

COMPARISON OF SUCCESS RATES IN BASIC SKILLS MATH AT THE LOS ANGELES COMMUNITY COLLEGE DISTRICT (LACCD)

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Evaluating the Effects of Basic Skills Mathematics Placement on Academic Outcomes of Community College Students

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Outline

- Description of the project funded by IES
- Brief description of the characteristics of the 9 community colleges of the LACCD
- Success rates in basic skills math at the LACCD
 - Enrollment and assessment of students in math (2001 and 2007)
 - By term of enrollment
 - By level of enrollment
 - Overall success rates by term of enrollment
 - Overall success rates by level of enrollment
- Assessment of Students by level below transfer Fall 2005-2006
 - City, East, and Harbor
 - Mission, Pierce, and South West
 - Trade-Tech, Valley, and West

Evaluating the Effects of Basic Skills Mathematics Placement on Academic Outcomes of Community College Students

- Every year more than 50 percent of community college students in California are placed into basic skills mathematics. This percentage is higher than the national average (25-40 percent).
- There is considerable debate on the effects and benefits of remediation. Proponents argue that it provides the preparation necessary to succeed in college (Lazarik, 1997), while critics contend that the benefits are not clear (Calcagno & Long, 2008; Martorell & McFarland, 2007).

Main objective and Research Question

- The main objective

To evaluate the effectiveness of the math placement policies for entering community college students on these student' academic success (i.e., completed the course, passed the course, took the following math course sequence, took college level math, attained a degree, and transferred).

- Research question:

What are the effects of various basic skills mathematics paths on the course taking patterns of community college transfer students?

Methodology

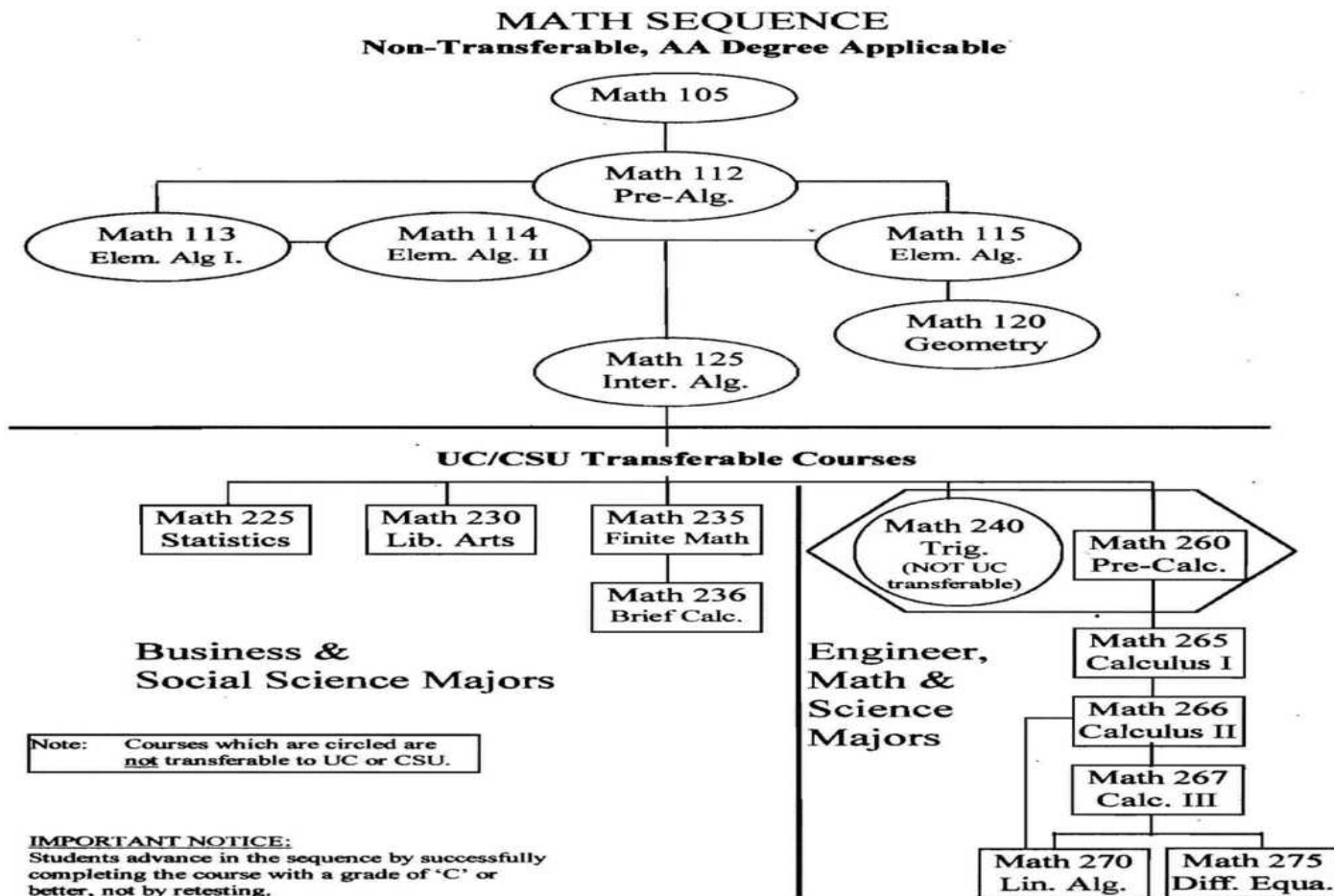
- Descriptive analysis

1. Describe the placement policy and resources available for students in basic skills math.
2. To illustrate the course taking patterns (basic skills and college level) of community college students in the LACCD.

- Evaluation

- To use regression discontinuity (RD) design to test the effect of assignment to different levels of basic skills courses in mathematics and subsequent outcomes.

Evaluation of Math Sequence



Evaluation-Regression Discontinuity

- This technique enables the researcher to “assign” individuals to the treatment and control groups according to an exogenously determined cutoff, continuous placement score (CPS), on the assignment variable. This is the cutoff on the placement test that students are required to take the first year (i.e., Accuplacer, Compass, MDPT)
- This is an evaluation technique that enables the researcher to make causal statements.

Continuous Placement Score

- California has a relatively complex placement process called *Matriculation* that is used to assign students into courses. The idea is that more than one measure of at least two uncorrelated tests need to be used to place students.
- In this project we will create the CPS for each community college.

Setting

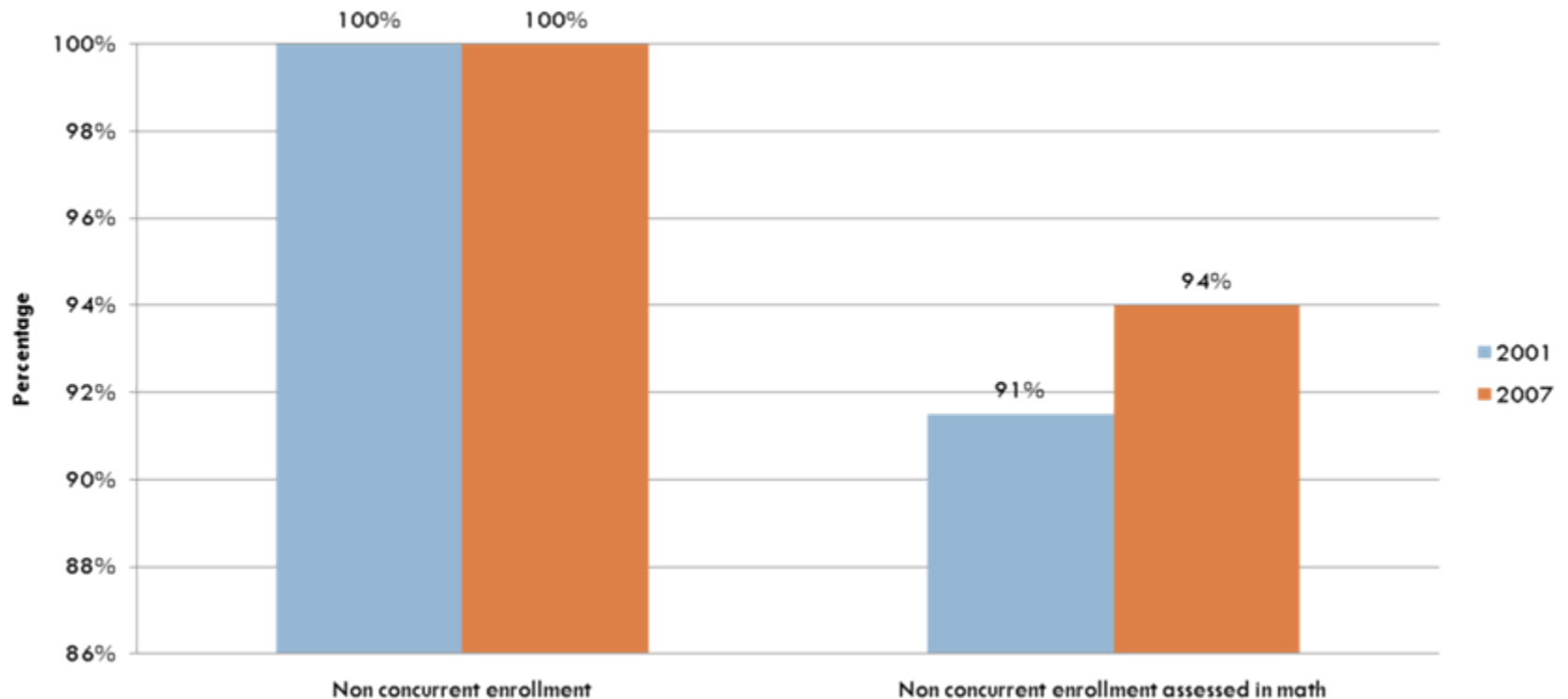
- The setting is the 9 community colleges of the LACCD.
- We use transcript data since 2001 until 2006.
- The sample is composed of about 158,000 students who were placed into mathematics in one of the nine community colleges between June 2001 and September 2006.

Profile of the LACCD

- LACCD is the largest district in the state with the largest community college system in the country.
- Its population of students is very diverse with over 50 percent of Latinos and less than 20 percent of whites.
- The majority of students had high school degrees/equivalent or higher.
- The educational goals are broad and just than 1/3 of students enrolled full time.

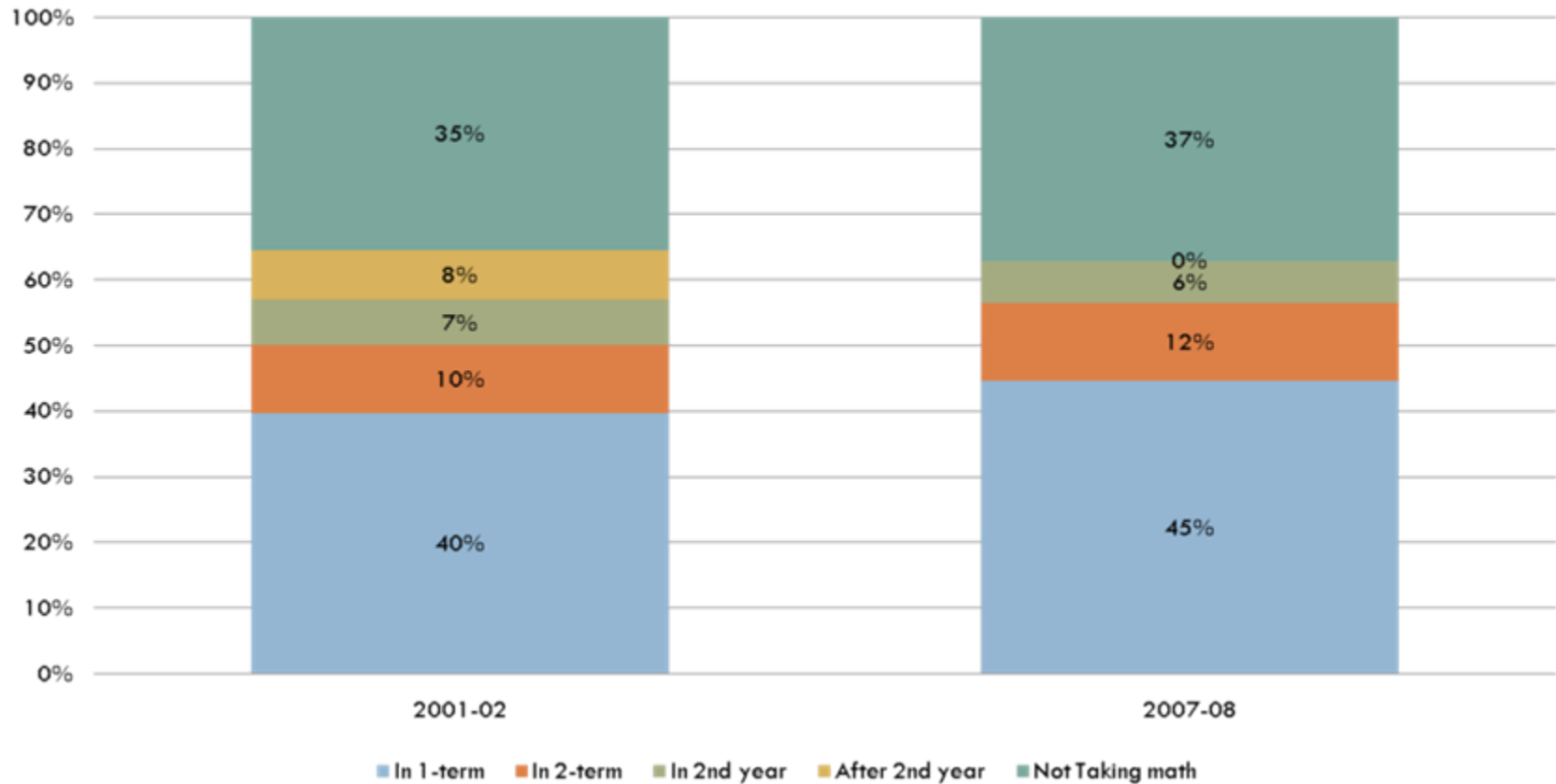
The Percentage of Students Assessed and Enrolled the year of Assessment has Increased Over Time

**Percentage of students enrolled and assessed in math
2001-02 and 2007-08**



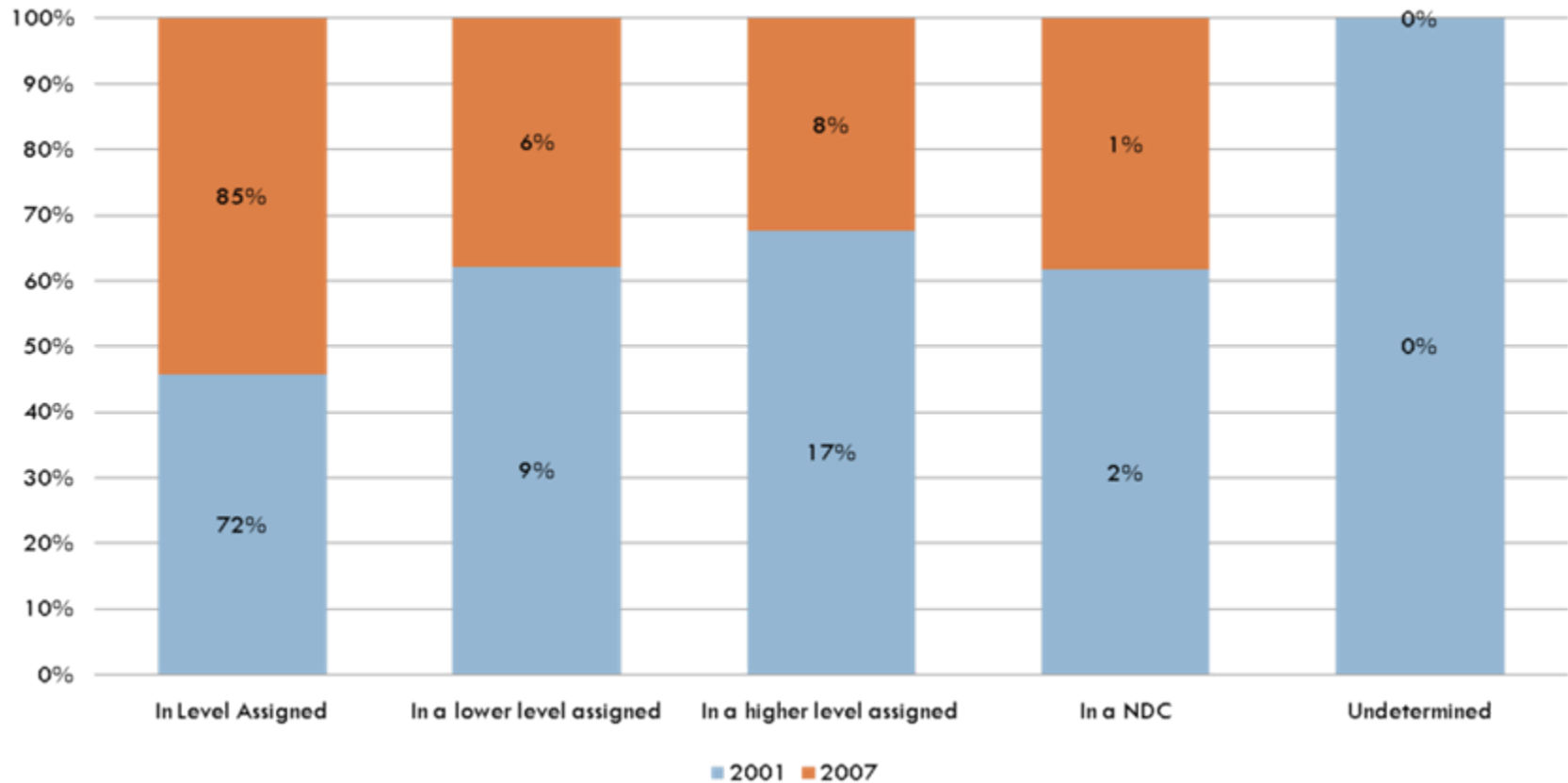
Enrollment of Assessed Students in Math By Term

Percentage of Students Enrolled in Assigned Math Course by Term



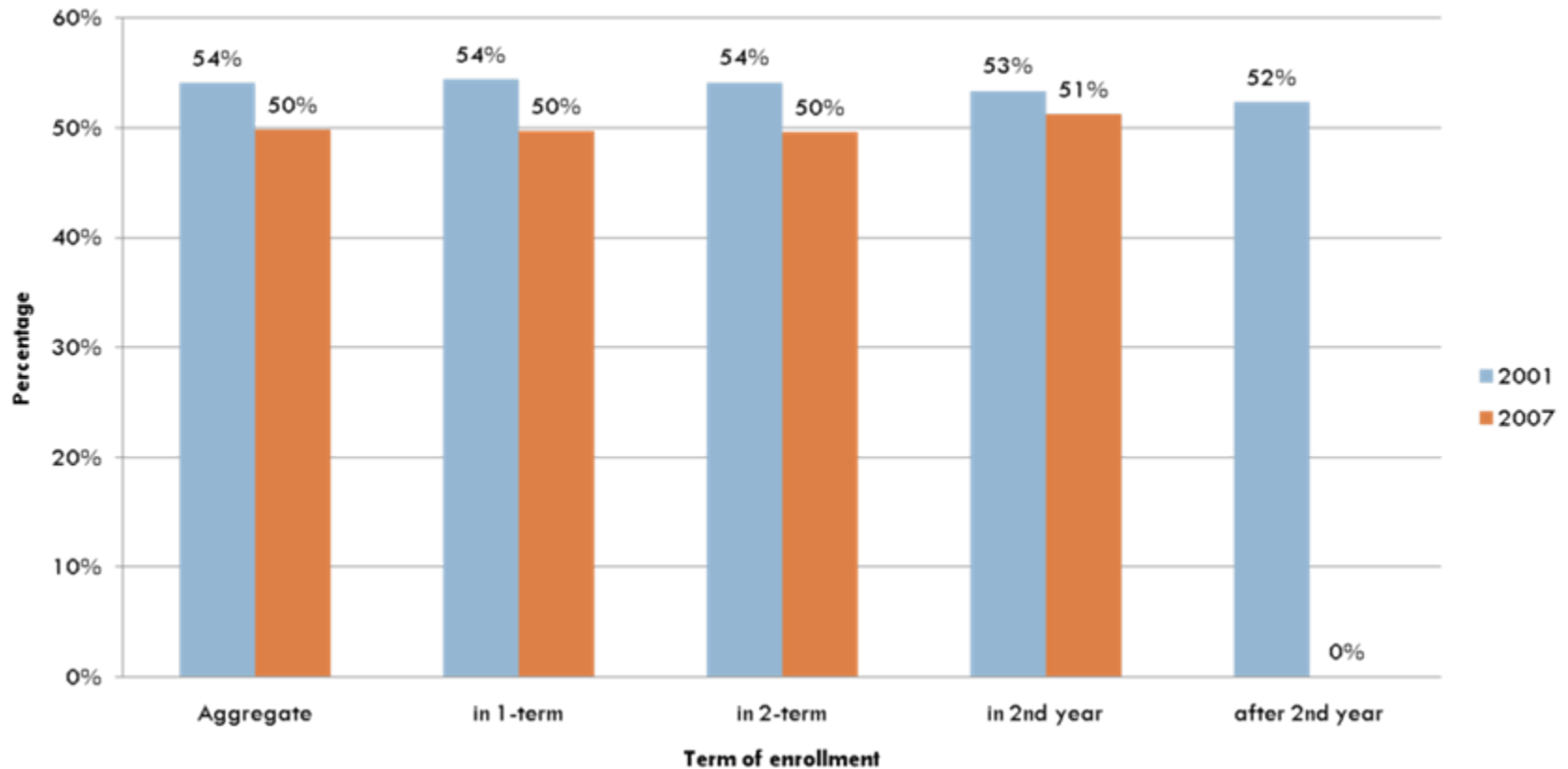
Enrollment of Assessed Students in Math By Level

Percentage of Students Assessed Enrolled by Level



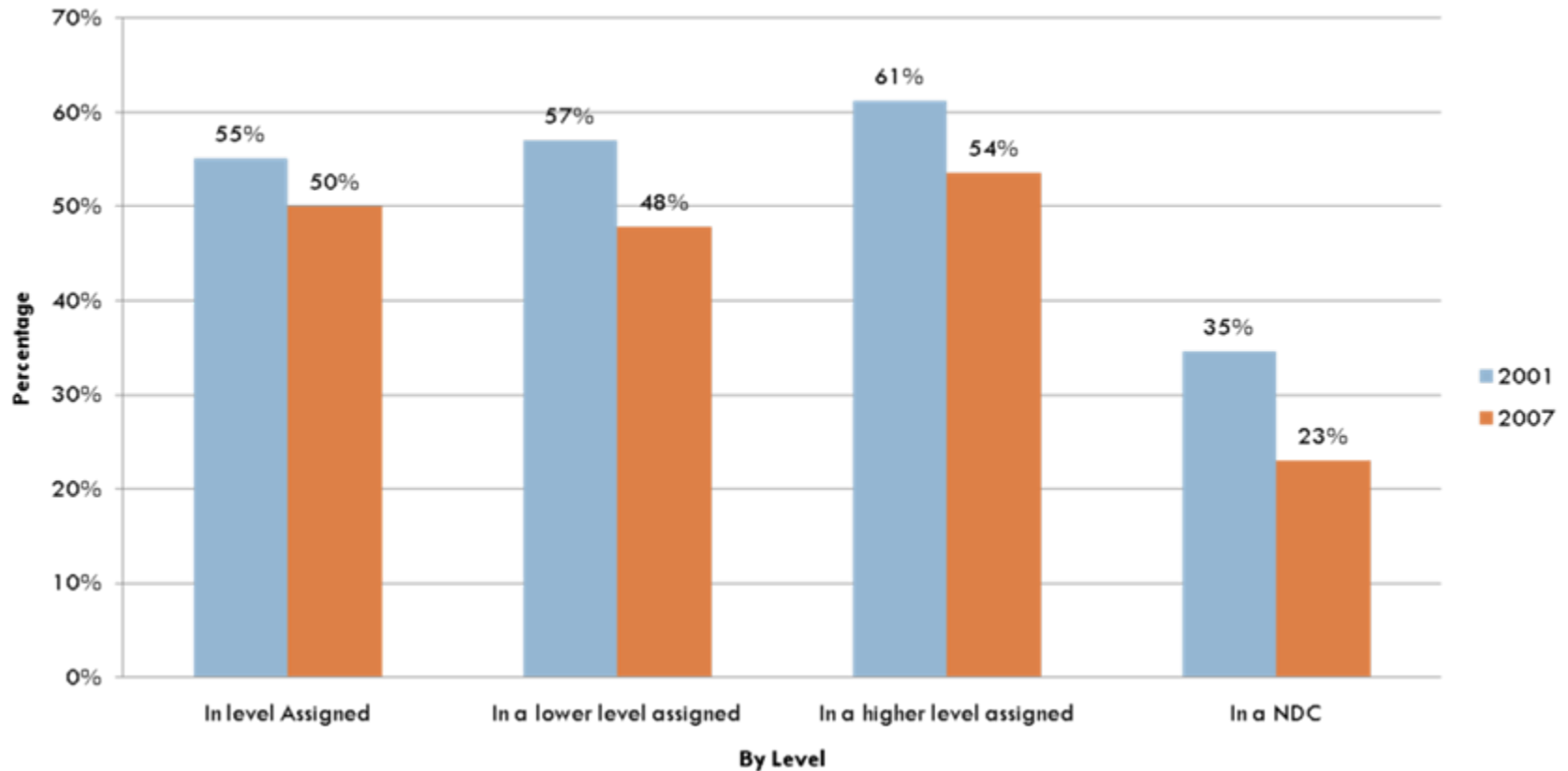
No Major Differences in Success Rates by Term of Enrollment

Success Rates by Term of Enrollment



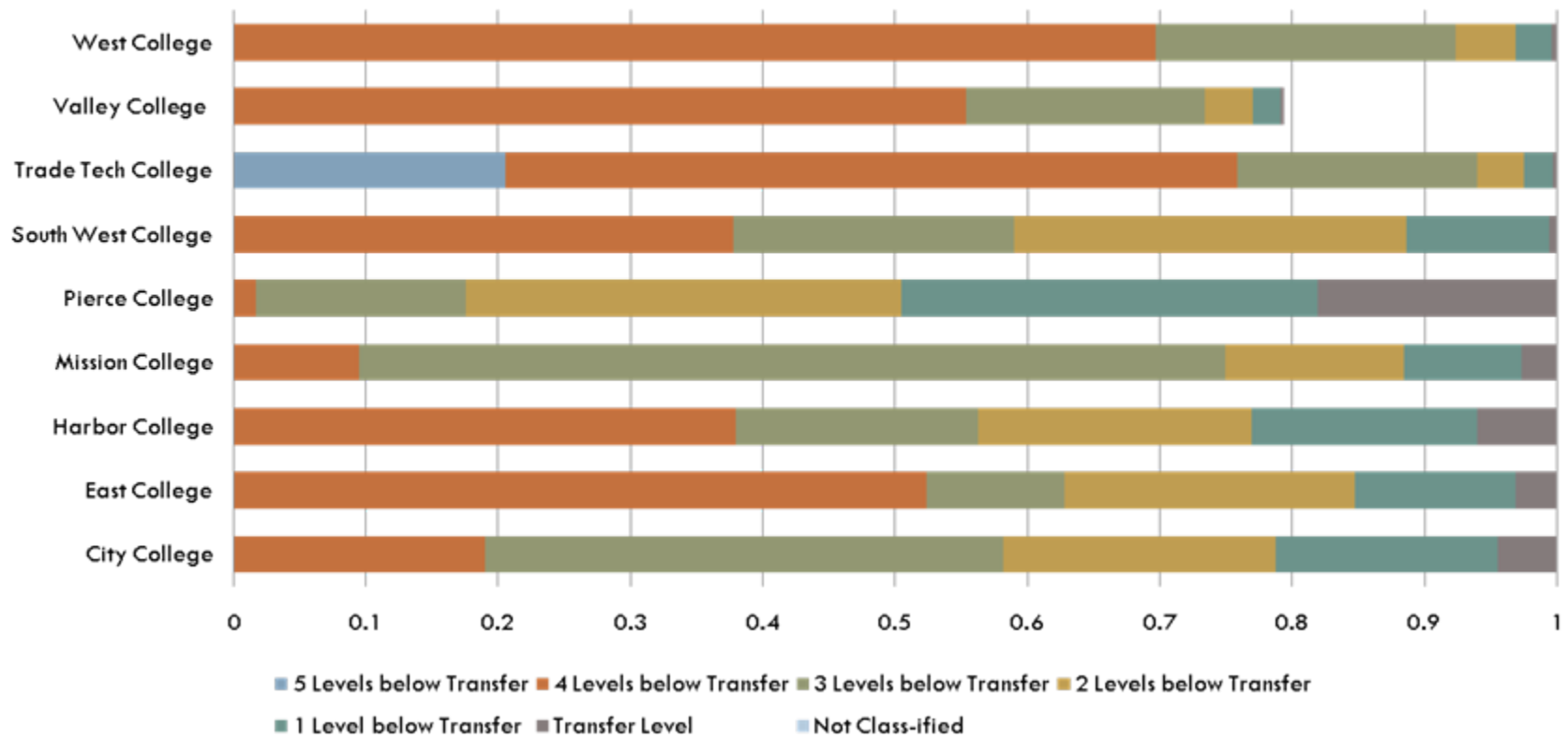
No major differences in Success Rates by Enrollment Level

Success Rates by Level of Enrollment



A Substantial Majority of Students Are Placed in Level 4 and 3 Below Transfer

Basic Skills Placement by Math Level
Fall 1995 - Fall 1996



Conclusions

- A substantial number of non-concurrent enrolled students were assessed and placed in math in 2007-08
 - ▣ 45% enrolled in the assigned level the first term
 - ▣ 18% enrolled in the assigned level with two years
 - ▣ 37% never enrolled!
- Over 50% of the students passed the assigned course. This percentage is low and requires further exploration.

Conclusions

- A substantial percentage of the students are placed in levels 3 (Pre-Algebra) and 4 (Elementary Algebra) below placement.
- There are substantial differences in the student characteristics at the different community college by math preparation.
- The question that this study will attempt to answer is whether the students were placed at the appropriate level. And if so, if they had the opportunity to succeed?



We look forward to continue to share with you
the results of the study as we move along.

THANK YOU!

Questions

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