

# The Reading Trajectory of Children with Autism Spectrum Disorder from Kindergarten through 4<sup>th</sup> Grade

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## Background

- Research on early diagnosis and intervention for children with Autism Spectrum Disorder (ASD) has led to substantial improvements in behavioral and adaptive skills. However, beyond the early developmental period, little is known about how best to support academic achievement for children with ASD, particularly with regards to reading development.

## Objectives

- Understanding the reading trajectory of children with ASD compared to typically developing children and children with Speech-Language Impairment (SLI) or Specific Learning Disorder (SLD) in order to identify opportunities for early intervention

## Aims

- Identify when differences first develop in the reading trajectories of children with ASD compared to typically developing children during the period from Kindergarten through 4<sup>th</sup> grade.
- Characterize differences in the reading trajectories of children with ASD compared to children with SLI or SLD, which are disability groups that present with reading difficulties.

## Methods

- Data was analyzed from the Early Childhood Longitudinal Study, K-2011, a nationally representative data set
- Used item response theory-based scores from reading assessments conducted at 6 time points from Kindergarten entry through 4<sup>th</sup> grade for the following groups:
  - ASD Group: ASD on parent or special education teacher questionnaire
  - Typical Group: Never had an Individualized Education Plan
  - SLI/SLD group: SLI/SLD on parent or special education teacher questionnaire

## Results

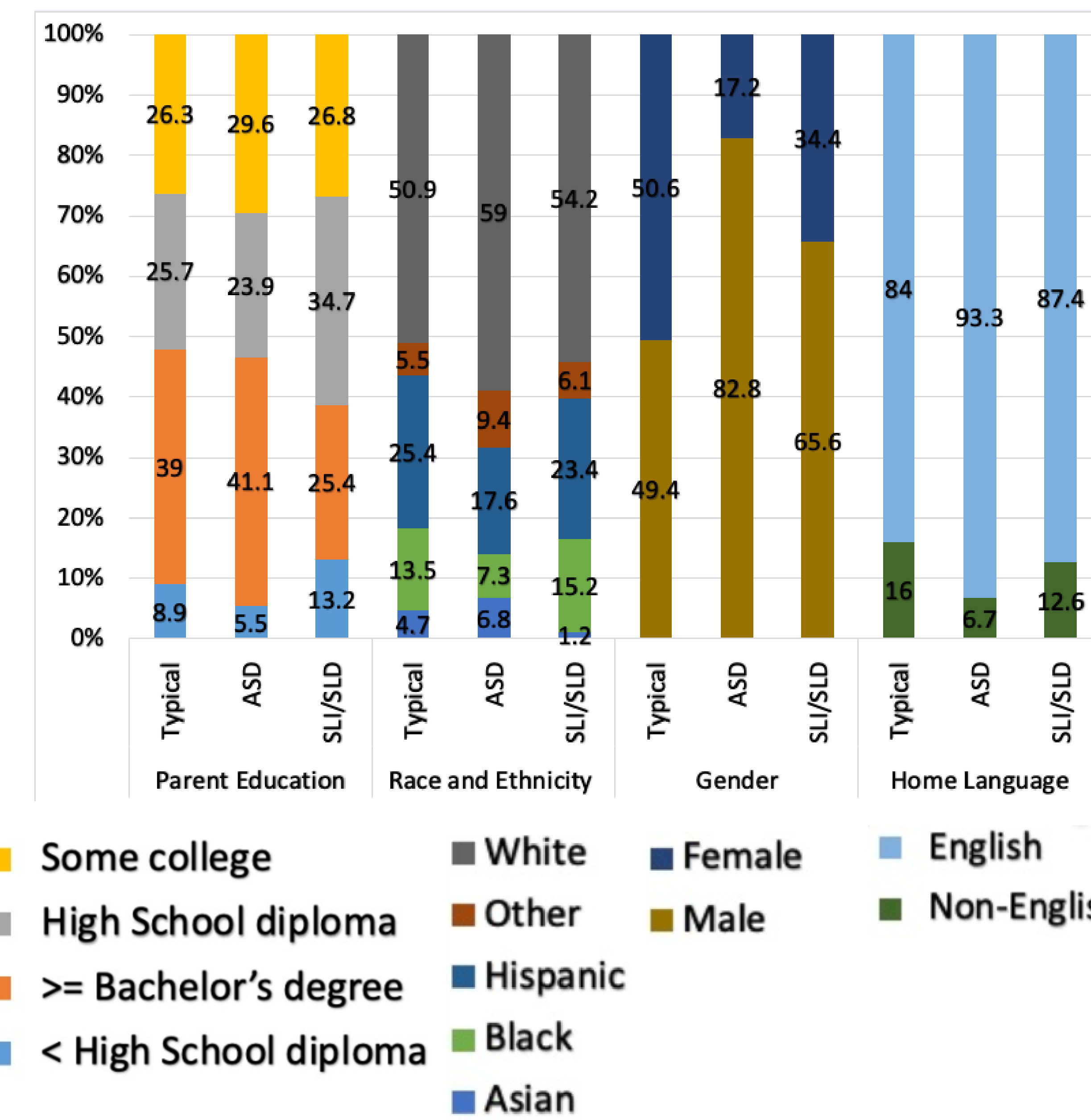


Figure 1: Demographic characteristics of ASD, Typical, and SLI/SLD groups

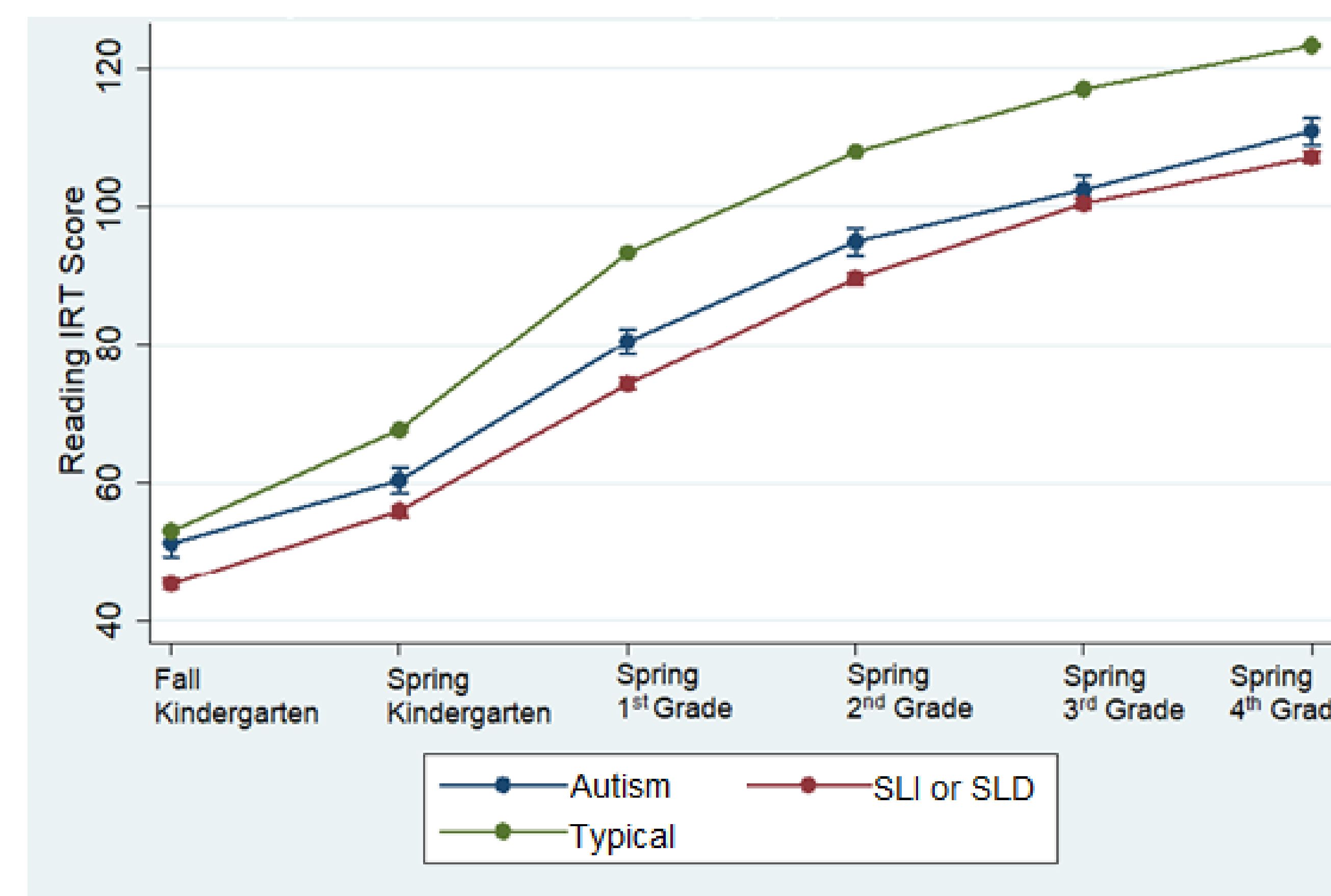


Figure 2: Mean Reading Scores from the beginning of Kindergarten to the end of 4<sup>th</sup> grade

- The ASD group (N= 211) starts with similar reading scores to the typical group (N= 14,171) in the fall of Kindergarten
- However, the ASD group has lower reading scores compared to the Typical group from the spring of Kindergarten through 4<sup>th</sup> grade
- Compared to the SLI/SLD group (N= 12,262), the ASD group has higher mean reading scores in Kindergarten through 2<sup>nd</sup> grade
- After 3<sup>rd</sup> grade, the reading scores of the ASD group start to decline, becoming more similar to the SLI/SLD group

## Conclusions

- Children with ASD have a distinct reading trajectory compared to typically developing children and children with SLI or SLD from the start of Kindergarten through 4<sup>th</sup> grade

## Next Steps/Policy Implications/Significance

- Children with ASD require unique monitoring beginning in Kindergarten to promote early identification of reading difficulties and provision of services to prevent a widening gap in reading achievement.
- Children with ASD may require an individualized approach to targeting reading challenges
- Plan to evaluate how the following effect the reading trajectories of children with ASD compared to typically developing children and children with SLI/SLD:
  - Social Skills
  - Home Literacy Activities

## Acknowledgements

UCLA Health Services Research Group, Sai Iyer, Dr. Rebecca Dudovitz, Dr. Cambria Garell, Dr. Irene Koolwijk, Dr. Rolanda Gott