

# Earning College Credit in High School: New Evidence about a Promising Practice

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# Today's Agenda

Welcome & introductions

Introduction to the study

Overview of findings from *The effects of accelerated college credit programs on educational attainment in Rhode Island*

Policy perspective from the Rhode Island Department of Education

Practitioner panel: Discussion of implications

Q&A session

Wrap-up and evaluation

# Today's Goals

- Learn about the relationship between student's participation in accelerated college programs and student academic outcomes.
- Learn about evidence-based guidance to districts, schools, parents, and students on accelerated college programs.
- Learn about what the experience of implementing and participating in accelerated college credit programs is like from the perspective of school and state administrators.

# Today's Presenters



Dr. Jessica Bailey  
Research Scientist  
REL Northeast & Islands



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Research Scientist  
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Spencer Sherman  
Chief of Innovation  
Rhode Island Department of  
Education

# Panelists

- Gina Silvia, Head of Counseling, Providence Public Schools
- Spencer Sherman, Chief of Innovation, Rhode Island Department of Education

# Who Are We?

**REL Northeast & Islands** is one of 10 Regional Educational Laboratories.

We work in partnership with educators and policymakers to develop/use research that improves academic outcomes for students.

What we do:

- Conduct research studies
- Disseminate research findings to those we serve
- Strategically engage with partners to use findings
- Design and deliver technical assistance focused on the use of data and research



# Overview of the Rhode Island Pipelines to College and Career Research Partnership

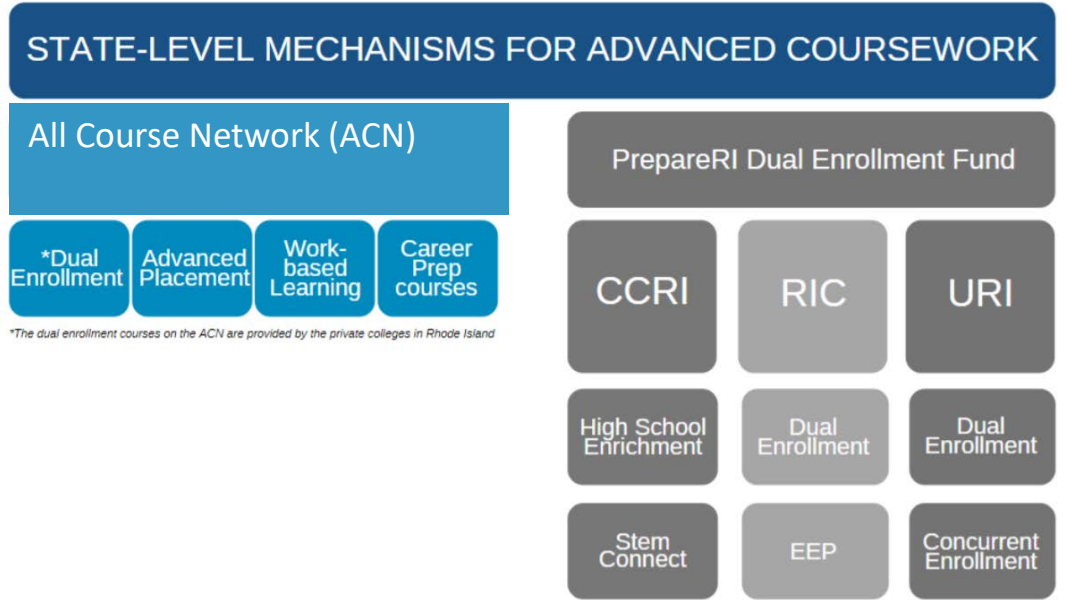
- Uses data from the State Longitudinal Data System to support state and local education agencies in making data-informed decisions regarding college and career readiness initiatives with a particular focus on equity.
- The partnership consists of representatives from the Rhode Island Department of Education (RIDE), Rhode Island Office of the Postsecondary Commissioner (OPC), and Rhode Island School Superintendents' Association.



# Introduction to the Study

# Background (1 of 2)

- 2013: Rhode Island General Assembly passed legislation that called for the adoption of a statewide policy for dual enrollment that allows students to take college courses to earn credit at both the high school and the postsecondary institution.
- April 2015: RI Board of Education adopted regulations that provide all qualified RI high school students access to college-level coursework while still in high school.



## Background (2 of 2)

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Rhode Island Pipelines to College and Career Readiness Partnership members expressed interest in understanding evidence for accelerated college credit programs

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Undertook this applied research study to provide descriptive and impact information regarding programs in Rhode Island

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Used a sample of 8,726 students who were first-time 9th graders in Rhode Island public schools in 2013/14



# Definitions

**Accelerated college credit program** means any of these three programs:

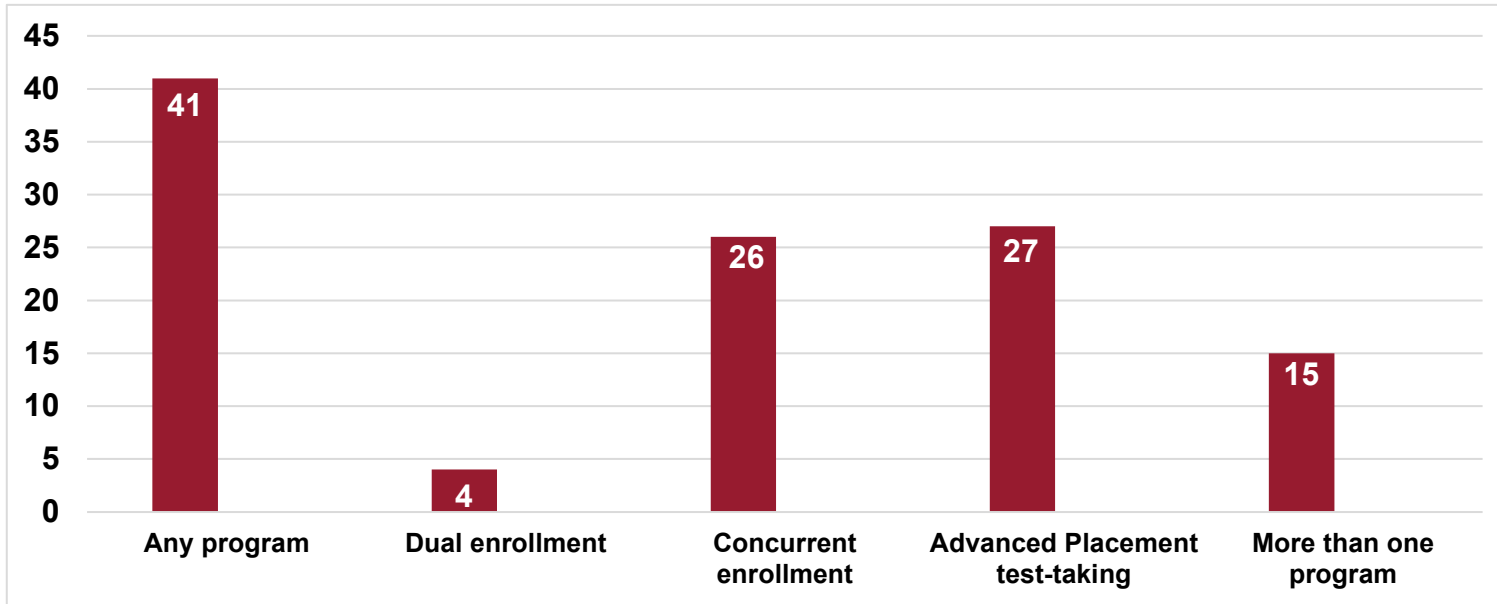
<b>Advanced Placement (AP) course</b>	<b>Concurrent enrollment program</b>	<b>Dual enrollment program</b>
A high school course that culminates in a standardized subject area assessment administered by the College Board. (College-level course based on a national exam, taught at the high school.)	A program that allows high school students to take approved college courses taught by instructors on staff at a student's high school. (College course, taught at the high school.)	A program that allows high school students to attend college courses taught by college faculty on either a public or a private college campus. (College course, taught at the college.)

Overview of findings from *The effects of accelerated college credit programs on educational attainment in Rhode Island*

# Research Study Questions

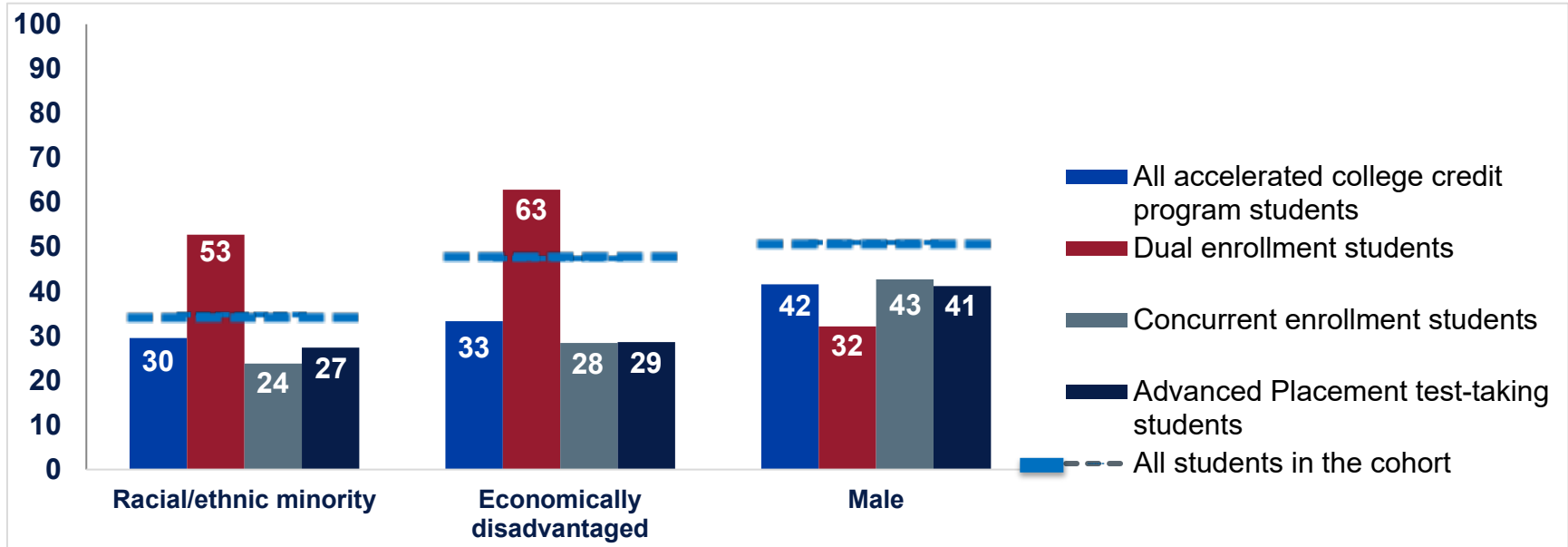
1. What are the participation rates in Rhode Island's accelerated college credit programs overall and by each type of program?
  - How do student and school characteristics compare across each program type and between participants and nonparticipants?
2. What is the effect of participation in any one of Rhode Island's three accelerated college credit programs on high school graduation, college enrollment, and college readiness?
  - Do these effects differ between economically disadvantaged students and their non-economically disadvantaged peers?

# 41% of students participated in one or more accelerated college credit programs



Note: The sample size is 8,726 students who were first-time 9th graders in Rhode Island public schools in 2013/14.  
Source: Authors' analysis of data from Rhode Island Department of Education.

# Lower proportions of students participating in accelerated college credit programs were racial/ethnic minorities, male, or economically disadvantaged compared with the cohort as a whole



AP is Advanced Placement. Note: The sample size is 8,726 students who were first-time 9th graders in Rhode Island public schools in 2013/14. See table C2 in appendix C for more information. Source: Authors' analysis of data from Rhode Island Department of Education.



This study compares students who were statistically similar in grade 8, before they had the chance to participate in these programs

Matched comparison between accelerated college credit program participants and non-participants who were similar to each other.

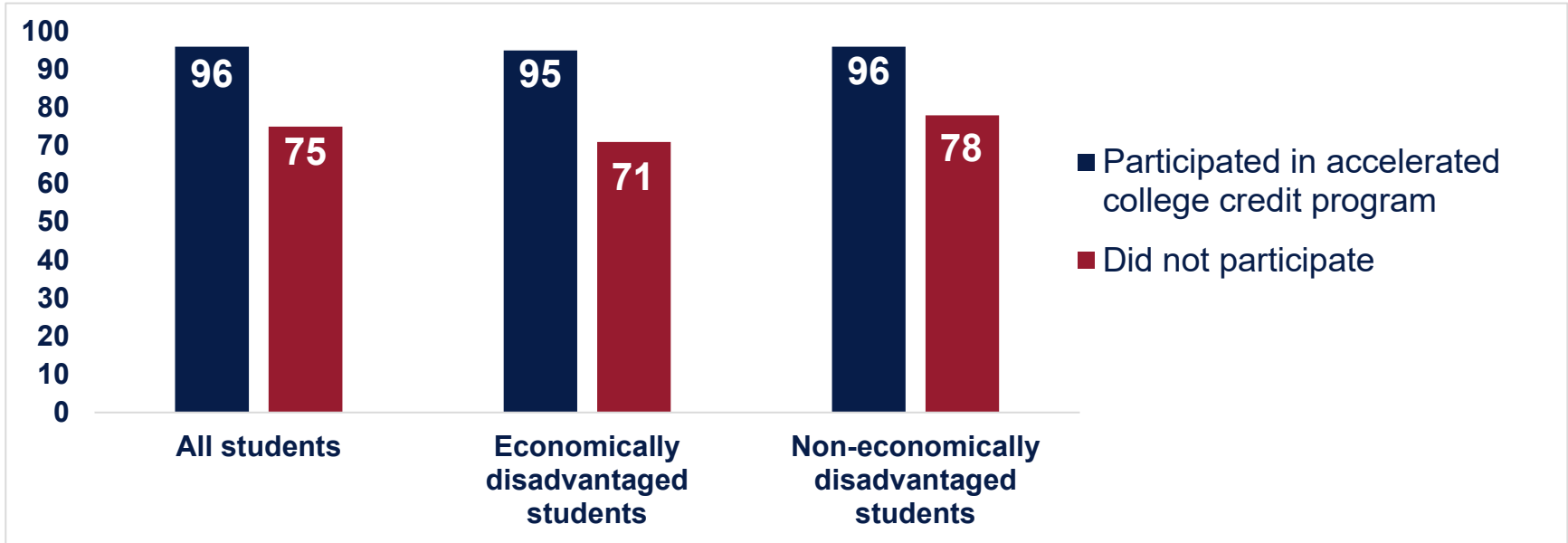
- To create similar groups for comparison, we limited analysis to approximately 3,900 students; program participants in this matched group are more like the average RI student. Results may be less applicable to high-performing program participants.
- Analysis of the relationship of each individual program to outcomes used the same sample but a less rigorous design.

# Comparing accelerated college credit program participants with other similar students who did not take these programs:

- Accelerated college credit students are predicted to be **more likely** to:
  - Graduate high school
  - Enroll in college
  - Be college ready (avoid developmental education in a Rhode Island public college)
- The effect of participation on high school graduation, college enrollment, and college readiness are **similar** for **economically disadvantaged** students and their peers.

# Accelerated college credit programs have a positive effect on high school graduation

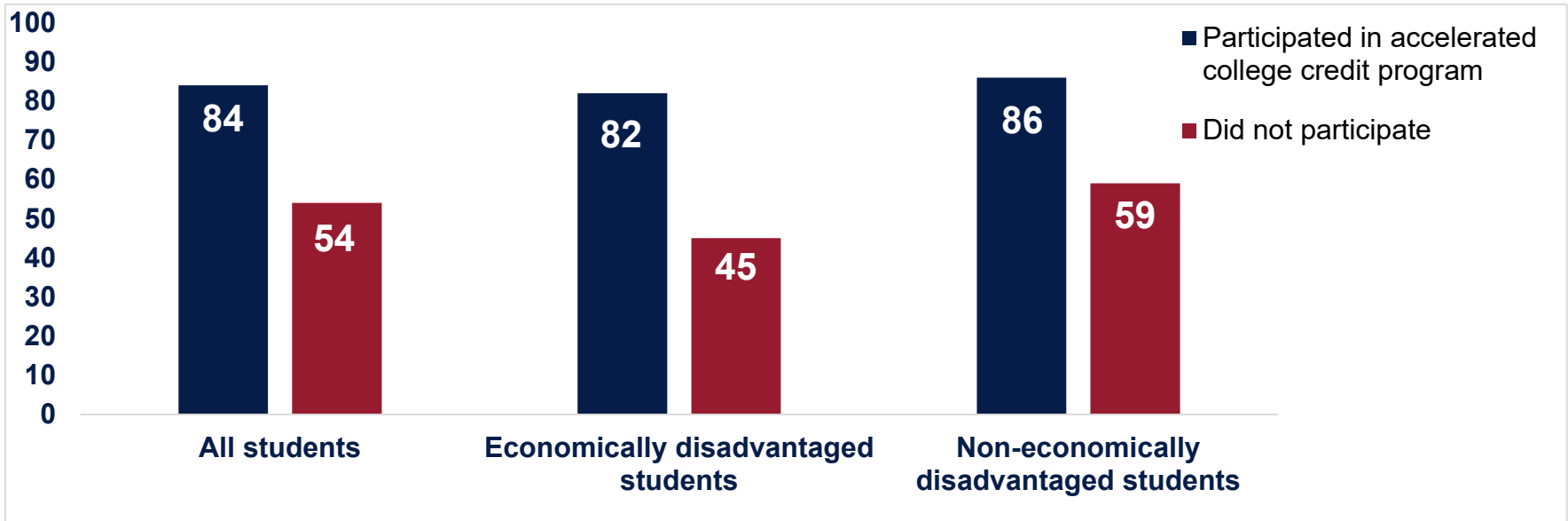
Predicted probability of student graduating from high school (percent) based on model



Note: The sample size is 3,916 students in a matched sample drawn from students who were first-time 9th graders in Rhode Island public schools in 2013/14. Predicted probabilities were estimated using a statistical model. Source: Authors' analysis of data from the Rhode Island Department of Education.

# Accelerated college credit programs have a positive effect on enrolling in college within a year of graduating

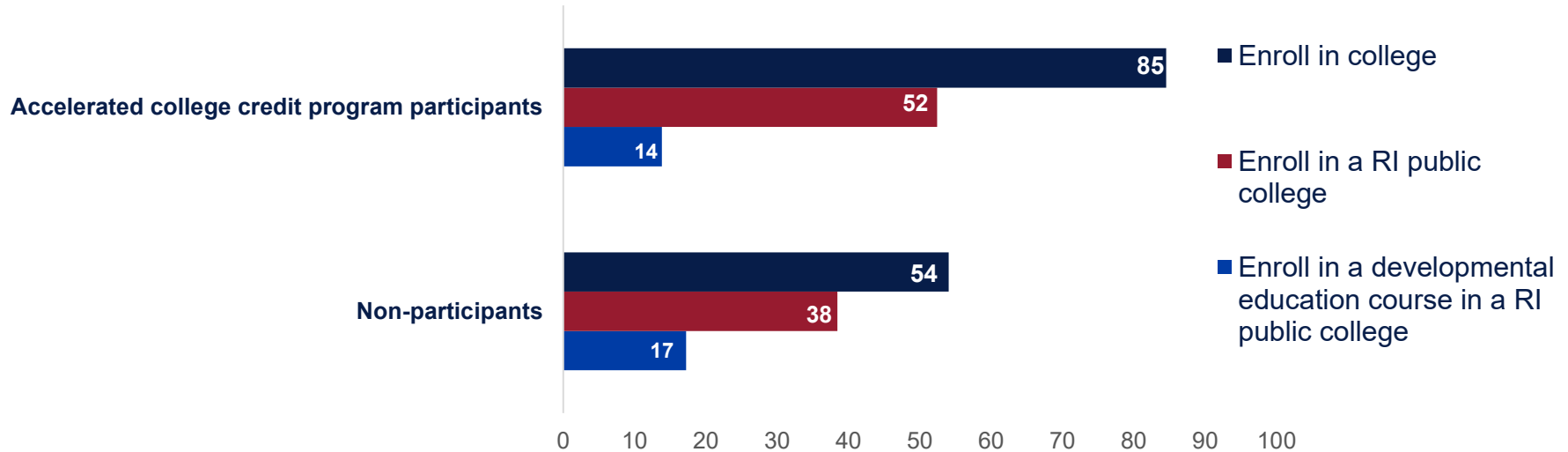
Predicted probability of student enrolling in college (percent) based on model



Note: The sample size is 3,916 students in a matched sample drawn from students who were first-time 9th graders in Rhode Island public schools in 2013/14. Predicted probabilities were estimated using a statistical model. Source: Authors' analysis of data from the Rhode Island Department of Education.

# Students participating in accelerated college credit courses are predicted to be less likely to enroll in developmental education courses, 2013/14 9<sup>th</sup> grade cohort

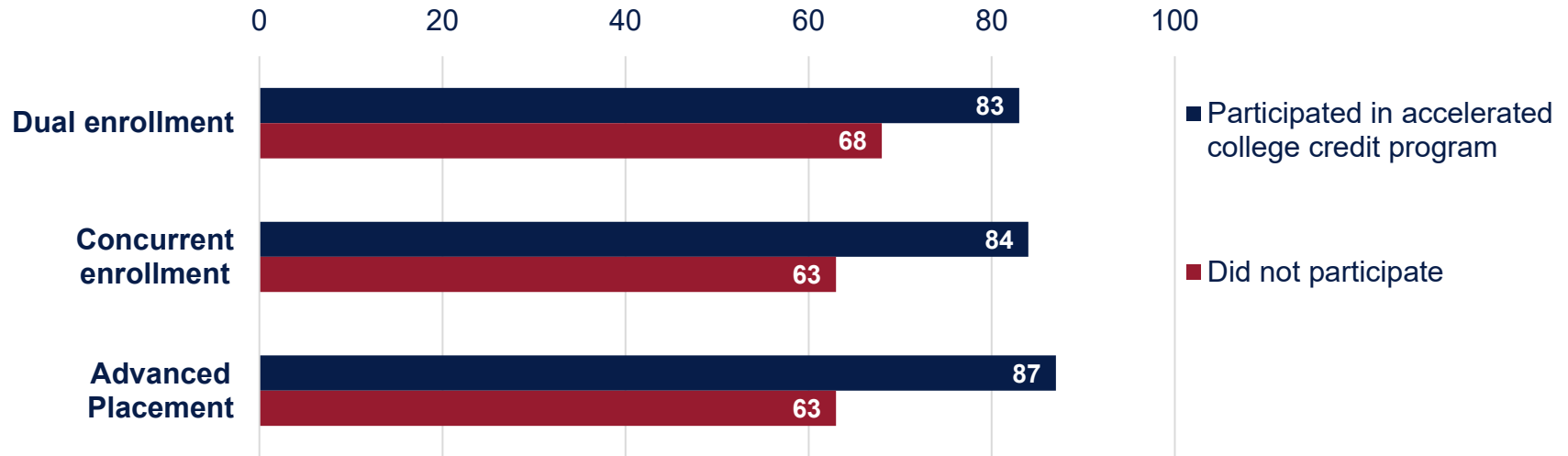
Predicted probability of student attaining each outcome (percent) based on model



Note: The sample size is 3,916 students in a matched sample drawn from students who were first-time 9th graders in Rhode Island public schools in 2013/14. Developmental education course enrollment was available only for students who enrolled in a Rhode Island public college. Predicted probabilities were obtained using a statistical model to estimate the probability of four postsecondary outcomes on the full sample of 3,916 students: (a) enrolling in a Rhode Island public college and taking developmental education courses, (b) enrolling in a Rhode Island public college and not taking developmental education courses, (c) enrolling in another type of college, and (d) not enrolling in college. The predicted probabilities for enrolling in a Rhode Island public college shown in the figure are the sum of the predicted probabilities for (a) and (b); the predicted probabilities for enrolling in college are the sum of the predicted probabilities for (a), (b), and (c). Source: Authors' analysis of data from the Rhode Island Department of Education.

# Dual enrollment, concurrent enrollment, and Advanced Placement programs are each associated with increased predicted college enrollment rates compared with non-participation, 2013/14 9th grade cohort

**Predicted probability of student enrolling in college (percent) based on model**



Note: The sample size is 3,916 students in a matched sample drawn from students who were first-time 9th graders in Rhode Island public schools in 2013/14. Predicted probabilities were estimated using a statistical model. Participants in any accelerated college credit program were matched with non-participants; however, there were not separate matched groups representing each type of program. Fifteen percent of students participated in more than one type of program. Source: Authors' analysis of data from the Rhode Island Department of Education.

# Limitations

- This study is not based on a randomized experiment. Unmeasured differences between students who chose to participate in accelerated college credit programs and those who did not may account for the differences in outcomes.
  - Experimental studies have found the effects of dual enrollment courses in the range of 5–9 percentage point increases in high school graduation and 12–16 percentage point increases in college enrollment (Edmunds et al., 2017; Haxton et al, 2016).
- The study sample only included participants and non-participants who were similar to each other on average. As a result, many higher-achieving participants were excluded and the findings may not be accurate for such students.

# Policy Perspective from the Rhode Island Department of Education



# Implications for Rhode Island Policymakers and Education Leaders

- Can make evidence-based decisions regarding funding decisions and expansion efforts
- Findings provide evidence supporting continued investment in dual and concurrent enrollment and AP
- Focus on equity:
  - Because concurrent enrollment is *more* commonly offered in suburban schools and dual is mostly concentrated in a smaller number of urban schools (with higher proportions of non-White, economically disadvantaged students), consider examining barriers to access and expanding access to concurrent enrollment in urban schools.
  - Examine low participation rate in dual enrollment, e.g., logistical barriers?
  - Investigate reasons for lower participation in AP test-taking among racial/ethnic minority and economically disadvantaged students

# Rhode Island is expanding accelerated college credit programs

## All Course Network (ACN)

- Free courses offered statewide on the ACN currently include 23 credit-bearing college classes and 3 AP classes.

## Expanding AP coursework

- 40% of RI's graduates took an AP exam in 2019, which is an increase from 18% in 2010.
- Computer Science for RI has increased AP Computer Science participation 17-fold since 2016 (43 to 737 students)

## Diploma Plus

- Added a “Diploma Plus” metric to School Report Cards to recognize schools’ success in helping students earn college credit and industry credentials

## Pathway Endorsements

- Aligning Pathway Endorsements on high school diplomas with Guided Pathways at public colleges, so students can start working on the requirements for their college majors while still in high school

# Practitioner Panel: Discussion of Implications

Moderator:

Dr. Jessica Bailey

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# Questions?



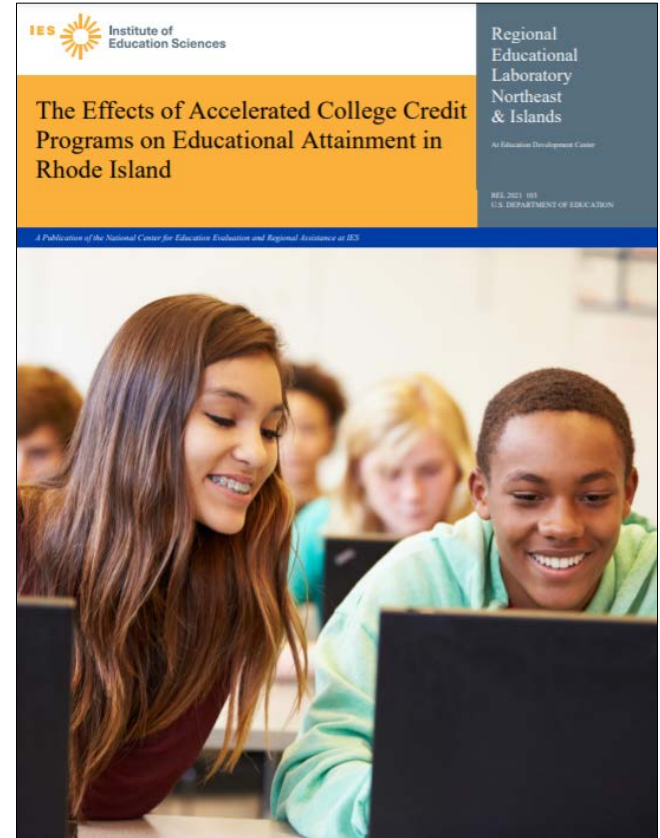
# Download the Study

Find the report here:

<https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=5680>

This page includes:

- Full report
- Snapshot
- Appendices



# Related Resources

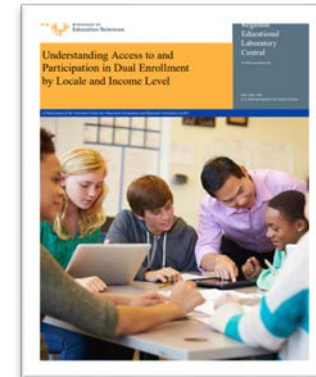
A WWC intervention report on dual enrollment:

<https://ies.ed.gov/ncee/wwc/InterventionReport/671>



A REL Central descriptive report that examined access and participation in dual enrollment programs:

<https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=5668>



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# References

Edmunds, J. A., Unlu, F., Glennie, E., Bernstein, L., Fesler, L., Furey, J., & Arshavsky, N. (2017). Smoothing the transition to postsecondary education: The impact of the early college model. *Journal of Research on Educational Effectiveness*, *10*(2), 297–325. DOI: 10.1080/19345747.2016.1191574

Haxton, C., Song, M., Zeiser, K., Berger, A., Turk-Bicakci, L., Garet, M. S., et al. (2016). Longitudinal findings from the early college high school initiative impact study. *Educational Evaluation and Policy Analysis*, *38*(2), 410–430.

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