACT in the Spring of 2001 and indicated that they will be graduating in 2002.
- Who is not included in this cohort
 - Private high school graduates
 - Out-of-State high school graduates who migrated to Illinois higher education institutions

Context of the Current Study

Considerable interest in research on the accessibility of higher education for students with disabilities.

- Practically all medium and large postsecondary institutions (99%) enroll students with disabilities (Raue, 2011)
- Growing rate of postsecondary enrollment for students with disabilities (Newman et al, 2010)
 - Nearly doubled from 1990 to 2005 (26% to 46%)
- A shift in the focus of state and national policy from one of access to degree completion particularly for underserved/underrepresented groups



¹ Two-year outcomes are not mutually exclusive, so more than one could occur

² For two-year to four-year transfers

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**-characteristics of the high schools
- **IPEDS**- characteristics of the postsecondary institutions
- **Illinois Community College System (ICCB)**
- **Illinois Shared Enrollment and Graduation (ISEG)**

Research Questions

1. To what extent do students with disabilities differ from students without disabilities?
2. What are the differences between students with disabilities and students without disabilities in terms of their postsecondary enrollment and degree completion patterns?
3. What are the differences between the students within the various disability subgroups in terms of their postsecondary enrollment and degree completion patterns ?

Factors

Category	Variables
Student Characteristics	Gender & Race
Student Academic Characteristics	IERC college readiness, ACT Core curriculum, ACT composite, high school program type, GPA
Ability to Pay/ Financial Aid	Parental income
High School Characteristics	Teacher academic capital, adjusted per pupil school funding, region

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%



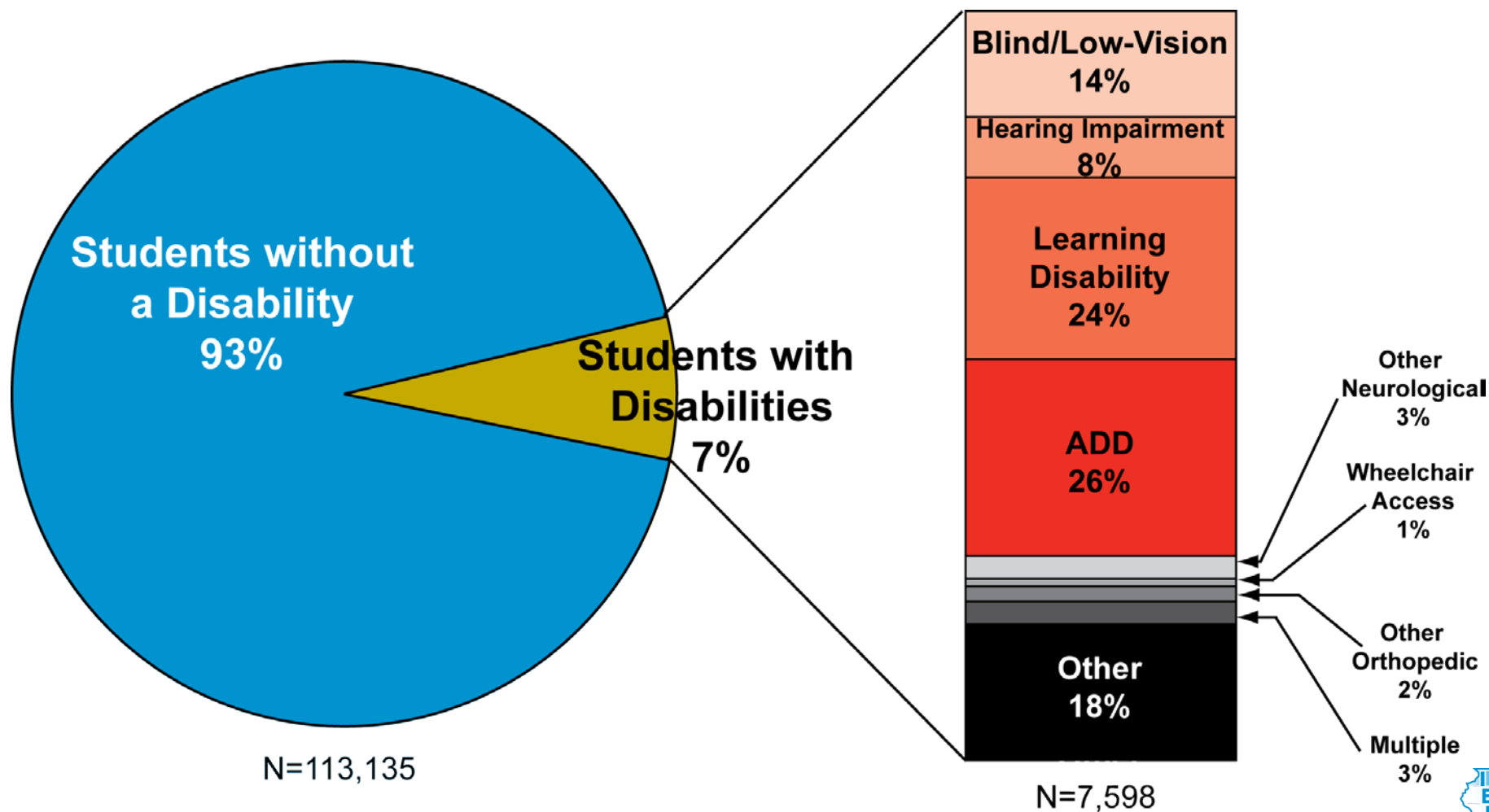
- Index created by combining ACT and HS GPA.
- Based on the work of Berkner and Chavez (1999)

How Disability was Defined in the Current Study

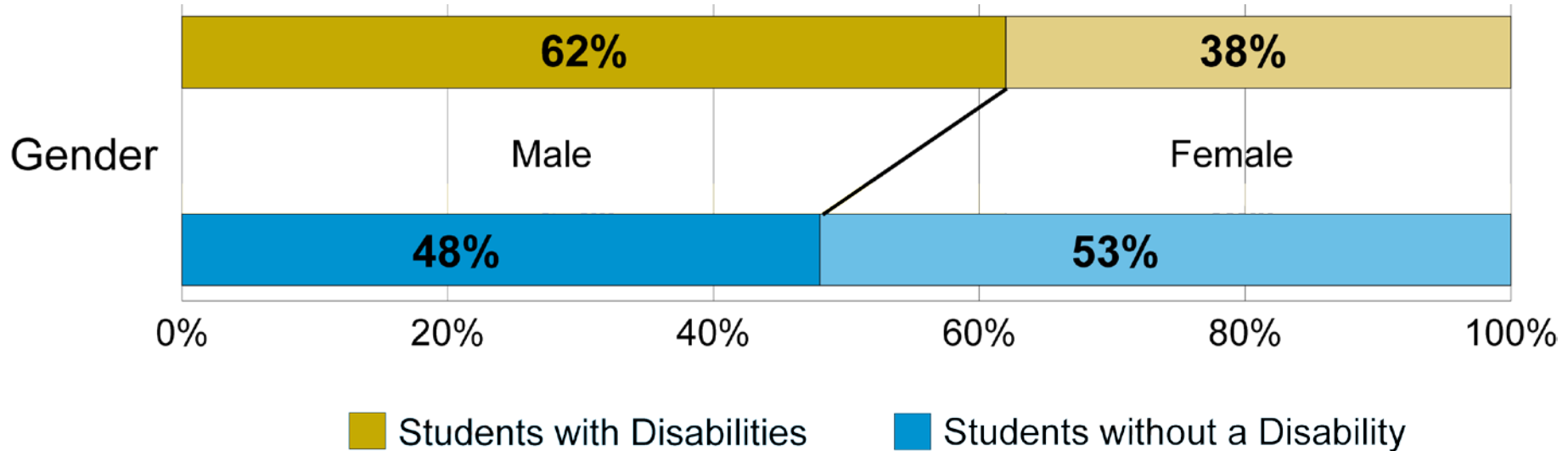
8. Please respond to this item only if you have a physical or diagnosed learning disability. Mark the **one choice that most closely describes your situation.**

- Blind or low-vision (not correctable
with prescription lenses) 1
- Hearing impairment 2
- Learning disability 3
- Attention deficit disorder 4
- Other neurological impairment ... 5
- Require wheelchair access 6
- Other orthopedic impairment 7
- Multiple disabilities 8
- Other disability..... 9

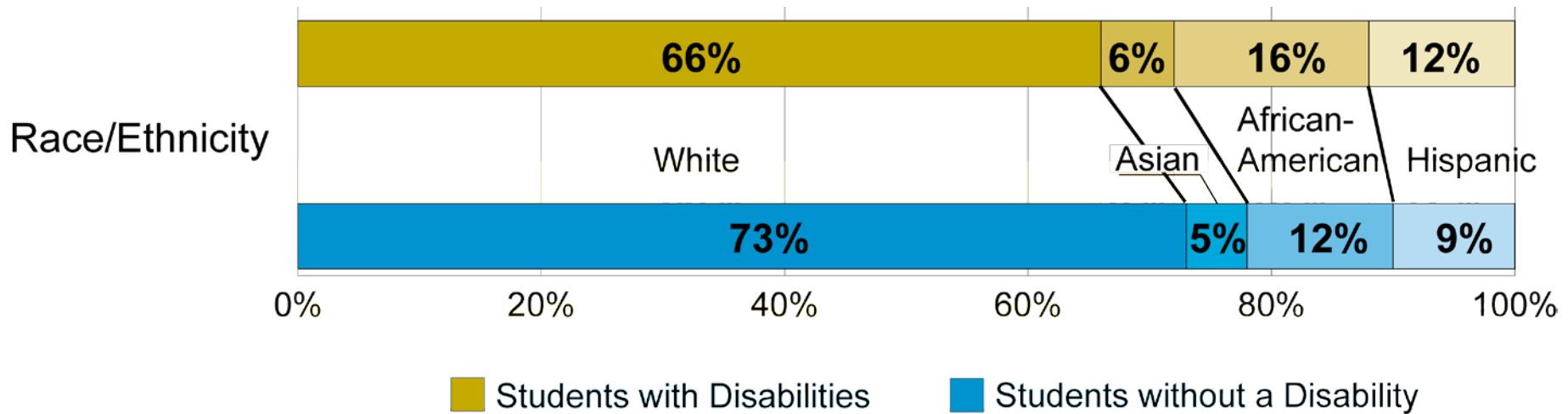
Student Disability Status and the Disability Subgroups



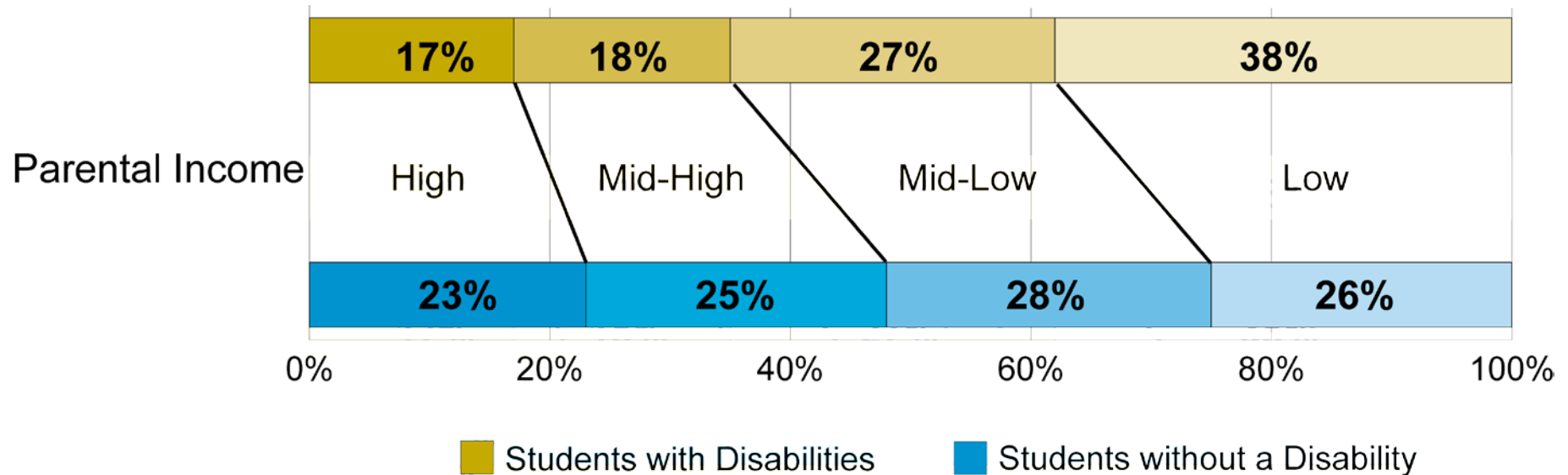
Students with disabilities were more likely to be male



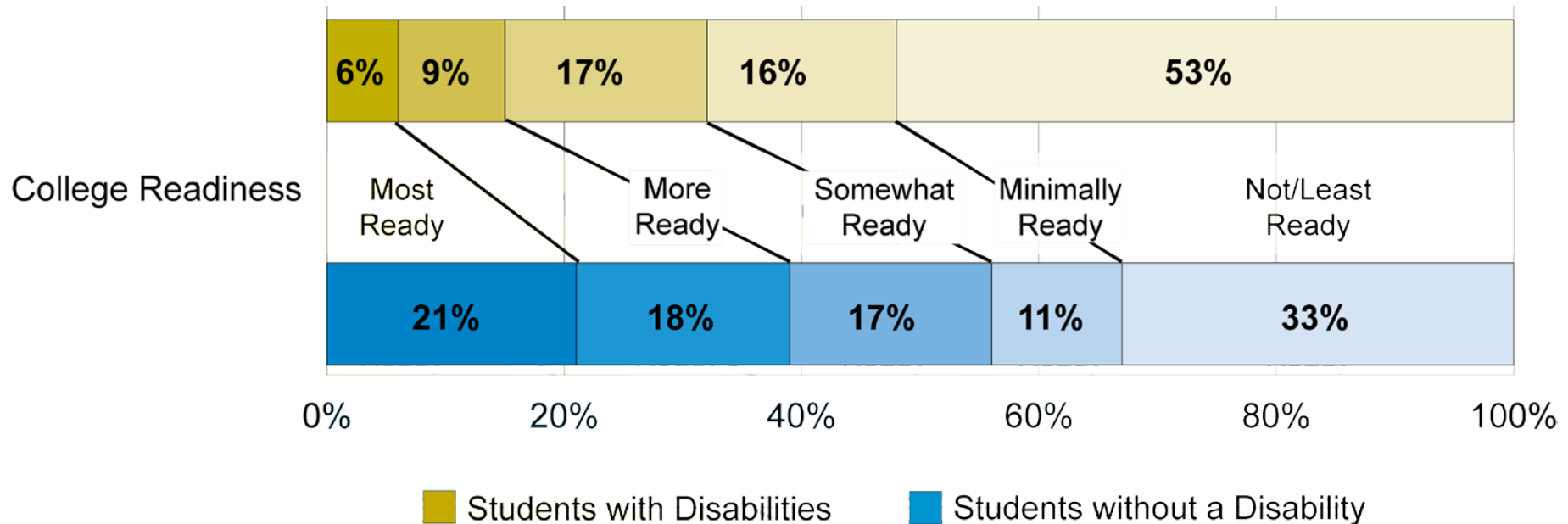
Students with disabilities were less likely to be white



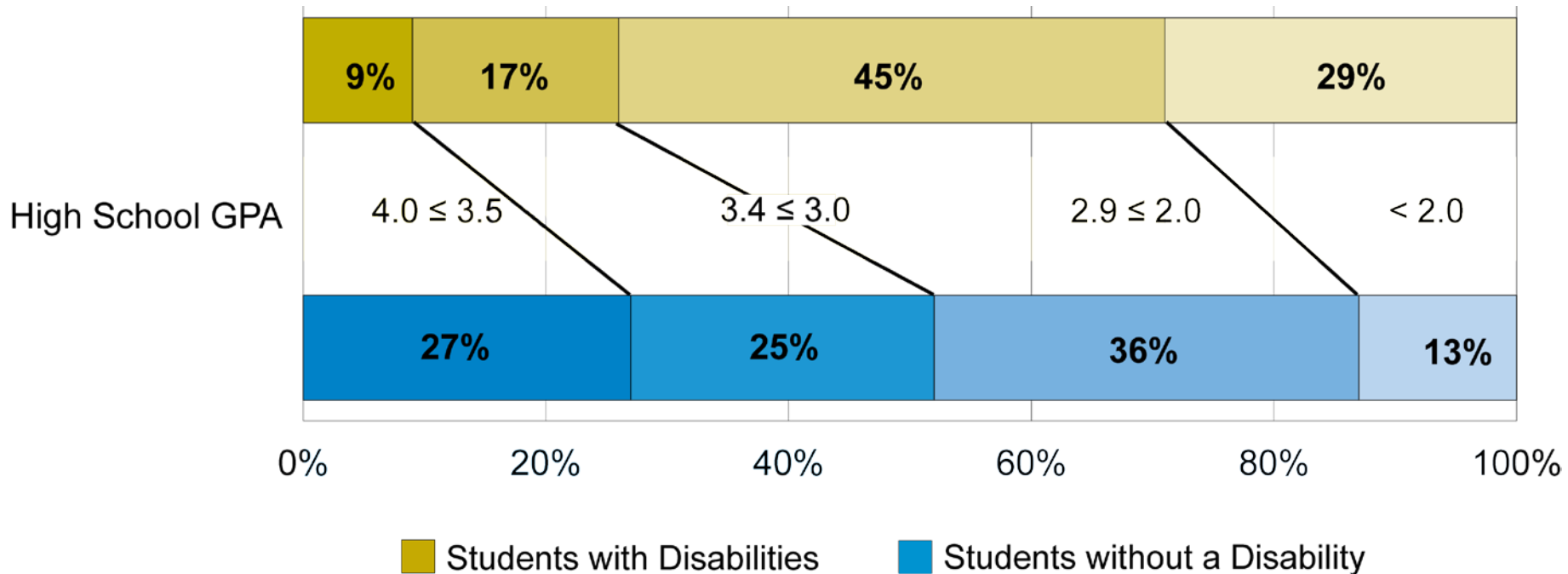
A much higher proportion of students with disabilities fell into the lower parental income categories.



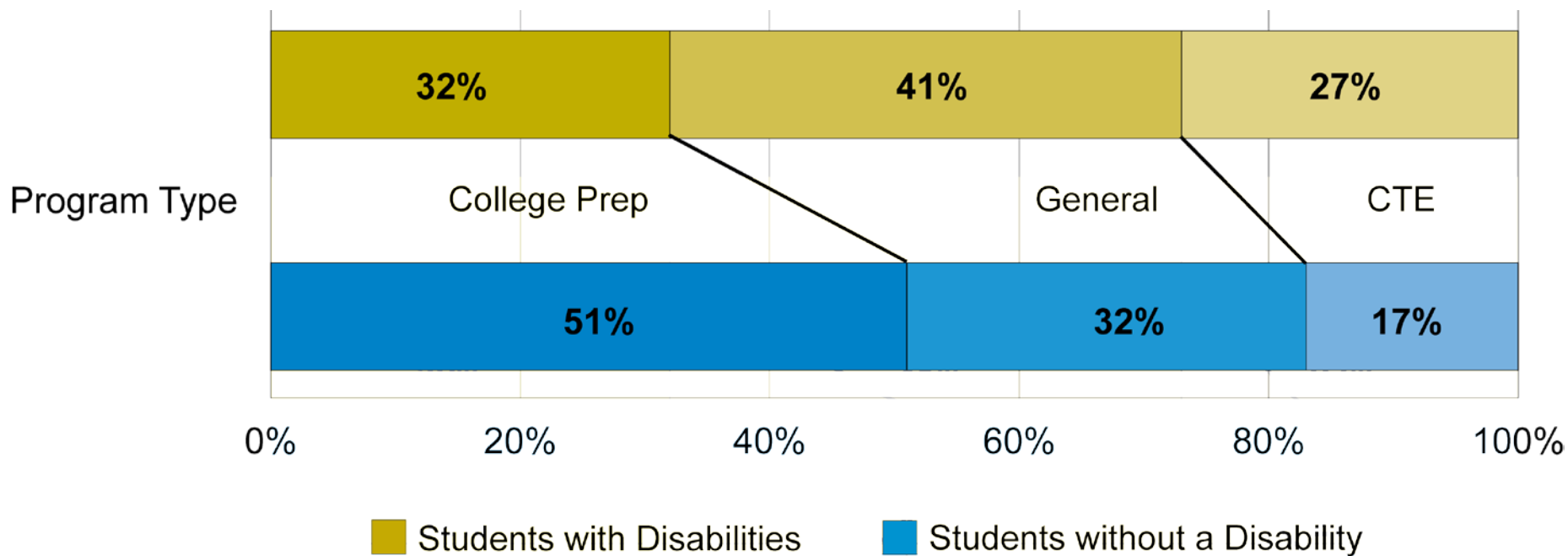
Students with disabilities tended to be less ready for college.



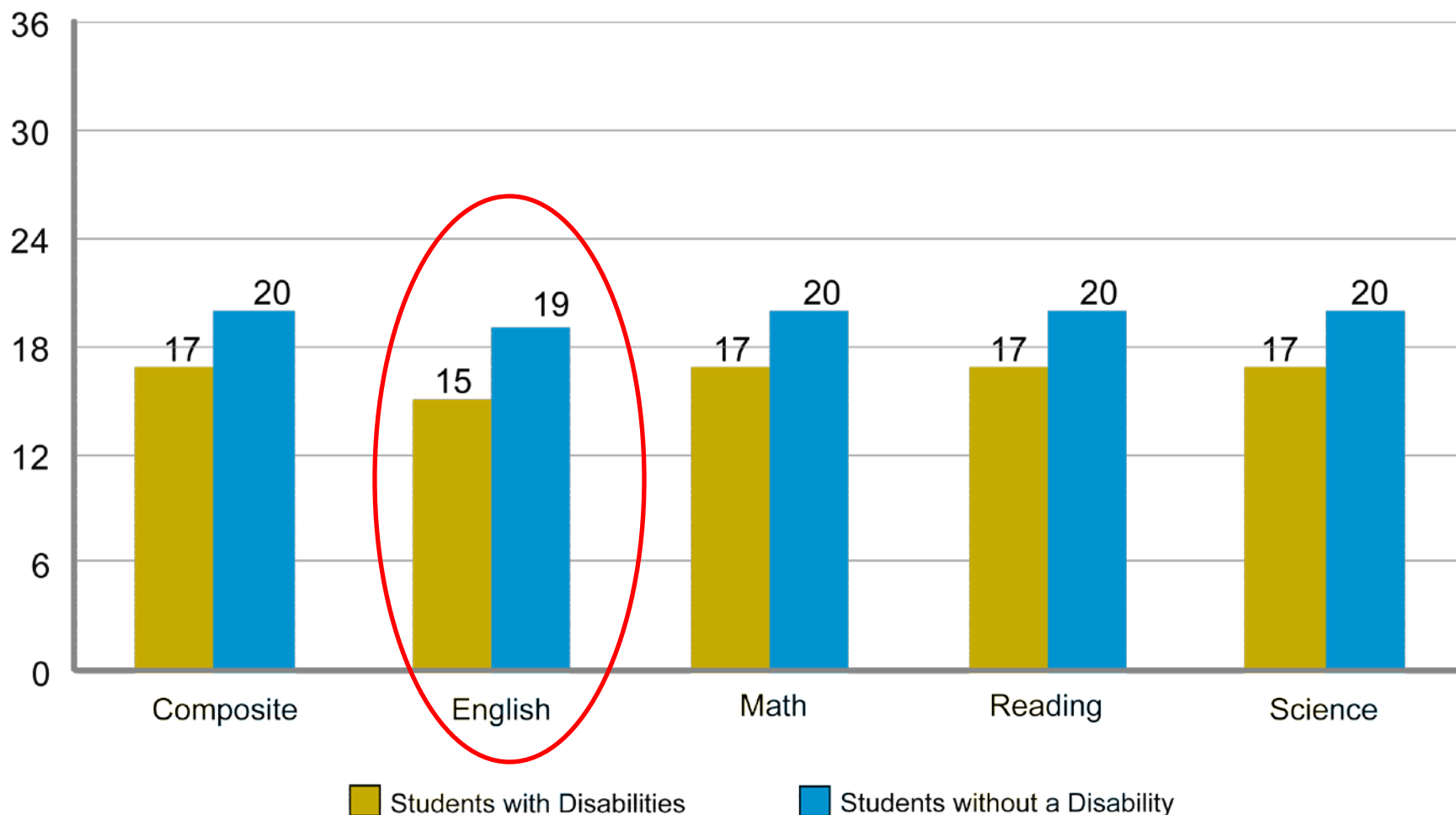
A much higher proportion of students with disabilities had less than a 3.0 GPA.



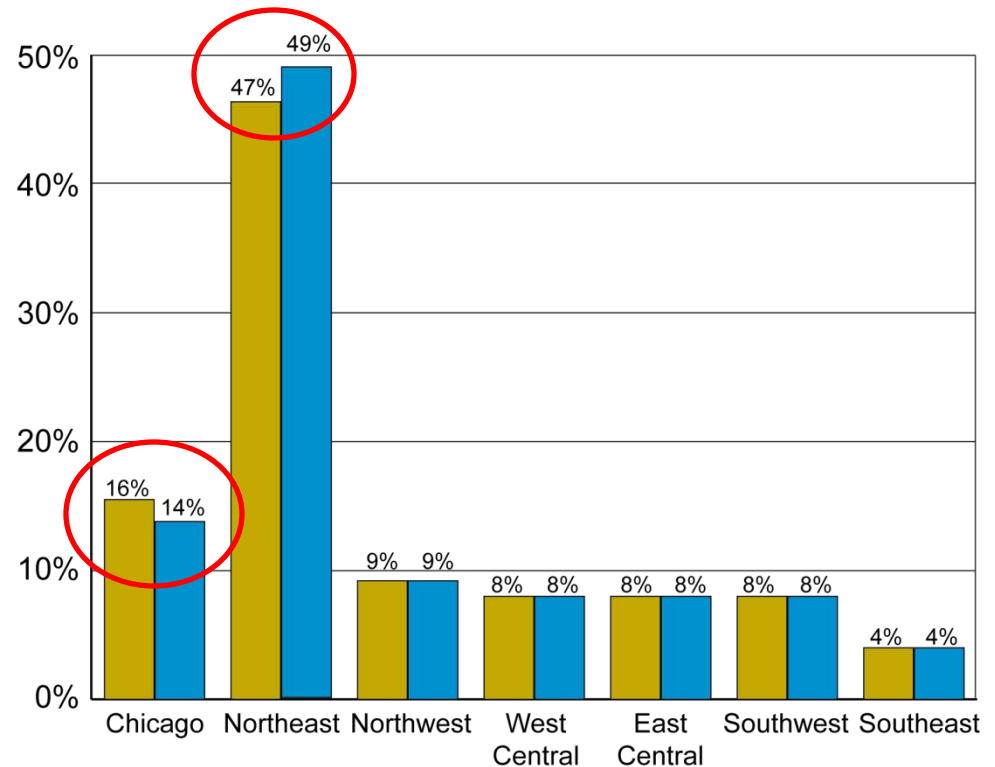
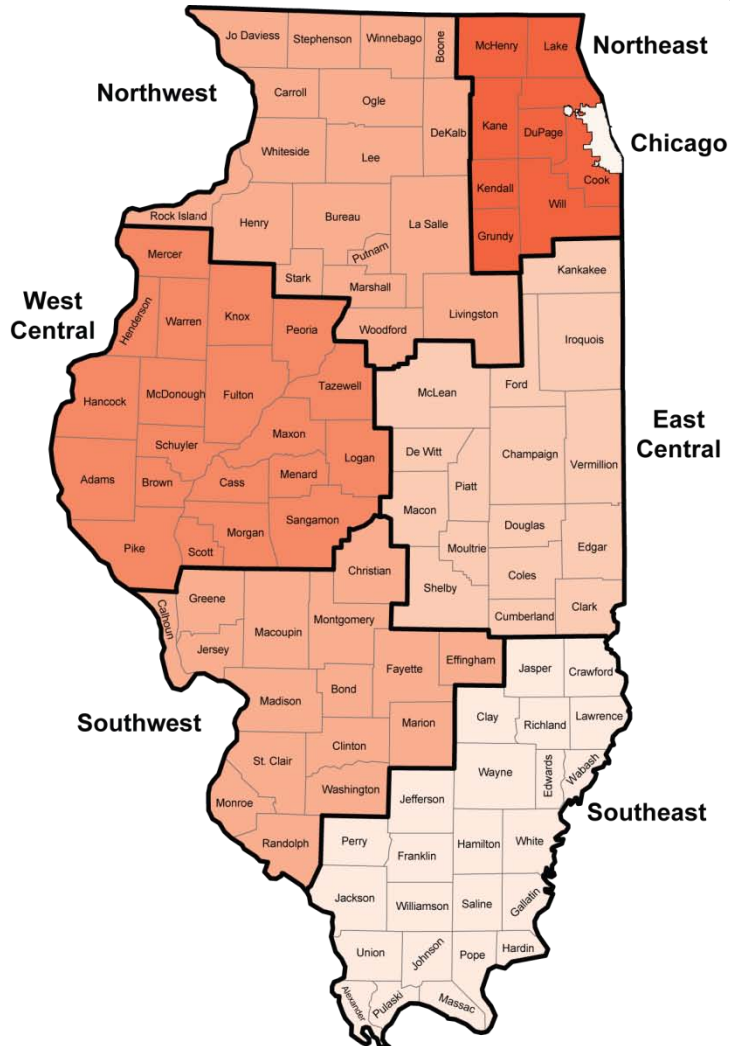
Students with disabilities were less likely to be in a college prep program.



Students with disabilities had lower mean ACT composite and sub-test scores.

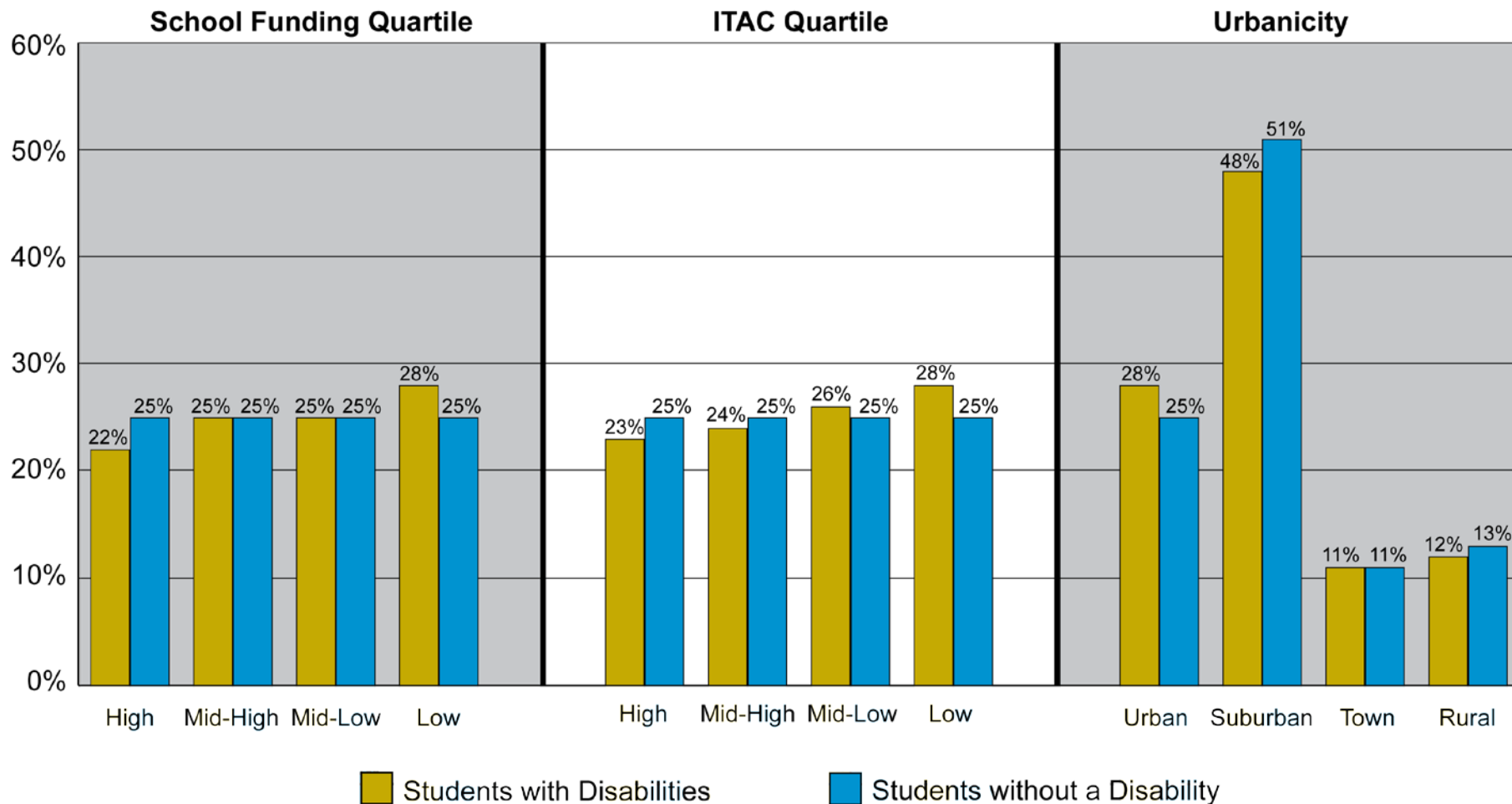


Students with Disabilities were slightly more likely to be from Chicago and slightly less likely to be from the Northeast Region (Chicago Suburbs).



Students with Disabilities
 Students without a Disability

High School Characteristics



Logistic Regression

In predicting disability status (Y/N) the most significant factors were:

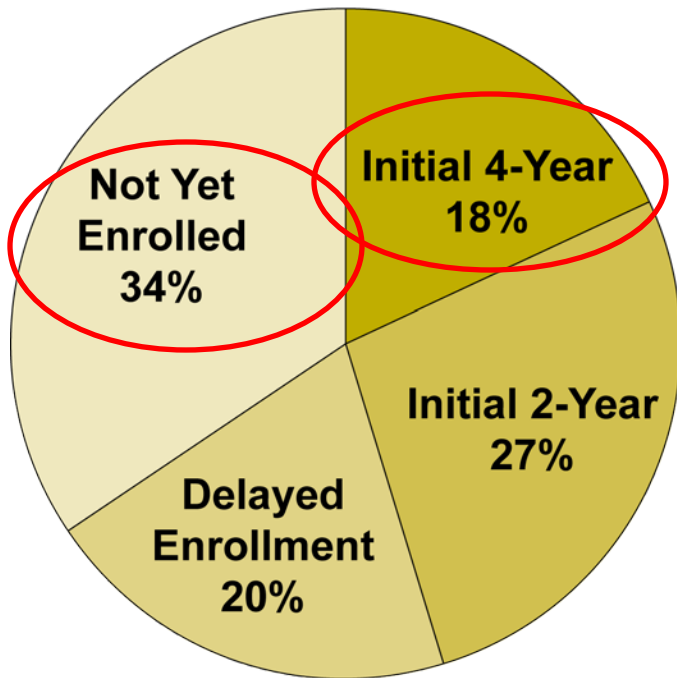
- College readiness
- Gender

And to a lesser extent:

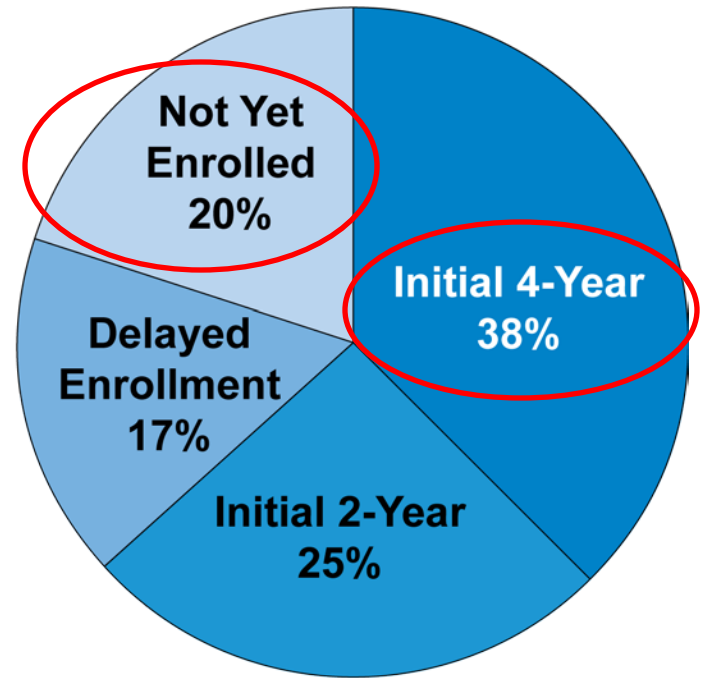
- Parental income
- Completing the core curriculum

Overall College Enrollment

Students with Disabilities



Students without Disabilities

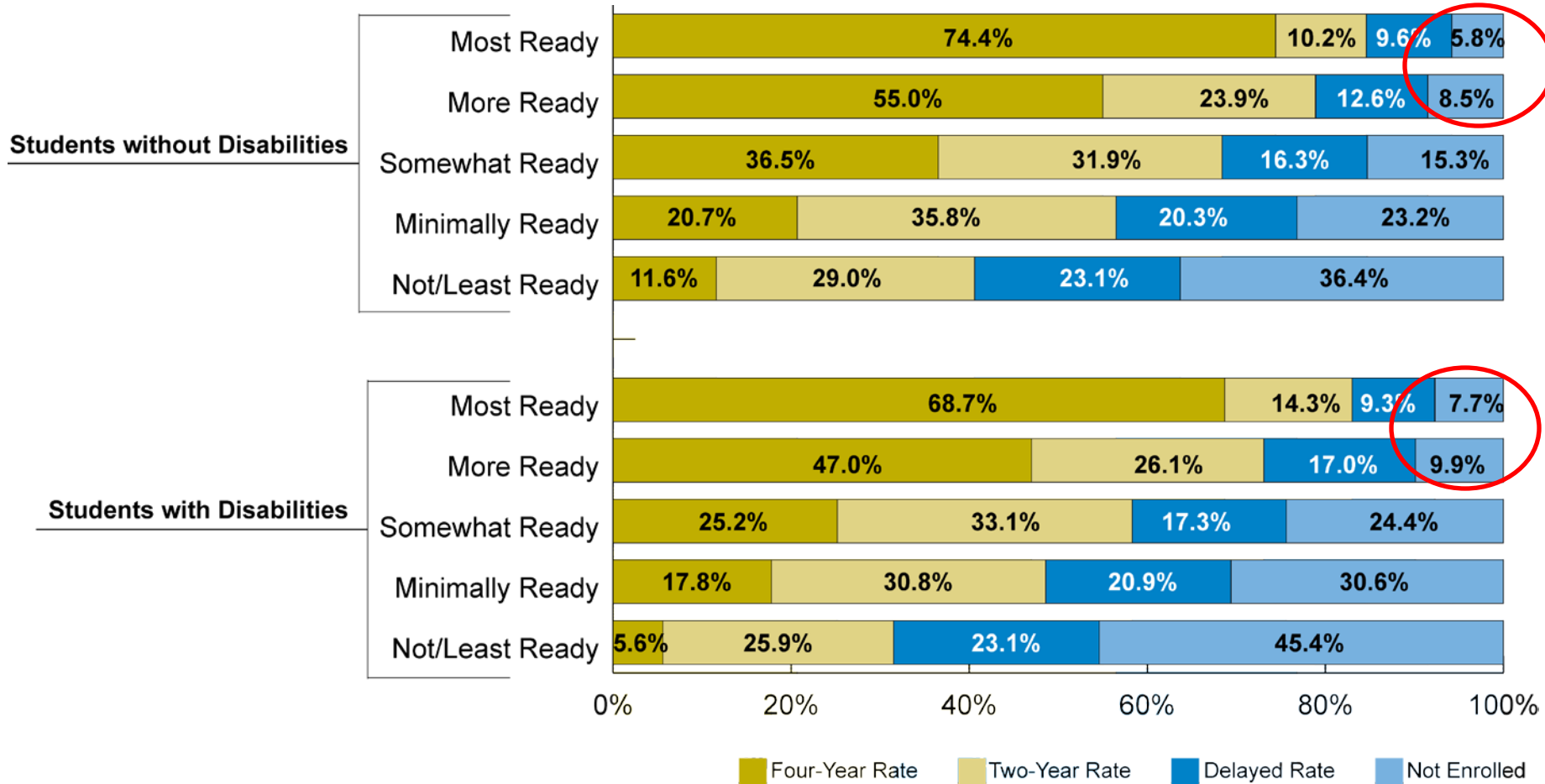


**The difference in the likelihood of initial four-year enrollment was significant even after holding everything else constant (Smalley, Lichtenberger, and Brown, 2010).*

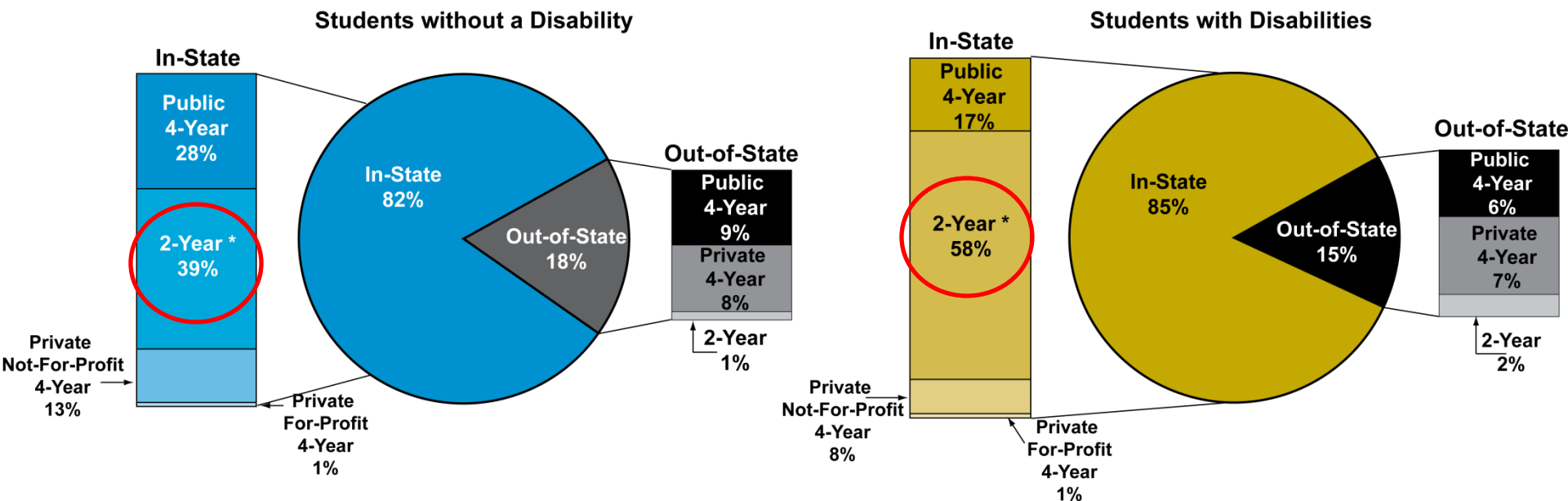
Overall College Enrollment

		Enrolled in Postsecondary Education				
		Not Yet Enrolled	Delayed Enrollment	Initial 2-Year	Initial 4-Year	Total Enrolled
N		23,629	19,397	28,875	41,234	89,506
Overall Cohort	113,135	21%	17%	26%	36%	79%
Students without a Disability	105,537	20%	17%	25%	38%	80%
Students with Disabilities	7,598	34%	20%	27%	18%	66%
Blind/low-vision	1,073	41%	19%	25%	14%	59%
Hearing	582	34%	19%	25%	22%	66%
Learning	1,857	37%	20%	28%	15%	63%
ADD	1,991	29%	21%	30%	20%	71%
Other Neurological	232	35%	23%	21%	21%	65%
Wheelchair Access	69	38%	32%	16%	15%	62%
Other Orthopedic	179	25%	19%	27%	29%	75%
Multiple	256	25%	15%	22%	38%	75%
Other	1,359	36%	22%	27%	16%	64%

Disability Status & College Readiness and Basic Enrollment



College Sector

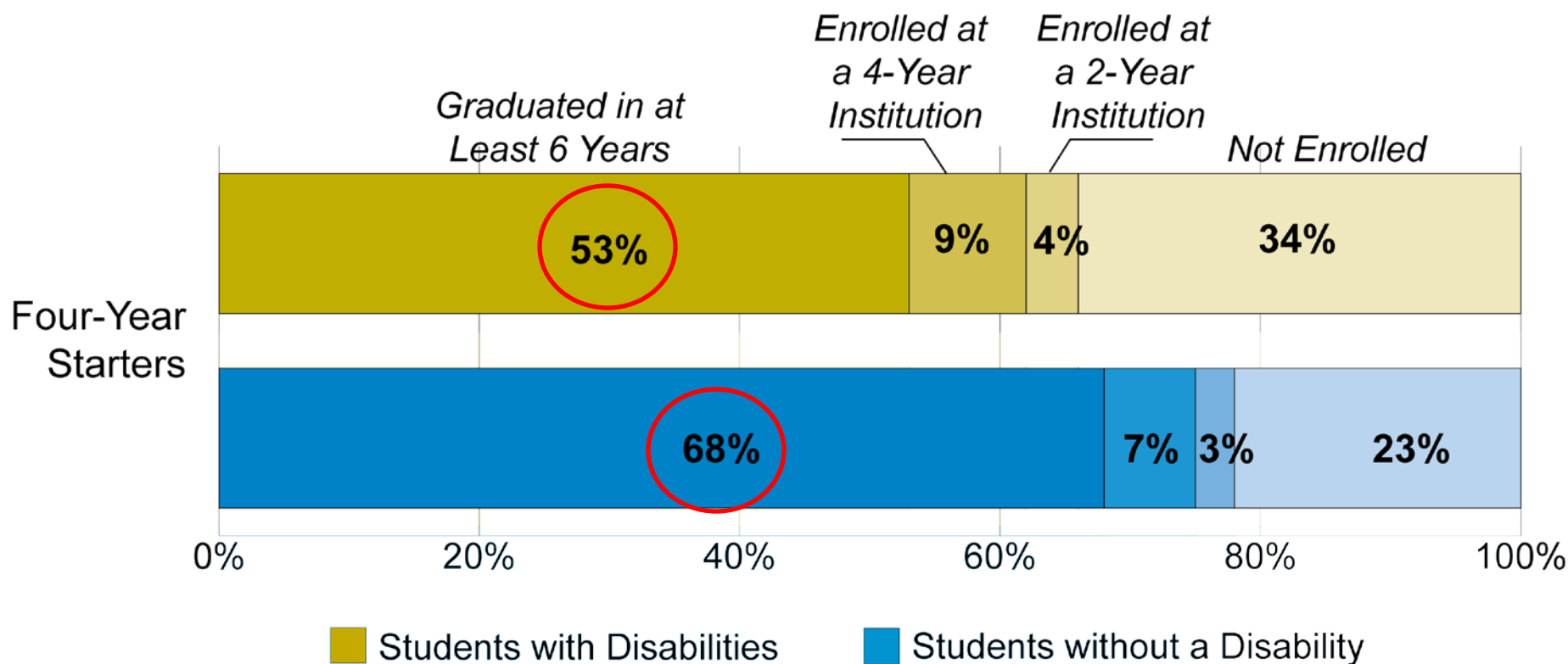


* 97% of in-state two-year enrollment occurs at an Illinois community college.

Among those enrolling, students with disabilities were:

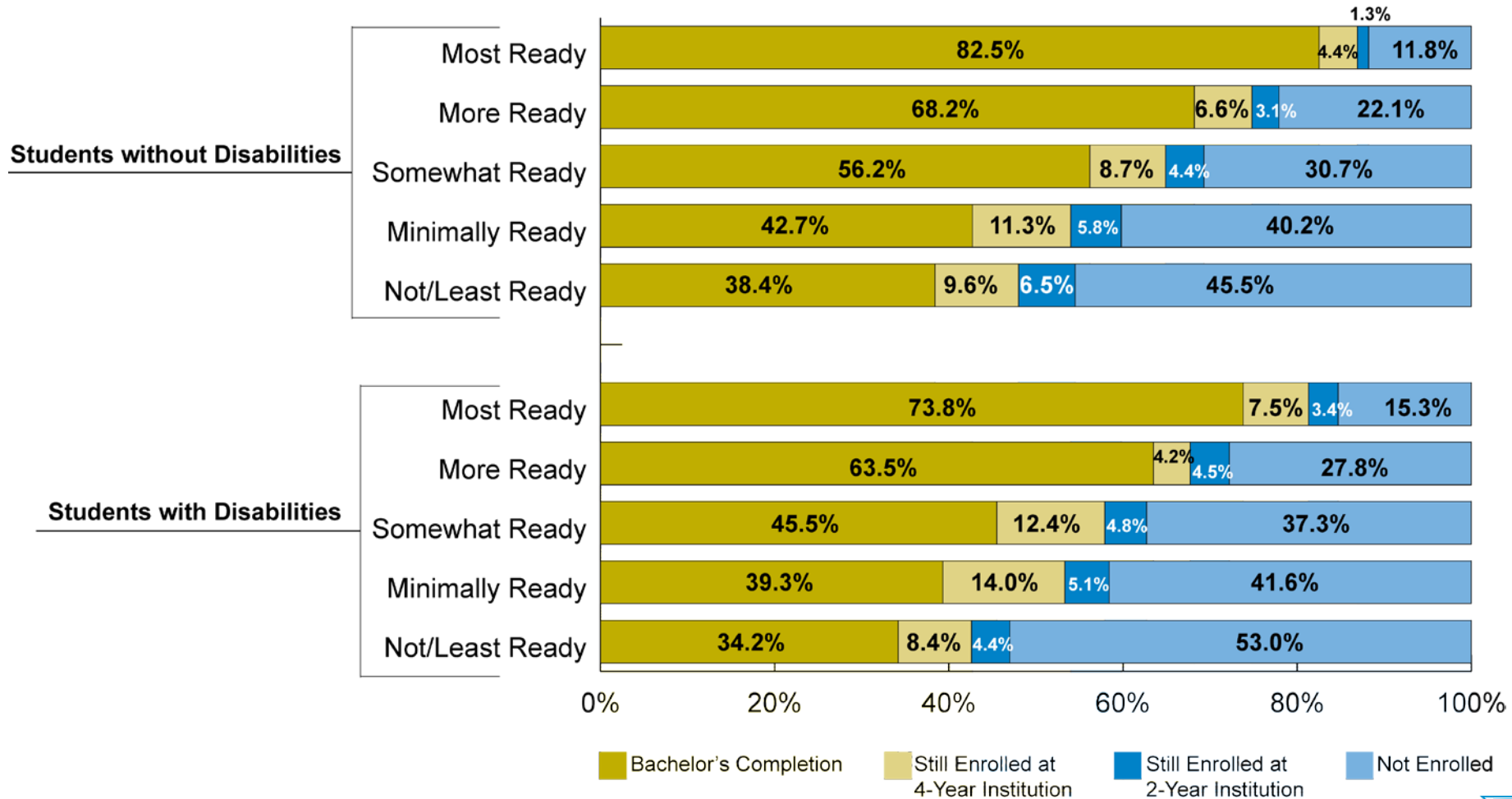
- Significantly more likely to enroll at a community college and that rippled through the other sector-based results

Bachelor's Completion for 2002 Four-Year Starters



**Even after holding other factors at a fixed value, the difference in bachelor's completion rates was statistically significant.*

Disability Status & College Readiness and Bachelor's Completion

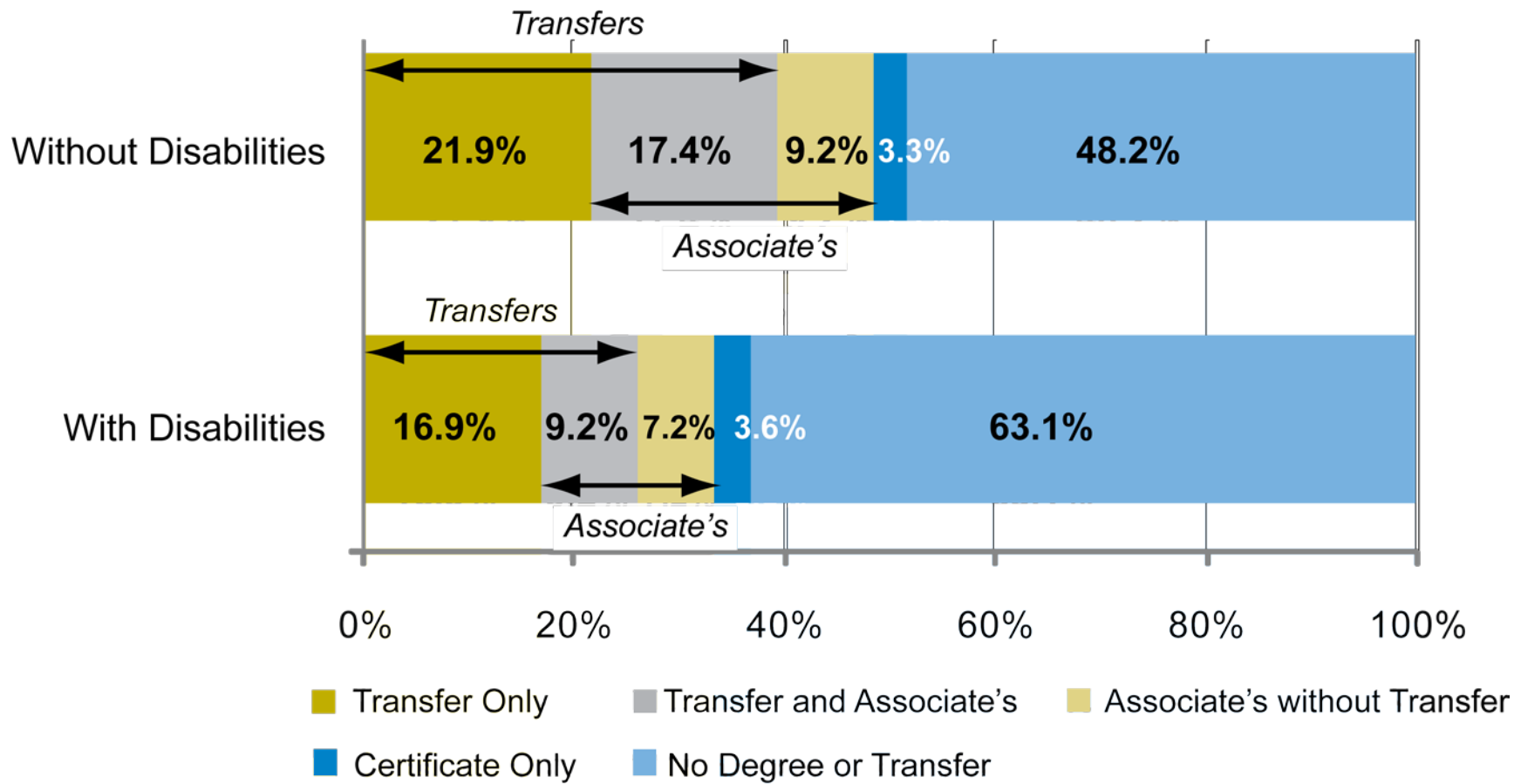


Outcomes for 2002 Four-Year Starters

	Total Initial 4-Yr Enrollment	Graduated in at Least 6 Years	Did Not Obtain Bachelor's in 6 Years (Spring 08 Status)		
			Enrolled at a 4-Year Institution	Enrolled at at 2-Year Institution	Not Enrolled
	N	1,863	2,760	1,300	9,537
Overall Cohort	41,234	67%	7%	3%	23%
Students without a Disability	39,861	68%	7%	3%	23%
Students with Disabilities	1,373	53%	9%	4%	34%
Blind/low-vision	155	48%	*	*	*
Hearing	128	60%	*	*	*
Learning	271	54%	10%	5%	31%
ADD	399	46%	9%	6%	40%
Other Neurological	48	35%	*	*	*
Wheelchair Access	10	*	*	*	*
Other Orthopedic	51	69%	*	*	*
Multiple	97	72%	*	*	*
Other	214	54%	*	*	*

* Indicates cell size of less than 10 or a related cell had a cell size less than 10.

Outcomes for Two-Year Starters by Disability Status



Outcomes for 2002 Two-Year Starters

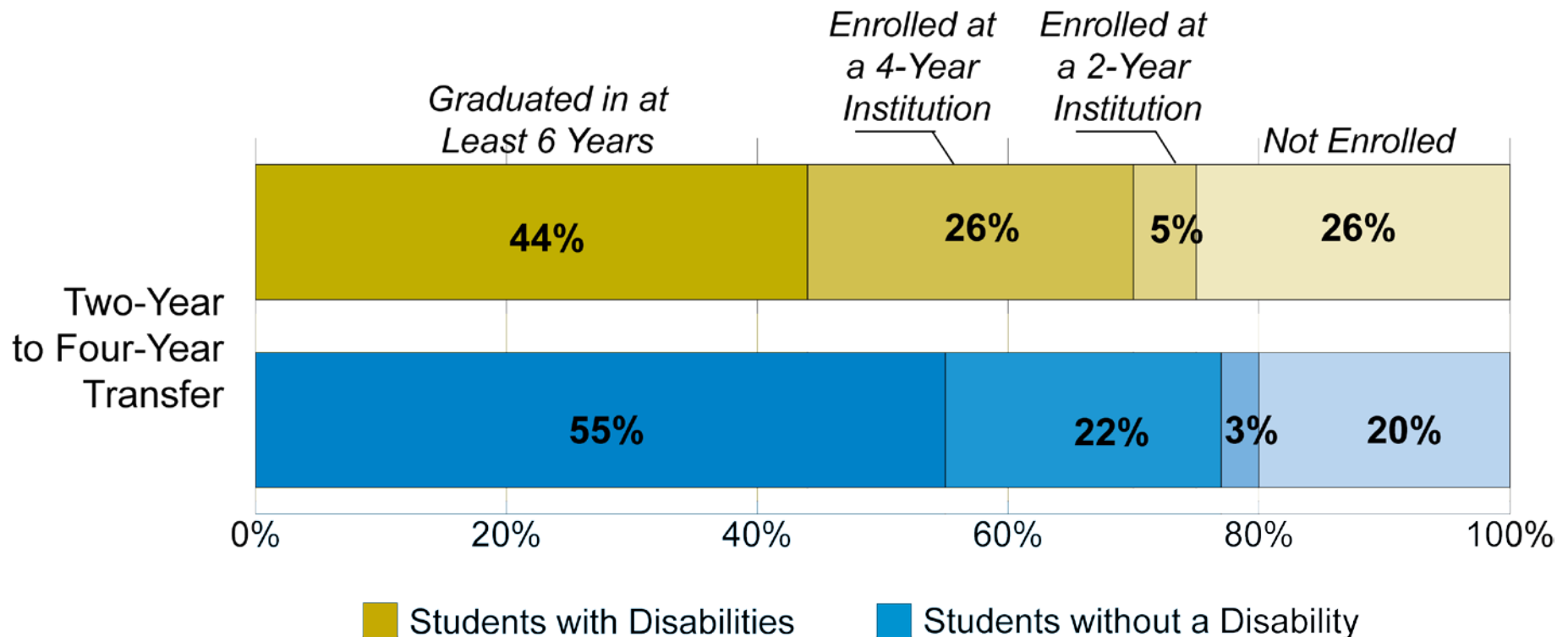
	Total Initial 2-Yr Enrollment	2-Yr Outcome Obtained ¹	Outcome(s) Met ²			Outcome Unknown/ Unmet
			Certificate	Associate's	Transfer to 4-Yr	
N		14,665	1,712	7,472	11,046	14,210
Overall Cohort	28,875	51%	6%	26%	38%	49%
Students without a Disability	26,803	52%	6%	27%	39%	48%
Students with Disabilities	2,072	37%	6%	16%	26%	63%
Blind/low-vision	273	37%	5%	17%	27%	63%
Hearing	144	44%	9%	18%	33%	56%
Learning	525	32%	6%	15%	20%	68%
ADD	597	36%	5%	15%	27%	64%
Other Neurological	49	37%	*	*	*	*
Wheelchair Access	11	*	*	*	*	*
Other Orthopedic	49	55%	*	*	*	*
Multiple	56	50%	*	*	*	*
Other	368	37%	6%	17%	26%	63%

¹ Outcome is earning a certificate or associate's or transfer to a four-year institution.

² Students can achieve more than one outcome, percentage can add up to more than total for two-year outcome obtained.

* Indicates cell size of less than 10 or a related cell had a cell size less than 10.

Bachelor's Completion for Two-Year to Four-Year Transfers



Students with disabilities had overall characteristics that would suggest a lower likelihood of postsecondary enrollment and degree completion.

- Less likely to be college ready
- More likely to be male
- More likely to be within one of the lower parental income categories
- Less likely to have completed core academic courses during high school

A high proportion of students with disabilities are enrolling in college; however the enrollment patterns differ from that of students without a disability.

Students with disabilities who enroll are:

- More likely to utilize the community college system
- More likely to stay in-state
- More likely to utilize public rather than private institutions
- More likely to delay enrollment
- Less likely to enroll at a four-year

** Differences in basic enrollment are less extreme at the top of the college readiness index*

There were large differences favoring students without disabilities in terms of bachelor's completion.

- Students with disabilities were at a much higher risk of dropping out of college
- Students with disabilities took significantly longer to complete a bachelor's degree
- This was true across all college readiness categories; however as with enrollment, the differences were muted at select points in the college readiness index: more ready and minimally ready

Among those starting at community colleges, students with disabilities were significantly less likely to:

- transfer to a four-year institution
- earn an associate's degree
- have achieved at least one of the three two-year outcomes defined in this study
- Problematic because initial enrollment for students with disabilities was much more likely to be at a community college

*rate of certificate completion was the same

Students with disabilities who transferred to a four-year institution:

- were less likely to have earned a bachelor's degree
- took significantly longer to complete

There were significant differences between the various disability subgroups in terms of the postsecondary outcomes.

- Students with multiple disabilities and those in the other orthopedic category seemed to outperform the other disability subgroups
- This was in terms of basic enrollment, outcome attainment at two-year institutions, and degree completion among four-year starters
- In most measures, these students approximated and in some cases surpassed the completion/outcome attainment rates of students without a disability
- Suggests that the within group differences may be as important as the between group differences

Recommendations for Further Investigation

- Analyze employment outcomes
- Conduct a qualitative study
- Exploring the interaction of institutional and student characteristics

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