



Studying Numerical Literacy Across Generations in United States Households

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Background

Numerical literacy, the ability to understand and work with numbers is essential for sound **financial decisions** and long-term **wealth building**. Most research focuses on **adults**, overlooking how these skills develop in **childhood** or transfer between generations. The link between **childhood numerical ability** and **adult wealth** remains unclear. Our work uses national **PSID** & **CDS** data to explore this connection in a multi-generational context.

Hypothesis/Objectives

We expect **numerical literacy** to **persist** within individuals **over time** and to be passed from **parents** to **children**. We investigate whether stronger **childhood skills** lead to improved **adult wealth outcomes**. Using **statistical** and **machine learning methods**, we also identify the key factors predicting intergenerational literacy.

Methods



PSID & CDS DATA



MATCH PARENT-CHILD



LINK SCORES & OUTCOMES



Data

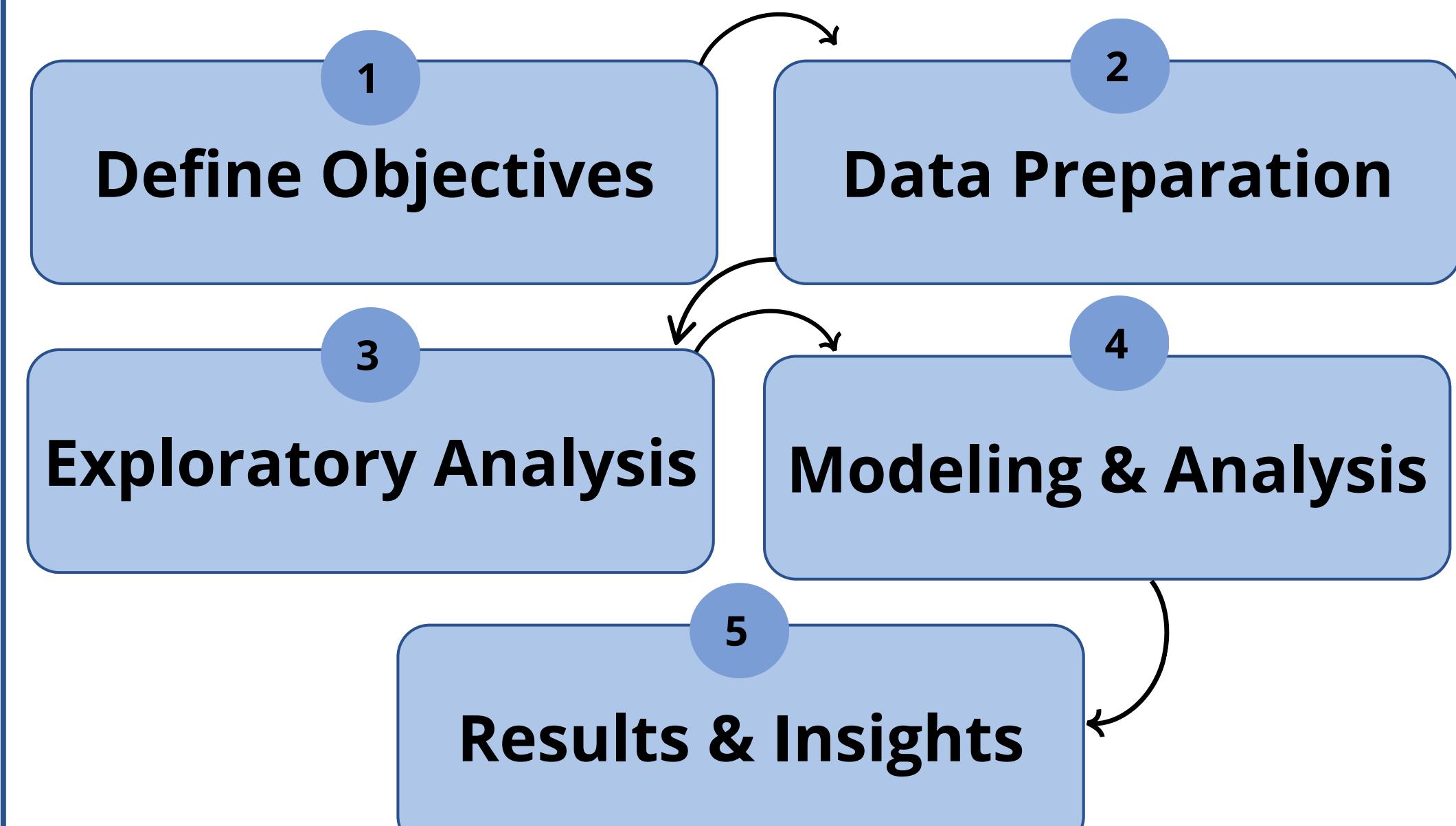
PSID → 6-question numerical literacy test (0-6 score) for parents.

CDS → standardized child assessment (0-120 score) for children.

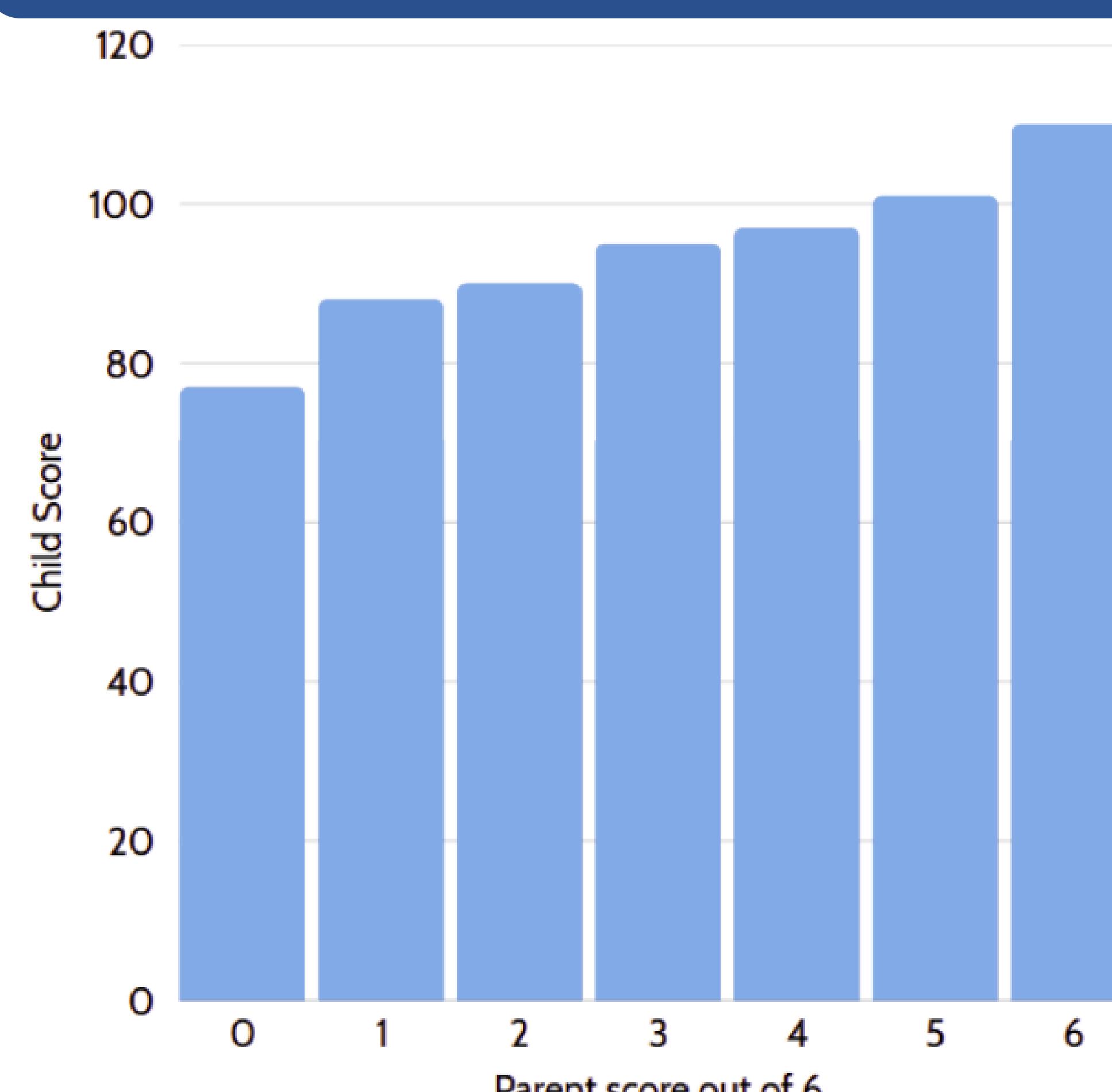
Why these exams?

- Used in past **economic research** for **financial/numerical literacy**.
- Comparable** across **survey years**.
- Simple and objective scoring.

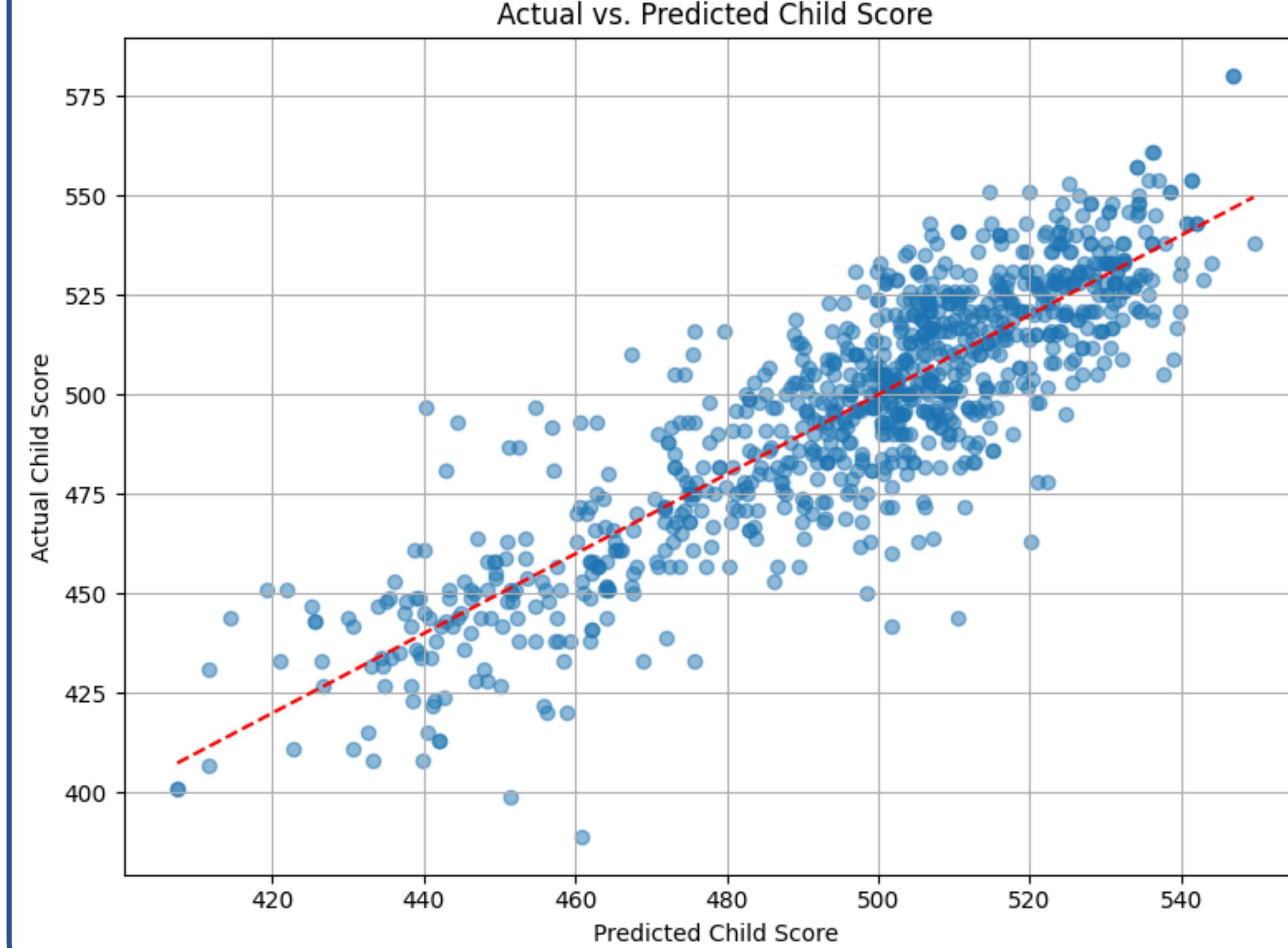
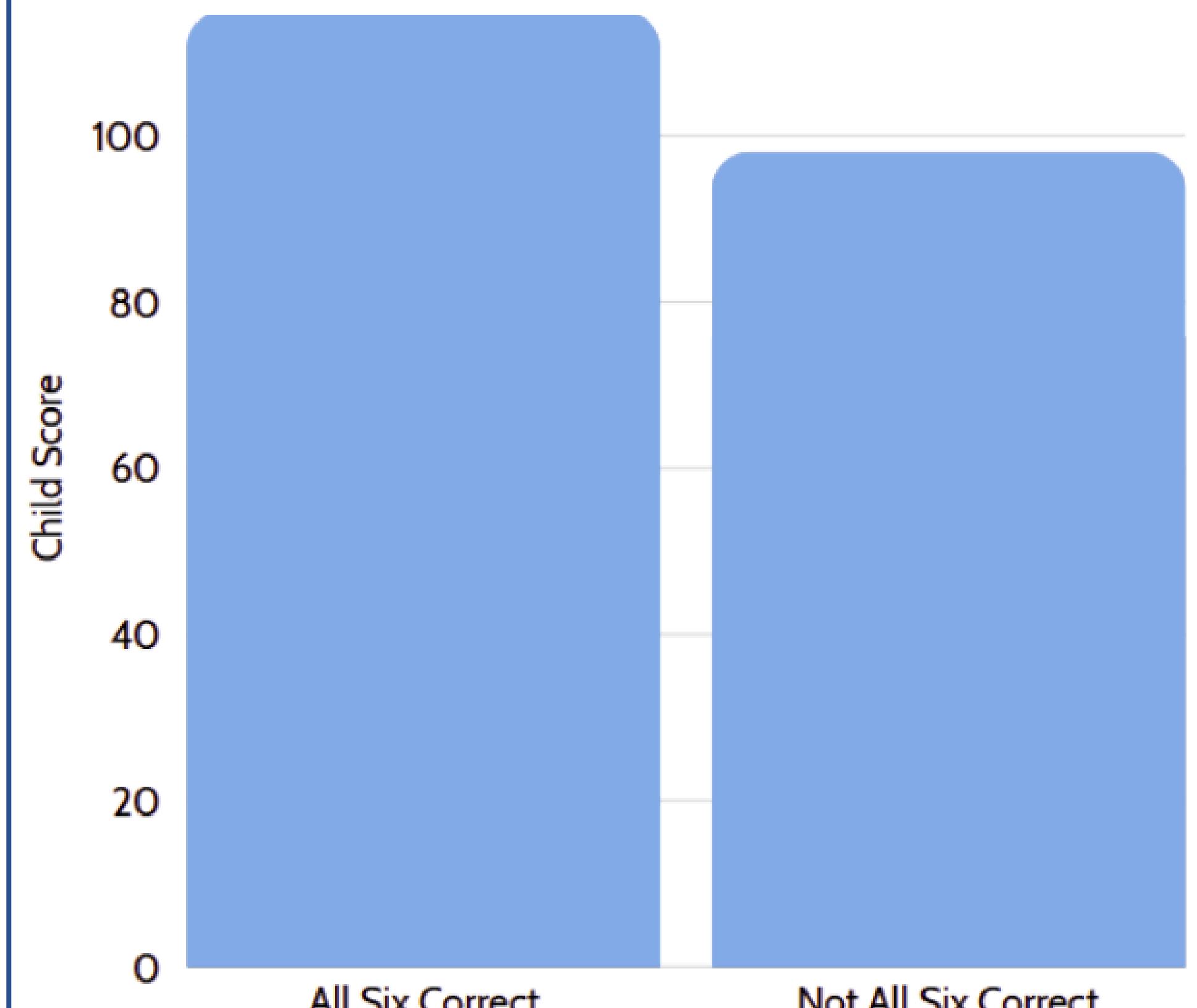
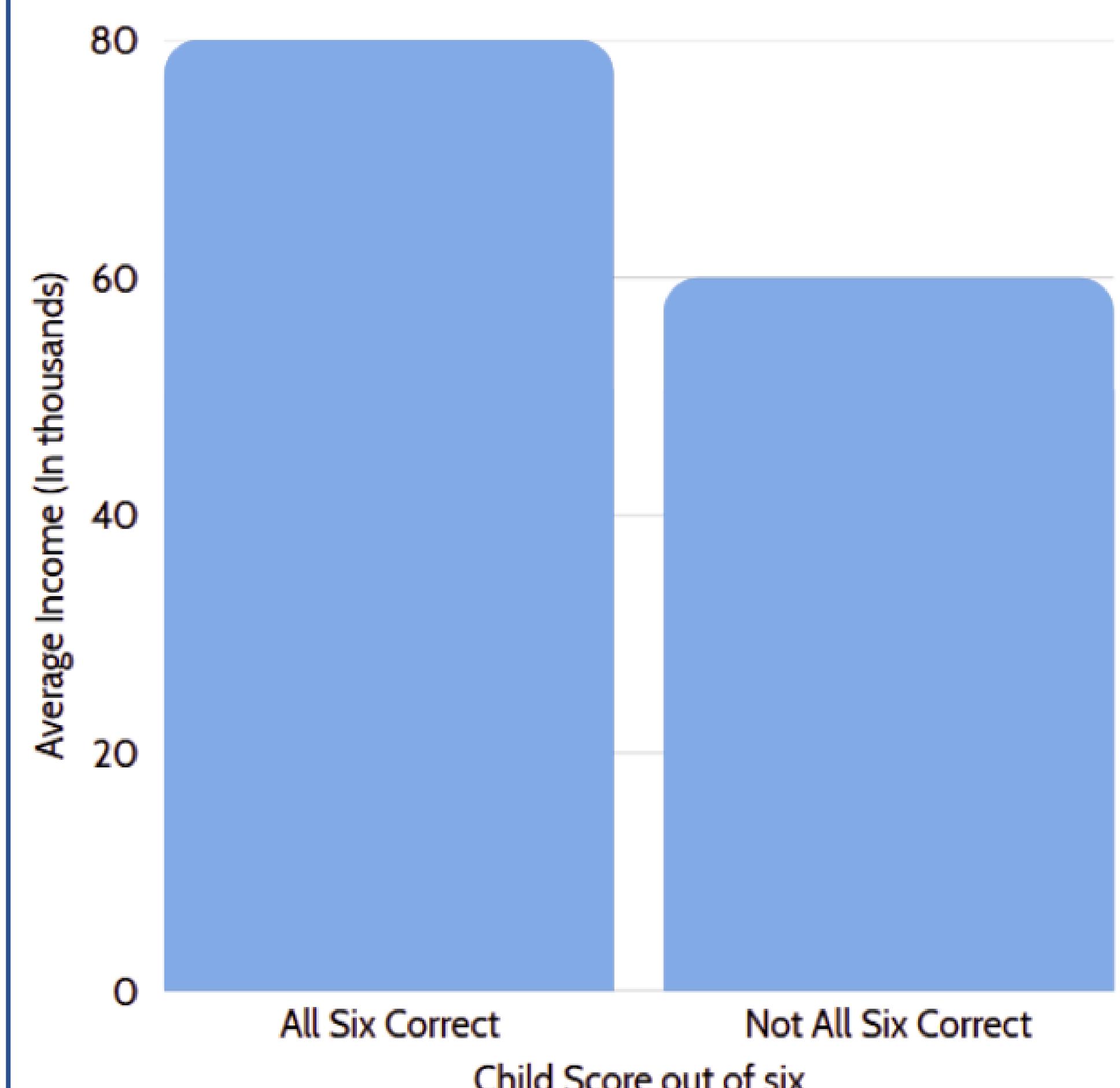
Pipeline



Results



Results



Tools



python™



PyTorch



Github



Conclusion

Numerical literacy endures over time and is **transmitted** across generations. Stronger early life numeracy is associated with better **adult wealth outcomes**. Family context, especially **parental income**, spending habits, and **educational expectations**, emerges as a key predictor, underscoring the role of the home environment in shaping **financial security**.

Future Directions

- We aim to extend our analysis to more **PSID** waves, add richer **socioeconomic** indicators, and explore advanced ML techniques to improve predictions.
- Longer-term, we will expand to study **wealth mobility** and compare findings across different countries.

Acknowledgements

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Resources & Contacts

