

# Rorschach Data: Why USDOE IES NCES Research Showing High Remedial Graduation Rates Has Been Ignored

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National Association for Developmental Education Conference

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Atlanta Marriott Marquis

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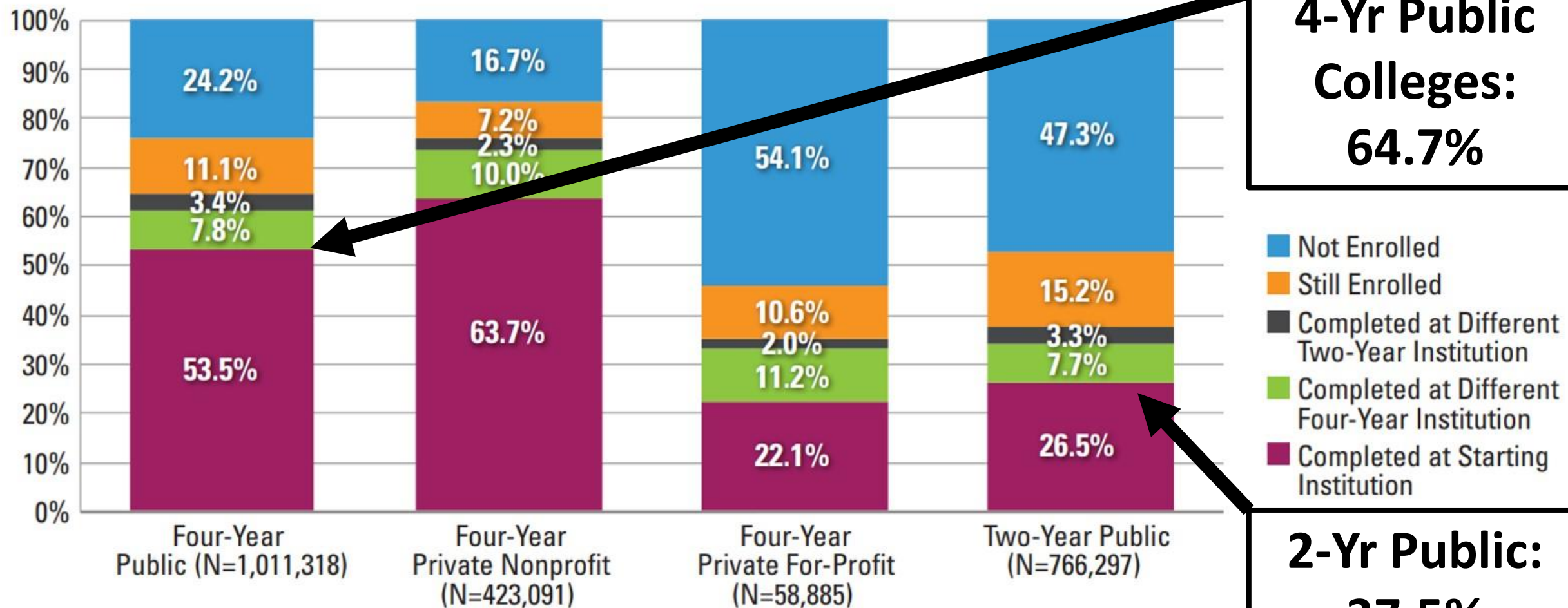
# Welcome!

- Thank you for joining me!
- [communitycollegedata.com](https://communitycollegedata.com) and [@ccollegedata](https://twitter.com/ccollegedata)  
(see Resources page for PDF of this PPT)
- You are very important people; you have an exponential effect on the lives of thousands of students, the economy, the country, and the world
- We should start with some positive data
- You need to know that you have already been making a difference as educators

Some positive  
postsecondary  
data

# NSCRC “Completing College” (2017)<sup>2</sup>

Figure 8. Six-Year Outcomes by Starting Institution Type (N=2,259,591)\*

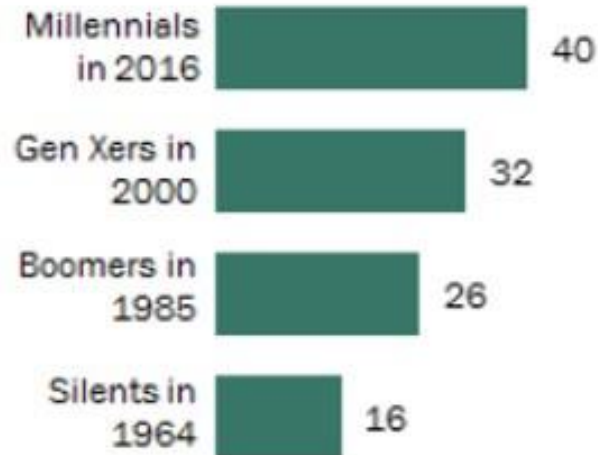


\*This figure is based on data shown in Appendix C, Table 15.

# Pew Research “Today’s Young Workers” (2017)<sup>3</sup>

## Young workers in U.S. more likely than ever to be college graduates

*% of employed 25- to 29-year-olds  
with a bachelor's degree or more*



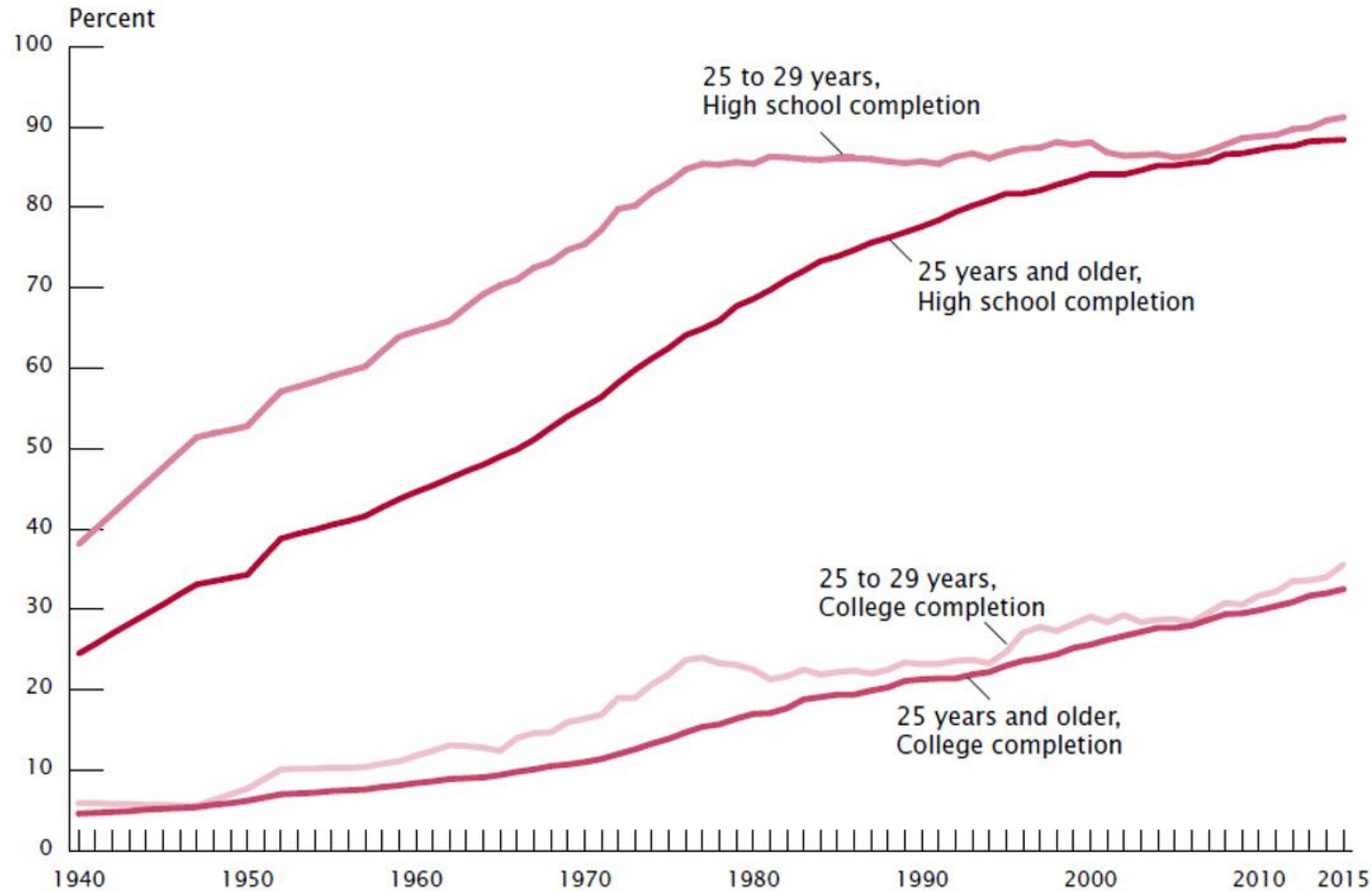
Note: “Employed” refers to those who were at work in the week prior to survey or who were temporarily absent from their jobs.

Source: Pew Research Center analysis of 1964, 1985, 2000 and 2016 Current Population Survey Annual Social and Economic Supplements (IPUMS).

# U.S. Census Bureau (Ryan & Bauman, 2016)<sup>4</sup>

Figure 2.

**Percentage of the Population 25 Years and Over Who Completed High School or College by Age Group: Selected Years 1940–2015**



Note: Data for every individual year are not available for years prior to 1964.

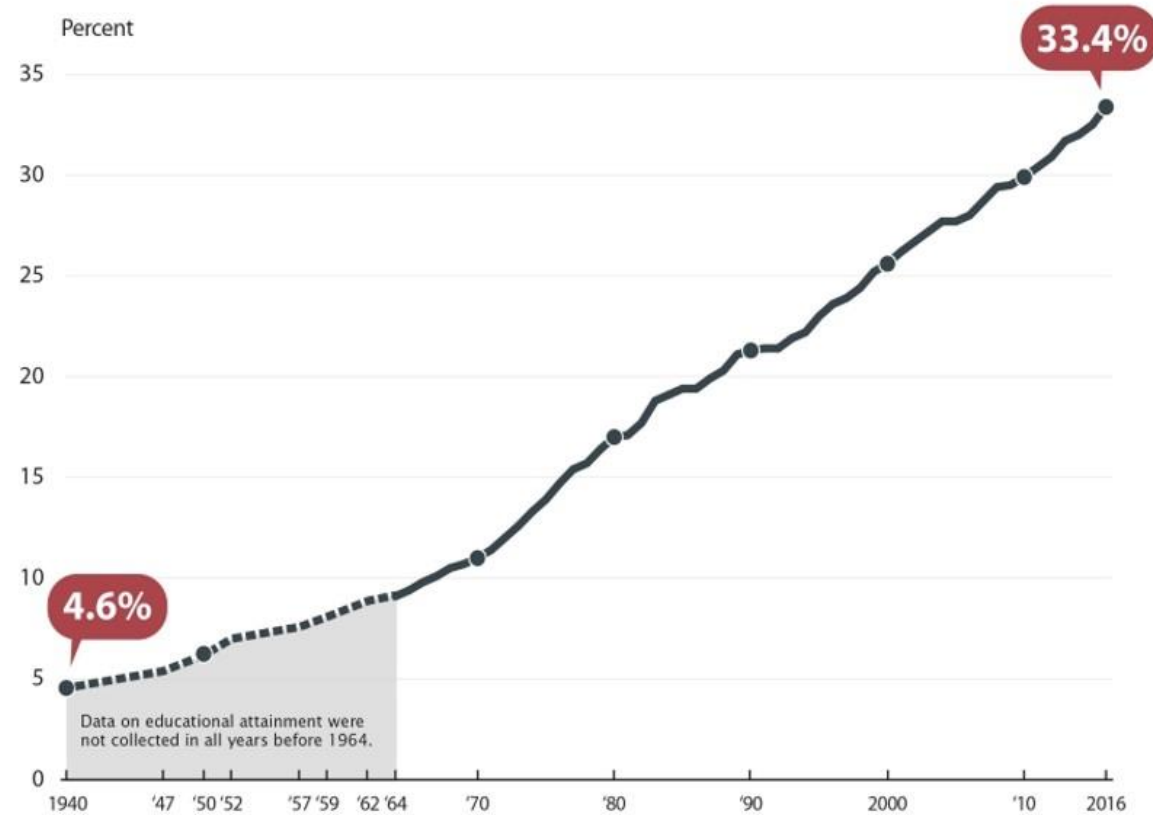
Source: U.S. Census Bureau, 1947–2015 Current Population Survey and 1940 Decennial Census.

# “Highest Educational Attainment Levels”<sup>5</sup>



## Highest Educational Attainment Levels Since 1940

Adults 25 Years and Older With a Bachelor's Degree or Higher



# More Positive Data

- So overall 4-year grad rates are steadily on the rise
- Moreover, the National Student Clearinghouse Research Center (2017)<sub>2</sub> recently reported updated 8-year completion rates for two-year public colleges
  - Two-year public graduation rate after 6 years: **38%**
  - Two-year public graduation rate after 8 years: **44%**



# What Works Clearinghouse (WWC) Training

- On a data side note, I highly recommend the USDOE IES's What Works Clearinghouse (WWC) training framework for understanding basic research, creating rigorous research design, and analyzing data and studies
- <https://ies.ed.gov/ncee/wwc/onlinetraining> <sup>12,13</sup>
- The WWC uses common standards that we can all agree to and start applying uniformly to ensure valid results and reduce potential bias and problems
- Please watch the videos and complete the certification

# National Student Clearinghouse Research Center Data

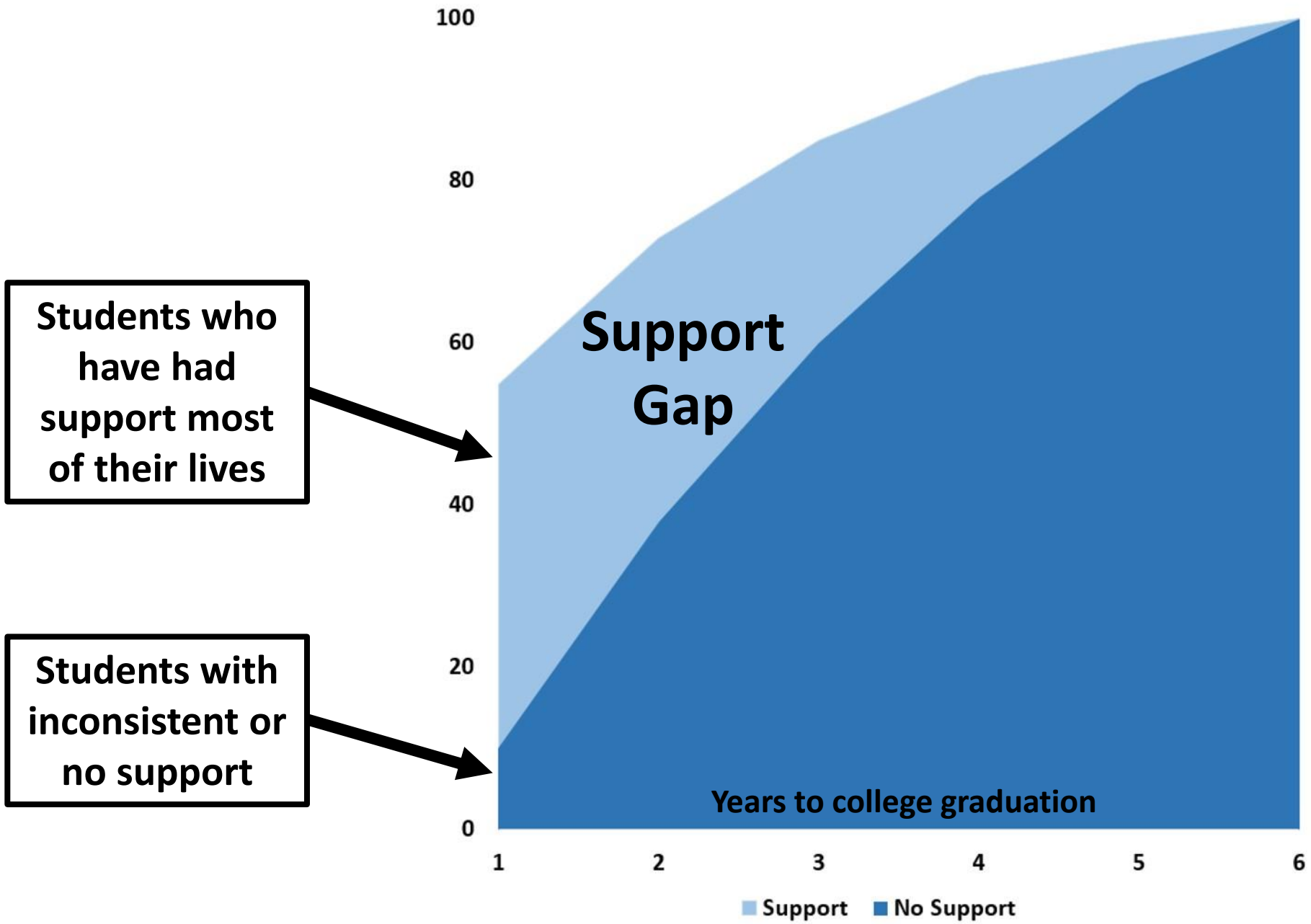
- On another data side note, I also highly recommend you look at the National Student Clearinghouse Research Center data website:
- <https://nscresearchcenter.org/report-search/>
- They use a database of 600 varied postsecondary institutions and are able to track students to different institutions, thus making the complicated picture of higher ed tracking data more clear

# We Can Still Improve

- We still have pervasive and persistent issues, especially with students of color and at-risk students in general<sup>6,7</sup>
- We now know that support for at-risk students needs to be well-funded and sustained to be effective<sup>8,9,10</sup>
- At-risk students in college face what I call a long-term

## Support Gap

Model of the Probability of  
Graduating College by Support Level



# We Can Still Improve

- How can we reduce the **Support Gap**?
- We know that well-funded and integrated holistic reform is ideal when we have money: ASAP (Accelerated Study in Associate Programs) works<sup>8,9,10,11</sup>
- But typical remedial reform has been designed to eliminate, bypass (multiple measures), fast-track, combine w/ college-level (coreqs), or change requirements to eliminate courses (math pathways):

Meaning almost ***no remediation***

Why have we  
eliminated  
remediation?

# Why Reforms Reduce & Remove Remediation

- Four factors causing the removal and reduction of remediation:
  - Less state funding since 2000, and loss of revenue from students (post-recession), both caused institutions to look for ways to cut costs
  - The Obama administration's completion agenda (2009)
  - The Community College Research Center (CCRC) responded to the completion agenda (was invited to Whitehouse), and they studied means by which to reduce remediation because they interpret remedial data through a labor market lens
  - Interest groups (Complete College America, etc.) used CCRC data to persuade legislators and state systems to eliminate remediation

# Why Reforms Reduce & Remove Remediation

- The CCRC's 2010<sup>15</sup> seminal paper (Bailey et al., 2010) was the basis for all future claims of remediation's inefficacy and for almost all reforms enacted over the last ten years
- CCRC repeated term *ineffective* so much it became a trope in hundreds of articles
- Complete College America (CCA), with funding from such sources as Gates, Dell, Lumina, Kresge, and Carnegie<sup>17</sup>, began a serious campaign to remove and reduce remediation in state systems, using CCRC data as a foundation



# Why Reforms Reduce & Remove Remediation

- The CCRC's main argument was that remediation should allow students to perform *better* than nonremedial students after the intervention (i.e., credits, retention, pass rates, completion)
- They conducted 79\* regression discontinuity design (RDD) studies to show causation
- They decided that almost all had null effects (no effect of remediation); therefore, it was *ineffective*

# CCRC Claims Remediation is Ineffective Repeatedly

- Out of 79 separate RDD analyses of math, reading, and writing Dev Ed outcomes by the CCRC<sub>26</sub>:
  - 7 Positive
  - 52 Null
  - 20 Negative
- The CCRC counts the “null” findings as negative, according to their definition of success

# Jaggars & Stacey (2014)<sup>19</sup>

## DEVELOPMENTAL MATH STUDENTS

Short-Term Impacts					Medium- & Long-Term Impacts		
Study	Level	Persistence	Passed College-Level Math	Grade in College-Level Math	Persistence	College-Level Credits Earned	Credential and/or Transfer
TENNESSEE <sup>10</sup>	UPPER	NEG		NULL (conditional)	NULL	NULL (conditional)	NEG (credential)
TEXAS <sup>11</sup>	UPPER	NULL					NULL
OHIO <sup>12</sup>	UPPER				NULL		POS (transfer)
LUCCS <sup>13</sup>	UPPER		NEG	NEG	NULL	NULL	NULL
FLORIDA <sup>14</sup>	UPPER	NULL	NULL			NULL	NULL
VIRGINIA <sup>15</sup>	LOWER vs. MIDDLE		NULL				NEG (credential)
TENNESSEE	LOWER vs. MIDDLE	NULL		NULL (conditional)	NULL	NULL (conditional)	POS (credential)

# Jaggars & Stacey (2014)<sup>19</sup>

## DEVELOPMENTAL READING STUDENTS

Short-Term Impacts					Medium- & Long-Term Impacts		
Study	Level	Persistence	Passed College-Level English	Grade in College-Level English	Persistence	College-Level Credits Earned	Credential and/or Transfer
TENNESSEE	UPPER	POS		NULL (conditional)	NULL	NULL (conditional)	NULL (credential)
TEXAS	UPPER	NULL					NULL
OHIO	UPPER				NULL		NULL
LUCCS	UPPER		NEG	NEG	NEG	NEG	NEG (credential)
FLORIDA	UPPER	NULL	NEG			NULL	NULL
VIRGINIA 2 <sup>16</sup>	UPPER	NULL	NULL (conditional)			NULL	NEG
VIRGINIA 2	LOWER vs. UPPER	NEG	NULL (conditional)			NEG	NEG
TENNESSEE	LOWER vs. MIDDLE	NULL		NULL (conditional)	POS	POS (conditional)	NULL (credential)

# Jaggars & Stacey (2014)<sup>19</sup>

## DEVELOPMENTAL WRITING STUDENTS

Short-Term Impacts					Medium- & Long-Term Impacts		
Study	Level	Persistence	Passed College-Level English	Grade in College-Level English	Persistence	College-Level Credits Earned	Credential and/or Transfer
TENNESSEE	UPPER	NEG		NULL (conditional)	NULL	NEG (conditional)	NEG (credential)
VIRGINIA 2	UPPER	NULL	NULL (conditional)			NULL	NULL
LUCCS	Writing & Reading vs. Reading Only		NULL	NULL	NULL	NULL	NULL
VIRGINIA 2	LOWER vs. UPPER	NEG	NULL (conditional)			NEG	NULL
TENNESSEE	LOWER vs. UPPER	POS		POS (conditional)	NULL	NULL (conditional)	NULL (credential)

*Note. “Conditional” signifies that only outcomes for students who enrolled in college-level courses, or persisted in college, were compared. LUCCS stands for large urban community college system.*

The report that  
changed  
remediation:  
Bailey et al. (2010)



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## Referral, enrollment, and completion in developmental education sequences in community colleges<sup>☆</sup>

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### ABSTRACT

After being assessed, many students entering community colleges are referred to one or more levels of developmental education. While the need to assist students with weak academic skills is well known, little research has examined student progression through multiple levels of developmental education and into entry-level college courses. The purpose of this paper is to analyze the patterns and determinants of student progression through sequences of developmental education starting from initial referral. Our results indicate that fewer than one half of the students who are referred to remediation actually complete the entire sequence to which they are referred. About 30 percent of students referred to developmental education do not enroll in any remedial course, and only about 60 percent of referred students actually enroll in the remedial course to which they were referred. The results also show that more students exit their developmental sequences because they *did not enroll* in the first or a subsequent course than because they *failed or withdrew from* a course in which they were enrolled. We also show that men, older students, African American students, part-time students, and students in vocational programs are less likely to progress through their full remedial sequences.

# Findings from Bailey, Jeong, & Cho (2010)<sup>15</sup>

- Bailey et al. (2010): 250,000 Achieving the Dream students; however, students *were only tracked for three years (2003-06)*
- These colleges are not representative of all community colleges because they are lower-performing colleges
- Bailey et al. found “disappointing” results overall, which are likely due to 3-yr tracking, skewed sample, and most surprisingly, the inclusion of referred students who never enrolled in college courses
- Therefore, they recommended several reforms: skipping it, acceleration, placing out of it, corequisites (support)

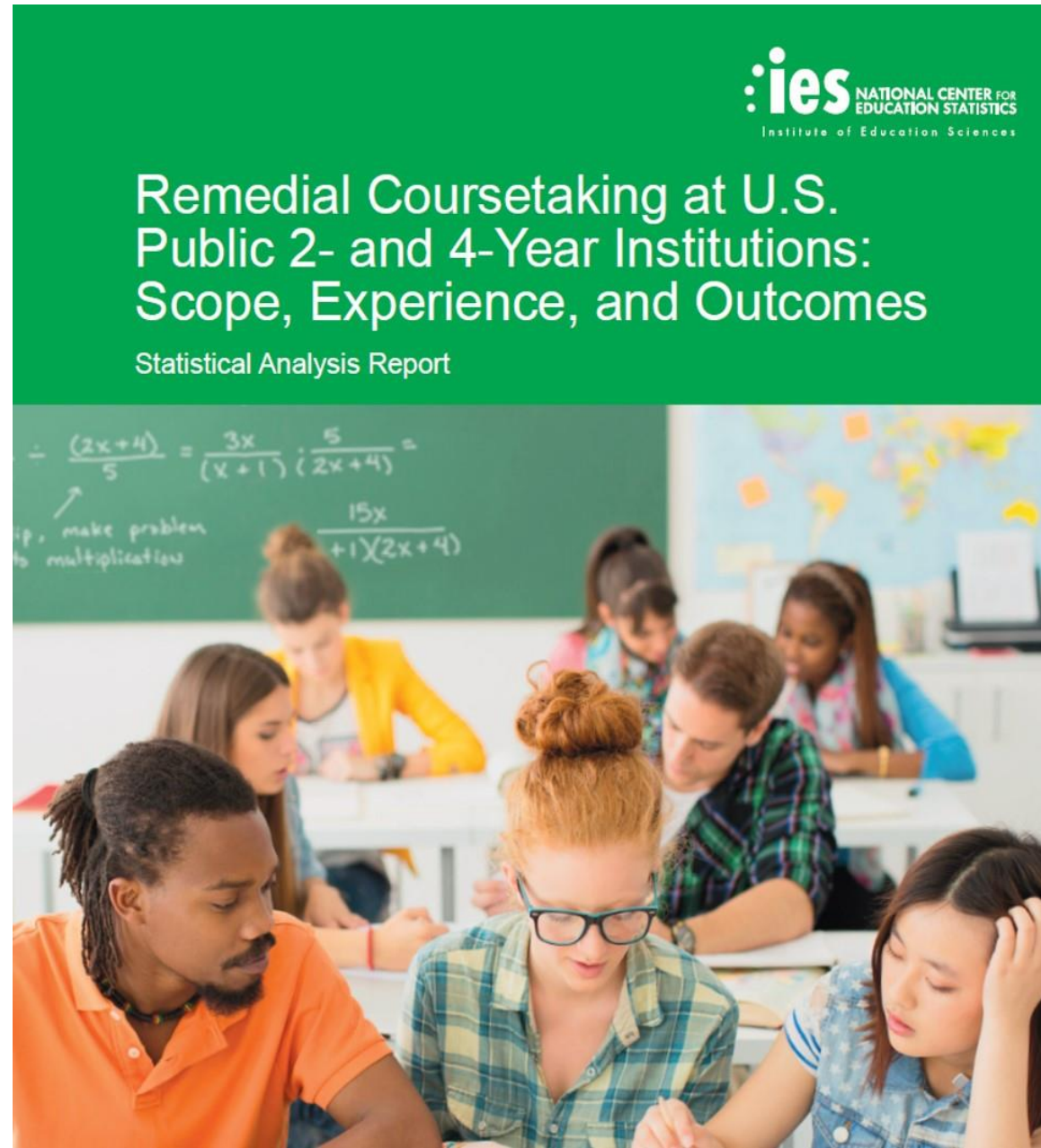


# Findings from Bailey, Jeong, & Cho (2010)<sup>15</sup>

- Bailey et al. (2010) charted a reform confirmation bias framework from which they worked to find examples and research designs that would fit their narrative
- In the subsequent five years, the CCRC conducted corequisite research (ALP), acceleration research, multiple measures, etc.—everything they recommended in 2009 (working paper)
- Interest groups used their research to help eliminate remediation in many states and institutions, starting with Connecticut, then Florida, and now Indiana, Tenn, Georgia, Texas, California, Oklahoma, and others

# The ignored Rorschach Data: Chen (2016)

# USDOE “Remedial Coursetaking” (2016)<sub>1</sub>



# Chen (2016)<sub>1</sub> Shows High Remedial Grad Rate

- Chen (2016) used a sample size of approximately 9000 students, half of which were remedial students (tracked from 2003-2009, same starting year as Bailey et al.)
- Chen broke down remedial students into three groups: remedial completers, partial completers, and noncompleters
- Chen has been the only researcher to view remedial students in this way; this is a type of bias in research:

*If you ask a different question,  
you will get a different answer from the data*

# Chen (2016)<sup>1</sup> Shows High Remedial Grad Rate

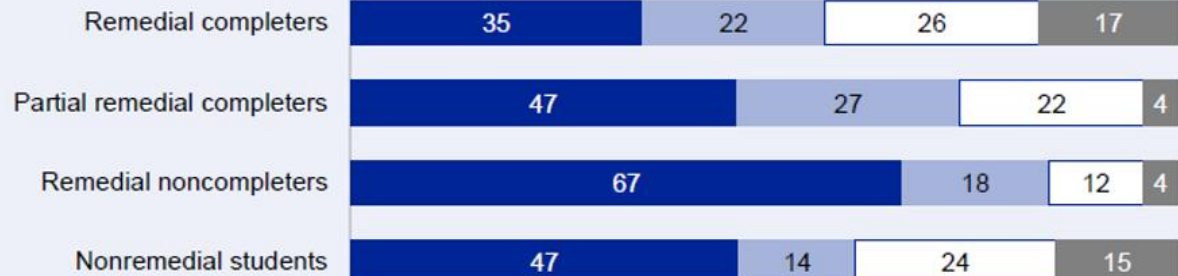
- Forty-nine percent (49%) of all remedial students in Chen's sample completed all their remedial courses
- These students went on to graduate at a higher rate than nonremedial students after six years:
  - Nonremedial student graduation rate: **39%**
  - Remedial completer graduation rate: **43%**
  - Overall remedial graduation rate: **33%**

# USDOE “Remedial Coursetaking” (2016)<sup>1</sup>

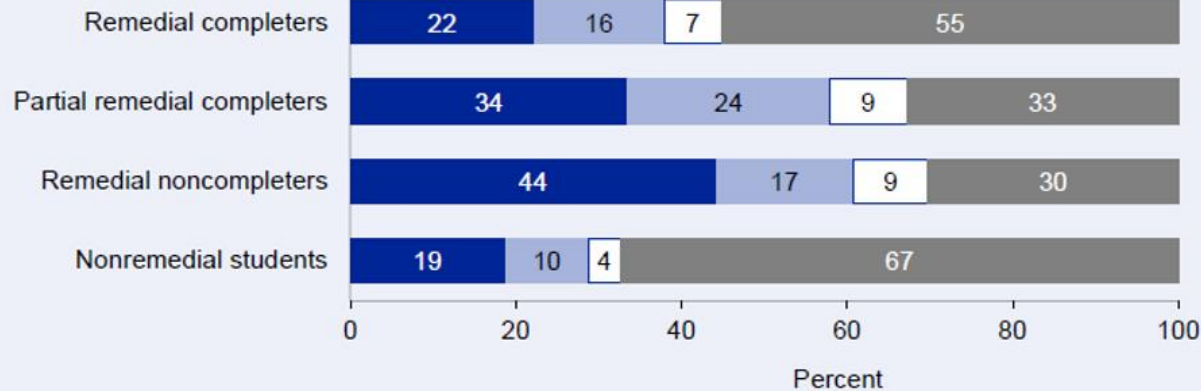
Figure 7.

SIX-YEAR PERSISTENCE AND ATTAINMENT: Among 2003–04 beginning postsecondary students who first enrolled in public 2- or 4-year institutions, percentage distribution of students according to their postsecondary persistence and highest degree attainment as of 2009, by remedial course enrollment and completion status: 2003–09

## Students beginning at public 2-year institutions



## Students beginning at public 4-year institutions



■ No degree and not enrolled ■ No degree but enrolled □ Attained an associate's degree or certificate ■ Attained a bachelor's degree

**Remedial Completers (49%)**  
**6-Yr Grad Rate: 43%**

**Nonremedial Grad Rate: 39%**

**Overall Rem. Grad Rate: 33%**

# Chen (2016)<sub>1</sub> Shows High Remedial Grad Rate

- These students participated in traditional remediation
- These students were sampled before any of the latest reforms changed the landscape
- The sample came from the same time as the Bailey et al. (2010) ATD study (samples started in 2003)
- The results directly contradict the CCRC's claims
- I contacted the CCRC and asked them why they are not highlighting these data

Ganga et al. (2018)<sup>20</sup>





# Chen (2016)<sub>1</sub> Shows High Remedial Grad Rate

- Ganga et al. (2018) created an introduction brief for policymakers to understand developmental education
- They cite Chen (2016) five times, more than any other single study
- However, every citation is negative; they disregard the most significant finding
- This is *Rorschach Data*: They only chose to see what they wanted to see instead of a very significant finding

# Chen (2016)<sup>1</sup> Shows High Remedial Grad Rate

- Would it not be more appropriate to include a statement in the introduction such as this?

“The results of research in developmental education is mixed. Regression discontinuity design studies show null results if the definition of remediation’s goal is to have students perform better compared to nonremedial students. However, remedial students who complete their coursework graduate at rates higher than nonremedial students after six years. Half of all remedial students finish their coursework. This suggests that one goal of institutions might be to support students in finishing their remedial coursework. Others may benefit from accelerated courses or other models of developmental education.”

# Chen (2016)<sub>1</sub> Shows High Remedial Grad Rate

- What is the takeaway from Chen (2016)?
- Remediation works for a large proportion of students! That means it should not be eliminated
- Other research shows acceleration works for some; some students perform better in corequisites (students just beneath cutoff); some perform better when placed into college-level courses with more accurate placement
- Holistic and well-supported, thoughtful design (i.e., *options*) is the best approach

Remediation *is* and  
*should be* a part of  
successful reform

# Examples of Current Reforms with Remediation First

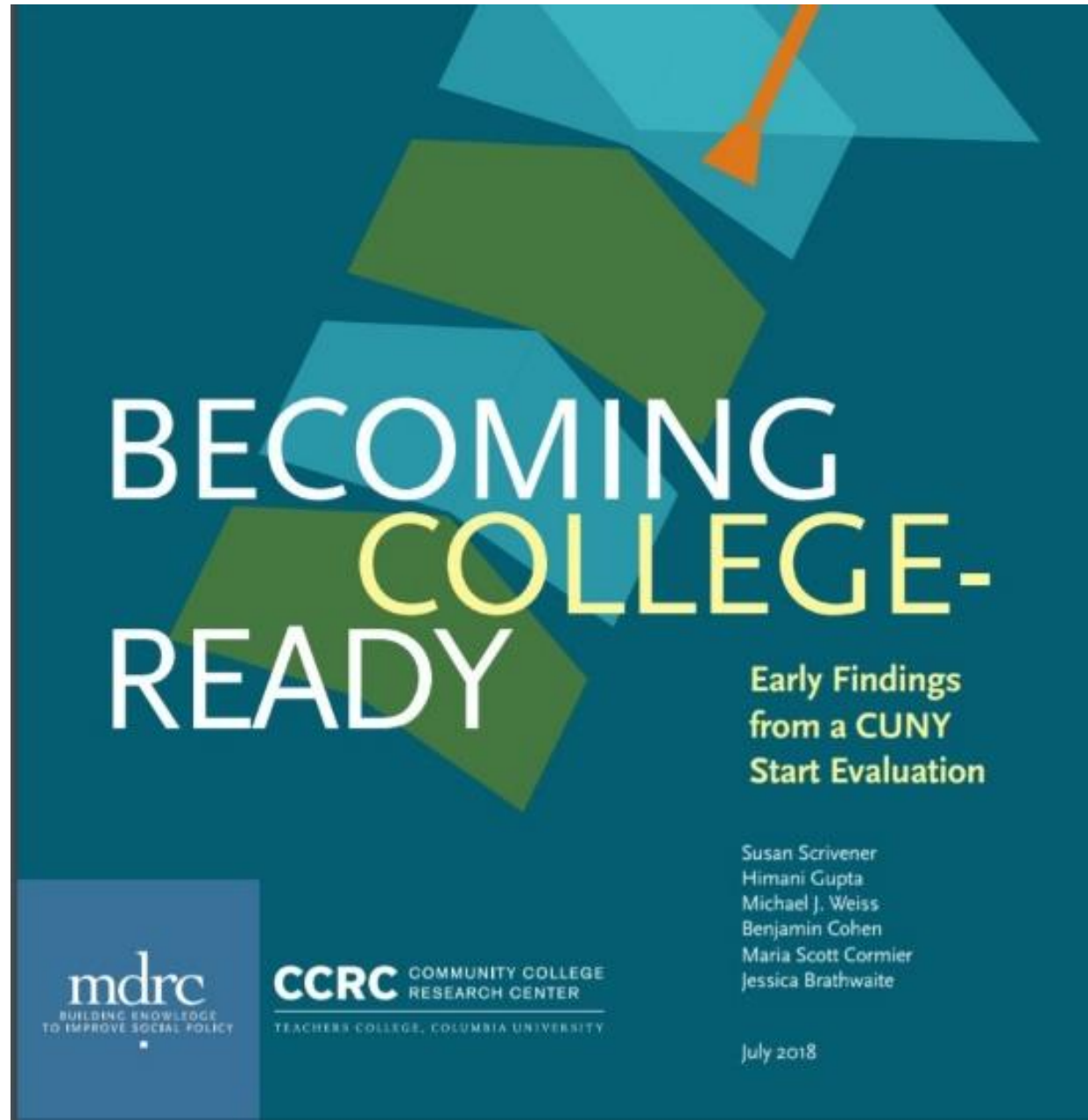
- There are several examples of recent reform models with traditional remediation included
- In fact, these reforms are very successful and do not eliminate remedial coursework
- They encourage or require remedial courses to be taken first
- They also help students with monetary and/or other supports—i.e., actual *developmental education*

# “Oklahoma State System” (2016)<sup>17</sup>

## Corequisite models

- Accelerated Learning Program (ALP) is a form of mainstreaming remedial students by enrolling them in the college-level course, often with non-remedial students, and enrolling them in the ALP companion course which offers supplemental instruction and often meets in the class period immediately following the college-level course. The same instructor usually teaches both courses.
- Mandatory Lab or Tutoring delivers customized support to students enrolled in a traditional college-level course for an additional one to two hours per week in a required non-credit lab or tutoring. The support enables students to address specific needs related to their success in the college-level course.
- Sequenced Courses accelerate students through basic skills content and the common single-semester college-level math or English composition course in one semester. Students would attend class five days a week with the first five weeks dedicated to basic skills support followed by the college-level course.
- Other models could include two-semester models where a single semester remedial course is tightly aligned to a college-level course providing an introduction of content in the college-level course and requiring the student to commit to both courses in the freshman year. The two-semester model requires a backward mapping of learning outcomes in college-level course to the remedial course.

# Scrivener et al. (2018)<sup>18</sup>



# Examples of Current Reforms with Remediation First

- CUNY Start summary:

“The program delays college matriculation (enrollment in a degree program) for one semester and provides intensive instruction in math, reading, and writing during that semester with a prescribed instructional approach. It also provides advising, tutoring, and a weekly seminar that teaches students skills they need to succeed in college. Students pay only \$75 for the program and do not use financial aid. CUNY Start’s underlying theory of change posits that students with substantial developmental course requirements are best served through an intensive model, designed to build academic preparedness and college skills before matriculation” (Scrivener et al., 2018, p. iii).



# Strumbos & Kolenovic (2017)<sup>10</sup>



ASAP EVALUATION BRIEF: JANUARY 2017

## Six-Year Outcomes of ASAP Students: Transfer and Degree Attainment

Diana Strumbos and Zineta Kolenovic

# A Randomized Controlled Trial Model: ASAP

- CUNY's Accelerated Study in Associate Programs (ASAP)<sub>8,9,10</sub>
- The ASAP program implemented a randomized, controlled study, and the intervention was a comprehensive overhaul of Dev Ed and non-Dev Ed, including the infusion of a great deal of design reform, staffing, and resources (\$4,000 to \$6,800 per student per year)

# A Randomized Controlled Trial Model: ASAP

- ASAP Components
  - Dev Ed courses first and continuous
  - Full time requirement
  - Block scheduling
  - Learning communities for first year
  - Group advising sessions every week (150 caseload)
  - Meetings with adviser at least twice per month
  - Mandatory tutoring
  - Career specialist meeting once per semester

# A Randomized Controlled Trial Model: ASAP

- ASAP Components
  - Tuition waiver
  - Free MetroCards (\$2.75 one-way trip NYC)
  - Free books
  - Free social events
  - Consistent and repeated messages
  - Out of pocket costs for institution are again about \$5K-\$7K more per student per year
  - Good model for “free community college”

# A Randomized Controlled Trial Model: ASAP

- Dev Ed ASAP  $n$  (number in intervention) and demographics:
  - $n = 896$  students (in original total study before randomization)
  - 44% Hispanic, 34% Black, 10% White, 8% Asian
- Credits and retention results:
  - Increased credits over control group by 25%
  - Increased retention second semester (80 to 90%)

# A Randomized Controlled Trial Model: ASAP

- Overall ASAP graduation rates after 3 years (including remedial students):
  - Control Group (no ASAP): **37%**
  - ASAP Intervention Group: **61%**
- Colleges in Ohio replicated this program, and early results are starting to be released now (similar gains in graduation rates: 19% vs. 8% after two years)

# Questions!

# Thank you!

Keep up the good work!

References below and more reading available:

**communitycollegedata.com**

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Follow me on **@ccollegedata**

(Links to sources on next page)



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