

What's Behind Being Behind? A Philadelphia Study of Early Risk & Educational Well Being

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Background

No Child Left Behind federal legislation has called attention to educational accountability for the nation's most vulnerable populations of young children (NCLB, US Department of Education, 2001). Minority students, those living in poverty, and students attending school in densely populated urban environments are among the most at risk for not meeting NCLB proficiency standards for basic reading and mathematics skills. Philadelphia, which is the poorest of the 10 largest cities in America, clearly shows this academic risk. At present over half of the 3rd grade student in public education do not meet reading proficiency and nearly 40% of children who enter high school drop out before receiving their diploma.

Population-based research is needed to understand the **What's, How's, When's, and Where's** of educational risk for Philadelphia's public school children.

Two population-based, research studies conducted by Dr. John Fantuzzo used the Kids Integrated Data System (KIDS) to investigate early childhood risk and protection. The first study was the *KIDS School Readiness* study. It demonstrated the ways that family poverty and low maternal education adversely affected school readiness at kindergarten entry (Fantuzzo, Rouse, McDermott, Sekino, Childs, & Weiss, 2005). It also showed the protective influence of formal, early childhood experiences for school readiness. A positive outcome of this study was the development and validation of the Early Care and Education Interview (ECEI). For this study, kindergarten teachers used the ECEI to collect information from children's primary caregiver about the nature and extent of their child's experiences prior to entering public school. Currently, the School District of Philadelphia uses the ECEI every year to collect this important information.

The second early childhood cohort study investigated the relationships between family social risk experiences and educational and behavioral outcomes for 2nd-grade children in public education (Fantuzzo & Perlman, 2007). Findings indicated how foster care, family homelessness, and child maltreatment uniquely impacted academic and behavioral outcomes for second grade students. The findings from both of these projects resulted in key policy and practice changes. Moreover, both studies demonstrated the potential of KIDS to meet the practical research and evaluation needs of municipal service agencies.

Purpose of *What's Behind Being Behind* Study

The purpose of the current study is to examine risk and protection for a critical, policy relevant population: 3rd grade, public school students in 2005-2006. This cohort was selected because it is the **first** cohort to be tested with the Pennsylvania System of State Assessment (PSSA), a standardized test mandated by the NCLB accountability legislation. This cohort contains 12,046 children who were born in Philadelphia and enrolled in the School District during the 2005-2006 academic year.

There are three major research questions:

- What is the impact of early risk factors on children's academic and behavioral adjustment in 3rd grade?
- How do formal early childcare experiences before kindergarten serve as protective factors for children experiencing biological and social risks?
- How does the relationship between early risk factors, early childcare experiences, and academic and behavioral adjustment vary (a) across time between kindergarten and 3rd grade, (b) between gender or ethnic groups, and (c) for children living in poverty?

Findings from this study will identify **What's Behind Being Behind** for Philadelphia's young children, and provide much needed information about **how** risks are affecting children, **when** these risks are occurring, and **what** we can do to intervene for children at risk of school failure.

What is KIDS?

The Kids Integrated Data System (KIDS) represents a dynamic partnership between the City of Philadelphia, the University of Pennsylvania, the School District of Philadelphia, and the William Penn Foundation. Their mission is to develop, utilize, and sustain an integrated, archival administrative database for cutting edge community planning, program evaluation, and research purposes to benefit children and youth in Philadelphia.

The KIDS System includes longitudinal, administrative records from across all relevant municipal agencies that are charged with the well-being of Philadelphia's children and youth. Since the first approved KIDS project in 2004 this system has served as a dynamic resource for change in the City of Philadelphia, transforming the means by which population-based research is directly informing the decisions of local policy makers.

For more information about KIDS, contact Dr. Heather Rouse, KIDS Research Director at rouseh@gse.upenn.edu

I. Early Risks & 3rd Grade Outcomes

This research question examines the nature and extent of early risk factors and their relationship to policy relevant academic (e.g., reading and mathematics proficiency) and behavioral adjustment outcomes in 3rd grade that have known relationships with later school failure and dropout (i.e., school truancy, suspensions, serious incidents, and grade retention). Specifically, this research will examine:

- The prevalence of each risk factor,
- The most common combinations of risk experiences across the cohort (e.g., children who were maltreated and also exposed to lead),
- The unique relationship between each risk and 3rd grade outcomes, and
- The relationship between the cumulative number of risk factors (i.e, the amount) and 3rd grade outcomes, regardless of the type of risk experience.

Research will also examine these relationships for relevant subgroups such as children living in poverty, boys, and minority students.

Risk Factor	KIDS Agency Data Provider
Child Maltreatment	Department of Human Services (DHS)
Homelessness	Office of Supportive Housing (OSH), DHS
High Lead Exposure	Department of Public Health (DPH)
Inadequate Prenatal Care, Low Birth Weight, Preterm Birth, teen mom	Department of Public Health, Vital Statistics
Low Maternal Education	Department of Public Health
Poverty	Temporary Assistance for Needy Families (TANF)

II: Early Care and Education Experiences

Using information gathered from the ECEI, this research question examines the protective influence of formal, early child care experiences for children experiencing multiple risks. Primary analyses will examine the extent to which these experiences reduce the negative impact of multiple risks on educational outcomes in 3rd grade. Specific research questions include:

- Is formal, early child care protective for all children in the 3rd grade cohort?
- Is formal, early child care protective for children experiencing multiple risk factors?
- Are there differences in the level of protection afforded for different racial, ethnic, or socio-economic groups of children?

III: Differences in Risk & Protection over Time

This research question will examine **When** and **For Whom** the impacts of early risk and protection are evidenced for this 3rd-grade cohort. The effects of risk factors and early childcare experiences will be examined *over time* between kindergarten entry and the end of 3rd grade to determine when the detrimental impacts of early risk factors become visibly along children’s academic and behavioral adjustment trajectories. Specific research questions include:

- Are the relationships that were found in 3rd grade consistent when examined at children’s entry into public school at kindergarten?
- How does the timing of risk events affect their impact on educational outcomes?
- Across the trajectory between kindergarten and 3rd grade, when do the effects of each risk become visible? (suggesting the best time to intervene for children experiencing risks).

An additional benefit of this research is that it will use geo-coded data. This will permit researchers to locate the **Where** of specific risk factors (with maps and charts).



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 Dr. Fantuzzo is the Principal Investigator for this project and co-founder of KIDS.

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