

Early Childhood Risk, Protection & Educational Well Being: A Philadelphia Study of *What's Behind Being Behind*

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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, one of the poorest large cities in the U.S., shows this academic risk. At present, over half of the 3rd grade students 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 and protection for young 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 primary caregivers about the nature and extent of their children's experiences prior to entering public school. Currently, the School District of Philadelphia uses the ECEI every year to collect this important information.

A 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 2nd grade students. The findings from these projects stimulated interagency dialogue and changes in policy and practice. Moreover, both studies demonstrated the potential of KIDS to meet the practical research and evaluation needs of municipal service agencies. The aim of the current study is to build on this previous work by extending the examination of risk, protection, and educational well-being through the end of 3rd grade.

Purpose of this Research

This study is designed 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.

The research will be conducted in three phases:

1. Investigate the relationship between early biological and social risk factors and children's academic and behavioral adjustment in 3rd grade.
2. Determine how formal, early childhood experiences relate to school readiness for children experiencing multiple risks; and, determine the extent to which these relationships change by the end of 3rd grade.
3. Examine the relationship between early risk factors, early childcare experiences, and academic and behavioral adjustment (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) is a nationally recognized integrated data system for research and evaluation to improve the public health, social, and educational services of children and youth in the City of Philadelphia.

Funded through seed grants from the William Penn Foundation KIDS was developed through a collaboration among the City of Philadelphia, the School District of Philadelphia and the University of Pennsylvania. KIDS was built to create a shared capacity for Philadelphia's civic leaders to produce and use quality information to inform decision making around public policy and practice.

KIDS includes data from children's vital statistics, physical and behavioral health services, homelessness and child welfare services, and public school education. Collected annually the data are available from 1990 to 2008.

Three Phases of Research

Phase I. Early Risks & 3rd Grade Outcomes

This research examines the nature and extent of multiple biological and social risk experiences between birth and 3rd grade. It investigates the relationship between these risks and policy relevant academic outcomes (e.g., reading and mathematics proficiency) and behavioral adjustment outcomes 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 and the patterns of co-occurrence with other risks across the cohort (e.g., children who were maltreated and also exposed to lead)
- The unique and interactive relationships between these risks and 3rd grade academic and behavioral outcomes
- The relationship between the amount of risk (i.e., the amount) and 3rd grade outcomes, regardless of the type of risk experience.

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)

Phase II: Early Care & Education Experiences

Using information gathered from the *Early Care and Education Interview (ECEI)*, this research examines the protective influence of formal, early child care experiences for children experiencing multiple risks. Analyses will examine the extent to which ECE experiences reduce the negative impact of multiple risks on educational outcomes at kindergarten entry and at the end of 3rd grade.

Specific research questions include:

- What is the relationship between formal early child care and school readiness at kindergarten entry, controlling for multiple risks?
- Does the relationship between formal experiences and school readiness fade out by the end of 3rd grade?

Phase III: Differences in Risk & Protection

This phase 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 visible along children's academic and behavioral adjustment trajectories. Differences between racial/ethnic groups, gender, and poverty level will also be examined.

Specific research questions include:

- 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).
- Do these trajectories vary as a function of race/ethnicity, poverty status, or gender?

An additional benefit of this research is its use of geocoded data. This will permit researchers to locate the *Where* of specific risk factors using 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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