

# THE IMPACT OF UNIVERSAL PRE-K ON PUBLIC SYSTEM ENROLLMENT

## EVIDENCE FROM WASHINGTON, D.C.



Sofia Wilson

### Introduction

- Universal pre-k has expanded rapidly to broaden access to high-quality early learning, with seven states and Washington, D.C., now enrolling more than half of four-year-olds<sup>1,2</sup>
- Prior research documents system-level effects of UPK on child outcomes<sup>3,4</sup>, family labor supply<sup>5,6</sup>, and early education markets.<sup>7</sup>
- Despite growing interest in using UPK to bolster public school enrollment<sup>8,9</sup>, the impact of UPK on system-level enrollment is less understood
- In fragmented ECEC markets, UPK may change how families engage with public schools, such as:
  - promote “stickiness” and structural continuity<sup>10,11</sup>
  - shape schooling choices via a “foot-in-the-door” mechanism<sup>12,13,14</sup>
- Examine impact of D.C.’s UPK expansion on public K-5 enrollment, using population-level data representing 1M+ students across 25 years.

### Research questions

- What is the impact of D.C.’s universal pre-k expansion on public school system K-5 enrollment?
- Through which pathways did universal pre-K generate enrollment gains—increasing participation among school-eligible children, between-sector shifts, or both?
- What mechanisms explain UPK’s contribution to increased public school participation?

### Data and Methods

#### Data

- Public school PreK-5 enrollment counts from the Common Core of Data (CCD) (1999-2023)
- School-aged population estimates retrieved from the Stanford Education Opportunity Project’s Neighborhood Segregation Data (2000-2022)<sup>15</sup>
- DC birth count estimates retrieved from DC Office of the Deputy Mayor for Education (1999-2022)<sup>16</sup>
- Next: private school enrollment counts from Private School Universe Survey (PSS)

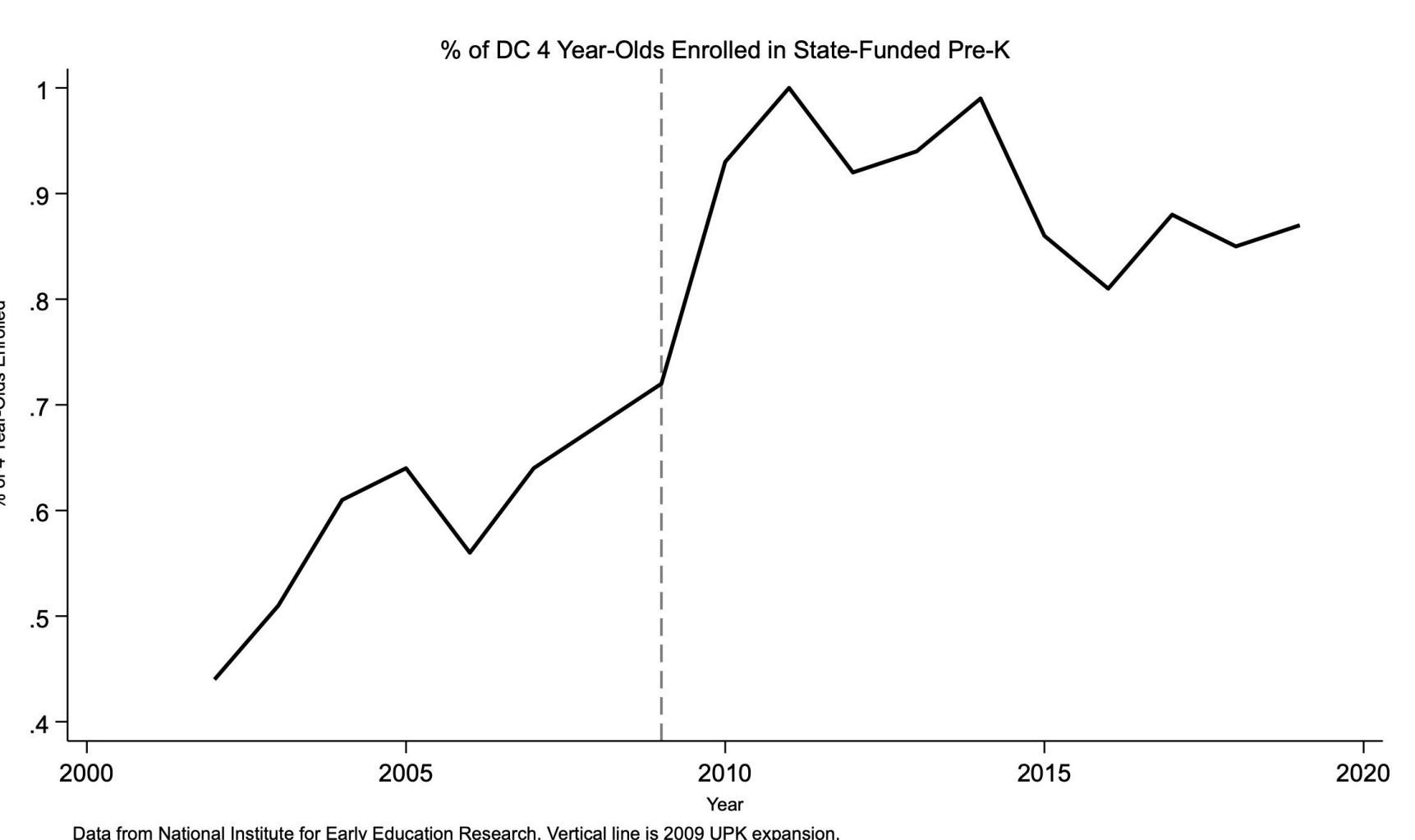
#### Methods

Compare enrollment changes in treated versus control units before and after UPK implementation using 3 approaches that address distinct concerns:

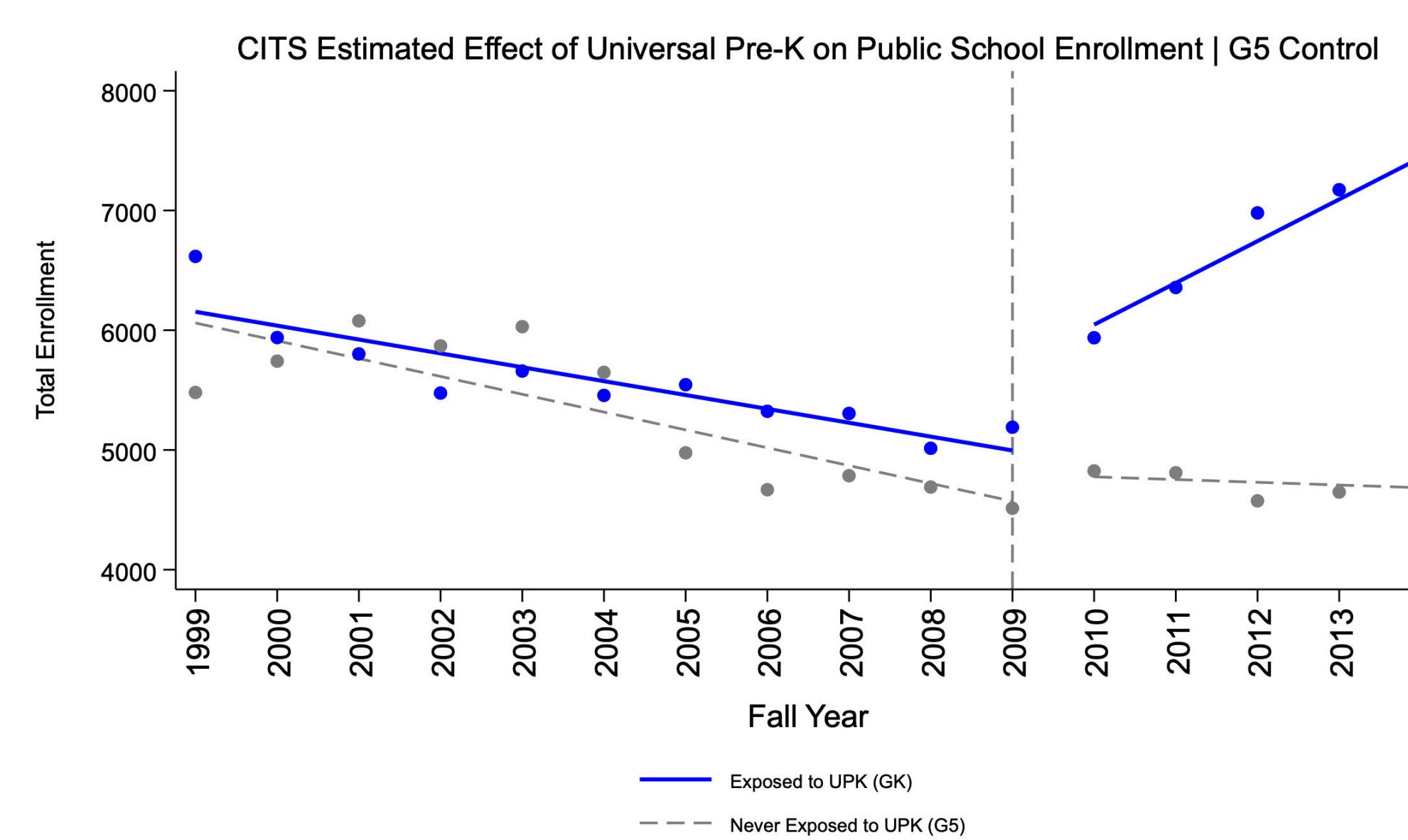
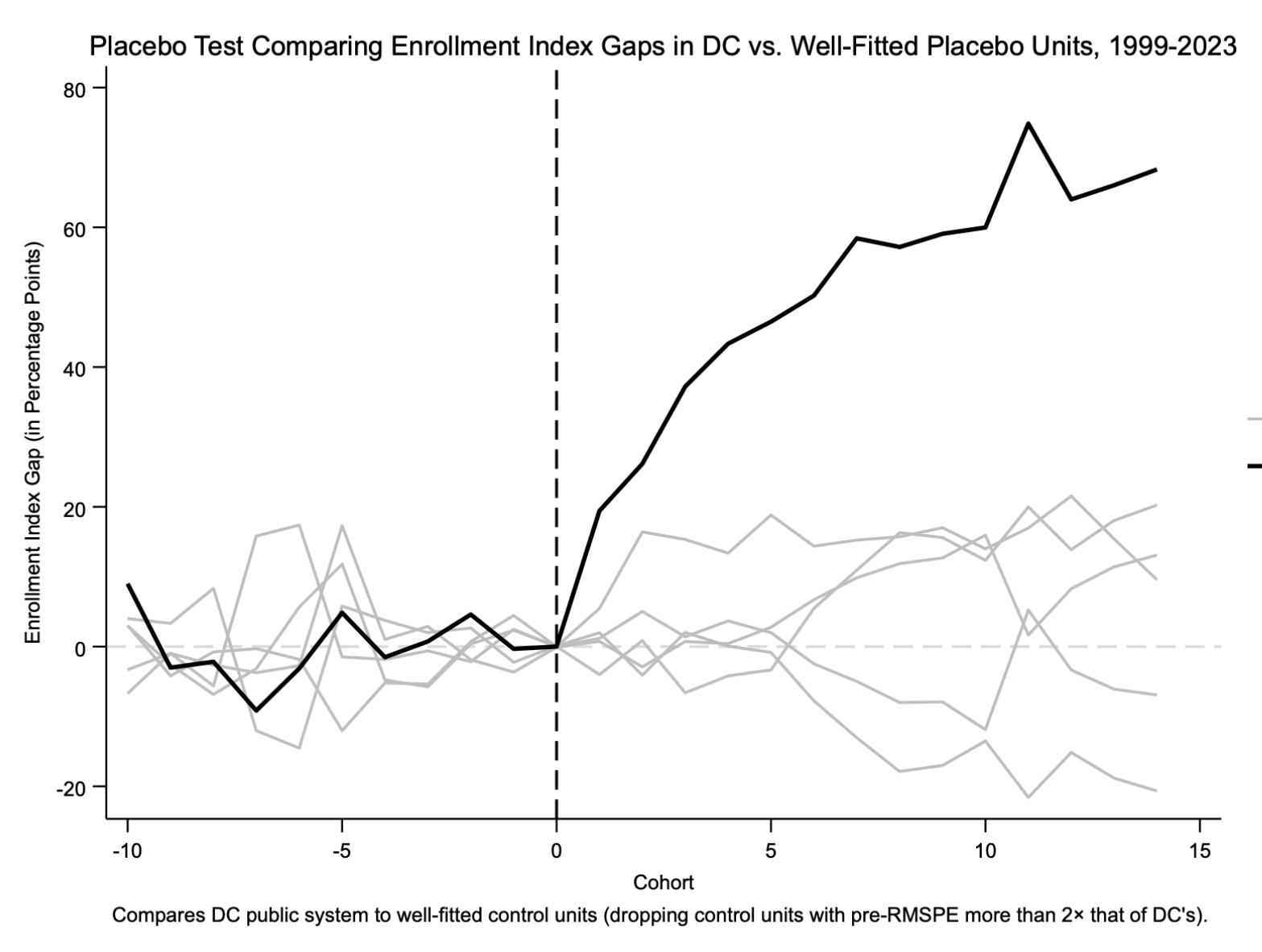
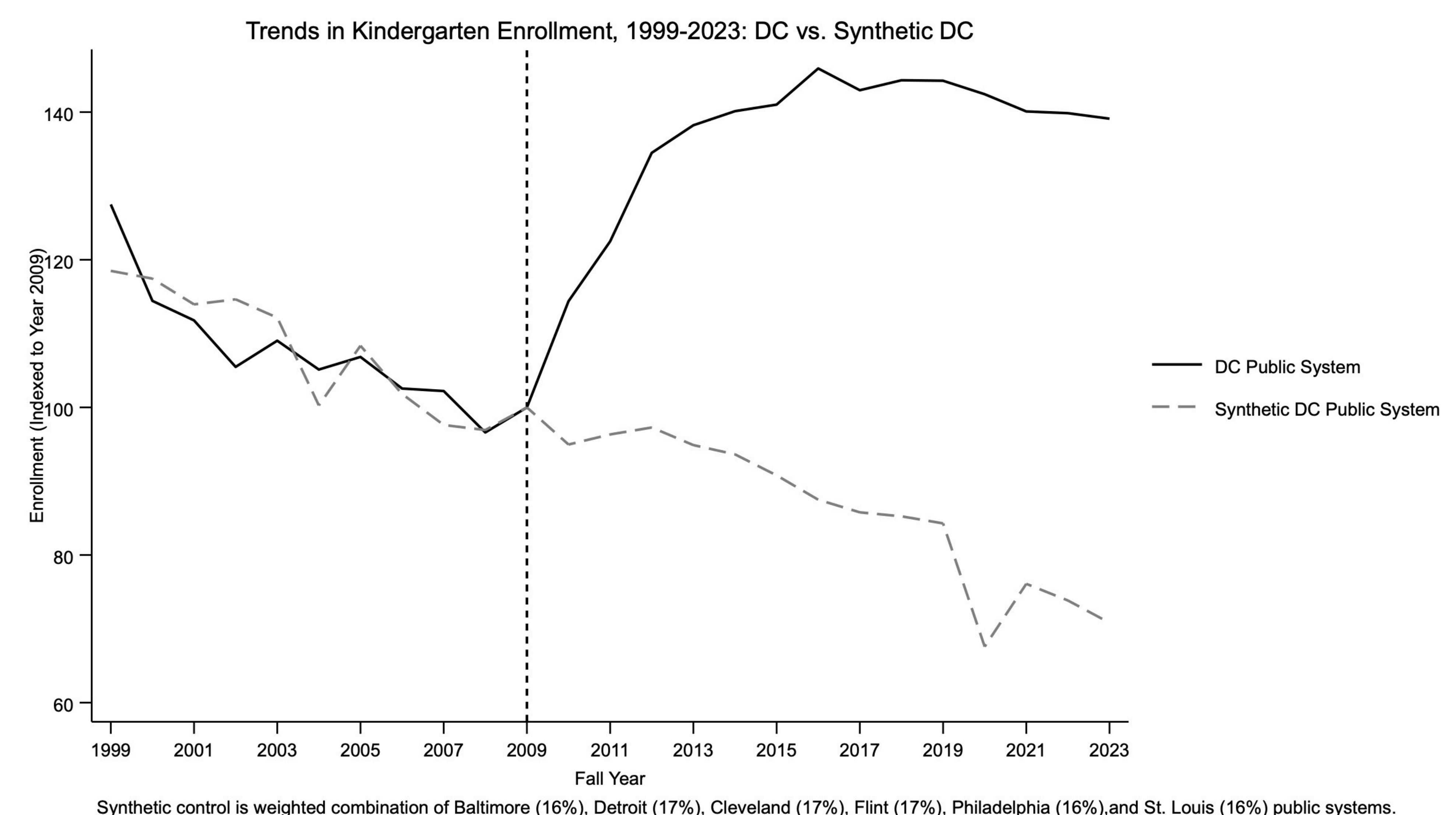
- Interrupted Time Series: DC’s pre-existing enrollment trends
- Synthetic Control: Broad, macro secular events (e.g., 2008 Recession)
- Comparative Interrupted Time Series: localized, DC-specific events (e.g., Rhee-era reforms); sibling spillovers

### D.C. Universal Public Pre-K Expansion

- Pre-K Enhancement and Expansion Amendment Act of 2008: high-quality, public, universal pre-K for all DC 3- and 4-year-olds. Full expansion in fall 2009.
  - \$68.4 million across 5 years to expand pre-k seat access, centralize governance through the public system (OSSE), and improve quality of pre-k programs.
  - Explicit goal to counter declining enrollment; strengthen the financial stability of the public school system.<sup>8</sup>
- Today, DC UPK is most highly ranked program in US. Enrolls 95% of 4-year-olds compared to 37% nationally.<sup>1</sup>



**Key Finding:** UPK increased public kindergarten enrollment by 20%, with effects growing over time.



### Discussion

- UPK reversed 10+ years of enrollment declines to sustained growth; Generated gains across K-5 and all student subgroups.
- Net gains driven by:
  - Significantly larger kindergarten cohorts rather than changes in between-grade retention
  - Gains in the traditional public school sector (DCPS)
  - Larger share of school-aged kids participating in public k (+10pp)
- Two likely mechanisms:
  - Quality: UPK expansion was accompanied by substantial investments in pre-k instructional quality and vertical alignment. State pre-K investments rose by an estimated \$50 million, 40%+ over predicted spending
  - Compositional Changes: Post-UPK pre-k cohorts became larger and more representative of the wider DC child population. Total pre-k capacity grew (+17% growth), and net gains were largest in previously underrepresented groups (+30% growth among White students).
- Suggest that ECE policy can shape participation of the broader public education system.
  - Relevant as public school districts grapple with post-pandemic enrollment losses and increasing competition from school choice alternatives.
- Limitations: findings are specific to D.C.’s highly invested UPK model.
- Next Steps: better answer the question of where kids came from by analyzing private school enrollment shifts.

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