

THE IMPACT OF EARLY COLLEGES ON STUDENTS' POSTSECONDARY DEGREE COMPLETION

Julie Edmunds, SERVE Center at UNCG, Fatih Unlu, RAND Corporation, Beth Glennie, RTI International

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NORTH CAROLINA'S EARLY COLLEGE MODEL...

- Small schools of choice that integrate the high school and college experiences
- Mostly located on college campuses
- Serve students in grades 9-12 or 13
- Targeted at students who are underrepresented in college
 - First generation; low-income; minority
- Goal is to get a high school diploma and two years of college credit/associate degree within 4 to 5 years

METHODOLOGY

RESEARCH QUESTIONS

1. What is the impact of the early college high schools (ECHS) on students' attainment of postsecondary credentials?
 - a. To what extent do these impacts differ by student subgroup?
2. How long does it take treatment students to earn a two-year or four-year degree as compared to control students?

EXPERIMENTAL STUDY OF THE MODEL'S IMPACT

- Funded by four grants from the Institute of Education Sciences and one from Arnold Ventures
- Seventeen-year experimental study comparing students who applied and were randomly offered a slot in the ECHS with students who applied and were randomly turned down
- Examines the impact of the model on core outcomes: coursetaking, academic performance, behavior, attitudes, dropout, graduation from high school, postsecondary enrollment, college credit attainment, postsecondary performance and **postsecondary credentials**

SAMPLE

- Students apply and schools do some screening
- Random assignment within the “eligible population”
 - Sample for this paper: 12 ECHS, 1,687 students (952 treatment and 735 control)
 - Cohorts: 2005-06 through 2008-2009
 - No attrition for these outcomes.
 - Low noncompliance with random assignment: 13% no-shows, 2% crossovers
- Control students attend “business as usual” high schools

DATA SOURCES

- Student background characteristics and high school data from NC Department of Public Instruction
- Postsecondary credential attainment from the National Student Clearinghouse

ANALYSIS

- Intent-to-Treat
- Linear regression models which includes
 - lottery indicators (or lottery fixed effects)
 - treatment indicator
 - baseline student characteristics, including demographics and 8th grade math and reading achievement
- Report cluster-robust standard errors to account for clustering of students within ECHS or regular high schools
- Estimate separate models for 4 subgroups: minority, first generation, economically disadvantaged, and underprepared for high school
 - Compared impacts for a given subgroup to impacts for the rest of the sample (e.g., minority vs. non-minority)

IMPACTS

Impact on Postsecondary Credentials—Four Years and Six Years after 12th Grade

	Adjusted Treatment Mean	Control Mean	Adjusted Impact, ITT estimate
% Attainment of any postsecondary credential by FOUR years after 12 th grade	37.8	22.0	15.8**
% Attainment of associate degree	30.0	8.8	21.2**
% Attainment of Bachelor's degree	16.7	12.8	3.9*
% Attainment of any postsecondary credential by SIX years after 12 th grade	44.3	33.0	11.3**
% Attainment of associate degree	32.8	11.0	21.8**
% Attainment of Bachelor's degree	24.9	24.0	0.9

*Significant at $p \leq .05$; **significant at $p \leq .001$.

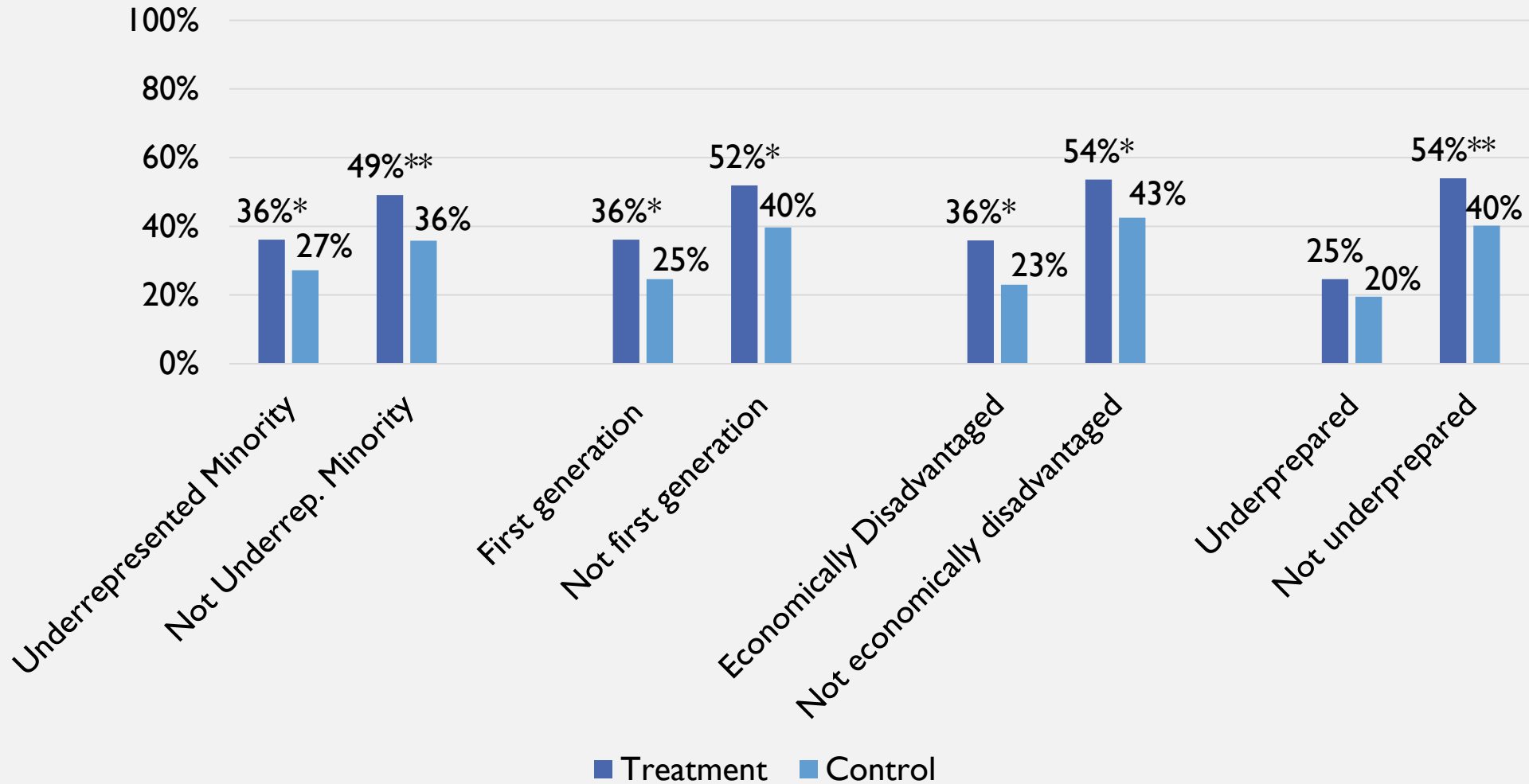
Impact on Postsecondary Credentials--Six Years, Mutually Exclusive Categories

	Adjusted Treatment Mean	Control Mean	Adjusted Impact, ITT estimate
Earning only a technical credential	1.9	1.9	0.0
% Earning only an associate degree	17.4	7.1	10.3**
% Earning only a bachelor's degree	9.6	20.2	-10.6**
% Earning both an associate and a bachelor's degree	15.3	3.8	11.5**

**significant at $p \leq .001$.

Shows that benefits are being driven primarily by associate degree, which is part of the model.

Attainment of any Postsecondary Credential by 6 Years after 12th Grade By Sub-Group



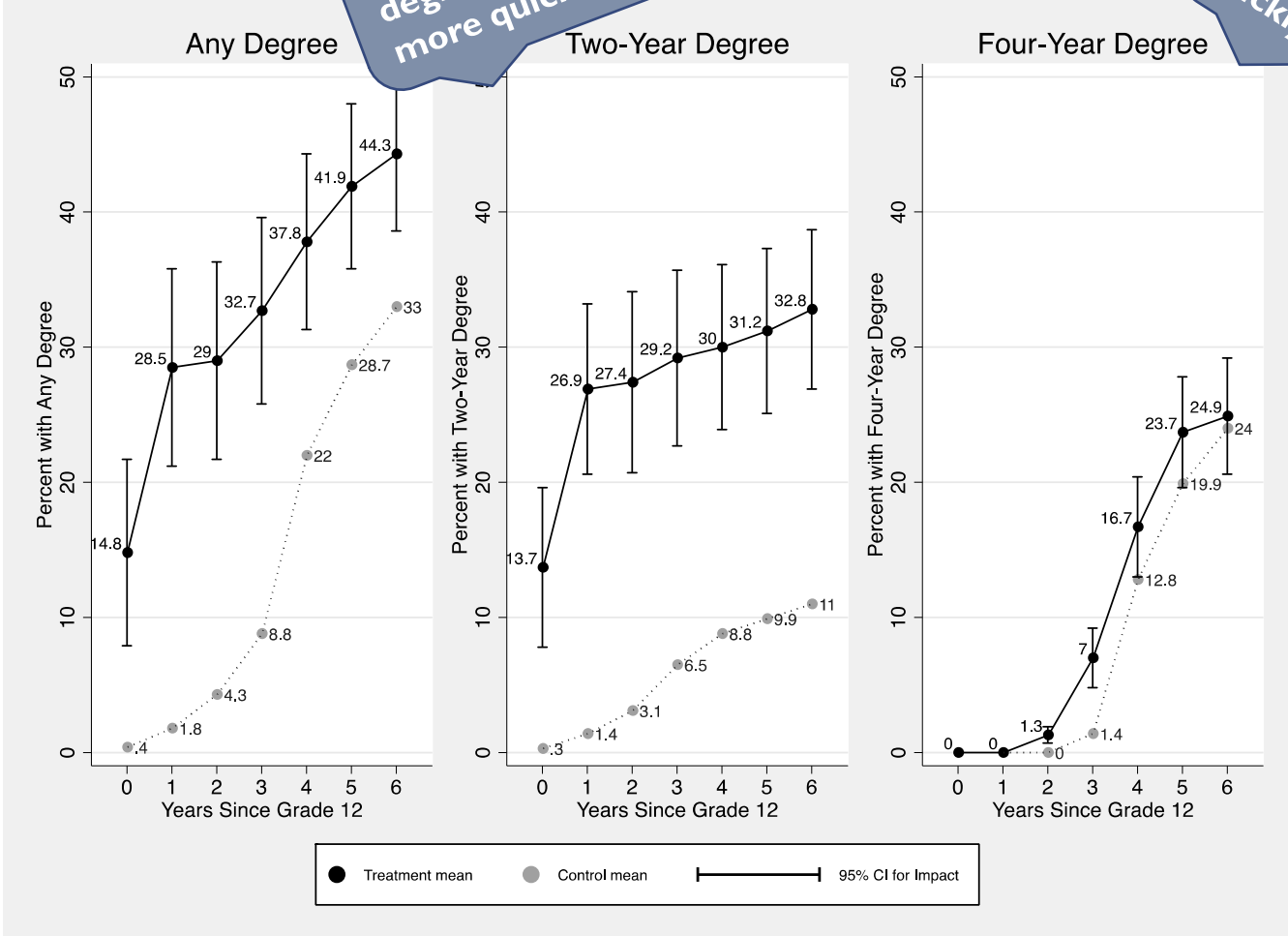
*Significant at $p \leq .05$; **significant at $p \leq .001$.

RESULTS BY SUB-GROUP

- For associate degree attainment, impacts were higher for non-targeted groups
 - This is likely driven by the fact that many of these students would not have gotten a 2-year degree and would have gone directly into a four-year program
- For bachelor's degree, only significant impact was on economically disadvantaged students (4.5 pp.)
 - This is consistent with the theory of change and with results showing that it costs less to earn a bachelor's degree under the early college route.

ECCHS students earned associate degree two years more quickly

ECCHS students earned a bachelor's degree six months more quickly.



CONCLUSIONS

- More early college students are earning postsecondary credentials, driven by increased numbers of associate degrees.
- Positive impacts on bachelor degree attainment disappear by six years after 12th grade, except for economically disadvantaged students.
- Early college students are earning their degrees more quickly.
 - GPA analyses reported elsewhere indicate no significant differences between treatment/control students so no apparent disadvantage to the shortened time frame.
 - Students may be leaving with less debt.
- Bigger question: Should we look more seriously at merging the high school and college experiences when possible?