# *In the Running for Successful Outcomes*:
## A Review of the Literature

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# Background

- **Children enter school with a range of academic and social skills**

- **Children from disadvantaged backgrounds (e.g., low-income and/or single parent households) lag behind their more affluent peers on a range of outcomes.**

- **This gap is predictive of academic trajectories through later schooling**

- **Little is known about how early skills predict to later outcomes**

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# Project Questions

1. Are there particular school readiness skills or a level of development that children need to attain in early childhood in order to meet later measures of success?

2. Do outcomes in elementary or later schooling depend on the school readiness skills and competencies in various domains at entry to school?

# Defining School Readiness

- **Physical well-being and motor development**

- **Language development**

- **Cognition and general knowledge**

- **Social-emotional development**

- **Approaches to learning**
  - Executive function

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# Being "In the Running"

- **Early childhood predictors of high school completion**
  - Individual level
    - Behavioral
    - Academic
  - Family level
    - Parental involvement
    - Early maternal care
  - School level
    - Preschool and school-based interventions

# Conceptualizations of Thresholds

- **Starting school with a certain range or profile of skills;**

- **Non-linear associations over time in one or more domain of developmental competency, suggesting a rapid increase in development correlating to school entry skills at or above a certain level;**

- **Starting school with a certain level or above a cut point of capability on individual skills; and**

- **Retrospective analyses that looked at performance later in schooling and then tried to determine characteristics of children that distinguish these children early on in schooling.**

# Literature Review Inclusion Criteria

- **Peer-reviewed articles or produced by government agency**

- **2000-2010 (except seminal pieces)**

- **Measure children in the last year before kindergarten or in kindergarten**

- **Relates school readiness assessments to later outcomes**

- **Quantitative or qualitative**

# Evidence of Thresholds from the Literature Review

- **Identifying profiles of school readiness**
  - Importance of multiple domains
- **Examining non-linear associations**
  - Some evidence
- **Looking for cut points**
  - Importance of early time points
- **Conducting retrospective analysis**
  - None found

# Additional Literature Review Findings and Gaps

- **Most threshold analyses looked at just one domain**

- **Possible to look at multiple combinations or "profiles" of skills in the same analysis**

- **Development needs to be looked at over several time points in childhood**

# Targeted Research Questions

- **Do children with different patterns of school readiness skills have different developmental trajectories?**

- **Are there non-linear associations between school readiness skills and subsequent trajectories?**

- **Do children in the low and normal ranges of school readiness skills have different trajectories?**

- **Do children with different patterns of school readiness skills differ in their likelihood of later school success?**

# Data Sets for secondary data analysis

- NICHD Study of Early Child Care and Youth Development (NICHD SECCYD)
  - Non-experimental, longitudinal sample of over 1200 children at kindergarten entry
  - Contains family, child care, and child outcome variables from 6 months through 5th grade
- Early Childhood Longitudinal Study- Kindergarten Class 1998-1999 (ECLS-K)
  - Longitudinal sample of 20,000 kindergarten children
  - Focuses on children's early school experiences from kindergarten through 8th grade

# Analytic Approaches

➢Analytic Strategies:

- **Latent Profile Analyses** of school readiness skills and longitudinal analyses of school-age outcomes
- **Quadratic** analysis of school readiness skills and longitudinal analyses of school-age outcomes
- **Piecewise** analysis of school readiness skills and longitudinal analyses of school-age outcomes

| Analytic Approach: School Readiness Skills | Representation of "thresholds" of School Readiness Skills in Analyses | Analytic Approach: School-age Outcomes |
|---|---|---|
| Person-centered | Latent Profiles | Longitudinal: Growth curve analysis of academic and behavioral skills |
| Variable-centered | Nonlinear ( linear and quadratic) of individual school readiness skills  Piecewise spline of individual school readiness skills | Retrospective: Fifth grade status in terms of being "in the running" |

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