

Early Childhood Education and Inequality

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Motivation

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- ❖ Declining developmental plasticity (Knudsen et al. 2006, Shonkoff & Phillips 2000)

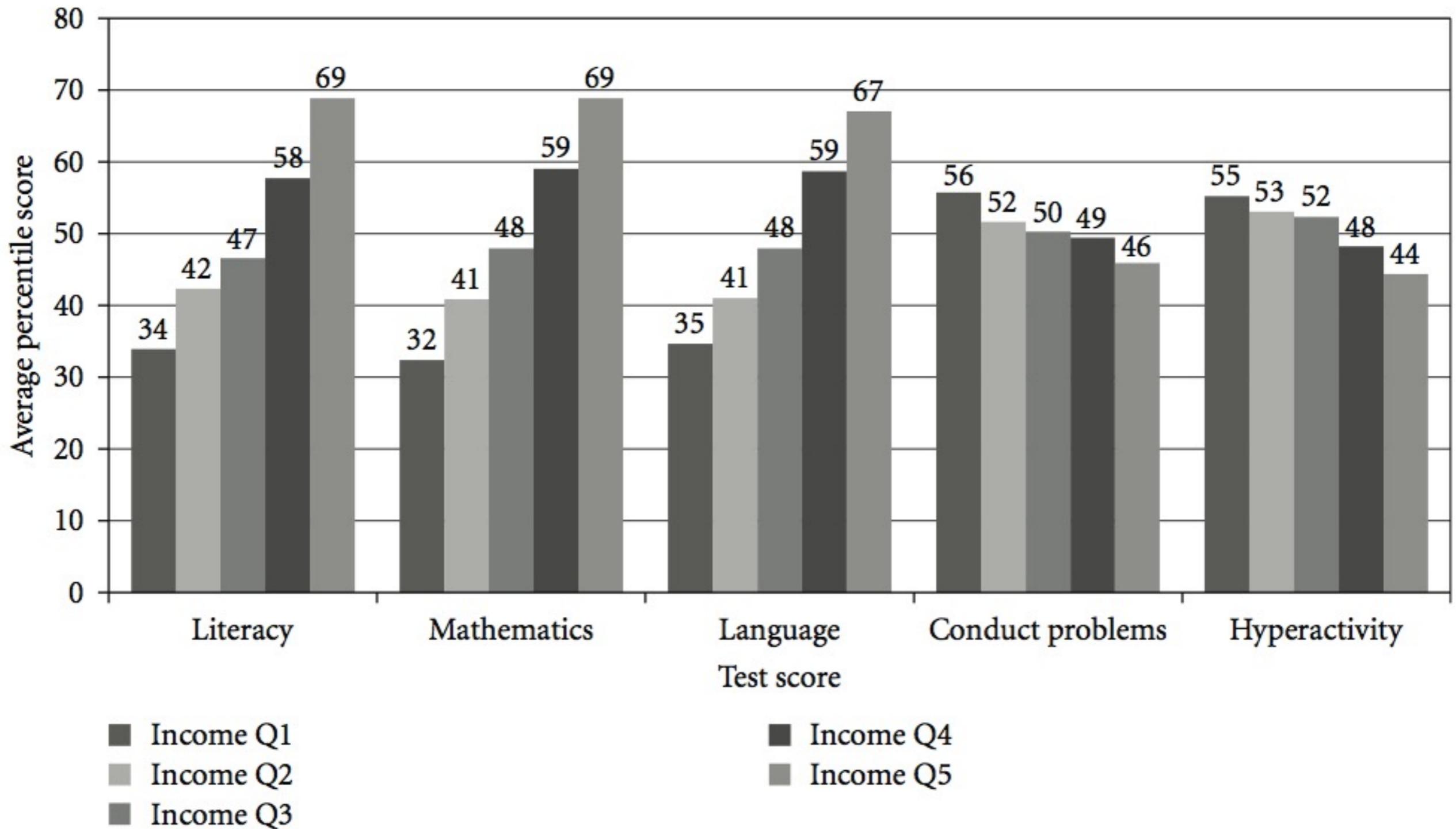
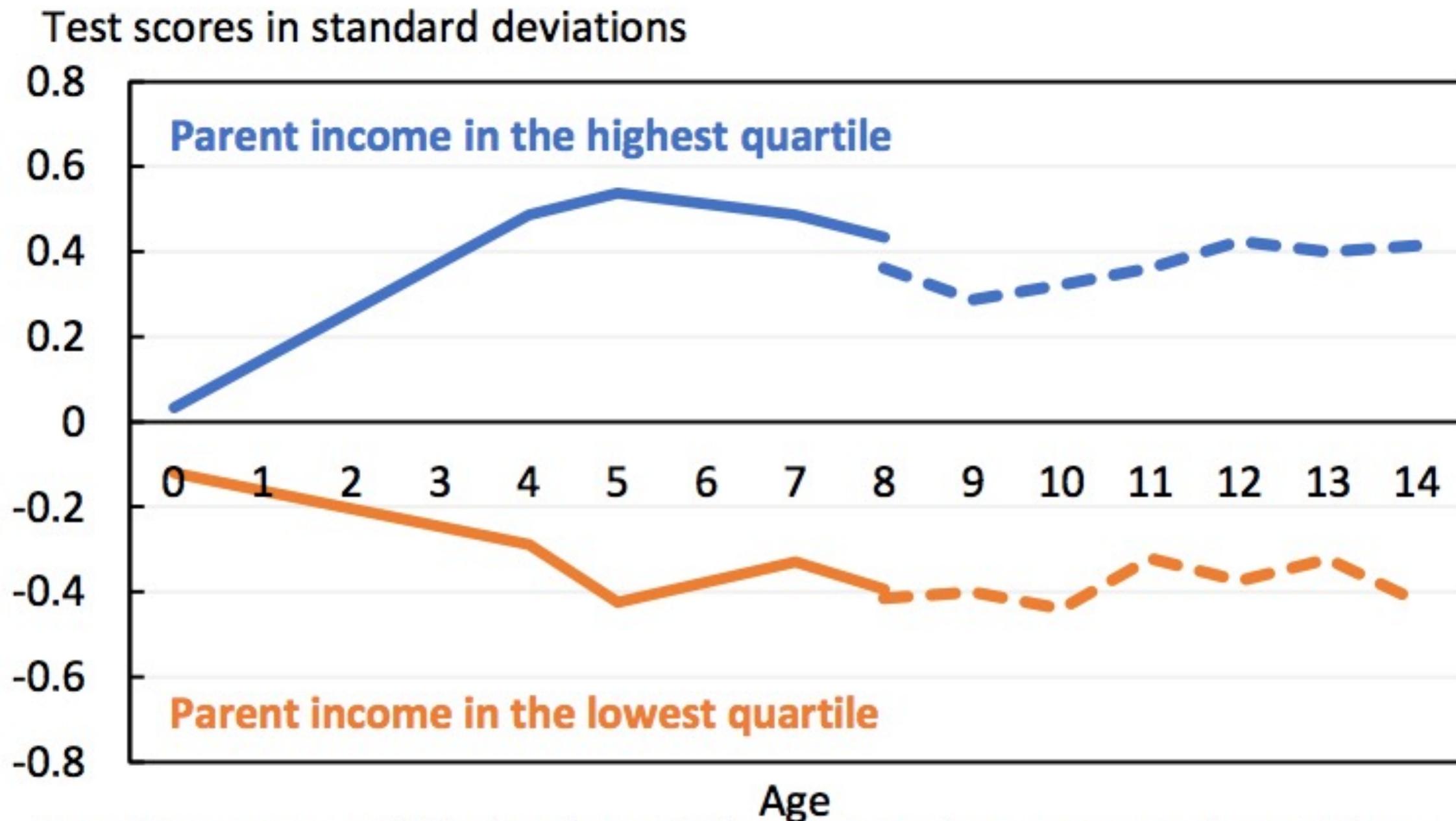


FIGURE 1: Mean school readiness scores in the ECLS-B (US) cohort at age 4, by income quintile ($N = 7950$).

Source: Waldfogel & Washbrook (2011)



Note: IQ scores are available through age 8. After age 8, math test scores are shown. A three year moving average is used for math scores.

Sources: 2013 U.S. Collaborative Perinatal Project (solid lines); NLSY79 Child and Young Adult Supplement (dashed lines).

Source: Council of Economic Advisers (2014)

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—> Early childhood as a critical period for intervention

Early Childhood Interventions

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- ❖ A note about quality of evidence...

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- ❖ There are both theoretical arguments why early childhood investments make sense and there are “existence proofs” of the important short- and long-term effects some programs have had on children's outcomes.
- ❖ Unanswered questions remain about the effectiveness of specific interventions for certain populations in current contexts, and about the persistence of effects.

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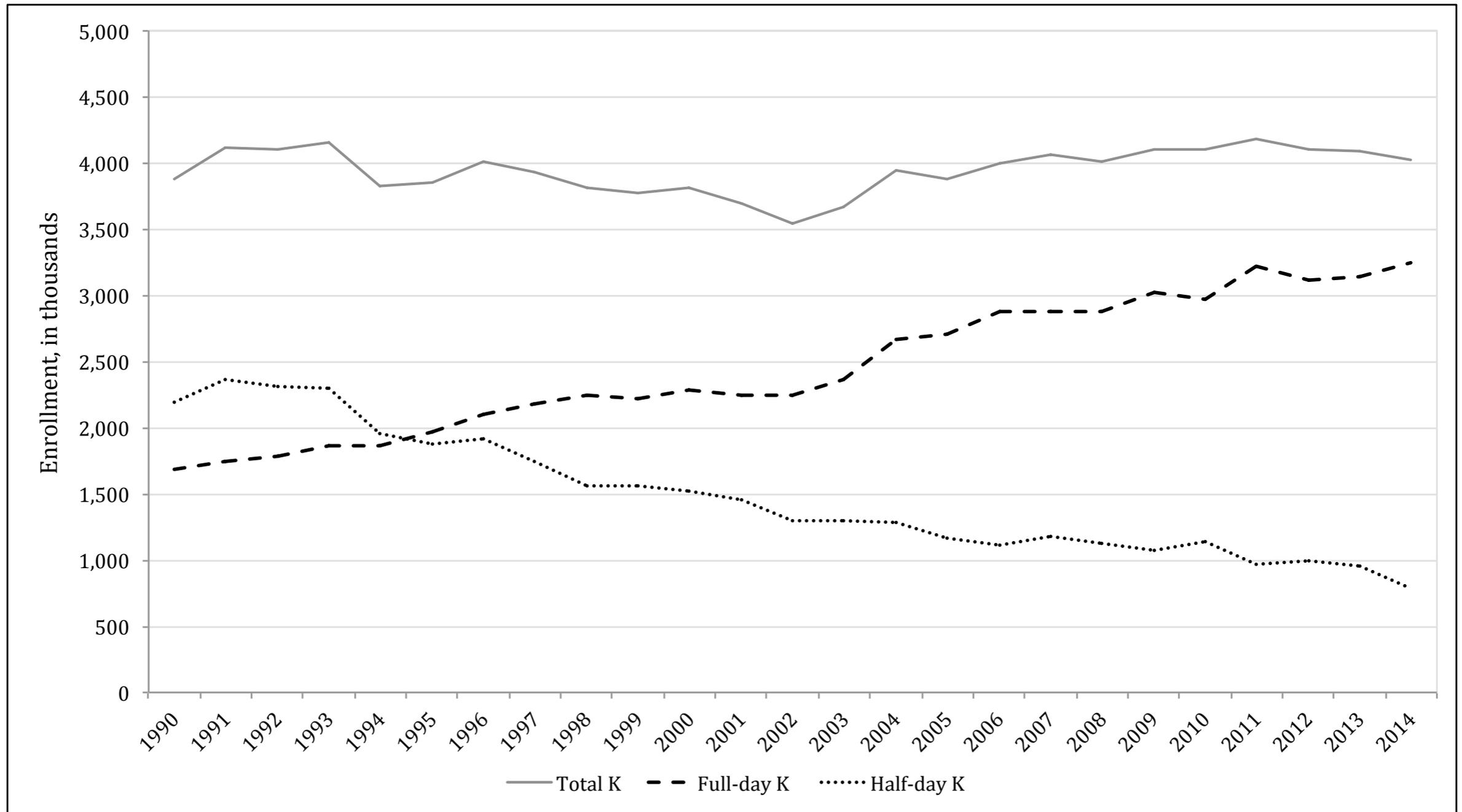
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 - ❖ Head Start

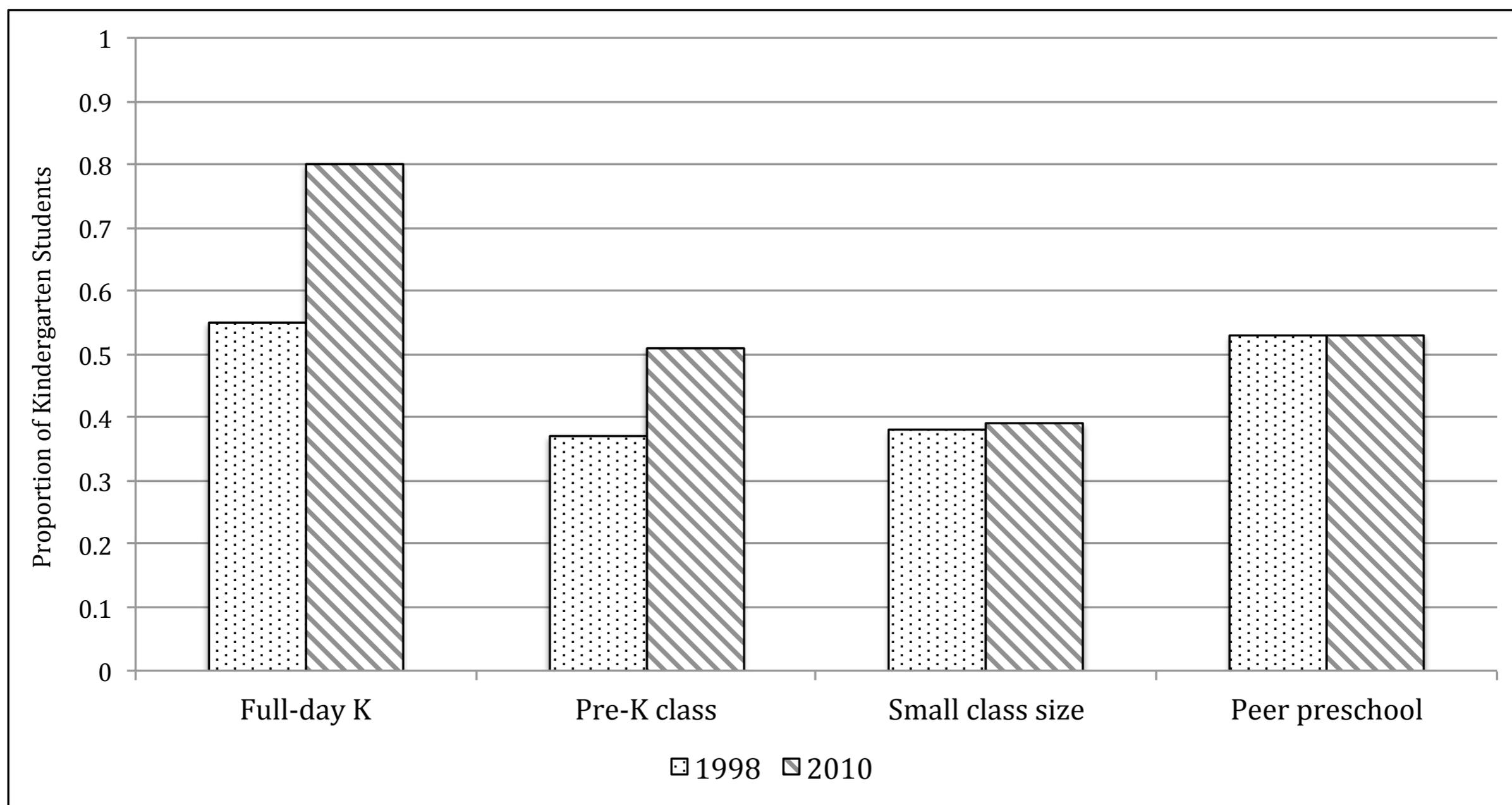
Impact of Full-day Kindergarten

Kindergarten Enrollment



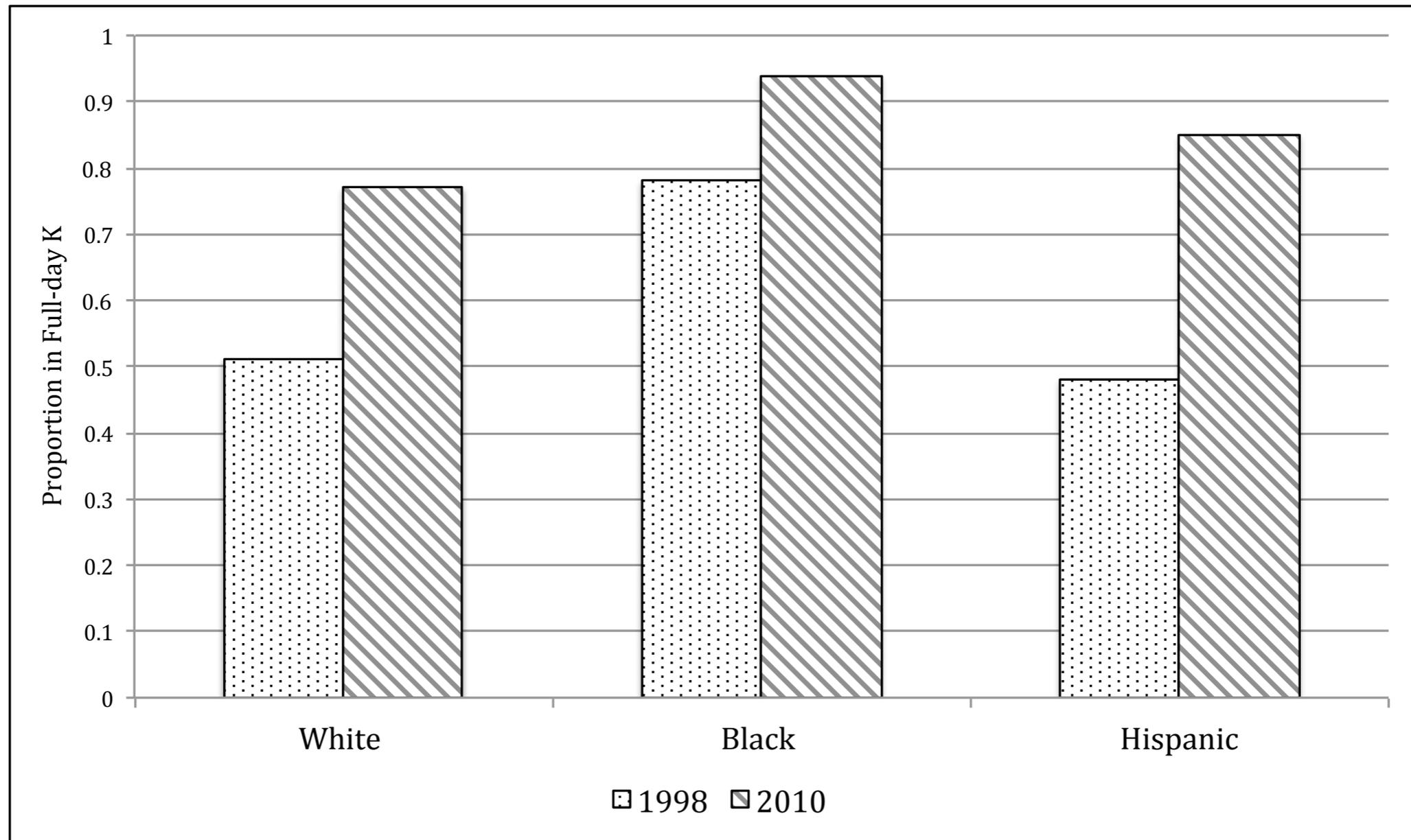
Source: Census Bureau, CPS

The Kindergarten Experience



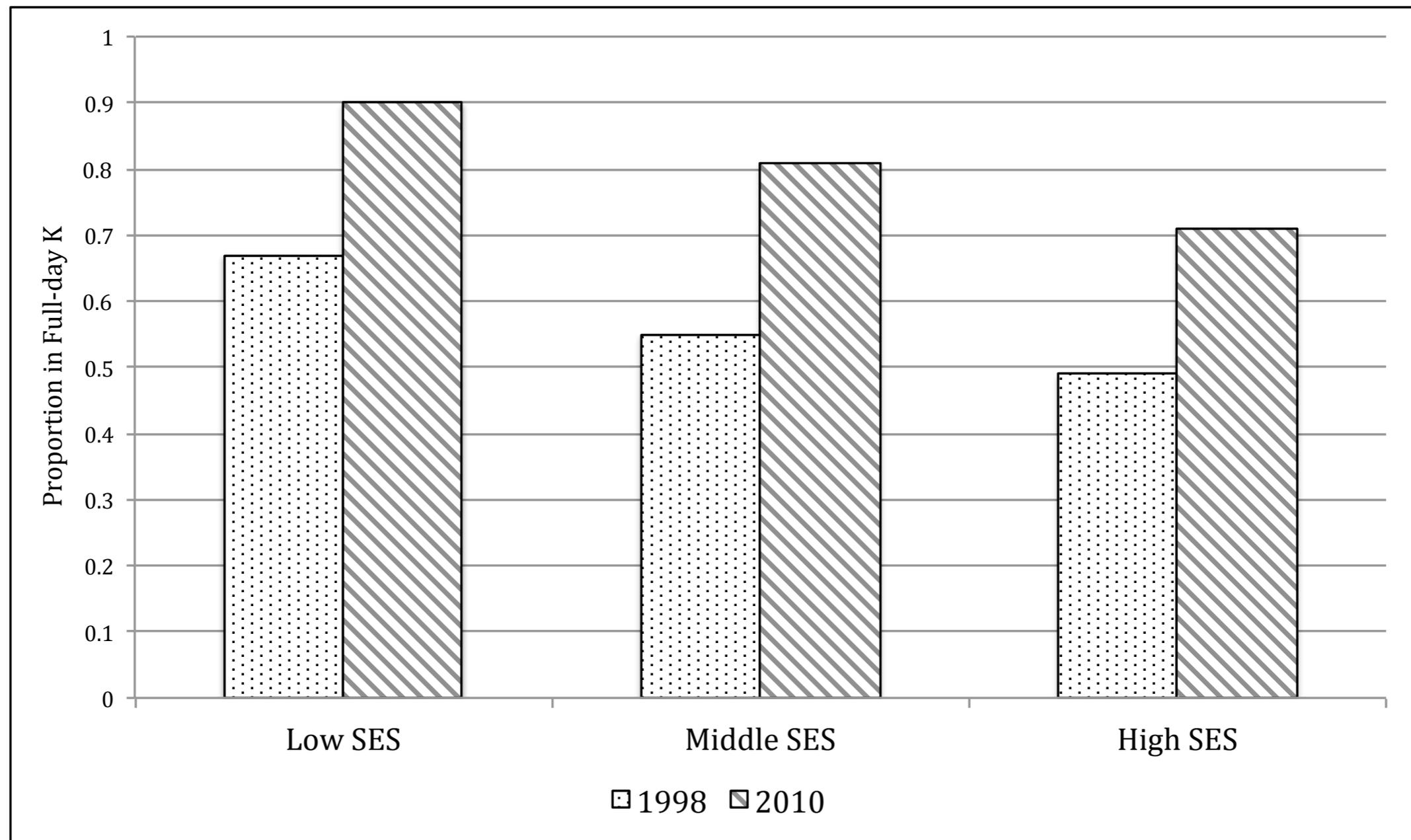
Source: ECLS-K, Bassok, Gibbs & Latham (2015)

Full-day K Participation



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Research Question

Do students in full-day kindergarten programs outperform their half-day kindergarten peers as measured by literacy skills at the end of the kindergarten year?

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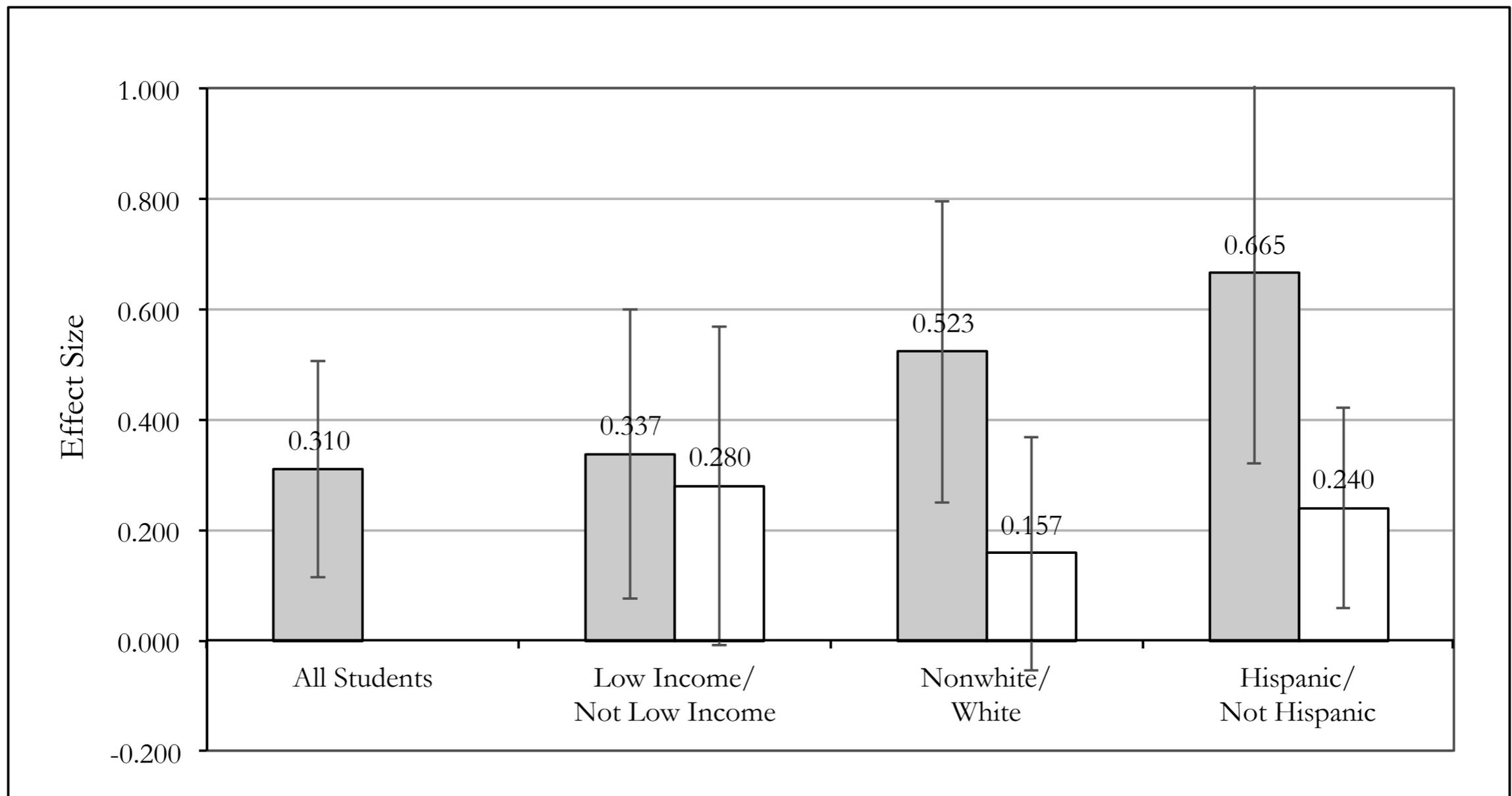
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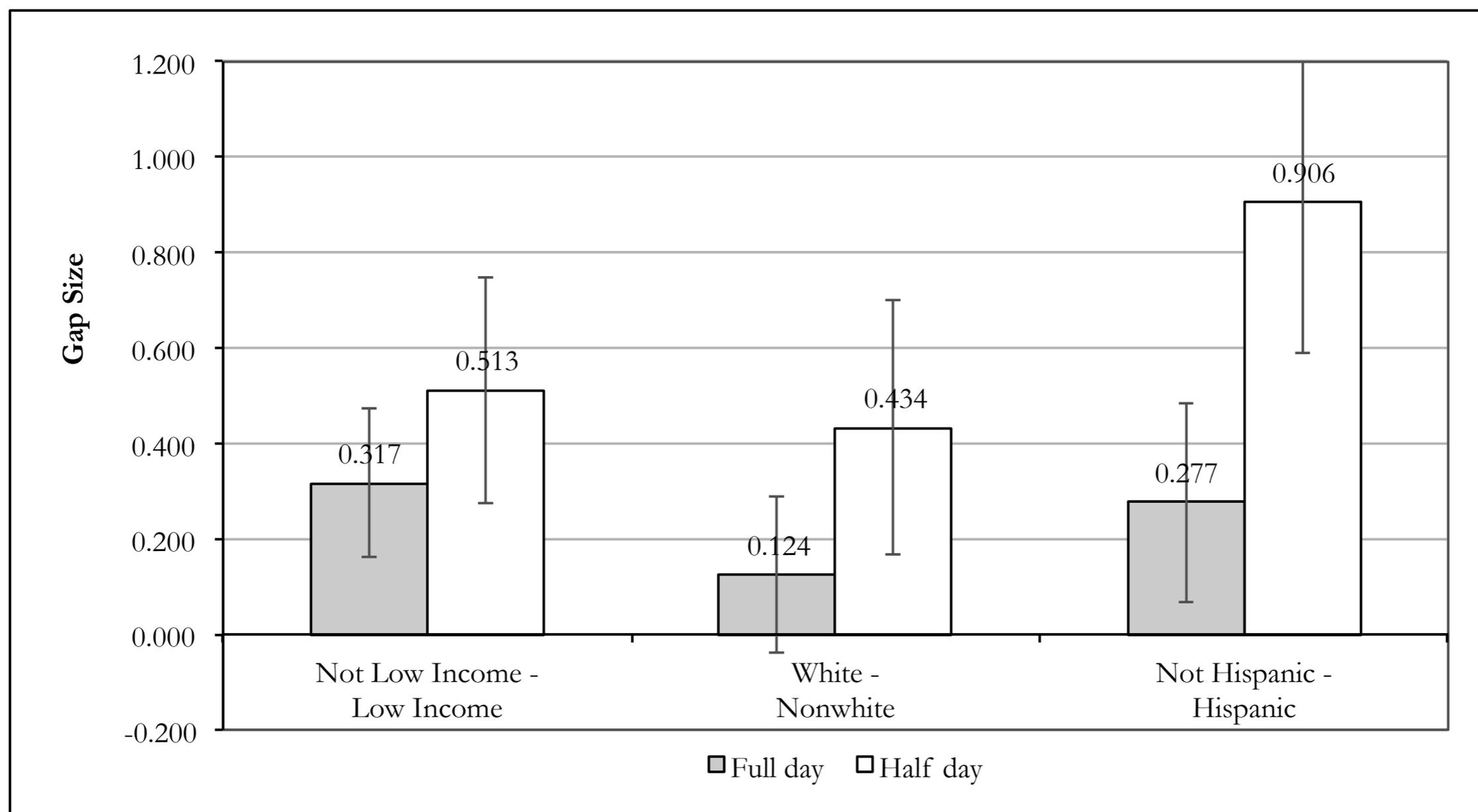
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 - ❖ Some districts were not able to fund everyone who was interested and assigned oversubscribed slots by lottery

Impact Estimates



Achievement Gaps



Intergenerational Effects of Head Start

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- ❖ At its inception, the OEO grant application emphasized “medical, cultural, and self-esteem or self-discovery activities.”
- ❖ Emphasis on community (including parent) involvement in all OEO activities, including Head Start

–LBJ, June 22, 1967

“Poverty defies simple description. It is a cycle which begins with an infancy of deprivation, continues in a youth of hopelessness, extends to a jobless adulthood, and finally ends—for those who survive—in a bleak and despairing old age. At every stage, the conditions of life are poor housing, inadequate education and training, deficient health care, and often, gnawing hunger.

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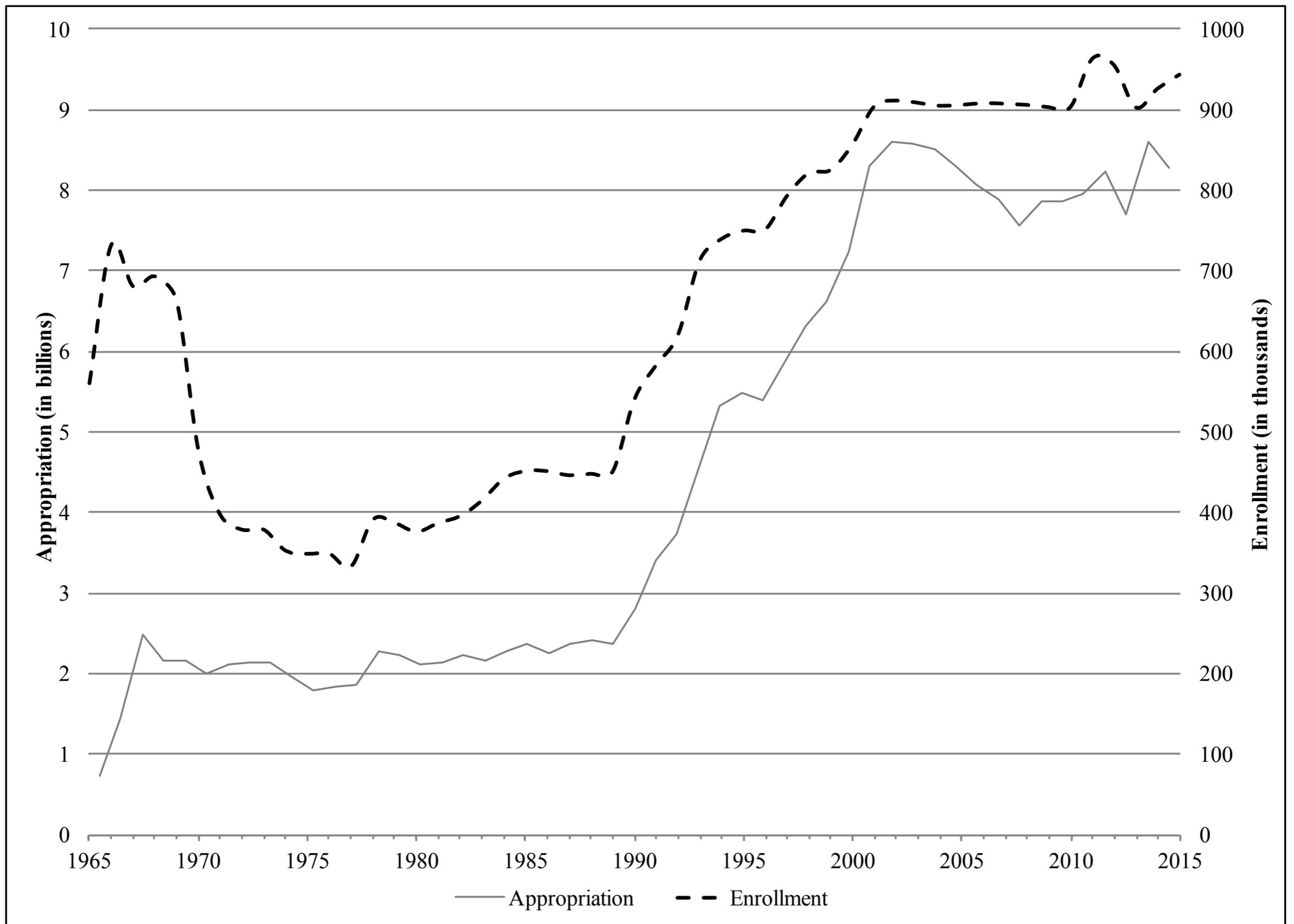
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Source: U.S. Census Bureau



Growth in Head Start Over Time

Source: U.S. Department of Health and Human Services

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 - ❖ Cognitive and academic skill development
- ❖ Funding from the federal government goes directly to local grantees
 - ❖ Over 2,800 grantees operate more than 56,000 classrooms

Research Question

Do Head Start effects transfer across generations, i.e., do the children of Head Start participants experience improved longer-term outcomes?

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- ❖ Ongoing debate about Head Start effectiveness

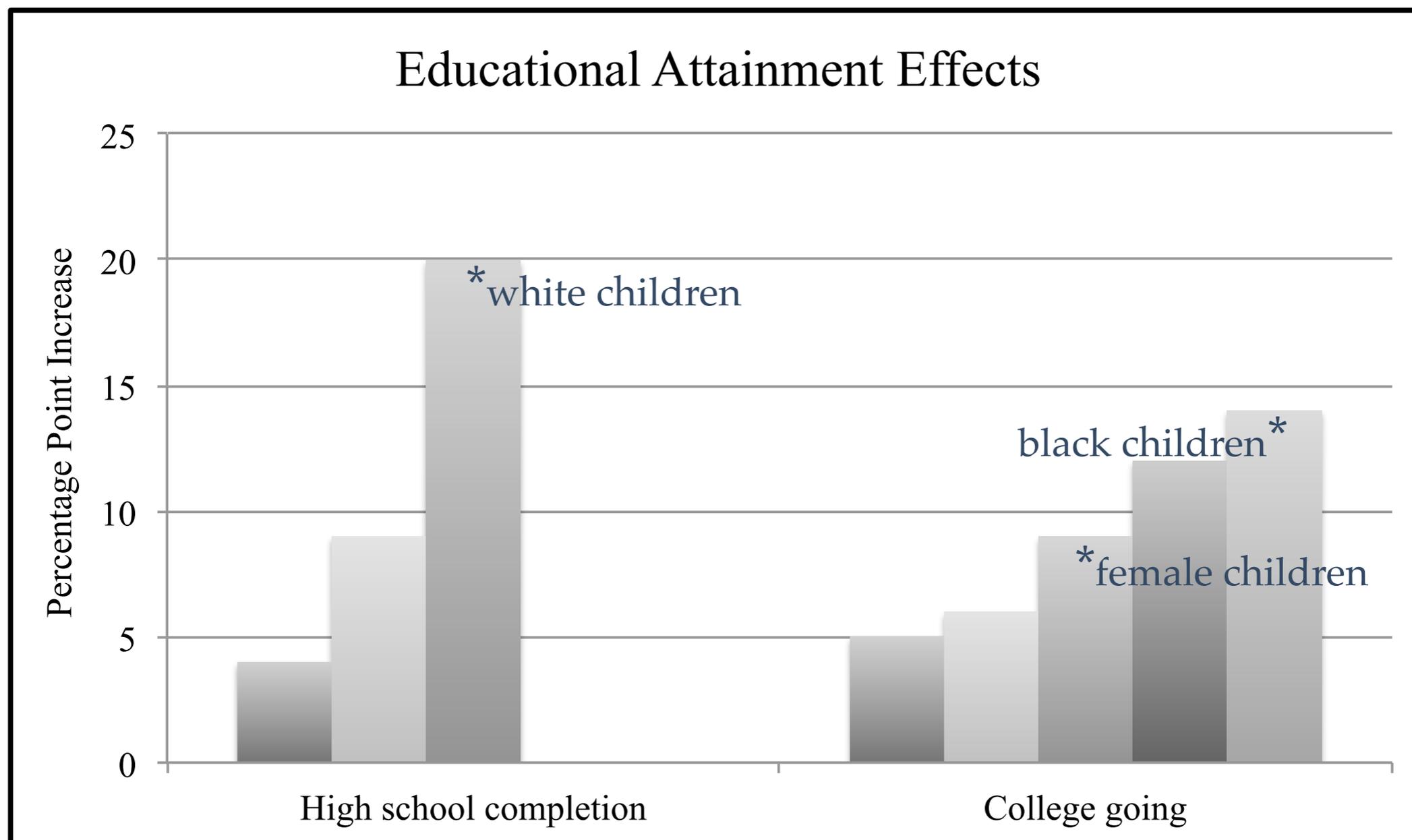
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- ❖ Ongoing debate about Head Start effectiveness
- ❖ Evidence of long-term effects for participants in early childhood programming
 - ❖ Project STAR (Chetty et al. 2011, Dynarski et al. 2013)
 - ❖ Perry Preschool (Heckman et al. 2010, Schweinhart et al. 2005) and the Abecedarian Project (Campbell et al. 2014)
 - ❖ Head Start (Carneiro & Ginja 2014, Deming 2009, Garces, Currie & Thomas 2002, Ludwig & Miller 2007)

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 - ❖ Head Start (Carneiro & Ginja 2014, Deming 2009, Garces, Currie & Thomas 2002, Ludwig & Miller 2007)
- ❖ Intergenerational transmission of resources and outcomes (Black, Devereux & Salvages 2005, Currie & Moretti 2003, Maurin & McNally 2008, Page 2009, Rossin-Slater & Wust 2016)
 - ❖ Persistence of poverty

Existing Head Start Evidence



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- ❖ CNLSY data on children's long-term outcomes

Study Design

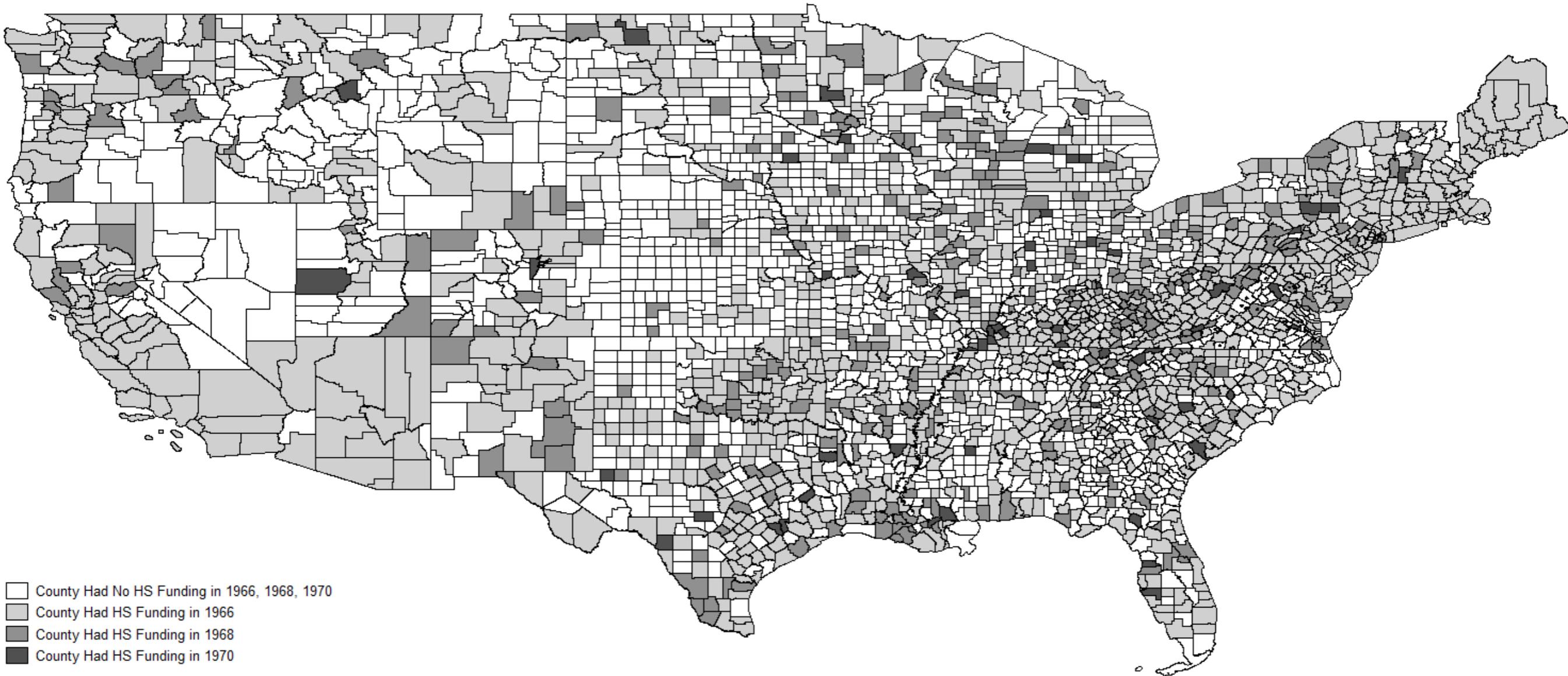
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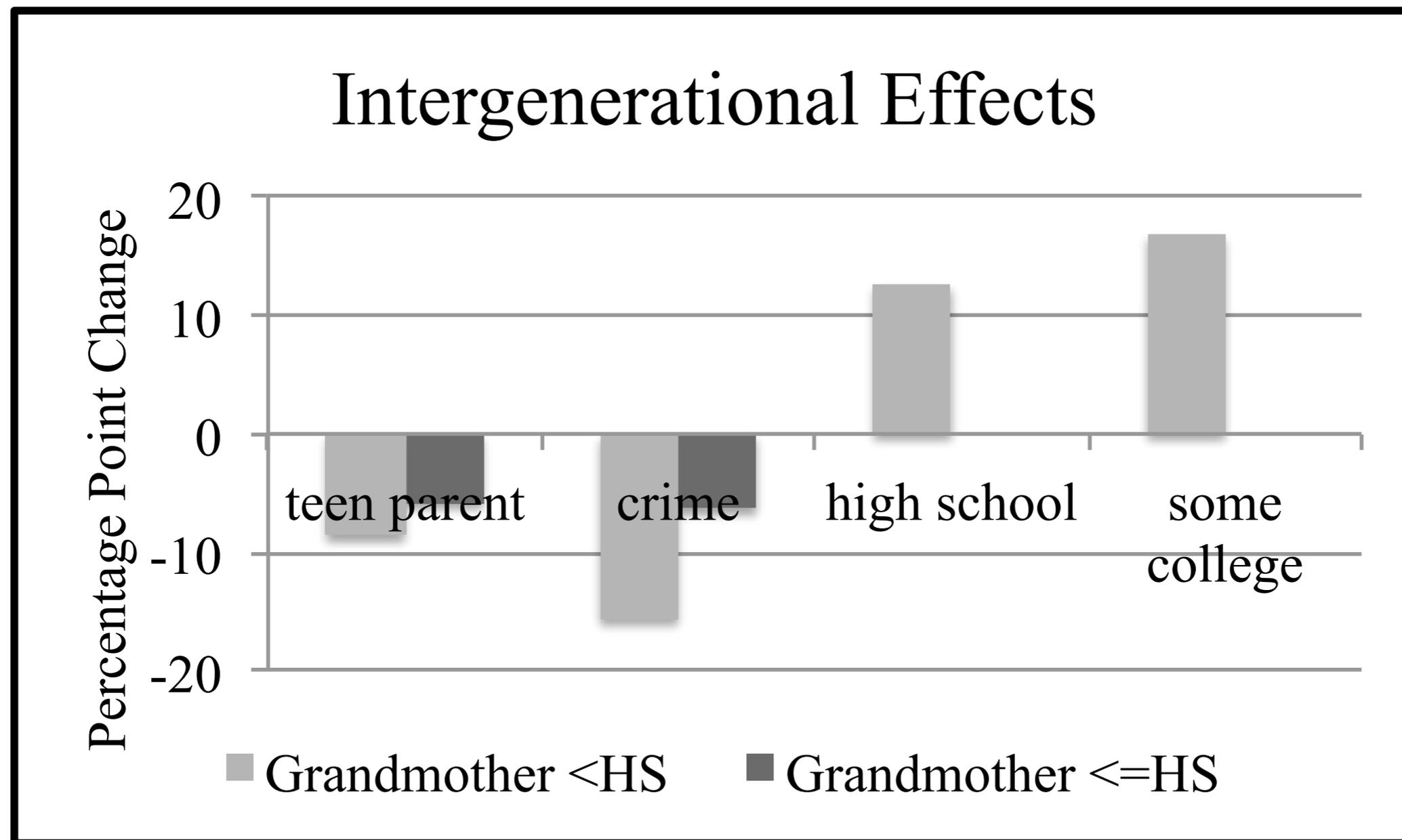
Study Design

- ❖ Leverage variation in exposure based on the timing and geography of program rollout
- ❖ Compare siblings who differ in Head Start participation

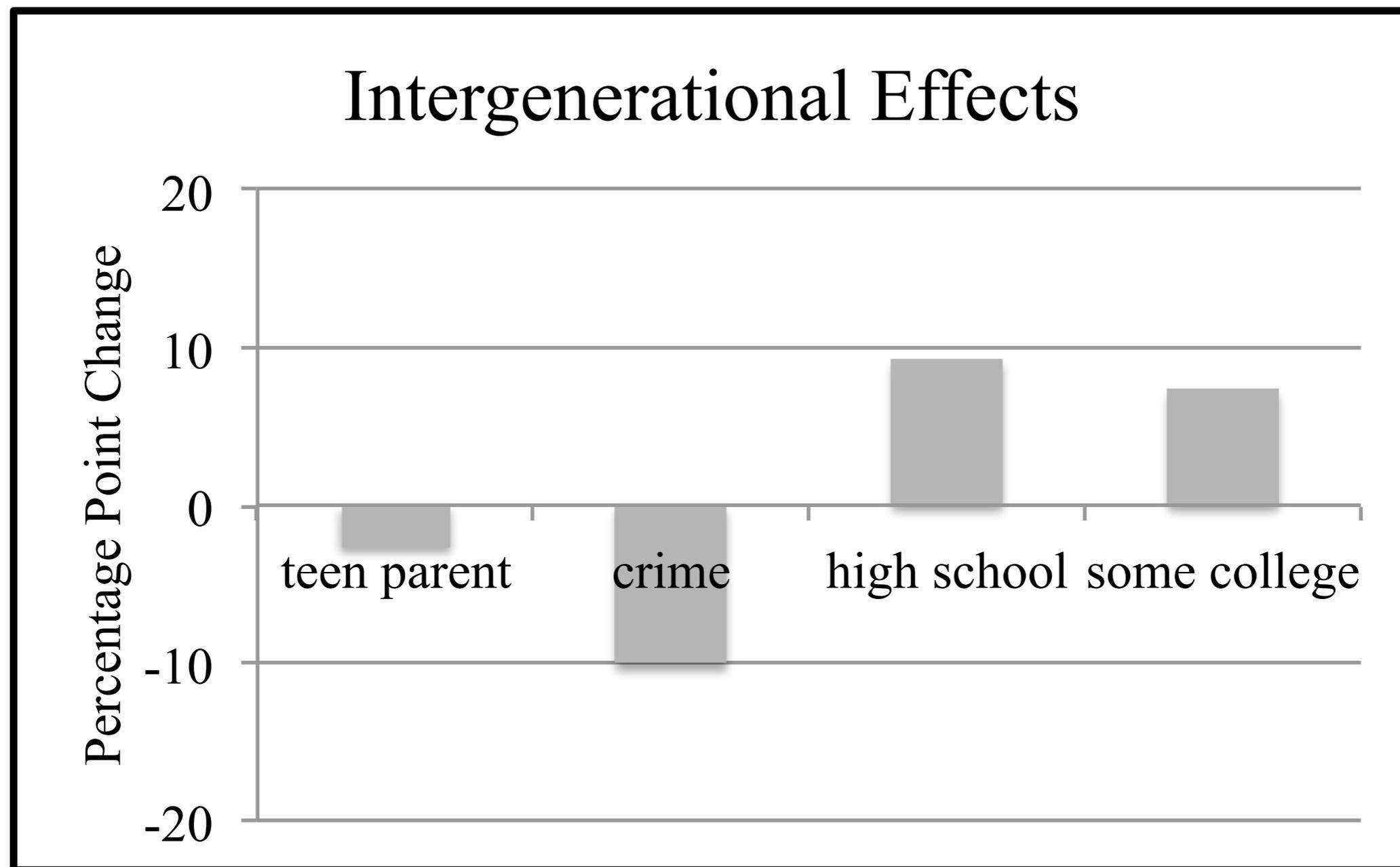
Program Introduction



New Evidence from Program Introduction



New Evidence from Sibling Comparisons



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 - ❖ Cost-effectiveness estimates suggest full-day kindergarten generates a larger return (0.07-0.21 s.d.) per \$1000 of spending than other early childhood investments
 - ❖ Policy caveat: students received full-day kindergarten in mixed-ability classrooms —> targeted versus universal

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- ❖ Measuring preschool effects across generations could inform how we think about early investments, and the return on those investments
 - ❖ Head Start presents one of the few (the only?) opportunities to explore such intergenerational transmission empirically
- ❖ Evidence of persistent Head Start effects in the second generation, in the form of increased educational attainment and reduced engagement in risky behaviors
- ❖ Intergenerational spillovers — an important consideration in assessing the program's cost-effectiveness, and suggestive of disruption to the intergenerational persistence of poverty

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