



# RESULTS SUMMARY – LITERATURE IN SIX REFORM AREAS

Prepared for EdChoice

November 2019

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# INTRODUCTION AND METHODS

# INTRODUCTION: 1 OF 2

EdChoice has partnered with Hanover Research to explore the research surrounding eight major education reform areas of interest, including:

- Class Size
- Pre-Kindergarten
- Public Charter Schools
- Common/Unified Enrollment Systems
- Inter-/Intra-District Enrollment
- School Size
- Portfolio Management
- School Takeover

The objective of this review is to identify the impact of each of these school reforms on student outcomes. Accordingly, the review is restricted to **randomized controlled trials (RCTs)**, considered the “gold standard” methodology for demonstrating causation and intervention impact.

## INTRODUCTION: 2 OF 2

Based on searches conducted in May 2019, Hanover identified one or more RCTs for six of the eight reform areas of interest:

- ✓ **Class Size** – 1 RCT, multiple follow-up studies
- ✓ **Pre-Kindergarten** – 7 RCTs
- ✓ **Public Charters** – 22 RCTs
- ✓ **Common/Unified Enrollment Systems** – 2 RCTs
- ✓ **Inter-/Intra-District Enrollment** – 1 RCT
- ✓ **School Size** – 3 RCTs

Hanover did not identify any RCTs for Portfolio Management or School Takeover. The full report provides additional details on these topics.

# STUDY OVERVIEW AND METHODS

## OBJECTIVES

- ✓ What do rigorous, high-quality studies suggest about the potential impact of each reform area?
- ✓ What are the major strengths and limitations to common methodologies used in each reform area, and what gaps exist in the body of evidence?

## METHODS

- For each reform area, Hanover reviewed the research to identify RCTs/quasi-RCTs using randomization.
- Where possible, Hanover includes quality of evidence ratings from the What Works Clearinghouse (WWC).
- Hanover provides a detailed summary of each study identified in the accompanying working document. This slide deck provides a high-level review of the body of evidence overall.

## DATABASES & SOURCES

- WWC at the Institute for Education Sciences
- ERIC
- ProQuest Education
- EBSCO Education
- JSTOR
- EconLit
- Google Scholar

# FINDINGS: CLASS SIZE

# CLASS SIZE: RCT EVIDENCE

Hanover identified 1 RCT related to class size—the Tennessee STAR Project—although there have been several follow-up studies over multiple decades. This study found positive effects on standardized test performance for students who were assigned to a small class (defined as 13 to 17 students) in Grades K-3 compared to students assigned to regular class sizes (defined as 22 to 25 students) in the same grades, either with or without a teacher aide assigned to the classroom.

## Number of RCTs: 1

Project  
STAR

Context &  
Setting

- Tennessee
- 1980s
- Grades K-3
- Small vs. normal class sizes, with or without aides

Strengths &  
Limits

- High-quality data
- Long-term follow-up
- Only provides evidence for class size in the early grades

## Key definitions and outcomes of interest:

Small class size is 13-17 students, compared to a “usual” size of 22-25

Early results showed students scored higher on math and reading after being in small classes in Grades K-3

Follow-up studies found academic benefits from small classes in Grades K-3 continued through at least Grade 8

Further follow-up suggests very small, but statistically significant benefits into adulthood, including college enrollment

# **FINDINGS: PRE-KINDERGARTEN**

# PRE-KINDERGARTEN: RCT EVIDENCE

Across the body of research, small-scale studies generally find stronger, positive results of early childhood education (ECE) program participation than larger scale studies; evaluations of both Head Start (national sample) and Tennessee VPK that follow students through Grade 3 find that most, if not all, significant benefits of early childhood education participation fade by Grade 3. These findings from large-scale RCTs suggest that high-quality programming is difficult to scale while maintaining benefits for students.

## Number of RCTs: 7

### RCTs on Pre-K

#### Context & Setting

- 3 small-scale studies (less than 200 students)
- 4 large-scale studies (more than 1,000 students)

#### Strengths & Limits

- Studies often follow students over long time periods
- Studies often focus on the impact of specific programs (i.e., Head Start), as control group students may enroll in different ECE programs

### Key definitions and outcomes of interest:

Small-scale studies of ECE find significant, positive, lasting benefits, including IQ score, high school graduation, college enrollment, and income

Large-scale studies of ECE find less dramatic results. While some evaluations find significant gains at the end of Pre-K, benefits tend to fade by Grade 3.

# **FINDINGS: PUBLIC CHARTER SCHOOLS**

# PUBLIC CHARTER SCHOOLS: RCT EVIDENCE, 1 OF 2

While lottery-based studies of charter schools to date share common methodological elements, these studies vary widely in their scope, purpose, and key research questions. Small-scale studies of a single school or network aim to examine the effectiveness of a that single program, while larger city, state, or national studies aim to examine the impact of charter schools as a complete educational reform/phenomenon.

## Number of RCTs: 22

### Student Outcomes

- Academic achievement in reading and math
- Post-secondary education outcomes
- Health outcomes

### School Characteristics

- Pedagogical approach (namely, “No Excuses” model)
- Expansion of existing charter school campus or model
- Non-profit/for-profit



### RCTs on Charter Schools



- New York City: 8
- Boston: 3
- Chicago: 2
- Washington, DC: 1
- State/National Samples: 7
- Other: 2

- Charter school admissions process allows for “natural” random assignment
- However, lottery-based methods are only available for over-subscribed schools, meaning these results represent only the most popular charter schools

# PUBLIC CHARTER SCHOOLS: RCT EVIDENCE, 2 OF 2

When considered as a whole, charter schools generally do not result in large gains for student achievement. However, over the years, a number of highly-successful charter schools and networks have emerged that consistently improve student outcomes, particularly in urban centers and among disadvantaged students. In recent years, researchers are beginning to focus on identifying the key elements of effective charter schools and exploring means for replication.

## Key definitions and outcomes of interest:

Overall, national-level, lottery-based studies find no statistically significant differences in academic achievement associated with the typical charter school

However, a number of studies of standout, high-performing charter schools find large, positive, and sustained academic achievement gains for students who are “lotteried-in” to such schools. Examples include studies of the KIPP Network and Promise Academy.

In addition to short-term gains in academic achievement (generally measured by state assessments), an emerging body of research finds some benefits to charter enrollment on alternative outcomes of interest, including postsecondary outcomes and teen pregnancy

Several of the lottery-based studies examine charter school characteristics associated with student achievement. Some of these studies conclude that “No Excuses” models are associated with these benefits, while others suggest that charter schools have stronger effects in urban settings with disadvantaged students, who have low baseline test scores.

# **FINDINGS: COMMON/UNIFIED ENROLLMENT SYSTEMS**

# COMMON/UNIFIED ENROLLMENT SYSTEMS: RCT EVIDENCE

A review of the research surrounding common enrollment applications and unified enrollment systems did not identify any RCTs that compared such a system to a “business as usual” school choice approach. However, this review identified two recent RCTs that used informational and cue-to-action interventions to support students and parents in navigating the school choice process.

## Number of RCTs: 2

### RCTs on Enrollment Systems

### Context & Setting

- New York City
- New Orleans
- Early childhood education
- High school

### Strengths & Limits

- Examine interventions aimed at students or parents
- Do not compare effects of separate enrollment systems, but rather navigation support

## Key definitions and outcomes of interest:

Both studies compare informational support for school choice process to “business as usual”

Rising high school students in New York were more likely to apply for and match to a higher-quality high school

Parents of young children in New Orleans were more likely to apply and enroll child in free, public ECE program

# **FINDINGS: INTER-/INTRA- DISTRICT ENROLLMENT**

# INTER-/INTRA-DISTRICT ENROLLMENT: RCT EVIDENCE

A review of the research surrounding inter-/intra-district enrollment did not identify any RCT studies that compared districts implementing such policies with districts that do not. Accordingly, this review expanded our search criteria to include studies that use inter- and intra-district enrollment policies to assess the impact of specific schools or programs. As of the time of this study, Hanover identified one related RCT: a 2009 study of Connecticut's inter-district magnet schools.

## Number of RCTs: 1

### RCTs on Intra/Inter Enrollment

### Context & Setting

- Connecticut
- Inter-district magnets designed for integration
- Middle school outcomes (Grades 6-8)

### Strengths & Limits

- Meets WWC standard of evidence w/o reservations
- Examines impact of this specific magnet program, rather than inter-district enrollment overall

## Key definitions and outcomes of interest:

Leverages the random admission lottery to compare outcomes for student applicants who win and lose

Finds positive benefits for Grade 6 magnet attendees in reading (+0.28 sds) and math (+0.14 sds) at Grade 8

WWC considers some findings in this study to be "indeterminate," mainly its findings in math achievement

# FINDINGS: SCHOOL SIZE

# SCHOOL SIZE: RCT EVIDENCE

Hanover identified three RCT studies related to school size; it should be noted that these studies are relatively small-scale and examine the impact of “small schools of choice”—meaning that the size of the school is likely not the only factor that makes treatment schools different from control schools in these studies. Further, all three studies take place in New York City and thus, may not be generalizable to a broader setting.

## Number of RCTs: 3

### RCTs on School Size

#### Context & Setting

- New York City
- Small schools of choice
- High school reforms

#### Strengths & Limits

- Leverages school choice lotteries to compare balanced student groups
- Unique setting threatens generalizability of findings for “small schools”

## Key definitions and outcomes of interest:

Small schools of choice were intentionally created to provide options for high school students near underperforming schools

All studies suggest benefits for credit accumulation and on-time graduation at small high schools

One study found additional small school benefits in terms of test scores and college entrance, but may be vulnerable to bias, as per WWC



Thank you.

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