



Parents Expectations and Values of their Preschooler's Math Learning

Cristina Carrazza¹, Colleen Uscianowski², & Susan C. Levine¹

¹University of Chicago, ²University of Cincinnati

Parents' expectations about their children's academic success and how much value they place on this success (EV) have a lasting effect on children's achievement¹. This is true for general academic achievement as well as achievement in specific domains like math². The current project explores:

- Parent's EV for their child's achievement **prior to the start of formal schooling**
- Comparing how these attitudes might differ for **math and reading**

SAMPLE

50 parents of preschoolers recruited through Turk.
Completed EV measure as part of a larger research study

Parent Demographics

- Average age: 33.49 years (range 22 – 59)
- 42 mothers, 8 fathers
- Highest Level of Education: 4 completed High School, 22 completed some College, 14 completed a Bachelor's Degree, and 10 completed a Graduate Degree
- Average Household Income: \$40,000 to \$59,999

Child Demographics

- Average age 3.76 years (range 2.75 – 4.75)
- 27 girls, 23 boys

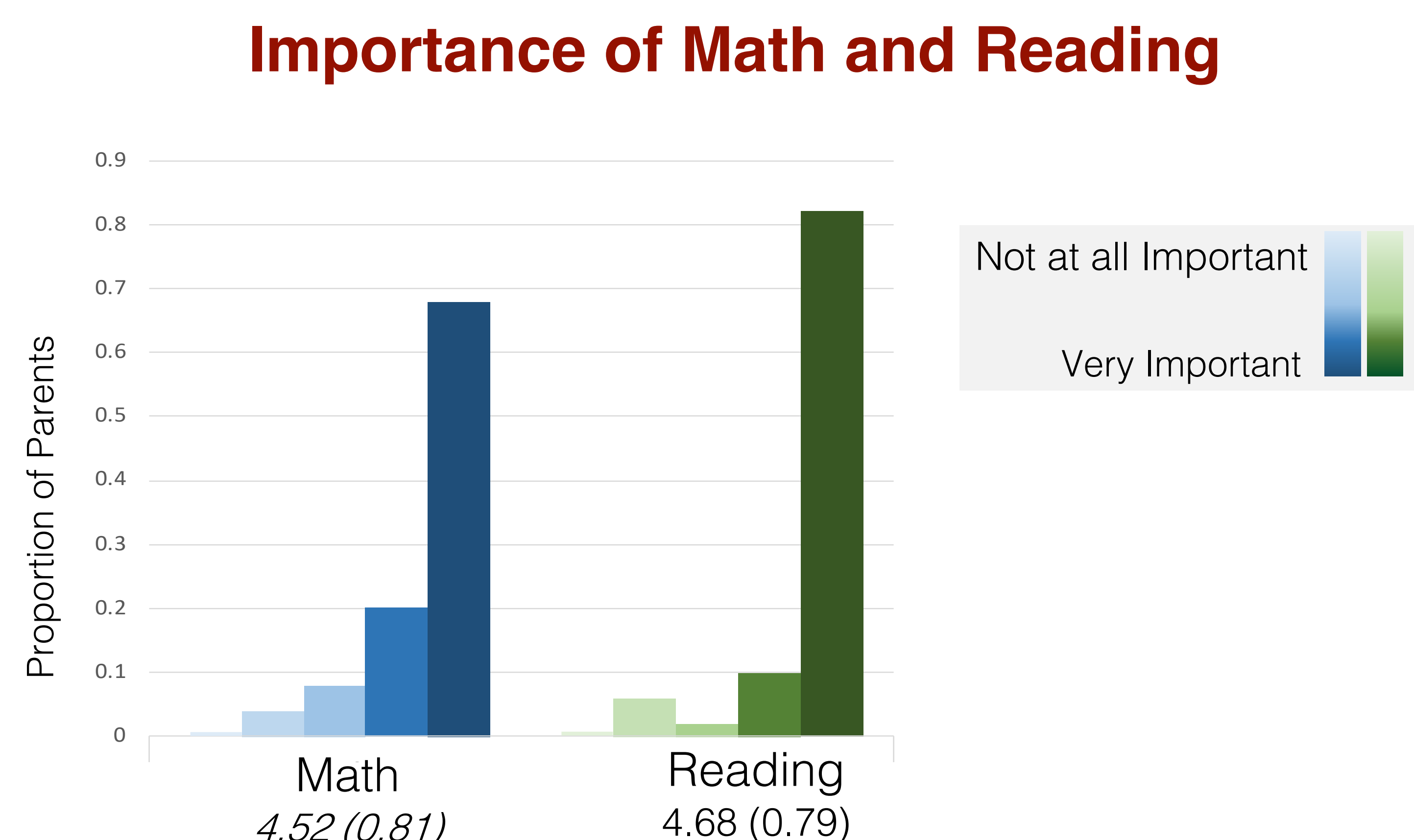
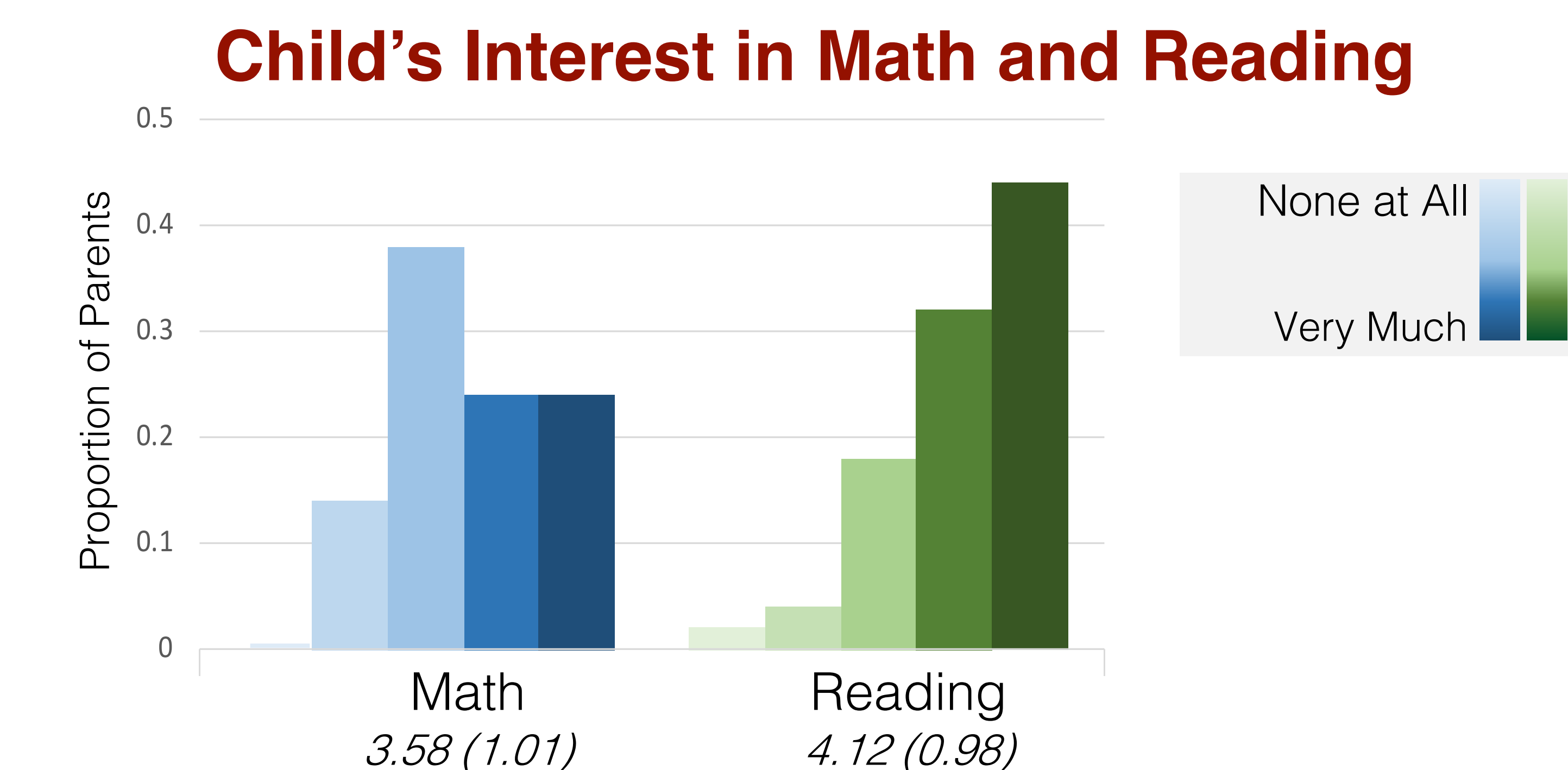
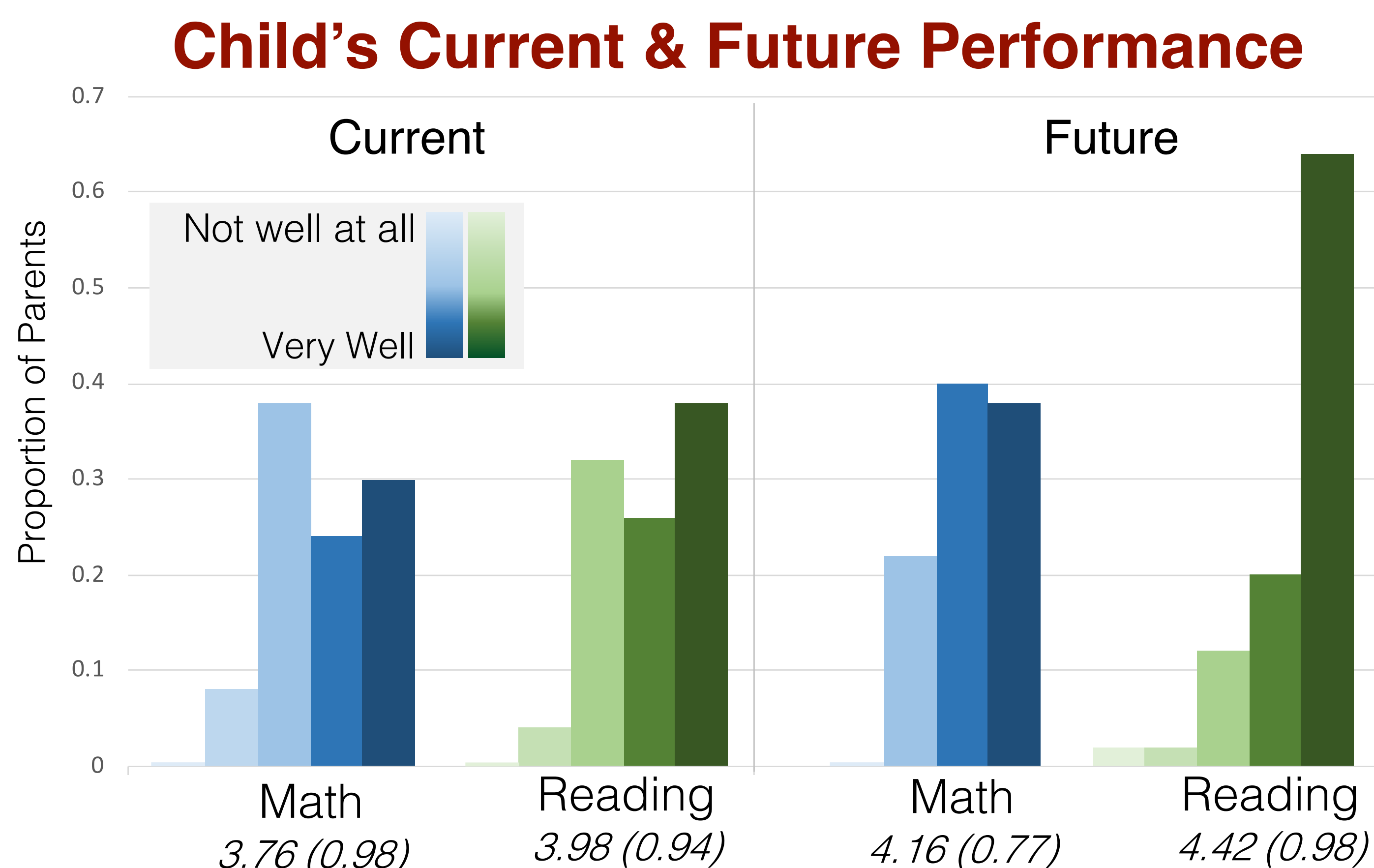
EXPECTATIONS AND VALUES

Math and Reading scales each composed of 4 items adapted from a EV measures used with parents of older children³. Responses measured on 5-point Likert Scale

1. How well does your child **know numbers/ is doing in reading/learning the alphabet**?
2. How much does your child **enjoy number/math reading/alphabet** activities?
3. How **important** do you think **math/reading** skills are for your child?
4. How well do you think your child **will do in math/reading in the future**?

KEY FINDINGS

Distributions of Parent's responses for each item
Average responses for math and reading with standard deviations in parenthesis are shown below each group



SUMMARY

- Parents rate their child's **current** math and reading ability **similarly**
- However, parent's have **higher expectations** for their child's **future** reading ability than math ability.
- Parents believe their children are **more interested in reading** compared to math
- Parents place **equal importance** on math and reading for their child

FUTURE DIRECTIONS

- Follow-up study to understand the development of these attitudes as children enter formal schooling
- Understanding the mechanisms for how these early attitudes to relate to children's long-term achievement

IMPLICATIONS

- Parents of preschoolers seem to be aware of the importance of early math compared to reading
- Future interventions should target their expectations of future math achievement (and helping them realize that math for young children is fun!)

ACKNOWLEDGEMENTS

We thank the National Science Foundation Science of Learning Collaborative Network Grant #1540741 to Susan C. Levine.

REFERENCES

- 1 Hill & Tyson, 2009. Parental involvement in middle school. *Dev Psych*
- 2 Aunola et al., 2003. The roles of achievement-related behaviours and parental beliefs in children's mathematical performance. *Ed Psych*
- 3 Schaeffer et al., 2018. Disassociating the Relation Between Parents' Math Anxiety and Children's Math Achievement. *JEP*.

cristinac@uchicago.edu