



Illinois Education Research Council

The Illinois High School Class of 2002: Participation and Completion Patterns in Postsecondary Education Six Years after High School

David Smalley
Eric Lichtenberger

Illinois Education Research Council
IERC Symposium
June 8th, 2010



The Study

- Who is included in the cohort
 - This study applies to a cohort of 113,135 “traditional” students who took the Prairie State Achievement Exam (PSAE)/ACT in the Spring of 2001
- Who is not included in this cohort
 - Private high school graduates
 - Out-of-State high school graduates that migrated to Illinois higher education institutions



Purpose of the Current Study

Provide information to inform the work of policy and decision-makers across the educational spectrum specifically related to:

- Enrollment patterns
- Pathways to completion
- Disparities among various groups in terms of the outcomes mentioned above



Context of the Study

- President Obama's American Graduation Initiative: By 2020 have highest proportion of graduates in the world.
- Illinois Public Agenda for College and Career Success
 - Increase the number of quality degrees
 - Reduce geographic disparities in educational attainment
 - Ensure college affordability for individuals, families, and taxpayers
 - Improve transitions along the educational pipeline—the postsecondary portion
- *Crossing the Finish Line*: Research by Bowen, Chingos, and McPherson highlighting the importance of educational attainment and trends of completion at public universities.

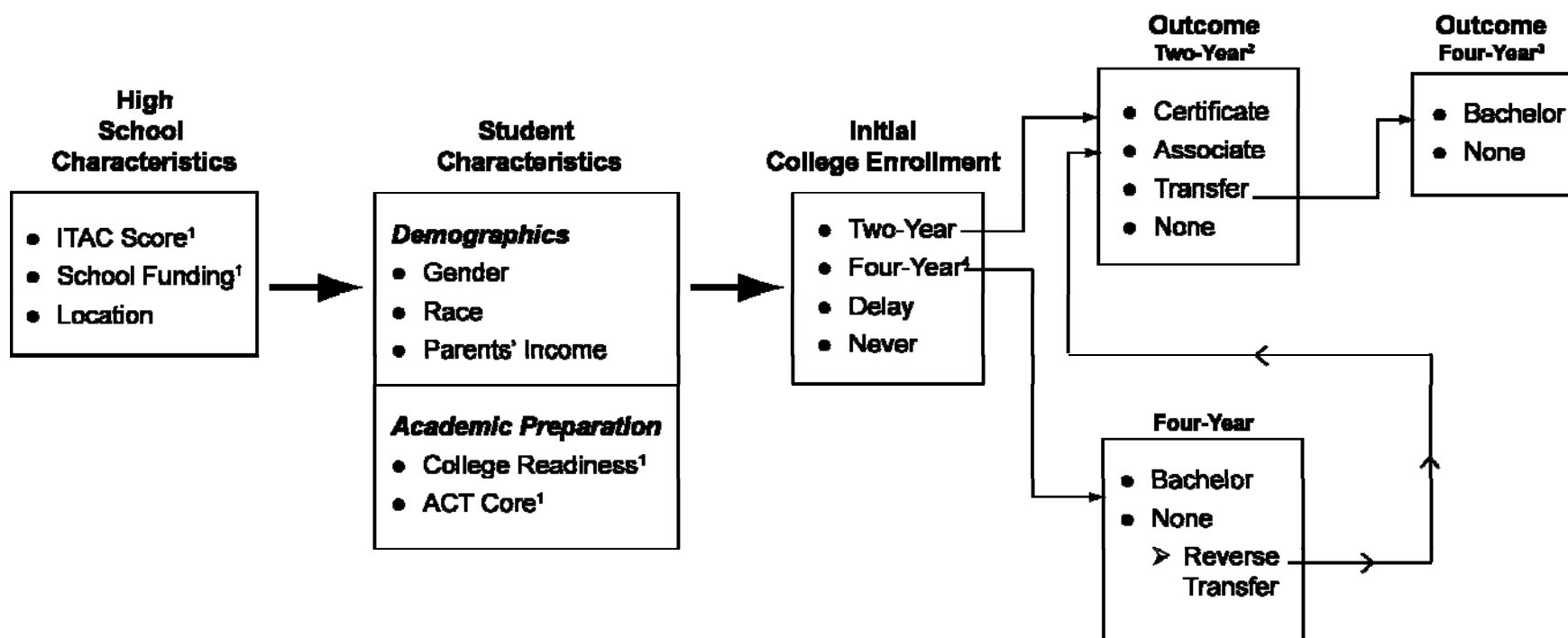


Assumptions

- Intended outcome was associated with initial enrollment type
- Once someone transferred from a 2yr to a 4yr, the outcome became bachelor completion
- If there was concurrent enrollment at both a 4yr and 2yr institution, the 4yr outcome superseded the 2yr outcome



Participation and Completion Framework



¹ Potentially malleable

² Two-year outcomes are not mutually exclusive, so more than one could occur

³ For two-year to four-year transfers

⁴ By sector and selectivity



IERC College Readiness Index

| | High School GPA (self-reported) | | | | |
|-------|---------------------------------|------------------|------------------|------------------|----------------|
| ACT | <= 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% |



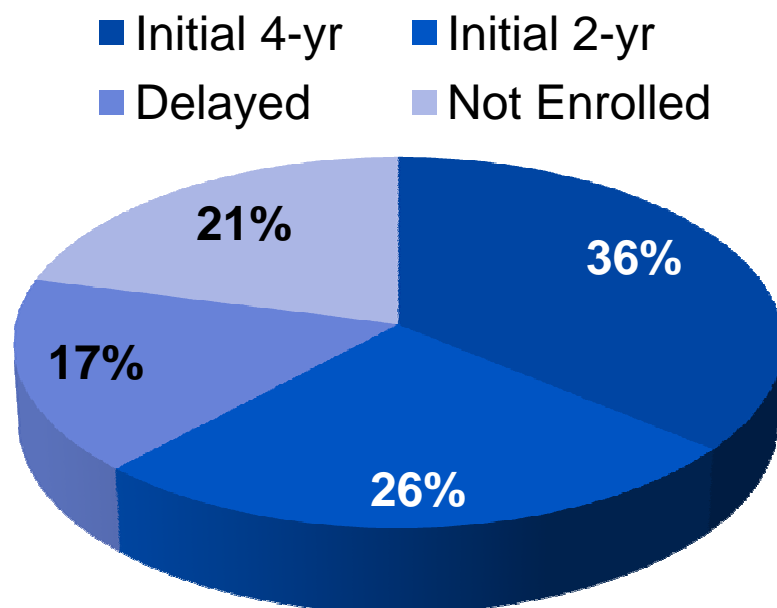
- Illinois administers the ACT to all public high school students, since 2001.
- Readiness is a combination of high school GPA and ACT.
- Index is modeled on the work of Berkner and Chavez (1997)
- Roughly a third (37.3%) of the Class of 2002 are not/least ready for college, third (28.4%) are partially (minimally/somewhat) ready, and third (34.3%) are college (more/most) ready.

Berkner, Lutz and Chavez, Lisa. (1997, October). Access to postsecondary education for the 1992 high school graduates [NCES 98-105]. Washington, DC: U.S. Department of Education. National Center for Education Statistics.



Overall Enrollment

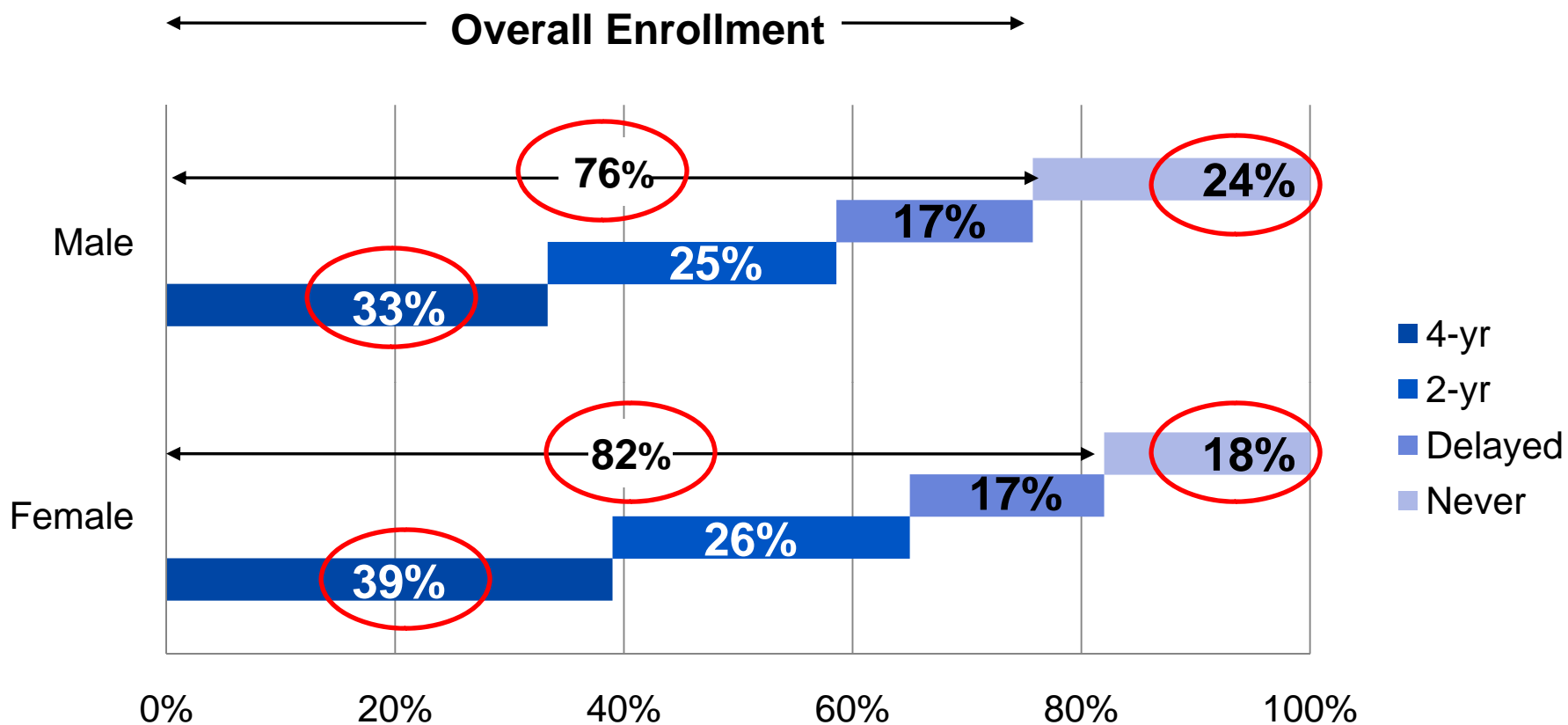
Enrollment Status



- Post-secondary education is a prerequisite for success
- Logically, enrollment is often tied to access, which is a precondition to degree completion
- Nearly 4 out of every 5 participated in postsecondary
- More than 3 out of every 5 enrolled during the Fall Semester of 2002
- 17% delayed their enrollment

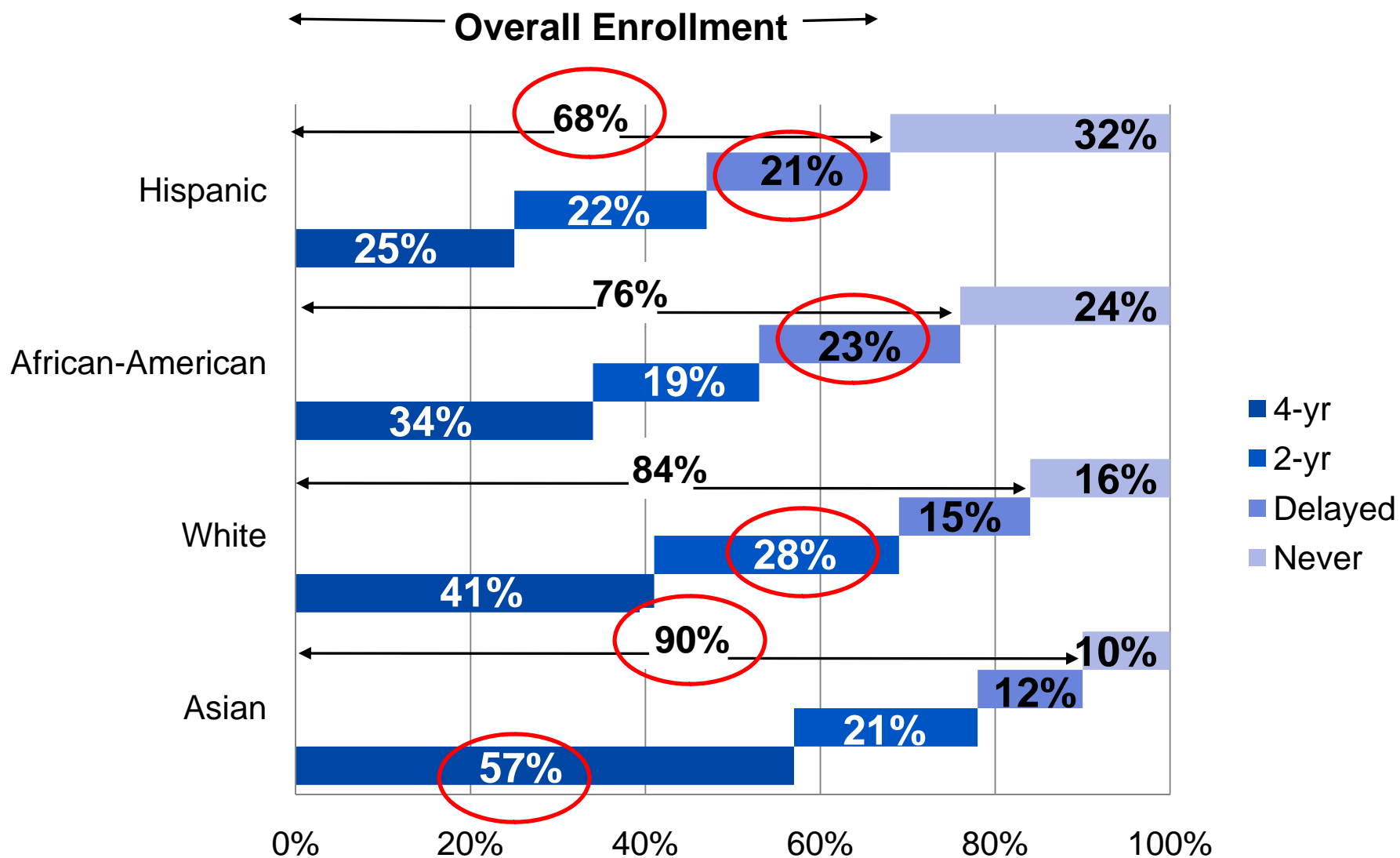


Gender and Specific Enrollment



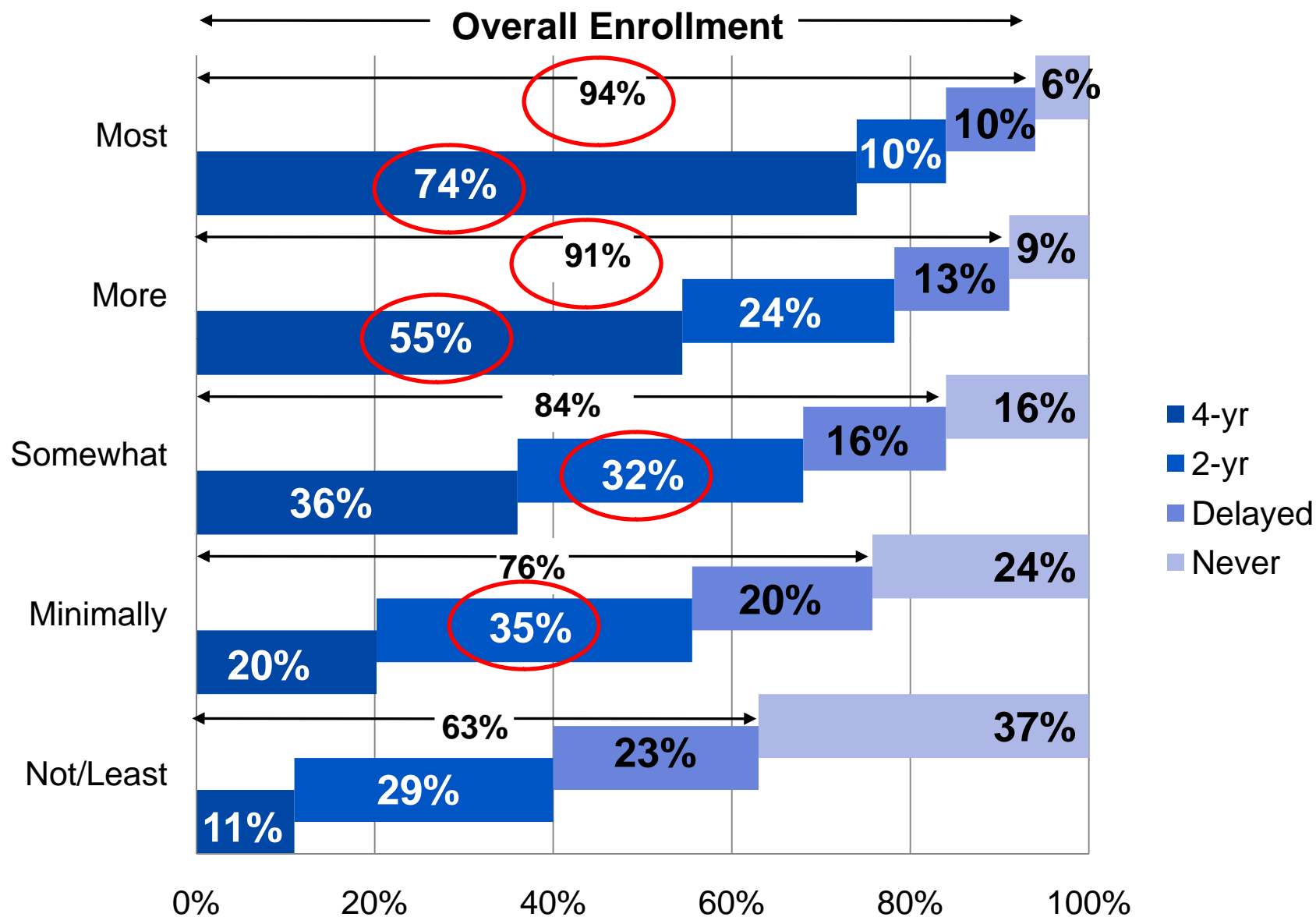


Race and Specific Enrollment



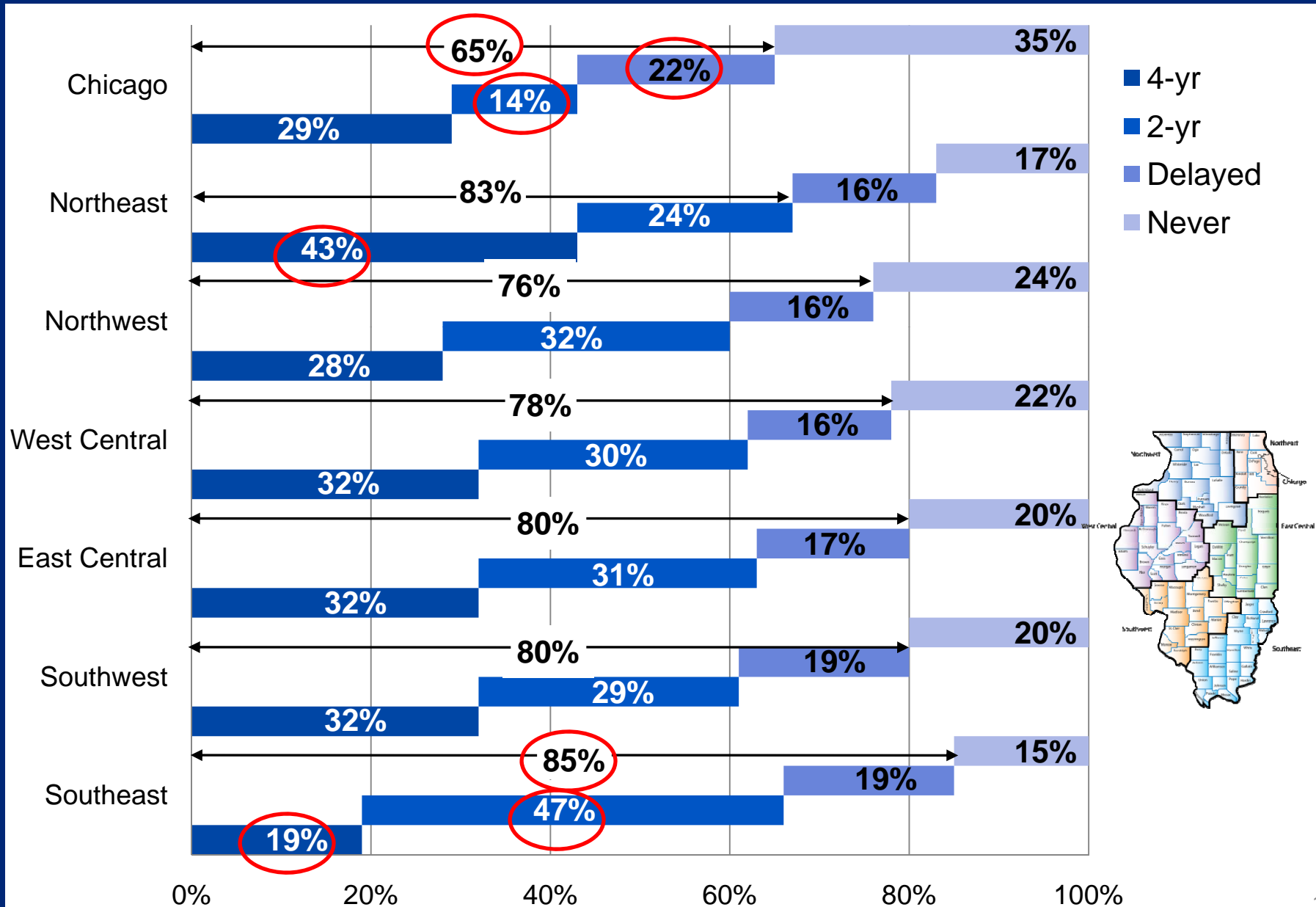


College Readiness and Enrollment



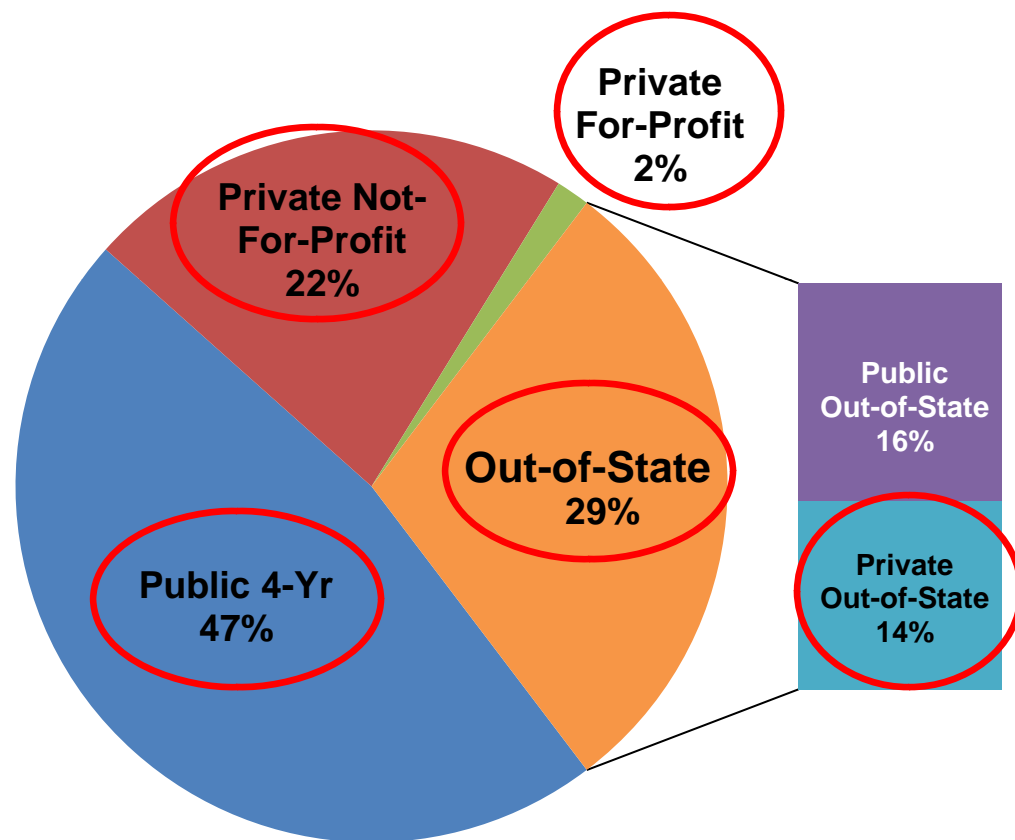


Region and Enrollment





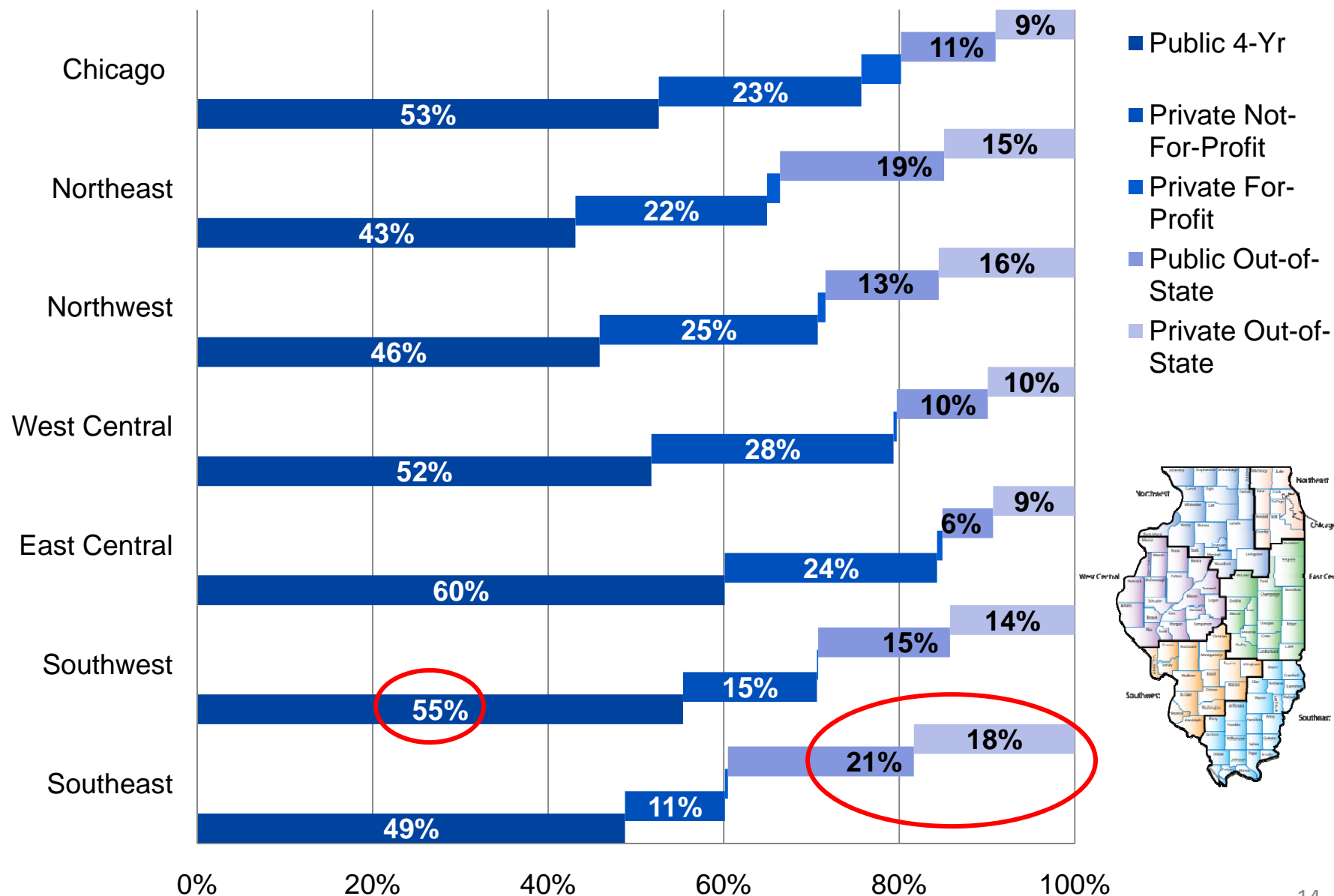
Fall 2002 Choice of 4-Yr Institutions by Sector



- Almost half went to IL. Public Universities.
- Nearly a third went Out-of-State
- More than half that went Out-of-State went to a public institution.
- 37% attend a private institution.
- Illinois ranks 51st for Net Migration of College Freshman

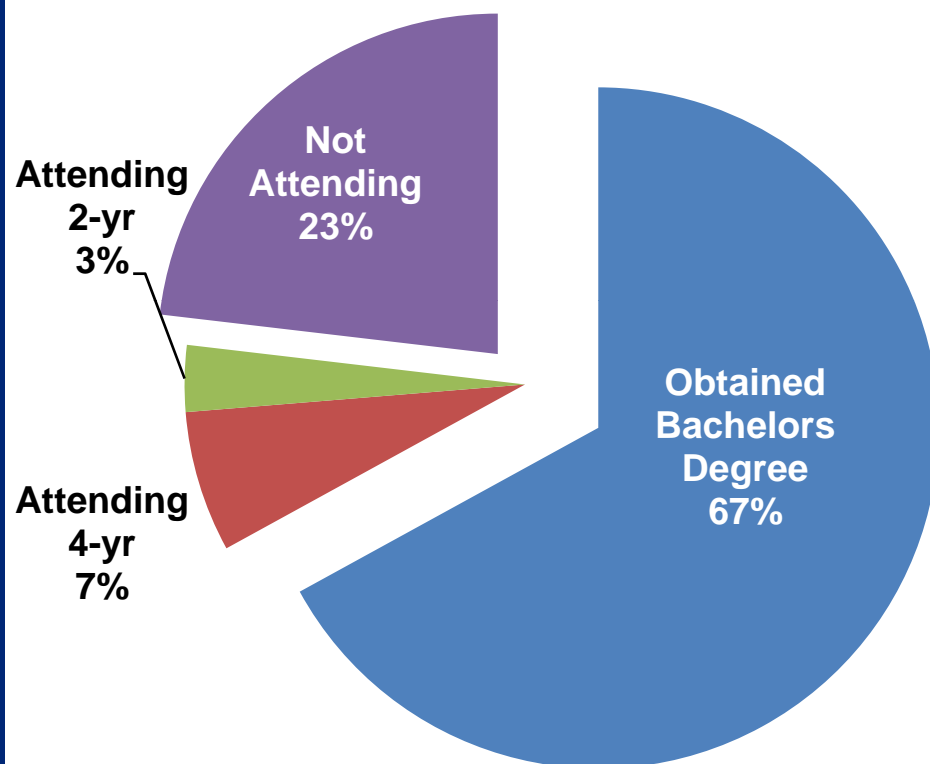


Location and Sector of Initial 4-Yr





Bachelor Completion at Six Years*

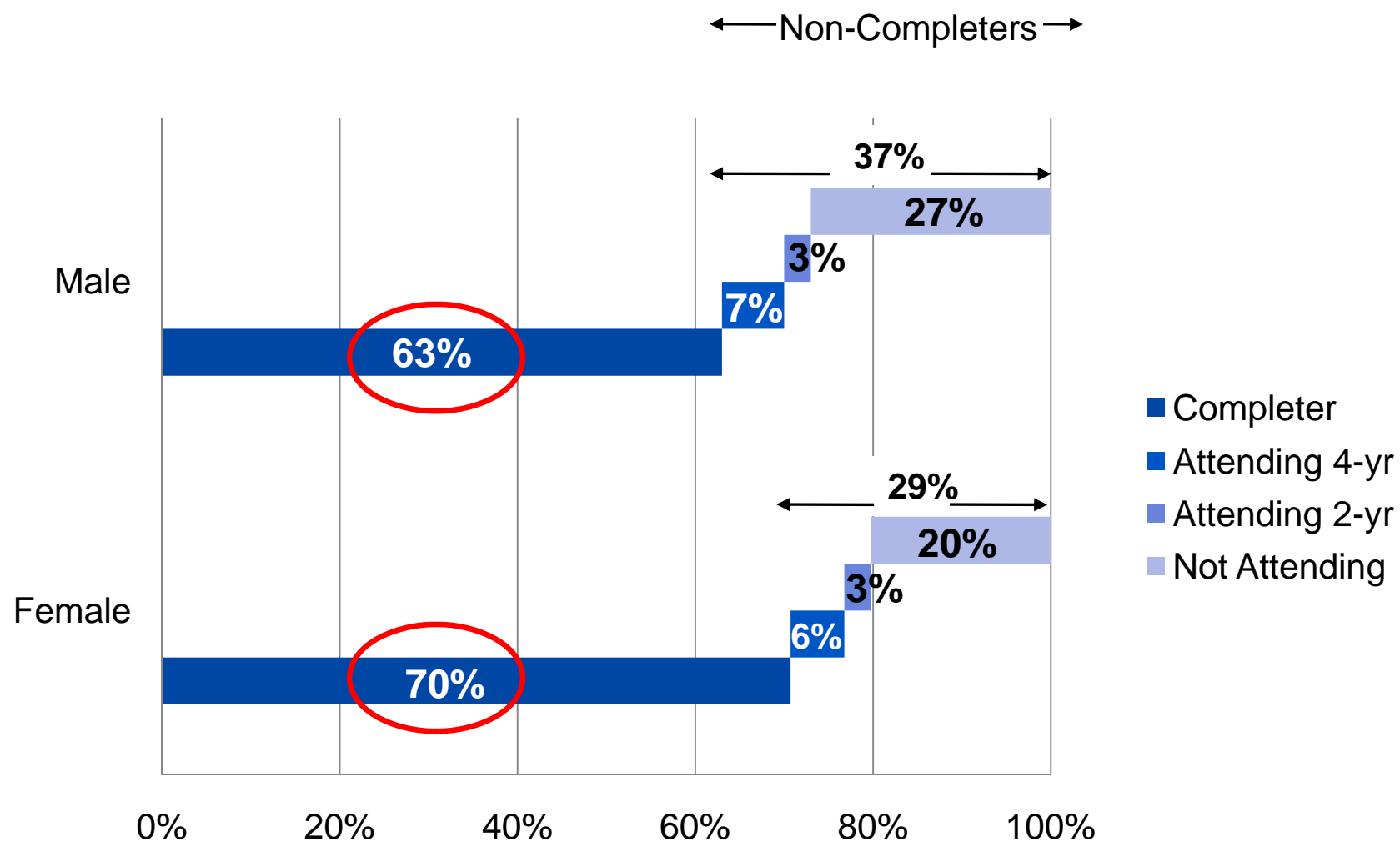


- Over two-thirds completed a bachelors degree by 2008
- Around a quarter are no longer attending
- 10% are still attending college at end of study.

*For those initially enrolling at 4yr institutions.

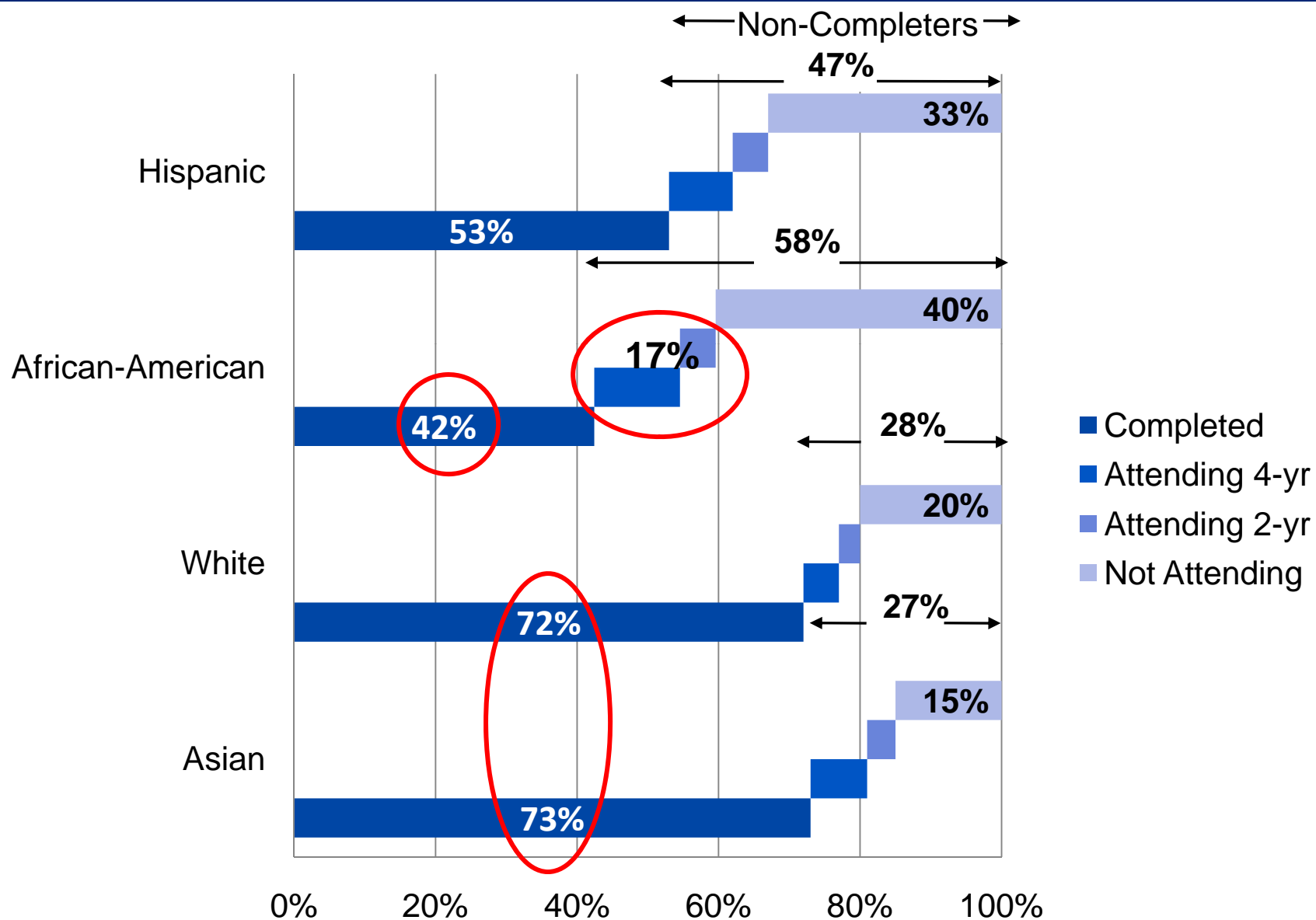


Gender and Bachelor Completion at Six Years



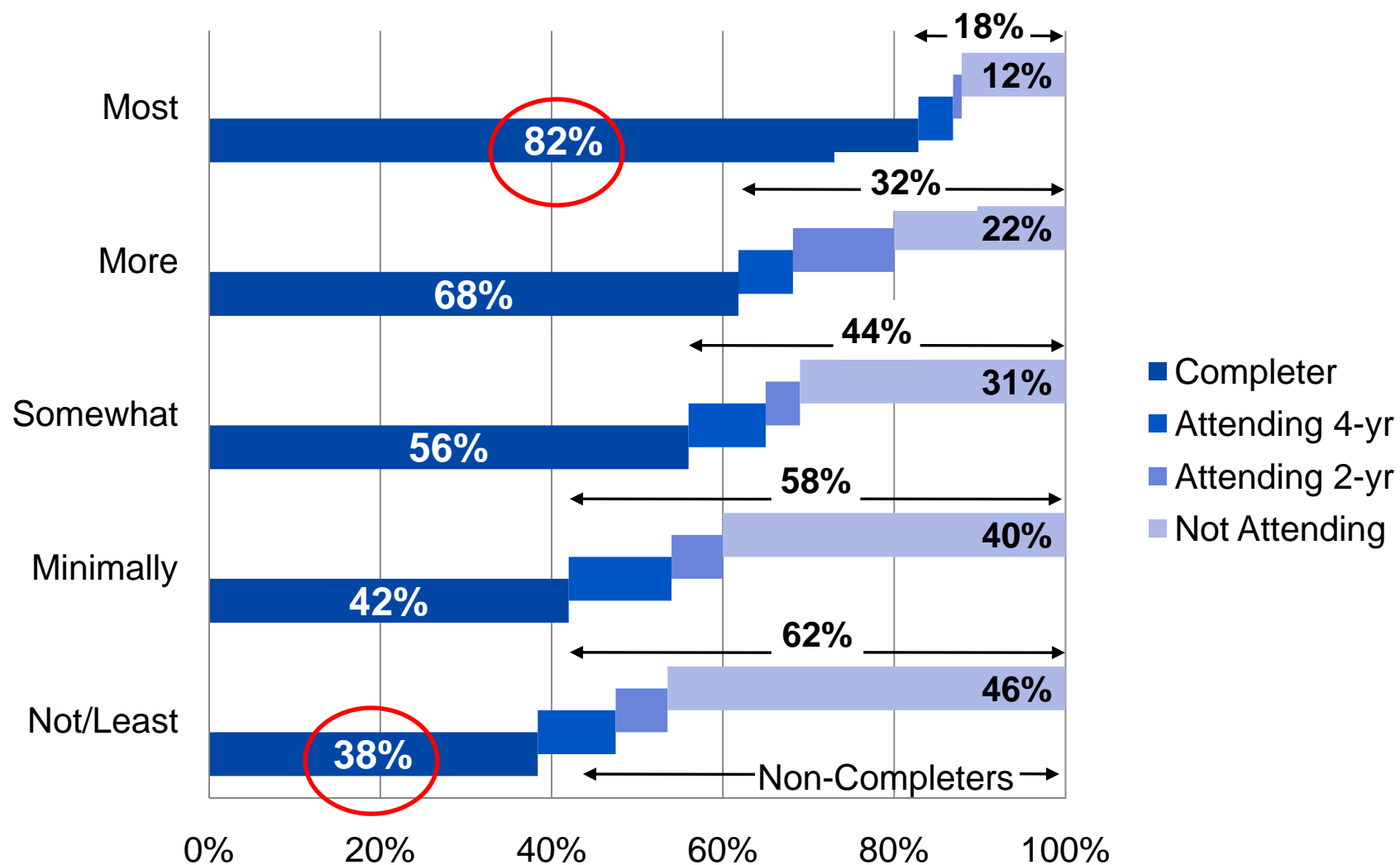


Race and Bachelor Completion at Six Years



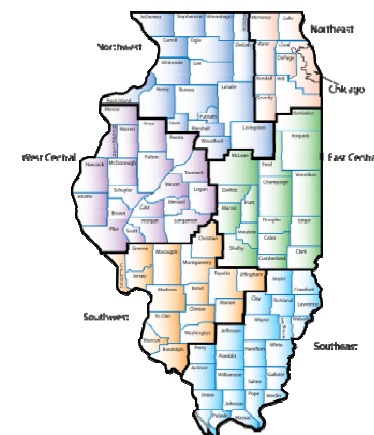
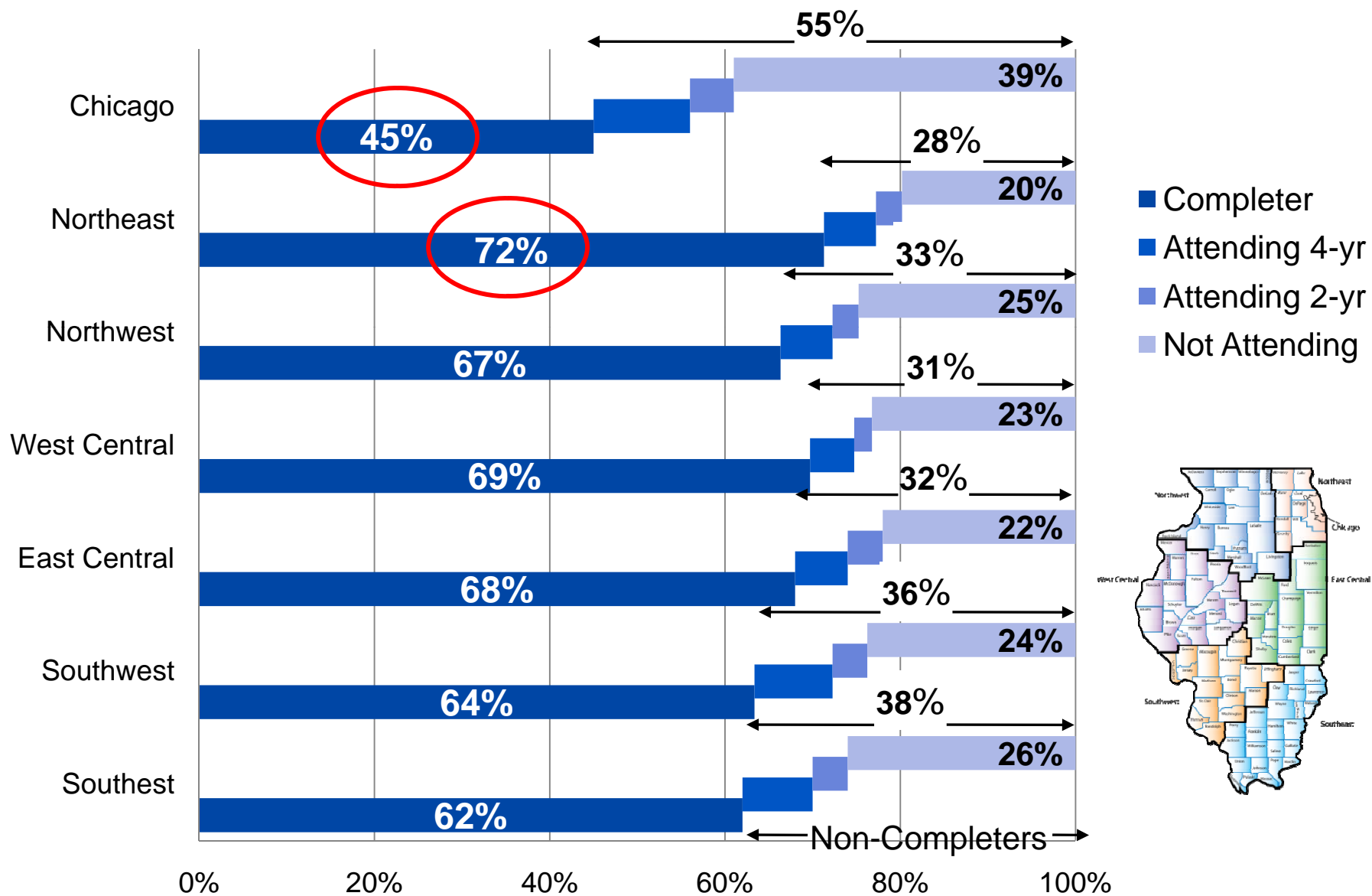


College Readiness and Bachelor Completion at Six Years





Region and Bachelor Completion at Six Years





Logistic Regression

- Two separate models (4-yr enrollment and bachelor's degree completion)
- Included all student and school characteristics included in the framework (see slide 7)
- Determined each variable's predictive importance regarding the outcome holding everything else constant



Predicting 4-Yr Enrollment and Bachelor Completion

Odds Ratios for Key Student Characteristics

- Definite Gender Gap (widens)
- For Race, the pattern varied across the comparisons
- Although parental income was extremely important in both measures, it lost some of its predictive value in terms of completion

| Variable | Initial 4-yr Enrollment | Bachelor Completion |
|---------------------------|-------------------------|---------------------|
| Gender | | |
| Female to Male | 1.19 | 1.51 |
| Race | | |
| African-American to White | 2.17 | (1.56) |
| Hispanic to White | ~ | (1.38) |
| Asian to White | 1.48 | ~ |
| Parental Income | | |
| High to Low | 2.28 | 1.76 |
| Mid-High to Low | 1.63 | 1.47 |
| Mid-Low to Low | 1.20 | 1.14 |

~no statistically significant difference at the $p < .001$ level



Predicting 4-Yr Enrollment and Bachelor Completion

Odds Ratios Calculated for College Readiness and Region

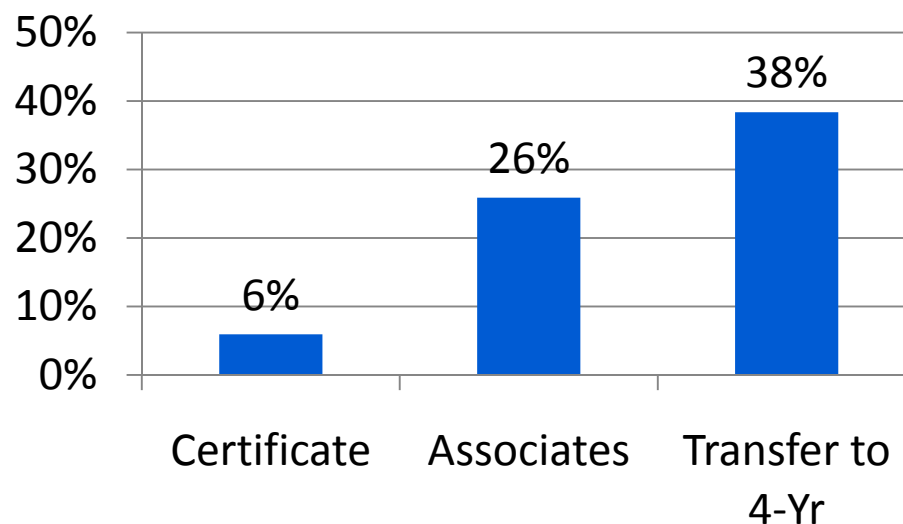
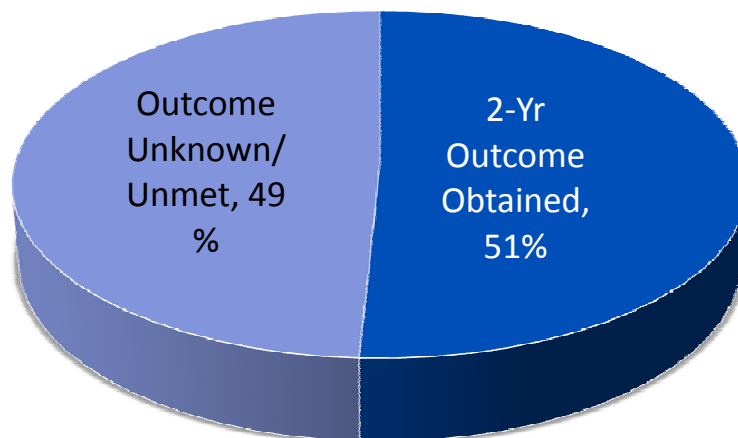
- College readiness matters the most in both measures.
- All of the regions were more likely to enroll than the Southeast
- However, only two of the regions were more likely to complete: Northeast and West Central

| Variable | Initial 4-yr Enrollment | Bachelor Completion |
|---------------------------|-------------------------|---------------------|
| College Readiness | | |
| Most to Not/Least | 24.59 | 5.85 |
| More to Not/Least | 11.30 | 2.86 |
| Somewhat to Not/Least | 5.29 | 1.91 |
| Minimally to Not/Least | 2.91 | 1.29 |
| Region | | |
| Chicago to Southeast | 4.44 | ~ |
| Northeast to Southeast | 2.10 | 1.40 |
| Northwest to Southeast | 1.51 | ~ |
| West Central to Southeast | 1.86 | 1.41 |
| East Central to Southeast | 1.72 | ~ |
| Southwest to Southeast | 2.21 | ~ |

~no statistically significant difference at the $p < .001$ level



Completion of 2-Yr Students



There are 3 positive outcomes we are able to measure for students who started at a 2-yr college:

- Certificate
- Associates Degree
- Transfer to 4-yr

Though students may have other reasons to attend 2-yr, we do not know their intent.

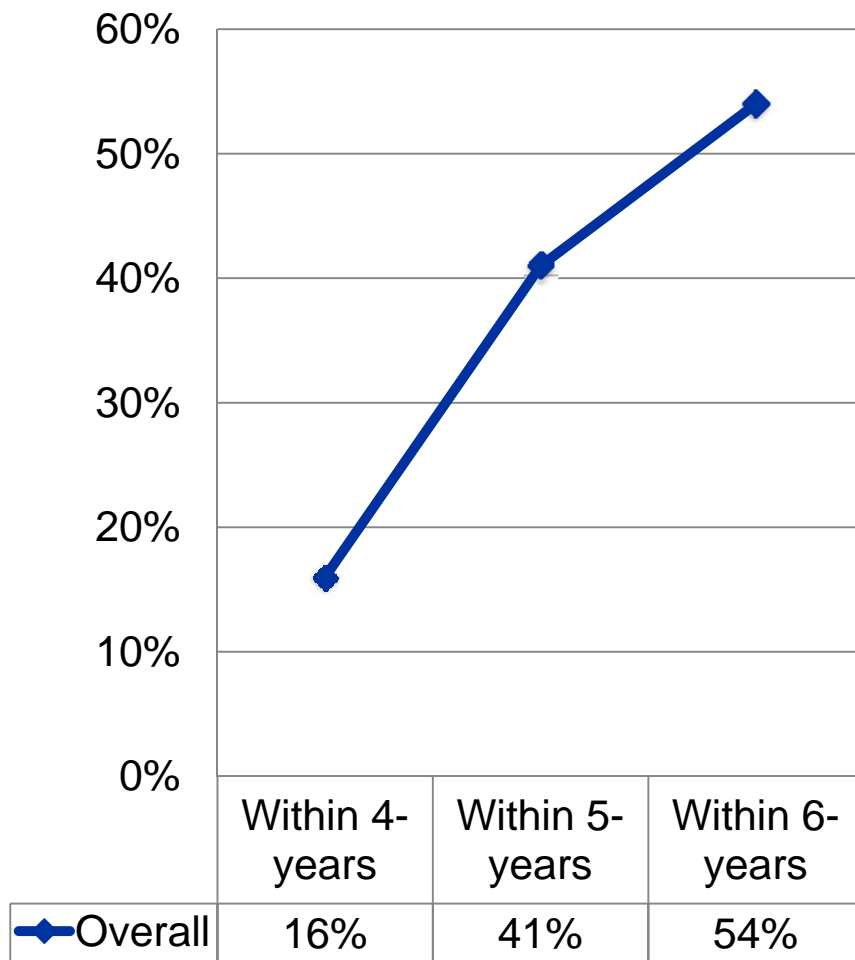
Students could complete more than one outcome.

- **Over half completed at least one outcome over the six years.**
- **More than a quarter obtained an associates, includes transfer (assoc. of arts or science) or terminal (applied assoc.) degrees.**
- **38% transferred to a 4-yr, which put them on the road to obtaining a bachelor degree.**



2-Yr to 4-Yr Transfer - Bachelor Completion

Cumulative Completion Rate



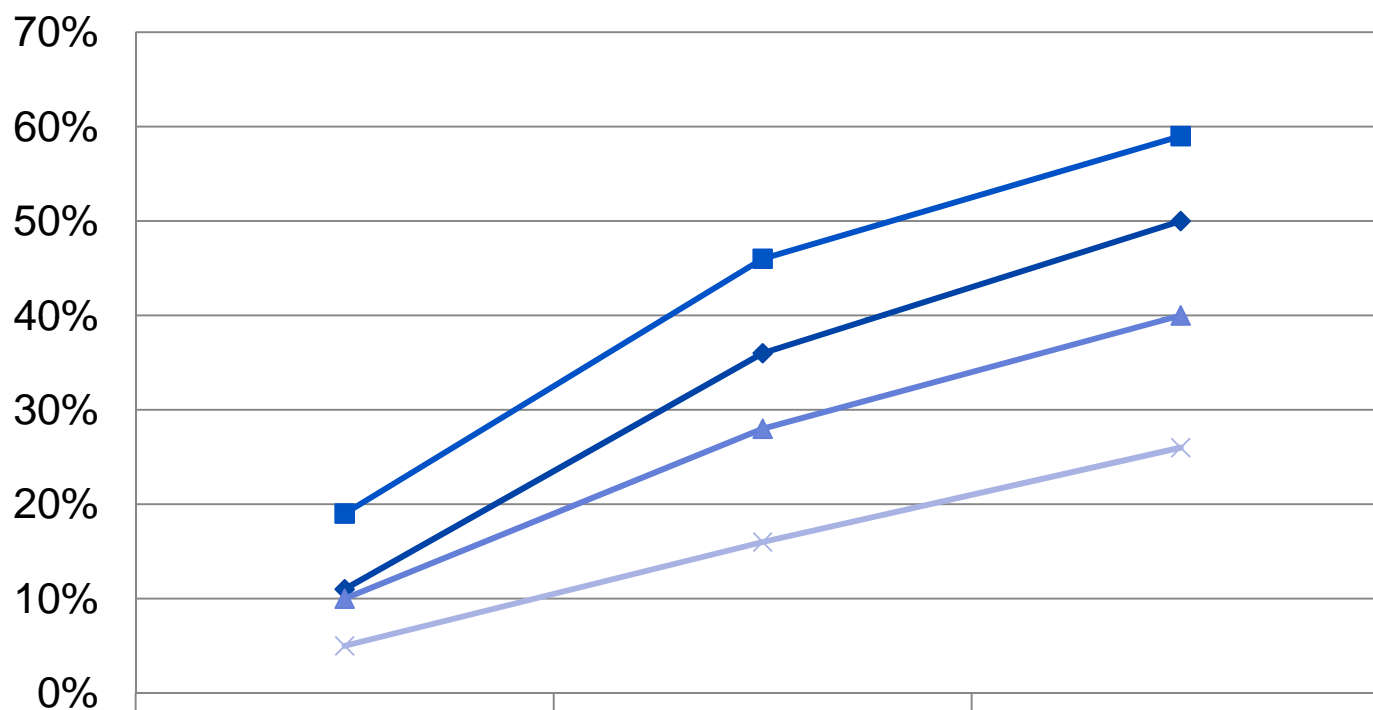
The Community College System and the Illinois Articulation Initiative (IAI) make this pathway a viable option to complete a bachelor's degree.

- 11,076 transferred.
- Small percentage (16%) complete in 4 years.
- More than half complete in six years
- An additional 22% are still attending a 4-yr institution at end of study.



Transfers (2-yr to 4-yr) Time to Bachelor's by Race

Cumulative Completion

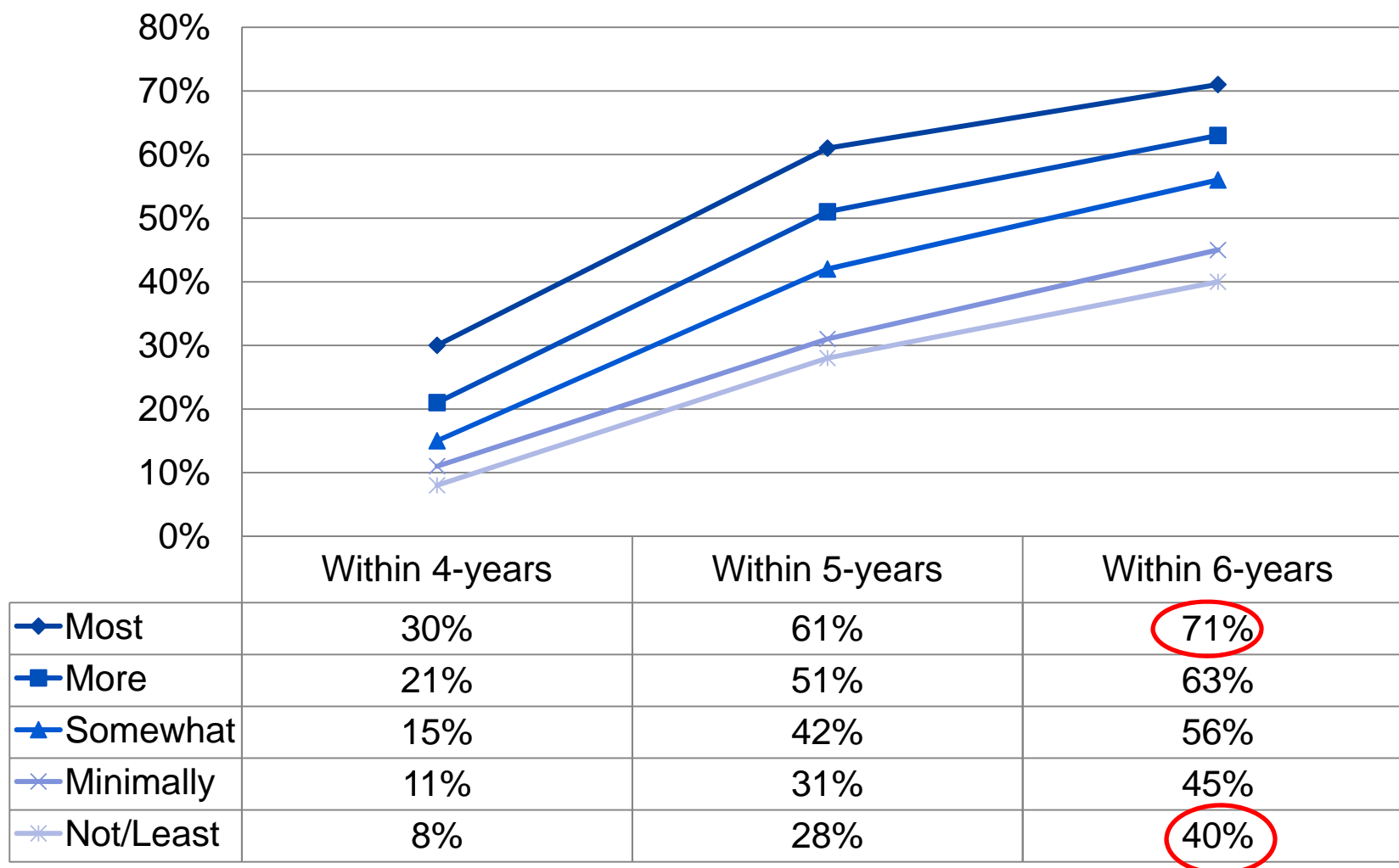


| | Within 4-years | Within 5-years | Within 6-years |
|--------------------|----------------|----------------|----------------|
| ◆ Asians | 11% | 36% | 50% |
| ■ White | 19% | 46% | 59% |
| ▲ Hispanic | 10% | 28% | 40% |
| × African-American | 5% | 16% | 26% |



Transfers (2-yr to 4-yr) Time to Bachelor's by College Readiness

Cumulative Completion





Conclusions

- College Readiness was the strongest indicator of participation and completion through all the different outcomes measured in this study.
- There was a gender gap favoring female students in terms of participation and an even larger gap favoring female students for bachelor completion.
- Generally speaking, Asian and White students had higher participation and completion rates compared with African-American and Hispanic students (the descriptive and predictive results varied).
- Students in the Southeast have less access (proximity) to four-year institutions, so they use the community college system and out-of-state 4-yr institutions more than other areas of the state.
- 2-yr to 4-yr transfer is a viable pathway for bachelor degree completion.



Recommendations for Further Investigation

- Focus on the students who initially enrolled out-of-state in terms of degree completion and employment.
- Determine the impact of concurrent enrollment and employment on time to degree completion.
- Explore potential differences in bachelor's degree attainment rates among groups based on associate's degree type and whether they earned an associate's degree (among those who transfer).
- Explore the interaction of gender, race/ethnicity and socio-economic-status (SES).
- Establish multi-year trends with additional cohorts.