

# The Impact of Developmental Summer Bridge Programs on Student Success: Two Year Findings

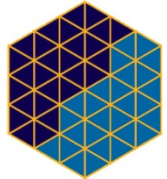
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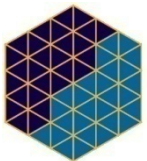
**National Center for Postsecondary Research**

[www.PostsecondaryResearch.org](http://www.PostsecondaryResearch.org)

**NCPR PARTNERS:**  
*Community College Research Center,  
Teachers College, Columbia University  
MDRC  
Curry School of Education,  
University of Virginia*

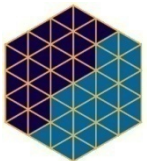
# Presentation Agenda

- Introduction
- Report Overview
  - DSB Program Model
  - Research Questions
  - Research Design
  - Impact Findings
  - Cost Study
- Implications and Recommendations
- Forthcoming College Results
- Next Steps & Discussion

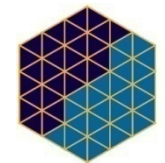


# Webinar Logistics

- Online chat is available for questions during presentation.
- Chat is only between individual participants and the presenters.
- We will open up the phone lines for an open discussion after the presentation.

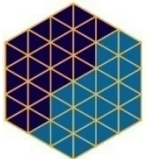


# INTRODUCTION



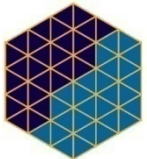
# National Center for Postsecondary Research

- NCPR is a 6-year collaboration among the Community College Research Center, MDRC, the Curry School of Education at UVA, and faculty at Harvard.
- NCPR is funded by the IES of the US DOE.
- Studies were conducted on:
  - Developmental Summer Bridges
  - Learning Communities
  - Dual Enrollment in Career Pathways
  - College Readiness Partnerships
  - Financial Aid and others....

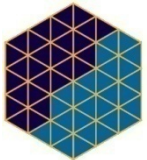


# The DSB Study

- Implemented by CCRC, MDRC & UVA.
- Conducted in cooperation with the Texas Higher Education Coordinating Board
- Funded by the IES-USDOE with supplemental funding from the Houston Endowment.
- Dates of research: 2008-2012.
- Resulted in two reports.

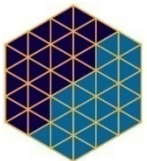


# **DSB MODEL & RESEARCH QUESTIONS**



# Texas Developmental Summer Bridge Study

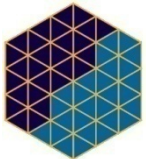
- Purpose: Assess the effectiveness of a summer bridge model in improving college preparation and success for students in need of remediation





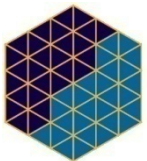
# Programs in the DSB Study

- 8 open access institutions in Texas
- Programs (2009) consisted of:
  - Student cohorts of recent high school graduates
  - Four to five weeks (64 -100 hours)
  - Accelerated instruction in developmental math, English, and/or reading at the college
  - Academic and student services support
  - “College knowledge” component
  - Student stipend of up to \$400 for completers
- Programs were considered *course-based* or *freestanding*.



# DSB Theory of Change

- Better academic preparation and college knowledge
  - Leads to greater persistence and credit accumulation
- Early and accelerated exposure to developmental coursework
  - Allows students to pass out of developmental course requirements or begin college further along the developmental course sequence
- Utilization of on-campus services
  - Influences students' credit accumulation and financial aid receipt.



# The Research

## Implementation

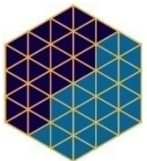
- What do the programs and students look like?
- What are the challenges in implementation?
- What program design elements show promise?

## Cost Study

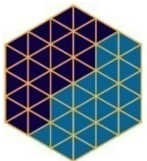
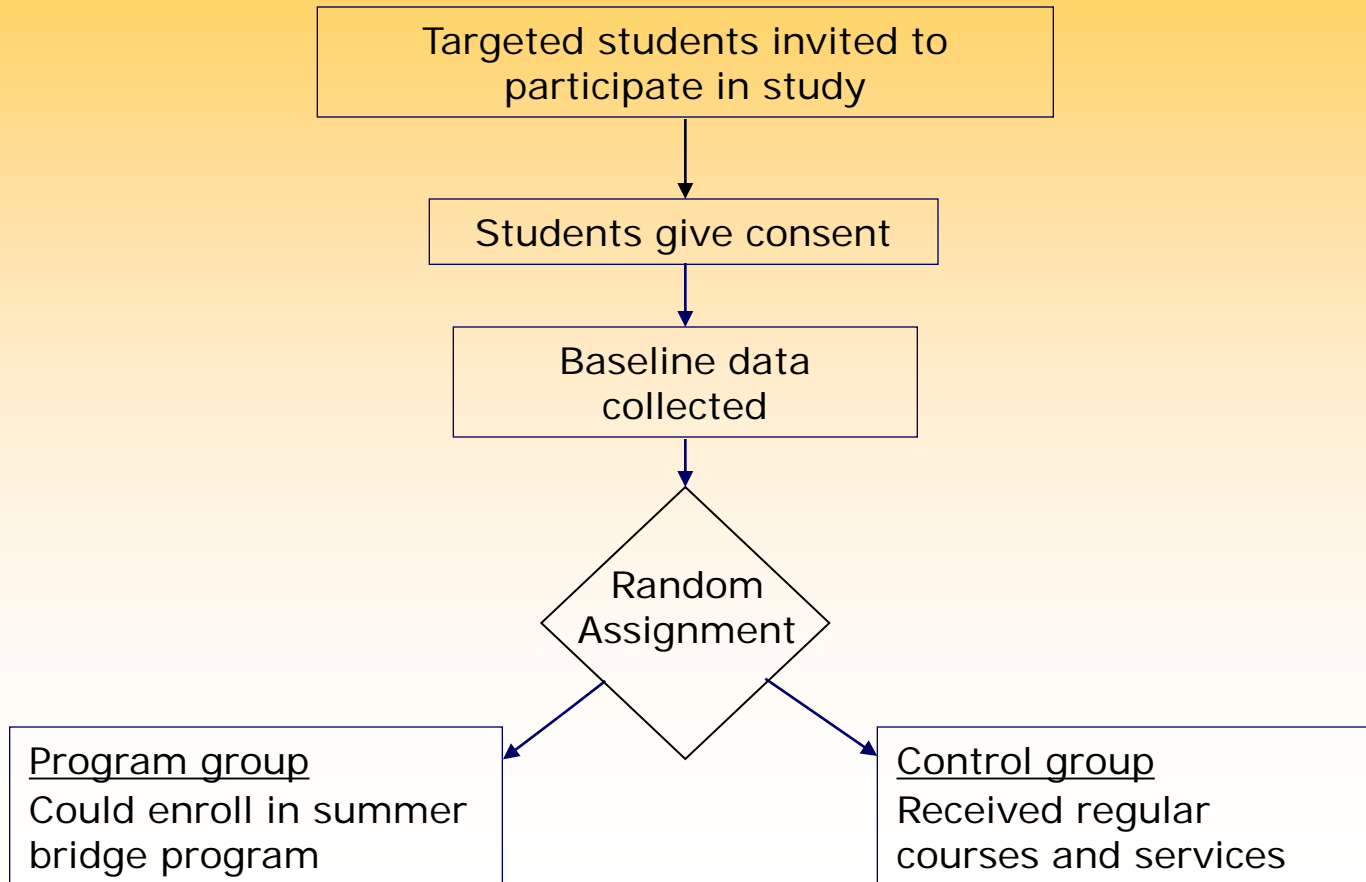
- What are the costs – and the cost effectiveness – of developmental summer bridge programs?

## Impacts

- Do summer bridge programs reduce the need for developmental education, and improve college outcomes *over and above* how students perform without these programs?

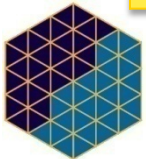


# Random Assignment Design



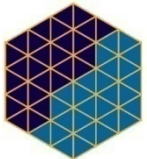
# Participation and Attrition

College	Students in Program Sample	Control	Number of Students Who Ever Attended Program	Number of Students Who Completed Program	Percentage Enrolled at End of Program
El Paso	165	108	139	138	99%
Lone Star-CyFair	75	48	65	64	98%
Lone Star-Kingwood	51	35	51	41	80%
Palo Alto	52	35	52	35	67%
San Antonio	89	58	58	47	81%
St. Phillips	153	102	146	139	95%
South Texas	83	54	72	63	88%
TAMIU	126	85	113	111	98%
<b>TOTALS</b>	<b>793</b>	<b>525</b>	<b>689</b>	<b>638</b>	<b>93%</b>

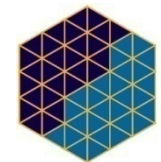


# Select Student Characteristics

- 84% Hispanic, 8.7% White, 6.6% African American
- 50% Speak English only at home
- 62% Female
- 95% Age 19 and below
- 41% First in family to attend college
- 61% qualified for free/reduced lunch



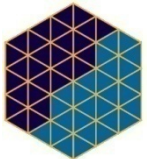
# IMPACT FINDINGS



# Impact Findings

Texas Developmental Summer Bridge programs:

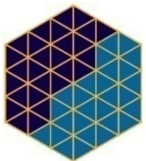
- Did not impact college enrollment or persistence (measured by cumulative semesters enrolled).
- Did not impact credits earned over 2 years.
- Accelerated students' initial progress through college-level math and writing in the first year.



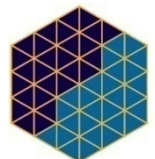
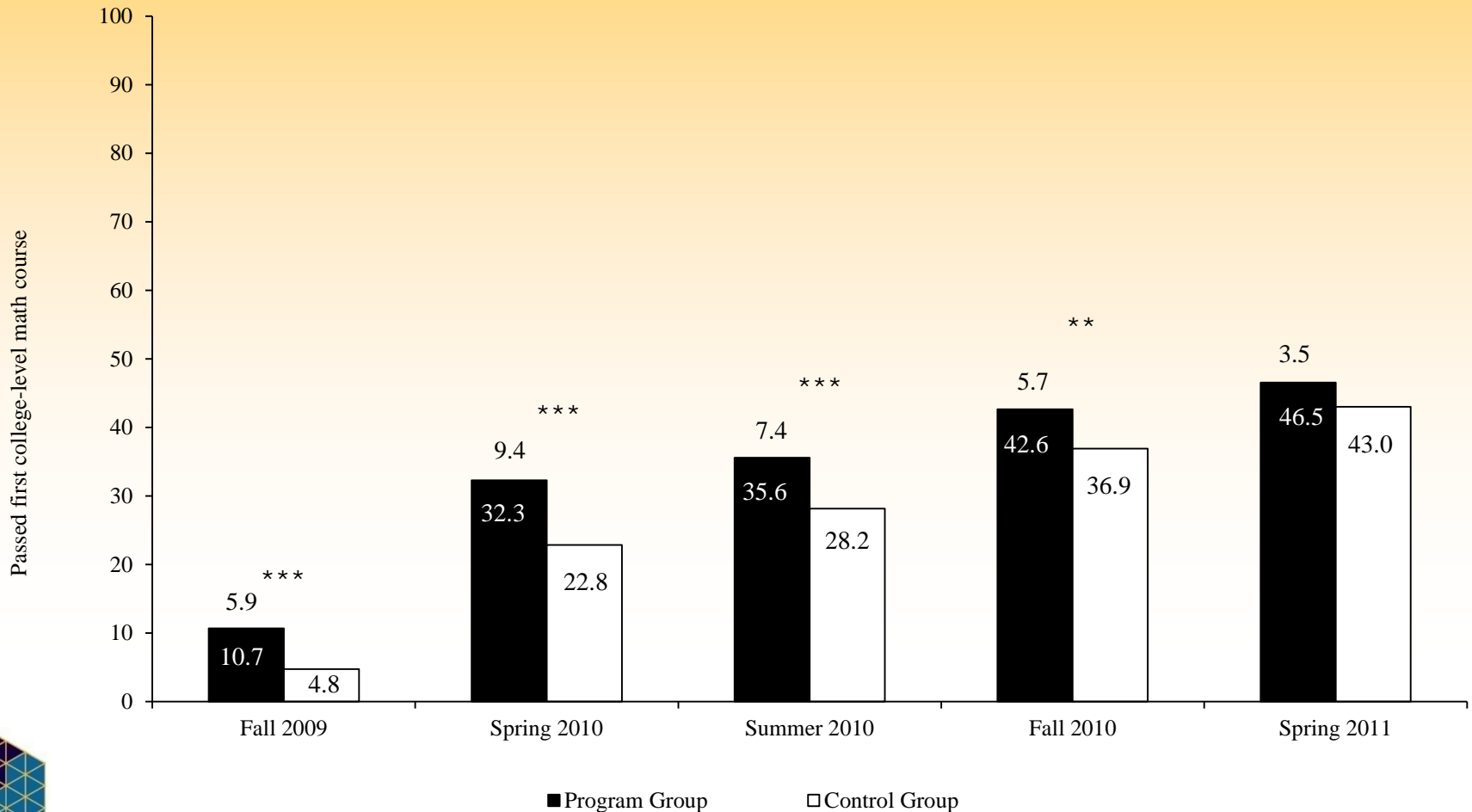


# Key Outcomes after Two Years

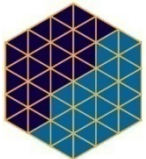
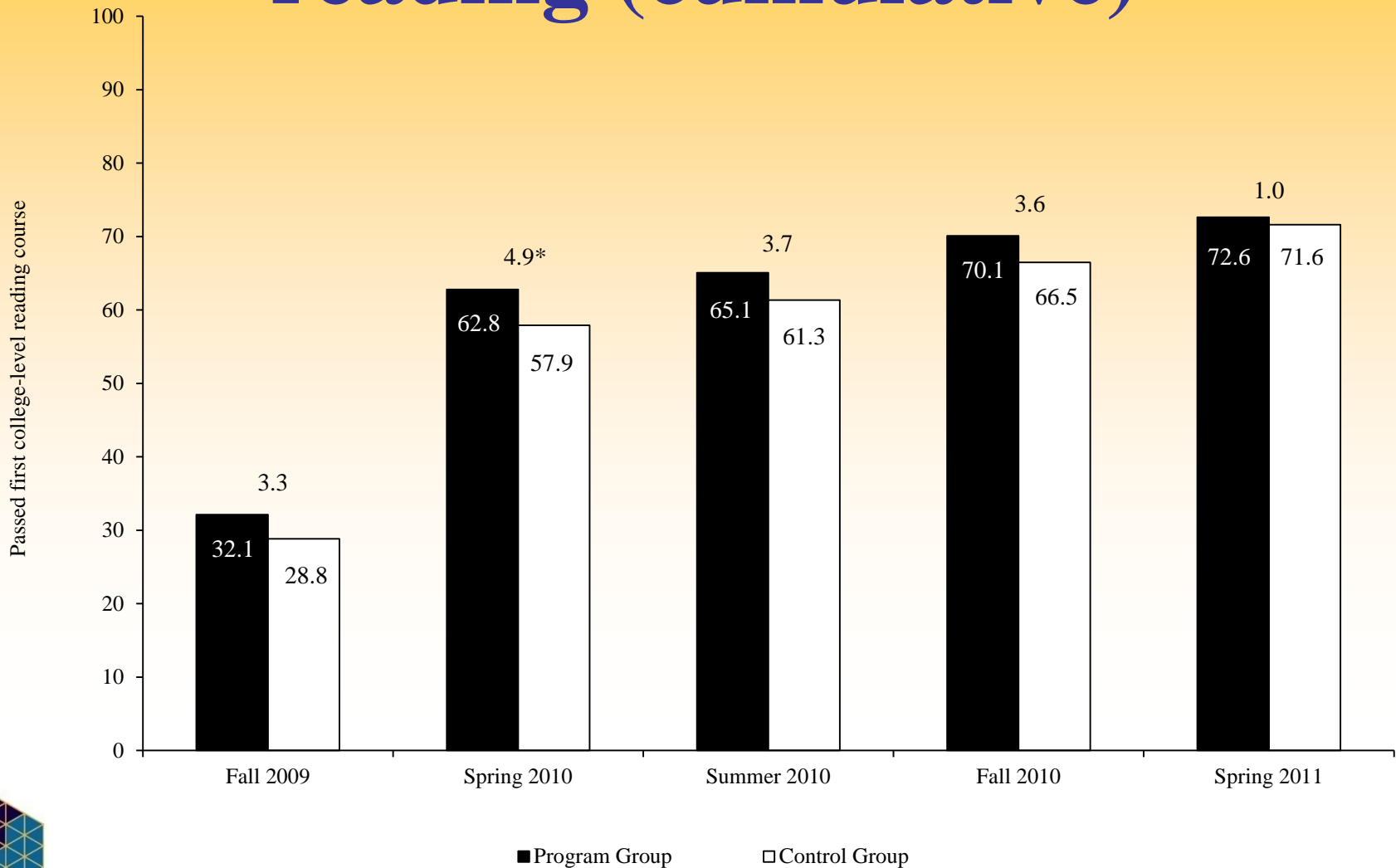
Outcome	Program Group	Control Group	Difference (Impact)	p value	Std Error
<b><u>Cumulative Measures</u></b>					
Semesters registered at any college	3.3	3.4	-0.1	0.37	0.1
Total credits attempted	30.3	30.3	0.0	0.98	1.2
College-level credits	24.2	23.5	0.7	0.54	1.1
Developmental credits	6.1	6.7	-0.6*	0.09	0.4
Total credits earned	19.4	19.9	-0.5	0.59	1.0
College-level credits	15.9	15.9	0.0	0.97	0.9
Developmental credits	3.5	4.0	-0.6**	0.03	0.3
Passed first college-level math course	46.5	43.0	3.5	0.19	2.7
Passed first college-level reading course	72.6	71.6	1.0	0.68	2.4
Passed first college-level writing course	71.7	68.3	3.3	0.18	2.5
Sample size (total = 1,318)	793	525			



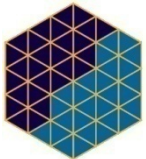
# Students passing college-level math (cumulative)



# Students passing college level reading (cumulative)

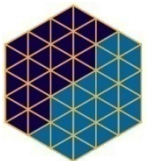


# Students passing college level writing (cumulative)



# Financial Aid

- More students in the program group received financial aid (5.1 percentage points) in the first semester.
- No evidence of impacts after the first semester
- Impacts appear concentrated at Alamo colleges, where the program emphasized financial aid assistance.



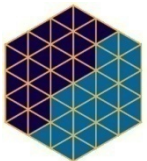
# Exploratory Subgroup Findings

## Demographic characteristics

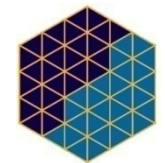
- No evidence that the program was more or less effective for either gender
- No evidence that the program was more or less effective for students of different socioeconomic status (identified by mother's level of education)

## Program type

- No evidence that either course-based or freestanding programs were more or less effective in moving students along the developmental sequence

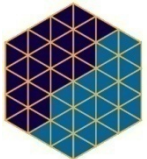


# **COST STUDY**



# Cost Study

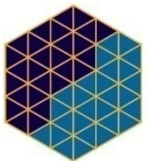
- Answer 2 questions:
  - First, why did the average costs of running the DSBP vary among the eight sites?
  - Second, what impact on college-level credit accumulation would the DSBP have had to produce in order to be cost effective?





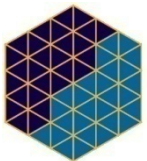
# Summary of Program Costs

- Total costs ranged from \$62,633 to \$296,033 per site
- Sites varied in terms of program duration, intensity, and enrollment
  - Enrollment was the largest driver of costs
- Average costs ranged from \$840 to \$2,349 per participant with the average across all eight sites \$1,319 (standard deviation of \$502)



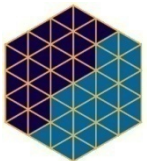
# Cost Variation

- Higher than average
  - TAMIU (\$2,349) – high contact hours (100), high benefits cost (29%), tutors, lunch
  - LSC-Kingwood (\$1,615) – Dean's extensive involvement as program was reestablished, lunch
- Lower than average
  - SAC (\$840) – program tuition of \$480
  - LSC-CyFair (\$835) – program tuition of \$150, no employee benefits included



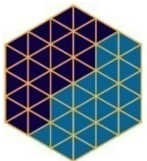
# Break Even Analysis

- Additional number of college credits program group students *would have had* to earn for the program to “break even”
- Average cost of program drops from \$1,319 to \$1,291 when stipend is averaged across all program group members (like analysis)
- Average cost of \$1,291 has embedded assumptions

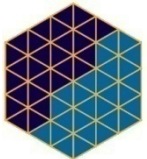


# Cost Effectiveness Analysis

- Society's "Willingness to Pay" (WTP) for a college credit is \$338 (from IPEDS data)
- Avg Cost of program/WTP for a credit
  - $1,291/338 = 3.8$  additional college level credits
- Alternative Assumptions
  - Reduces average cost to \$831
  - $831/338 = 2.5$  additional college level credits

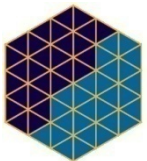


# **IMPLICATIONS & RECOMMENDATIONS**



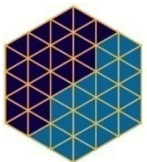
# Implications & Recommendations I

- Programs accelerated students' progress into college math and writing in the first year.
- Similar programs could continue to be offered to achieve this impact, and/or similar approaches could be implemented at high schools for rising seniors.



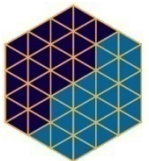
# Implications & Recommendations II

- Quicker progress into college math and writing didn't lead to increased cumulative college credits.
- Additional supports, programs or approaches in subsequent terms (and/or coordination with HS interventions) may be needed to impact longer term outcomes.



# Implications & Recommendations III

- Programs didn't impact college enrollment or persistence for these students who were already relatively motivated to attend college.
- Students less likely to attend college might have different enrollment experiences.



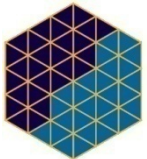


# Implications & Recommendations IV

- Programs were relatively expensive to run.
- Funding sources matter; funds may be available in existing funding streams for developmental courses, reducing the net cost to college.

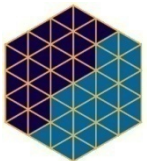


# **FORTHCOMING COLLEGE-SPECIFIC TABLES**



# College-Specific Tables

- NCPR will provide each institution with tables presenting findings for your institution, with a brief memo to help guide interpretation of the findings
- The college-specific findings will not be released publicly; they are for your internal use and information.

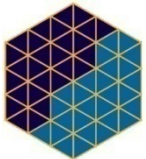


# College-Specific Tables

## Small Samples May Produce Unreliable Findings

- The study was designed to draw conclusions about the effectiveness of DSB in general, and required pooling data from all participating colleges.
- The small sample size for each institution may lead to unreliable estimates of the program's effectiveness at any one particular college.

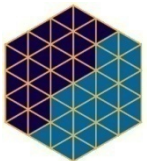
*Example:* At a school with 100 students, each student would count for one percentage point, so the outcomes of just a few students can have a large influence on estimated impacts!



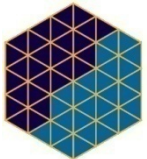
# College-Specific Tables

We expect the college findings to be generally consistent with the pooled measures, but some examples of surprising findings you might see include:

- Large differences between program and control group students that are not statistically significant
- Much larger or smaller differences than those reported in the pooled tables, or
- Negative impact estimates.



# **NEXT STEPS & DISCUSSION**



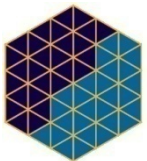
# Next steps

Final Report– available June 20<sup>th</sup>

Dissemination

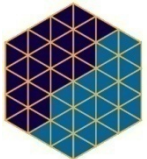
- AYPF Forum
- NCPR Final Conference
- News Release
- Tools??

Ongoing research on college readiness and developmental education



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to learn more about our latest research  
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(ending June 2012)

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