



NATIONAL ALLIANCE OF  
**CONCURRENT ENROLLMENT**  
PARTNERSHIPS

# **Exploring Recent Research on Dual Enrollment**

**February 22, 2019**

*advancing quality college courses for high school students*

# Meet Our Presenters



Dr. Elisabeth Barnett



Dr. David Troutman



Dr. Jason L. Taylor

# Transition courses: Preparing students for college courses

Elisabeth Barnett

CCRC/NCREST

Teachers College, Columbia University

February 2019

# Community College Research Center

Areas of research include:

- High school to college transitions
- Dual enrollment
- Developmental education & adult basic skills
- Student services
- Online learning
- Career and workforce education
- Student persistence, completion, and transfer





# National Center for Restructuring Education, Schools and Teaching

## Areas of interest

- Middle and early college high schools
- Dual enrollment
- Support for high school reform
- International education
- Data use and decision making



# Early College Readiness Assessments and Transition Courses

# Reshaping the College Transition Research

*Early college readiness assessments:* Assessments administered no later than the 11th grade that measure students' readiness to successfully perform entry-level, credit-bearing postsecondary work.

*Transition curricula:* Courses, learning modules, or online tutorials developed jointly by secondary and postsecondary faculty and offered no later than 12th grade to students at risk of being placed into remedial math or English in college.

# Potential of early college readiness assessments

## Theory:

Knowledge is power. Students and schools can take action to help students become college ready by graduation.

## Evidence:

Participation in California's early assessment (EAP) reduced students' probability of taking remedial courses in college by 6.1 percent in English and by 4.3 percent in math.

Howell, Kurlaender, and Grodsky (2010)

# Potential of transition courses

## Theory:

A full year course in math or English can be offered to students in the 12<sup>th</sup> grade...

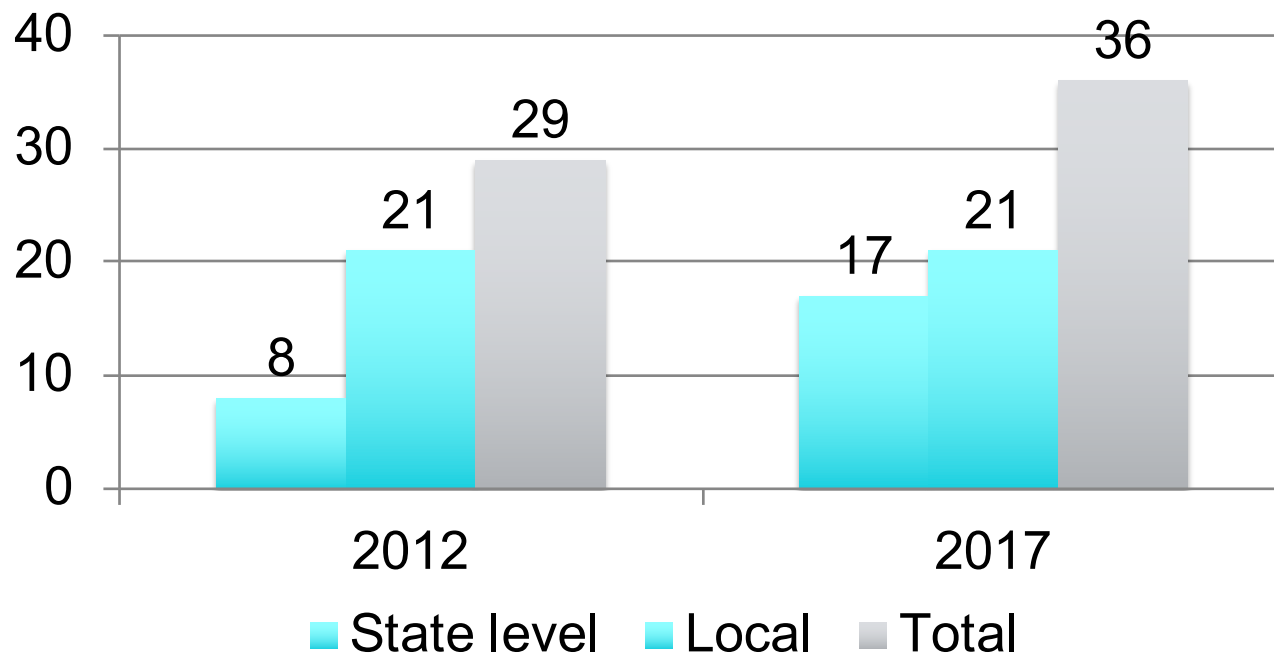
- At no extra cost
- Offering high school credit
- Meeting colleges' criteria for college readiness.
- And some include a mechanism for placing out of developmental education.

## Evidence:

Promising descriptive results from high schools and colleges.

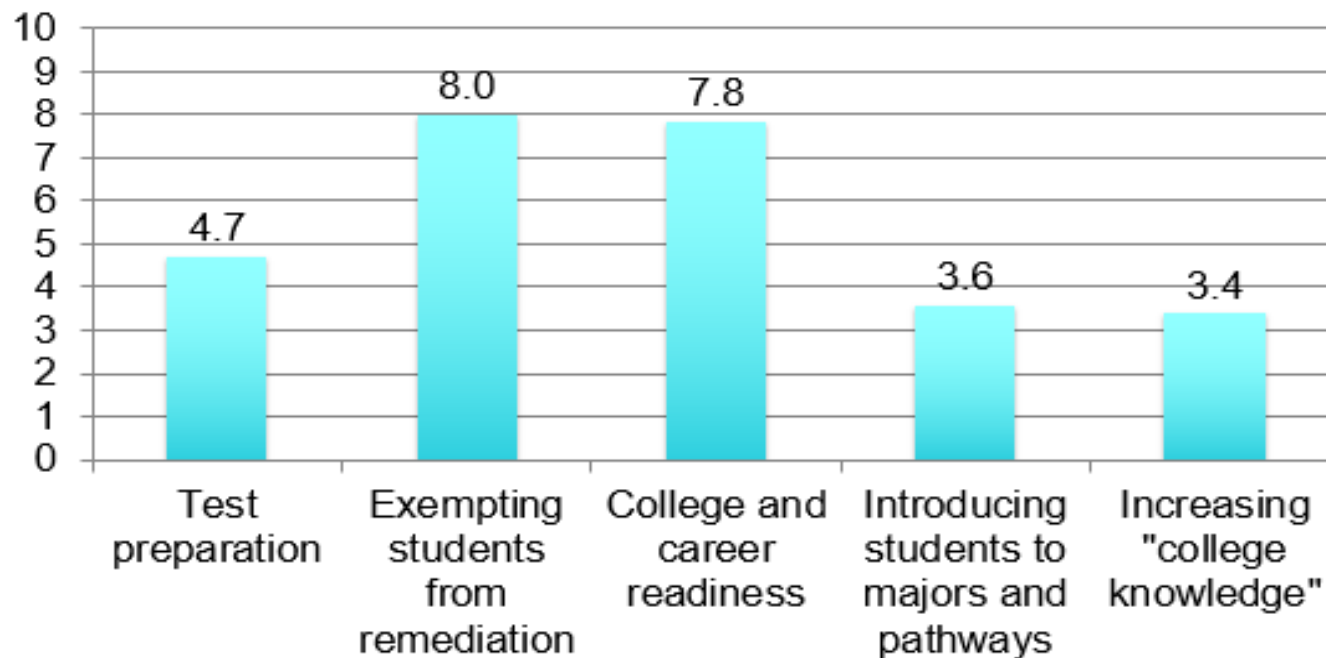
Emerging more rigorous research results.

# Prevalence of Transition Courses (# of states)



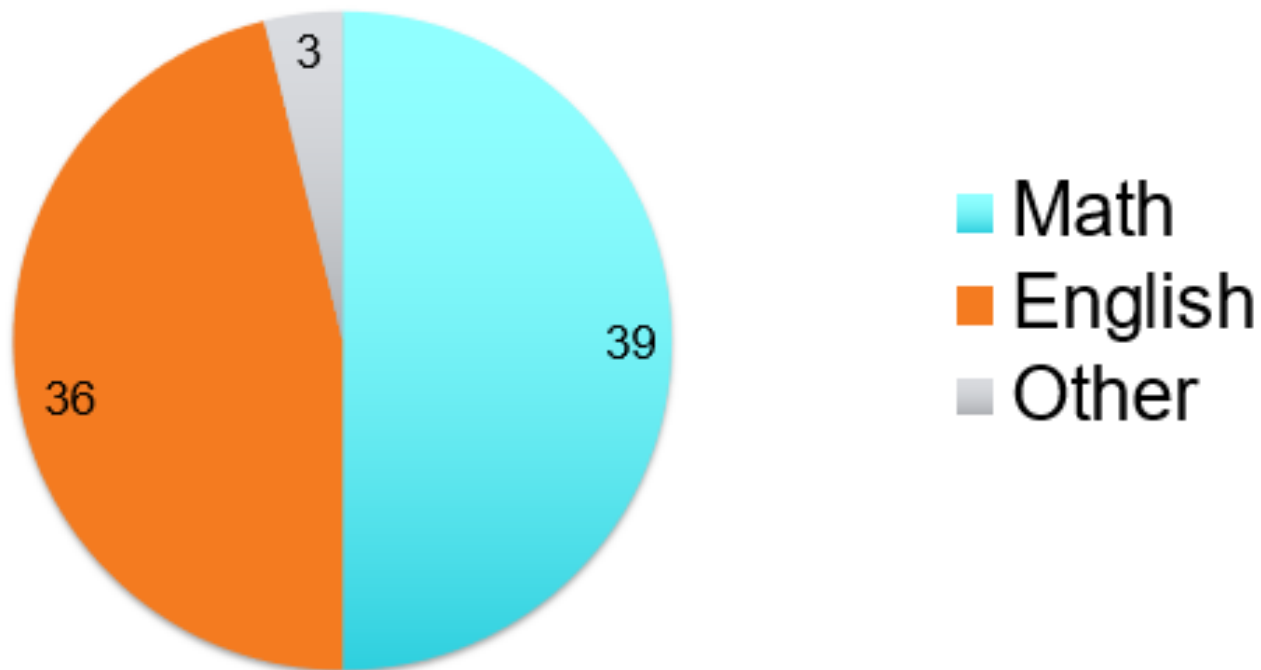
# Transition Course Goals

(importance on a 1 to 10 scale)



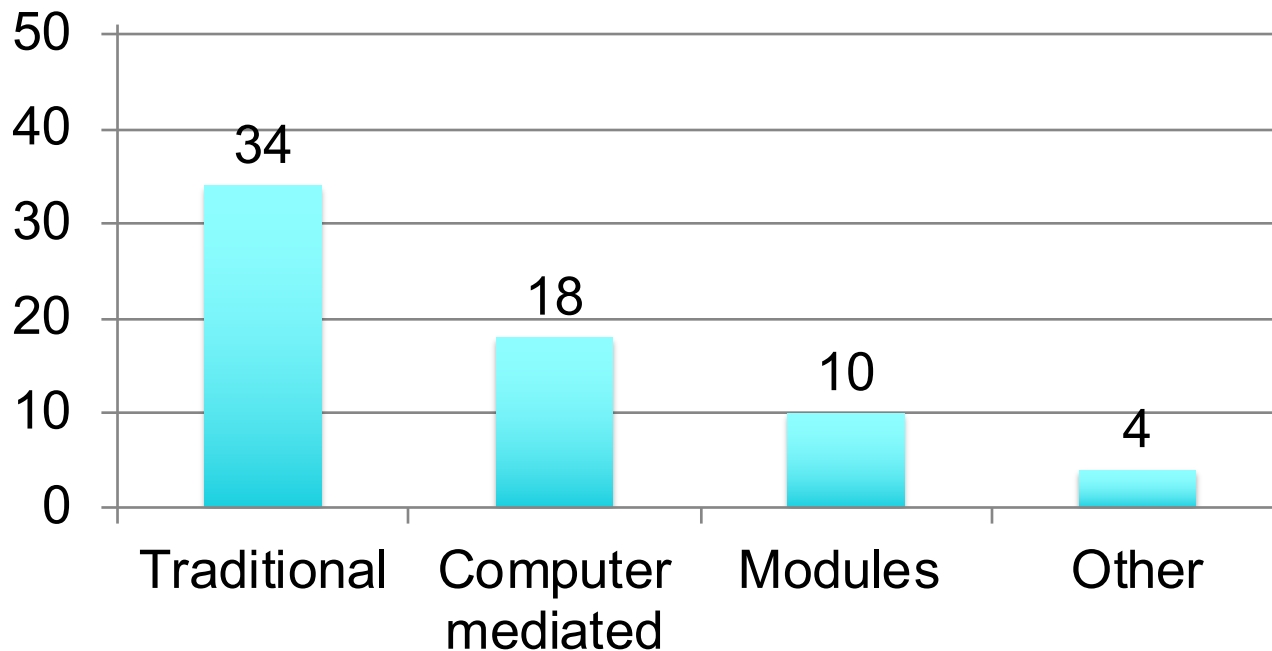
Note: These and the data on the following slides were calculated from interviews and document reviews associated with a national scan of transition curricula conducted in 2016-2017 by CCRC.

## Subjects taught (# of states)





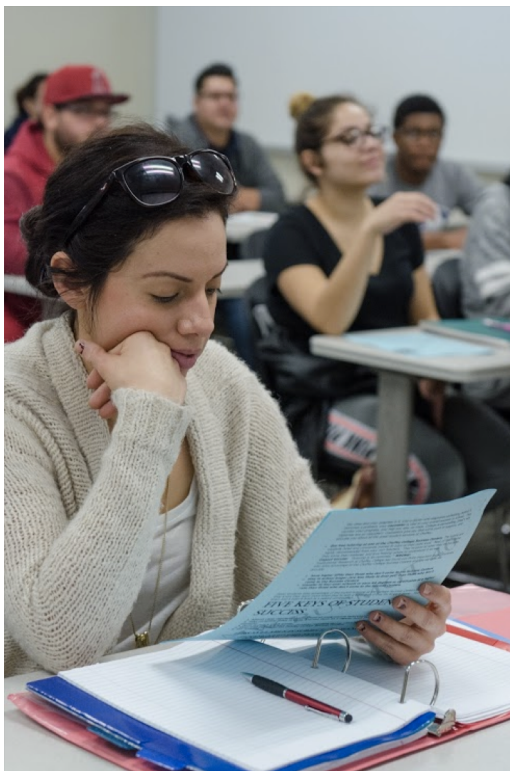
## Instructional approach used (# of states)



# Course design options (Barnett, 2018)

Purpose, Content, and Delivery	Structure, Organization, and Context
<ul style="list-style-type: none"><li>• Course goals</li><li>• Course creation</li><li>• Key topics</li><li>• Instructional approach</li><li>• Student engagement</li><li>• College exposure</li></ul>	<ul style="list-style-type: none"><li>• High school credit</li><li>• College placement</li><li>• Student selection</li><li>• Teacher selection and support</li><li>• Costs and sustainability</li><li>• Assessing effectiveness</li></ul>

# New York



## At Home in College (AHC):

- ◆ Designed and administered by CUNY's Collaborative Programs
- ◆ Early assessment: Regents exams
- ◆ Transition courses in English and math, with College Knowledge component
- ◆ 62 participating high schools (1,903 students)

# Difference In Differences Design Outcomes Estimated:

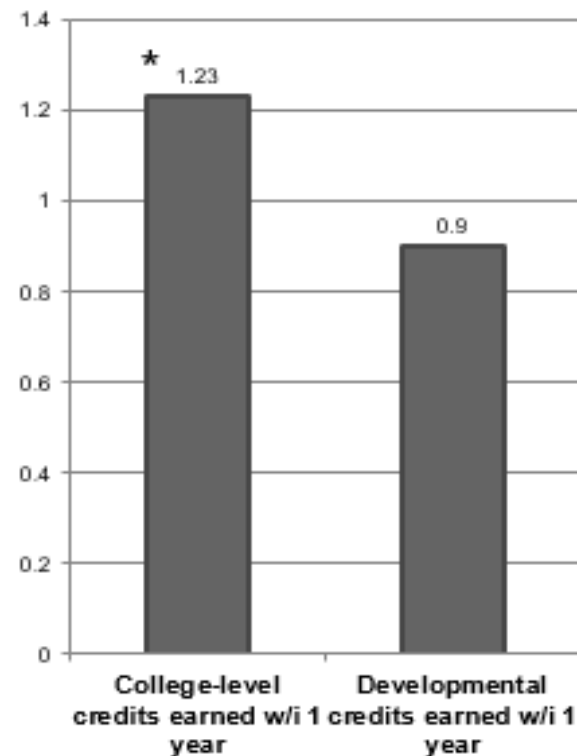
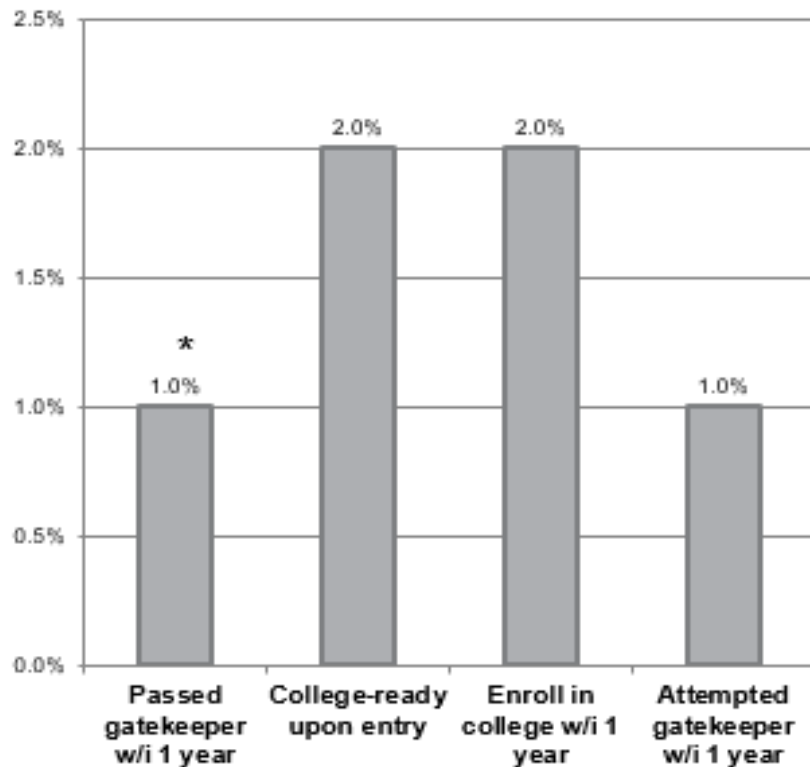
## Primary (all within one year)

- College readiness at college entry in math/English
- Passing gatekeeper course in math/English

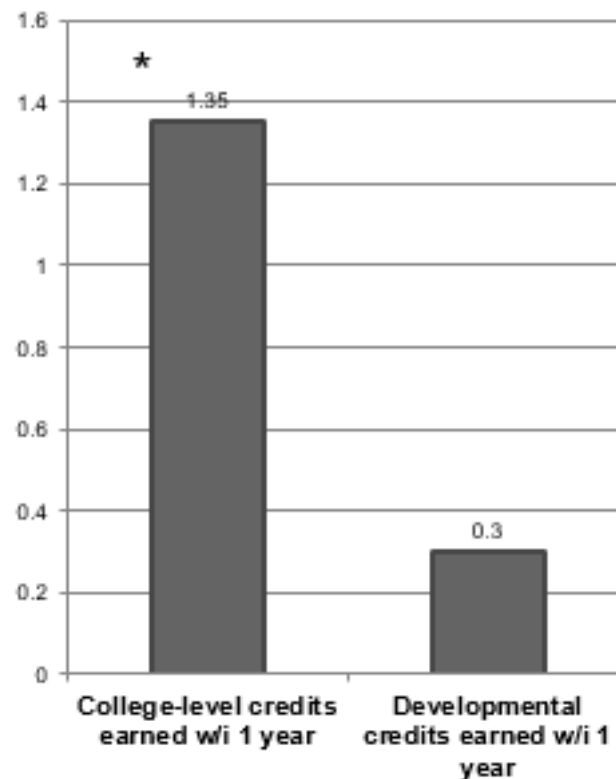
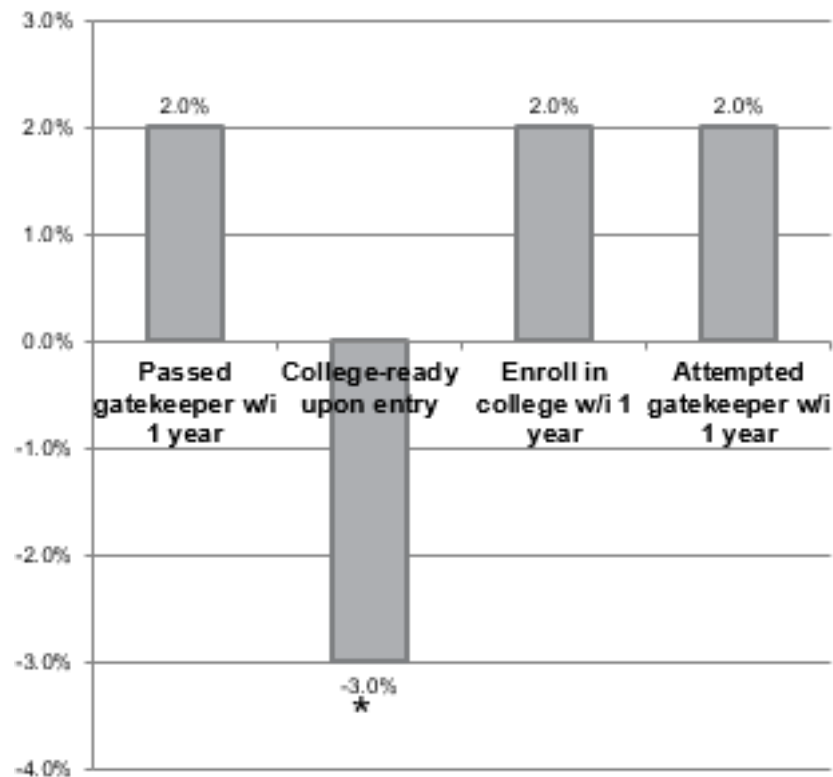
## Secondary (all within one year)

- College enrollment
- College credits earned
- Developmental education credits earned
- Attempted a gatekeeper course in math/English

# Impact of At Home in College - Math



# Impact of At Home in College - English



# Tennessee



## Seamless Alignment and Integrated Learning Support (SAILS):

- ◆ Community college initiated and supported; state funded
- ◆ Student placement based on ACT score in 11<sup>th</sup> grade
- ◆ 5 online math modules that mirror the community college curriculum
- ◆ Completers place out of college deved; some take dual credit math

# SAILS - results

## *From Fay, 2016*

Study of SAILS schools where high school and college students used the same curriculum:

- ◆ College students completers: 47- 65%
- ◆ High school completers: 79 – 97%

## *From Kane et al, 2018*

- ◆ Participating in the SAILS program positively impacted:
  - ◆ Enrollment in college.
  - ◆ Enrollment in college level math (in the past)
  - ◆ Student appreciation of math
- ◆ It did not affect math knowledge.



# Thoughts on transition courses

- ◆ The results so far are positive but underwhelming.
- ◆ Courses are informed by diverse views of college readiness.
- ◆ Courses are “owned” to different degrees by K-12 and higher education.
- ◆ Mechanisms that place students as college ready on course completion are helpful.

# For more information

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## **DUAL CREDIT AND SUCCESS IN COLLEGE**

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Associate Vice Chancellor for Institutional Research

The University of Texas System



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# About the University of Texas System

- Eight academic institutions and six health institutions
- 235,000 students, including over 171,000 undergraduates
- UT System enrolls one-third of all the students in public academic institutions in Texas higher education systems.



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# Study Purpose

- To obtain a better understanding of the relationship between students' dual credit participation during high school, and their outcomes once they matriculate to UT System academic institutions.
- Mixed Methods Study
  - Data Discovery
  - Quantitative Analysis
  - Qualitative Analysis
  - Policy and Program Review



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# Overview: Research Questions

- Participation
- Success outcomes
- Stakeholder perspectives
- Current policies and practices



# Data and Participants

- Data for 129K students from 2010-2015 (# of DC hours, fall-to-fall retention, UT GPA, grades in follow-up courses, graduation rates)
- Student surveys completed (4,064)
- Interviews/focus groups-- with students (180), faculty (90), advisors (92), and enrollment management (45)
- Data from all 8 institutions



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# How Many Students Take Dual Credit?

- Student-level (2010 to 2015)
  - 129,661 students
    - DC: 34,375 (27 percent) transferred in one or more DC courses
    - AP/IB: 30,595 (24 percent) applied one or more AP/IB courses to transcript
    - Both: 17,351 (13 percent) transferred one or more DC and applied AP credit
- Course-level
  - More than 530,000 courses transferred for credit from 2010 to 2015





# Participation: Students' motivations

## From the online survey and interviews with students

- Saving time/money (mentioned most often)
- “Knocking out” courses due to disinterest or perceived irrelevance
- Seeking challenge, exploring courses, enjoyment of learning
- Strategic reasons (advantage in the college application process, improving class rank, satisfying diploma requirements)



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# Participation: Depth of Experience

## Exposure

- Ex: exposure to aspects of college through 1-2 courses

## Involvement

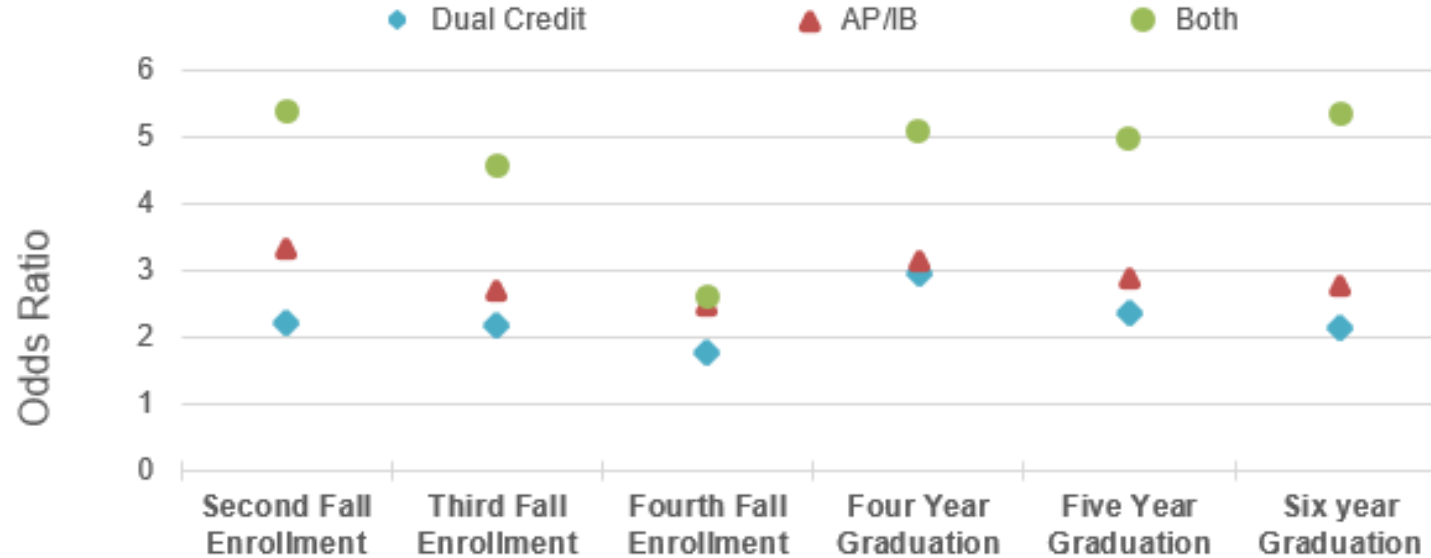
- Ex: higher dosage, mirrors of later college

## Immersion

- Ex: 60 + hours, located on a college campus, mixed with traditional students



# Likelihood of Retention and Graduation



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# Student Perspectives on Success

Survey OER: “Looking back on your own experiences, what advice would you give to younger students considering dual credit? What do you wish you had known?”

Focus Groups: 1 hour interviews on experiences, motivation, advantages, and disadvantages



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# A Major Academic Benefit

Multi-faceted college readiness:

Understanding the norms,  
values, and expectations of  
postsecondary institutions

Developing key academic  
behaviors

Acquiring disciplinary  
knowledge and skills



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# Faculty and Academic Advisors' Perspectives



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# Faculty: Disadvantages of Dual Credit

- **Not Prepared for Junior-Level Classes**
  - “those who had come presenting credit from elsewhere were less secure in their knowledge than those who had taken the courses with us or from another four-year institution”
- **High School Students Not Ready for College and Not Succeeding in Dual Credit Classes**
  - “They put them in there and they don't last a full week or two, if that”
  - “Well, I think part of that too is a paradigm shift. I mean we're taking teenagers to college students. I think that's a huge leap and what they're used to doing and now what's expected of them, I mean we're talking comparing apples to oranges here”



# Faculty: Disadvantages of Dual Credit

- **Credits Don't Transfer/Unnecessary Courses**
  - “they end up with 60 credit hours, how many of them actually end up counting and how many of them end up being sort of dead credits off here on the side?”
- **Not Learning Life Skills/Not Developing**
  - “there's a danger or a threat with that in that students are gaining all of these courses, the hours but that's only one part of their development. That it's not a holistic approach to becoming a college student or becoming a young adult”



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# Advisors' Perspectives: Challenges Introduced

- **Late or Missing Dual Credit Transcripts**
- **Keeping Students at Full-Time Status for Scholarship or Financial Aid Reasons**
  - Sequencing Issues
  - Availability of Upper Division Classes
  - Need for Minor or Off Plan Courses
- **Managing Student and Parent Expectations**
  - Amount of Dual Credit That Will Apply to Degree
  - Time to Degree
  - Technical vs Academic Credit



# Advisors' Perspectives: Potential Impacts to Students

- **Can Speed Up Time to Degree for Those Pursuing a Liberal Arts Degree**
- **Repeat, Excess or Lost Hours, Especially in STEM fields**
- **No Ramp Up Time to Acquire Needed Skills or Adjust**
- **Can Impact Social Networks**
- **Difficulty Getting Into Desired Major**
  - Internal Transfer Policy Implications
  - Dual Credit GPA impacts
  - Dual Credit Repeat Class Impacts
- **Can Limit Ability to Explore Majors / Find Passion**



# Recommendations

- Improve student record-level data collection for students participating in Texas dual credit programs
- Encourage UT System academic institutions' dual credit programs to conduct program evaluation
- Continue to monitor and research the relationship between dual credit and student success



# Recommendations

- Enhance dual credit communication with students and families to enable informed decisions
- Establish a list of dual credit-related policies, empirical dual credit research findings, and dual credit practices that can be communicated to staff at the UT System institutions
- Improve dual credit program alignment among high schools, two-year and four-year institutions



# Takeaways

- Exposure to even one dual credit course has a positive impact on student success outcomes
- Mixed messages communicated to students and parents, 4-year faculty, advisors, and admissions
  - Information sharing
- One size does not fit all
- More time and research are needed to understand better how dual credit programs can personalize the dual credit experience (number of hours and type of courses)



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**Exploring the Outcomes of Standards-Based Concurrent  
Enrollment and Advanced Placement in Arkansas**

*Jason L. Taylor*



*Rui Yan*

University of Utah  
United States

## Research Questions

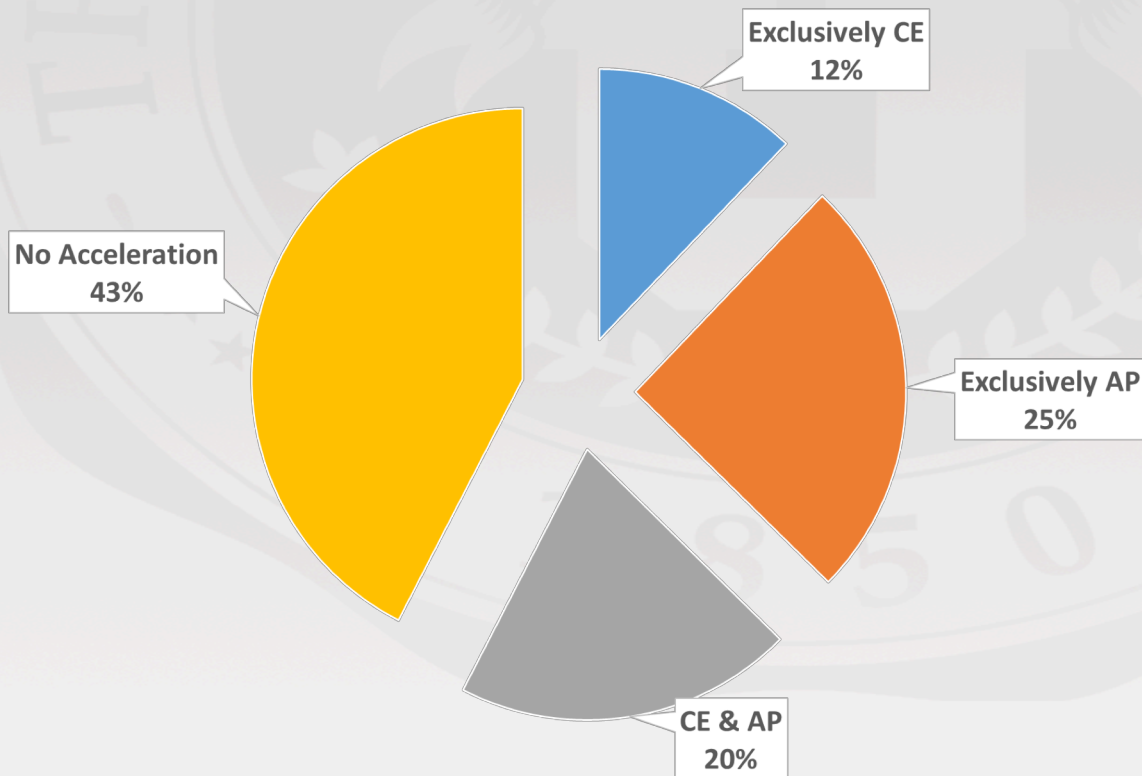
1. Which accelerated programs predict students' college enrollment and retention?
2. Does participation in standards-based CE programs predict students' college enrollment and college retention?

## Data:

- Sample of Arkansas high school graduates in 2013 who started high school in 2009 (n=25,187)
- De-identified data: student demographics, academic performance in high school, participation and performance in CE & AP, AR college enrollment, AR college completion
- 31 public colleges delivering CE
  - 19 NACEP-accredited
  - 12 not NACEP-accredited



## Acceleration Participation (n=25,187)



# Concurrent Enrollment Type

8,145 students taking 30,501 CE courses

CE Courses Offered by NACEP-Accredited Postsecondary Institution		NACEP-Defined CE Courses	
		Y	N
	Y	Quadrant 1 NACEP-Accredited NACEP-Defined	Quadrant 3 NACEP-Accredited Not NACEP-Defined
	N	Quadrant 2 Not NACEP-Accredited NACEP-Defined	Quadrant 4 Not NACEP-Accredited Not NACEP-Defined

		NACEP-Defined CE Courses	
		Y	N
CE Courses Offered by NACEP-Accredited Postsecondary Institution	Y	Quadrant 1 NACEP-Accredited NACEP-Defined  31% n=9,320	Quadrant 3 NACEP-Accredited Not NACEP-Defined  41% n=12,378
	N	Quadrant 2 Not NACEP-Accredited NACEP-Defined  8% n=2,305	Quadrant 4 Not NACEP-Accredited Not NACEP-Defined  20% n=6,178

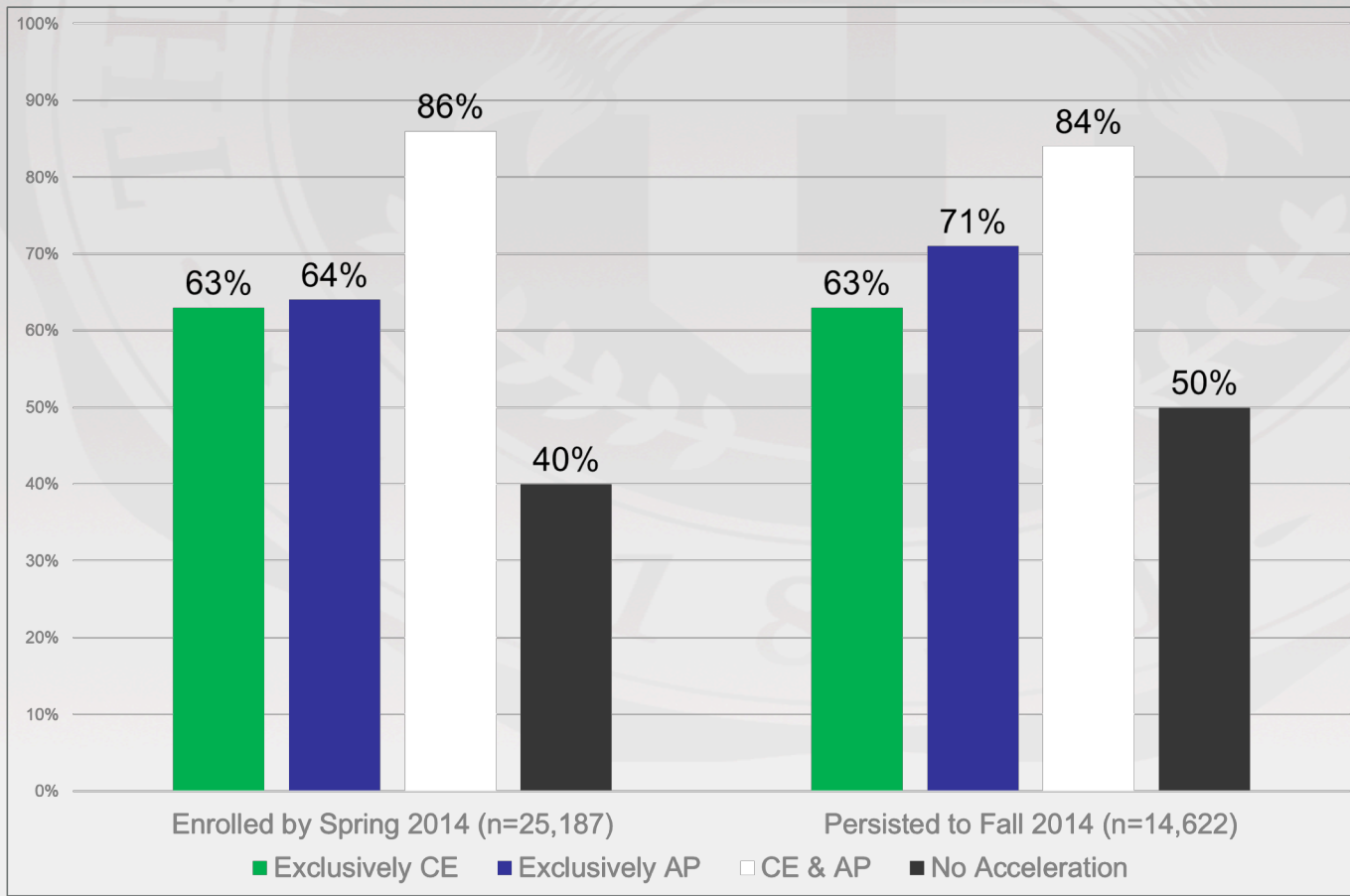
*Concurrent Enrollment Models (n=8,145 CE students)*

Concurrent Enrollment Model	Number	Percent
Exclusively NACEP-defined and accredited	3,428	42%
Exclusively NACEP-defined and not accredited	862	11%
NACEP-defined and combination accredited/not accredited	113	1%
Exclusively Not NACEP-defined	3,742	46%

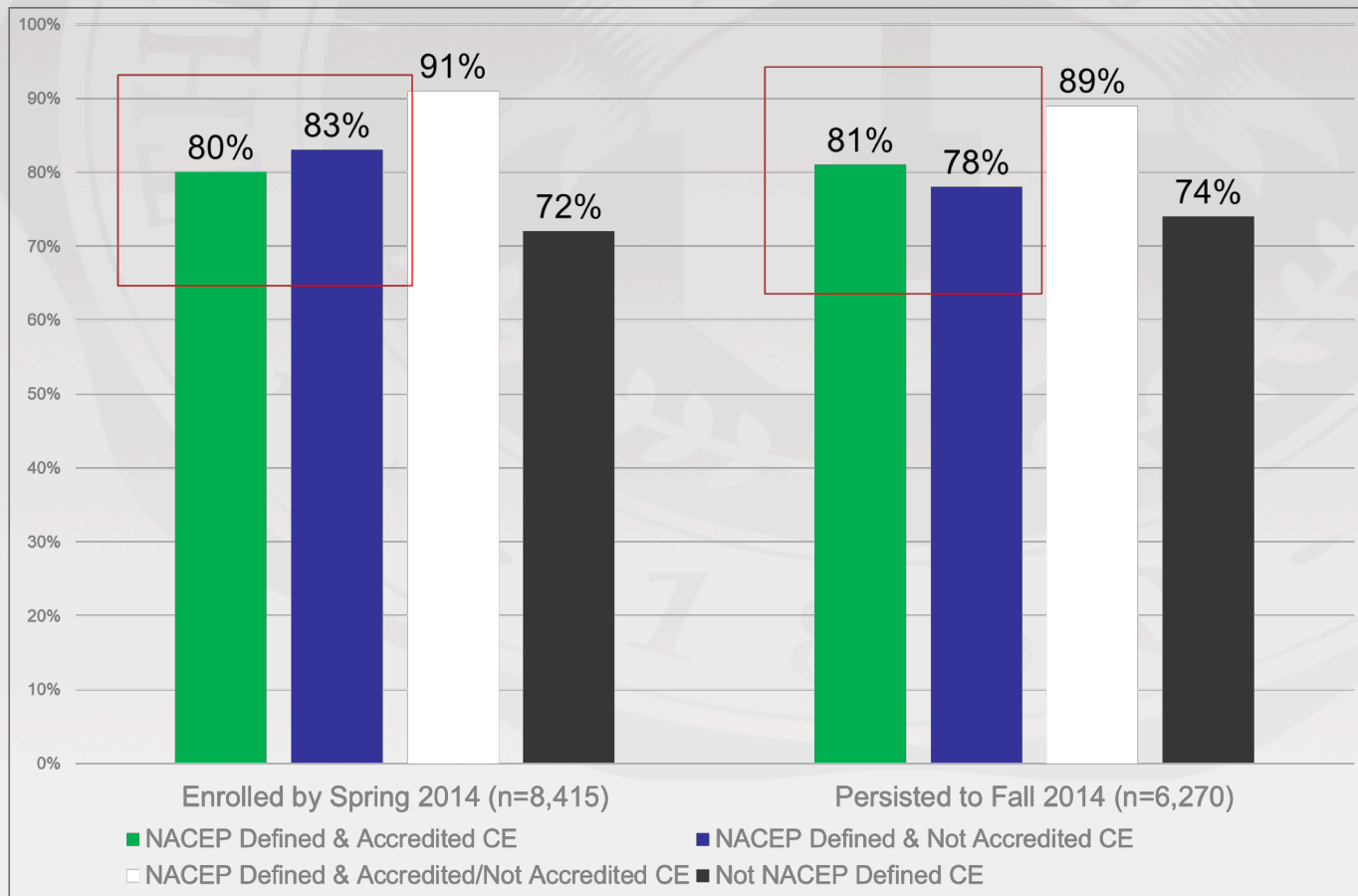
## Outcomes:

- College enrollment within 1 year of HS graduation (by Spring 2014)
- Persistence in college (persistence to Fall 2014)

## Descriptive Outcomes by Acceleration Program



## Descriptive Outcomes by CE Type



# Regression Models: Acceleration Program

Table 9

*College Enrollment and College Retention Fixed Effect Models, by Acceleration Program*

	Spring 2014 Enrollment	Fall 2014 Retention+
Variable	Odds Ratio (SE)	Odds Ratio (SE)
Acceleration Program (No Acceleration)		
Exclusively CE	1.922*** (0.099)	1.177* (0.080)
Exclusively AP	1.566*** (0.066)	1.215*** (0.070)
CE & AP	3.577*** (0.201)	1.801*** (0.121)
Race/Ethnicity (White)		
Hispanic	0.603*** (0.038)	1.992*** (0.202)
American Indian/Alaskan Native	0.891 (0.121)	0.868 (0.164)
Asian	0.786* (0.100)	1.356* (0.251)
Black	1.988*** (0.104)	1.287*** (0.090)
Hawaiian/Pacific-Islander	0.772 (0.198)	0.924 (0.358)
Free/Reduced Lunch (No)	0.659*** (0.024)	0.586*** (0.028)
Female (Male)	1.192*** (0.037)	1.033 (0.043)
Special Education Designation (No designation)	0.345*** (0.018)	0.761** (0.069)
12 <sup>th</sup> Grade GPA	2.400*** (0.068)	4.225*** (0.191)
Model Statistics		
N	24,707	14,438
Pseudo-R-squared	.18	.17

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Note: +Sample restricted to students who enrolled in college by spring 2014.

- CE & AP Students have best outcomes
- Marginal difference in outcomes between CE & AP



# Regression Models: CE Type

Table 10

*College Enrollment and College Retention Fixed Effect Models, by Concurrent Enrollment Program*

	Spring 2014 Enrollment	Fall 2014 Retention+
Variable	Odds Ratio (SE)	Odds Ratio (SE)
CE Program (NACEP-Defined & Not NACEP-Accredited CE)		
NACEP-Defined & Accredited CE	0.730 (0.138)	0.958 (0.207)
Not NACEP-Defined	0.712* (0.118)	0.798 (0.151)
Race/Ethnicity (White)		
Students of Color	1.428*** (0.127)	1.379** (0.144)
Free/Reduced Lunch (No)	0.663*** (0.048)	0.542*** (0.044)
Female (Male)	1.271*** (0.081)	1.086 (0.079)
Special Education Designation (No designation)	0.427*** (0.053)	0.833 (0.159)
AP Participant (Non-participant)	1.590*** (0.125)	1.435*** (0.126)
12 <sup>th</sup> Grade GPA	2.792*** (0.175)	4.513*** (0.379)
Model Statistics		
N	7,678	5,956
Pseudo-R-squared	.14	.15

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Note: +Sample restricted to students who enrolled in college by spring 2014.

- No difference in outcomes between NACEP-accredited & non-NACEP accredited

## Implications

Many potential explanations for null effect of NACEP accreditation?

- No difference in quality?
- Weak or ineffective accreditation process?
  - Too weak to impact the outcomes measured in this study?
- Recent NACEP accreditation status for many of the 19 institutions? (more time needed to impact student outcomes)
- Leveling-up effect (NACEP had lower outcomes to begin and needed accreditation more)?
- Non-accredited institutions had implemented other quality controls?

**MORE RESEARCH NEEDED!**



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How do we move toward parity in dual enrollment access and outcomes?

1. Assess the problem locally: Measure equity
2. Assess what contributes to inequities
3. Establish equity goals for your state and local programs
4. Invest resources and change policy and practice
5. Evaluate/assess changes

# Questions



# Upcoming NACEP Events

**February 26:** NACEP Accreditation Mini-Sessions-Partnership Standard 2

**February 27:** NACEP Webinar on Dual Enrollment Advising. It's more than just a schedule.

**February 28:** NACEP Accreditation Mini-Sessions-Evaluation Standard 1 and 2

**March 10-12:** NACEP Southeast Regional Conference and Accreditation Institute, Savannah, GA

