



# Background

- The Salvardori Center “uses the built environment to illustrate the relevance of math and science”
- Salvardori programs boost confidence, motivation, and content knowledge in **math** and **science**

# Finding Relevance in Math and Science

- **Utility Value (UV)** is the perception that a topic is useful and **relevant** in your everyday life (not just in the classroom)
- Encouraging students to find relevance (UV) in subjects enhances their interest and performance

# Research Question

- What makes Salvadori's programs so effective?

# Hypotheses

- Salvadori programs help children see how math and science are useful and relevant to their everyday lives
- Children's perceptions of relevance (UV) increase over their participation in Salvadori
- These perceptions persist after their participation

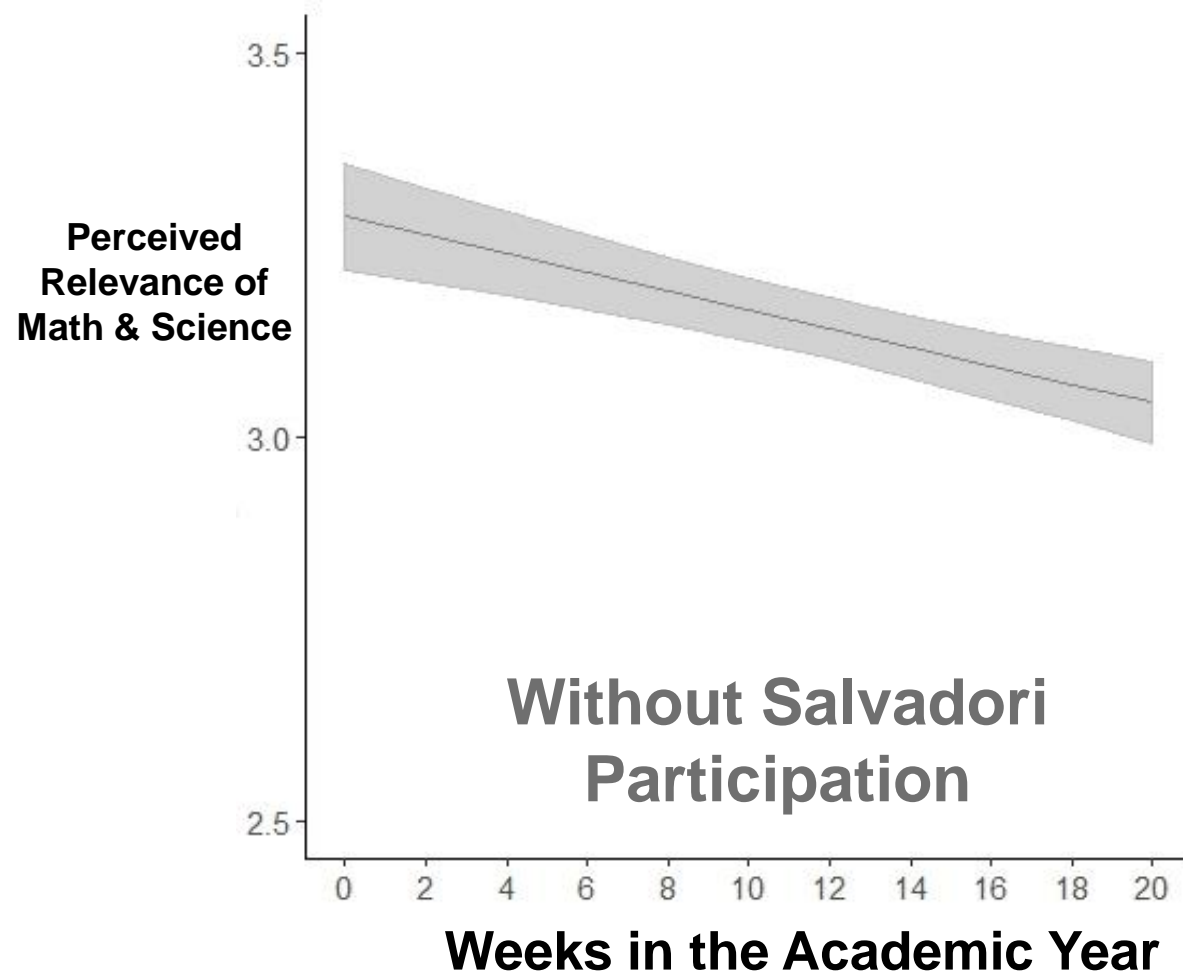
# Sample

- 387 children, kindergarten through 5<sup>th</sup> grade
- 194 girls, 193 boys
- Ages 4.26–11.28 ( $M = 7.38$ ,  $SD = 1.85$ )

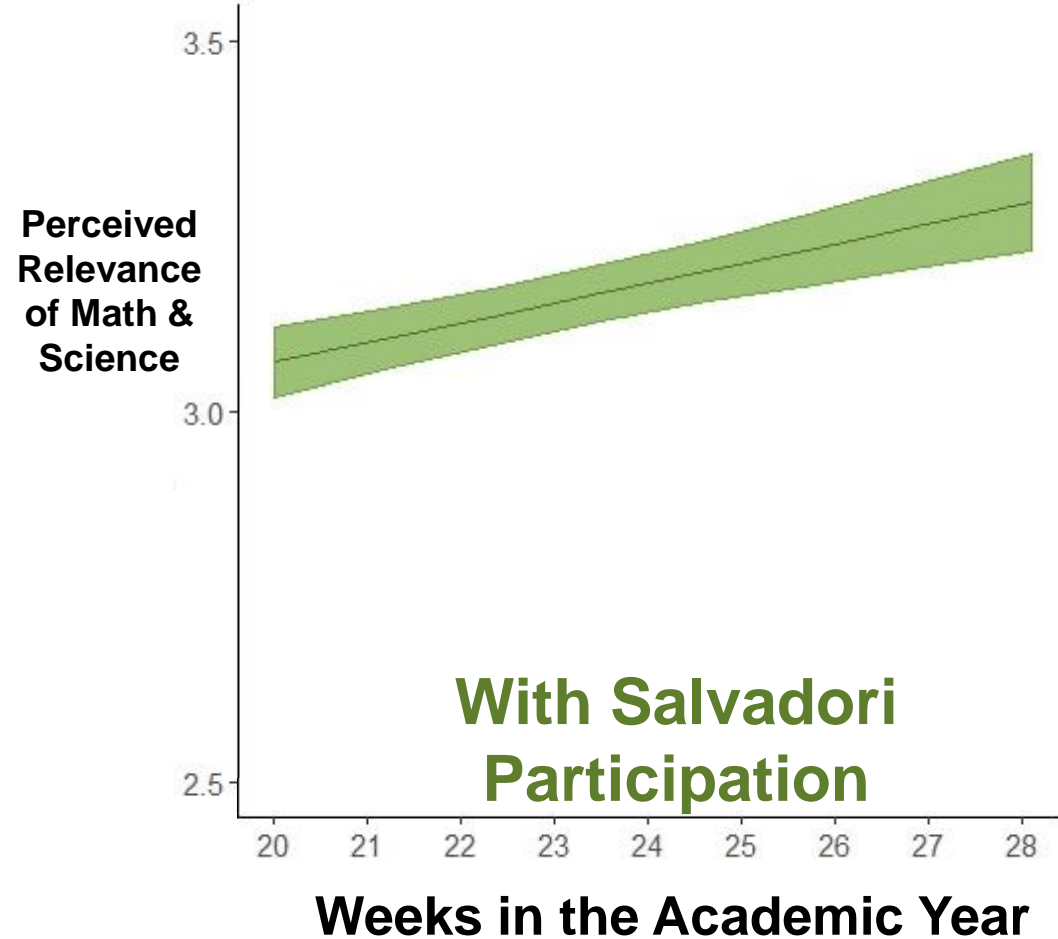
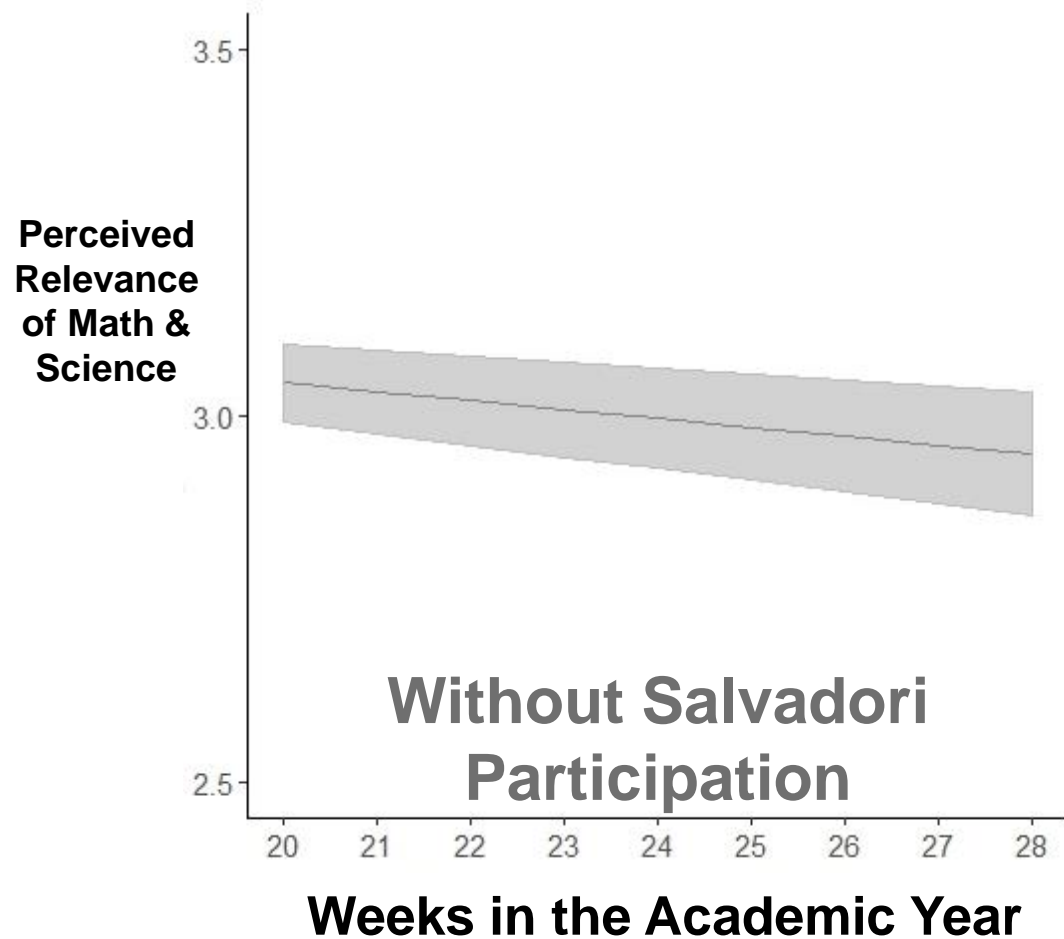
# Results Overview

- Relevance (UV) evaluated before, during, and after participation in a Salvadori program
- Academic Year = 40 weeks
  - Before participation: Weeks 0-20
  - During participation: Weeks 20-28
  - After participation: Weeks 28-40

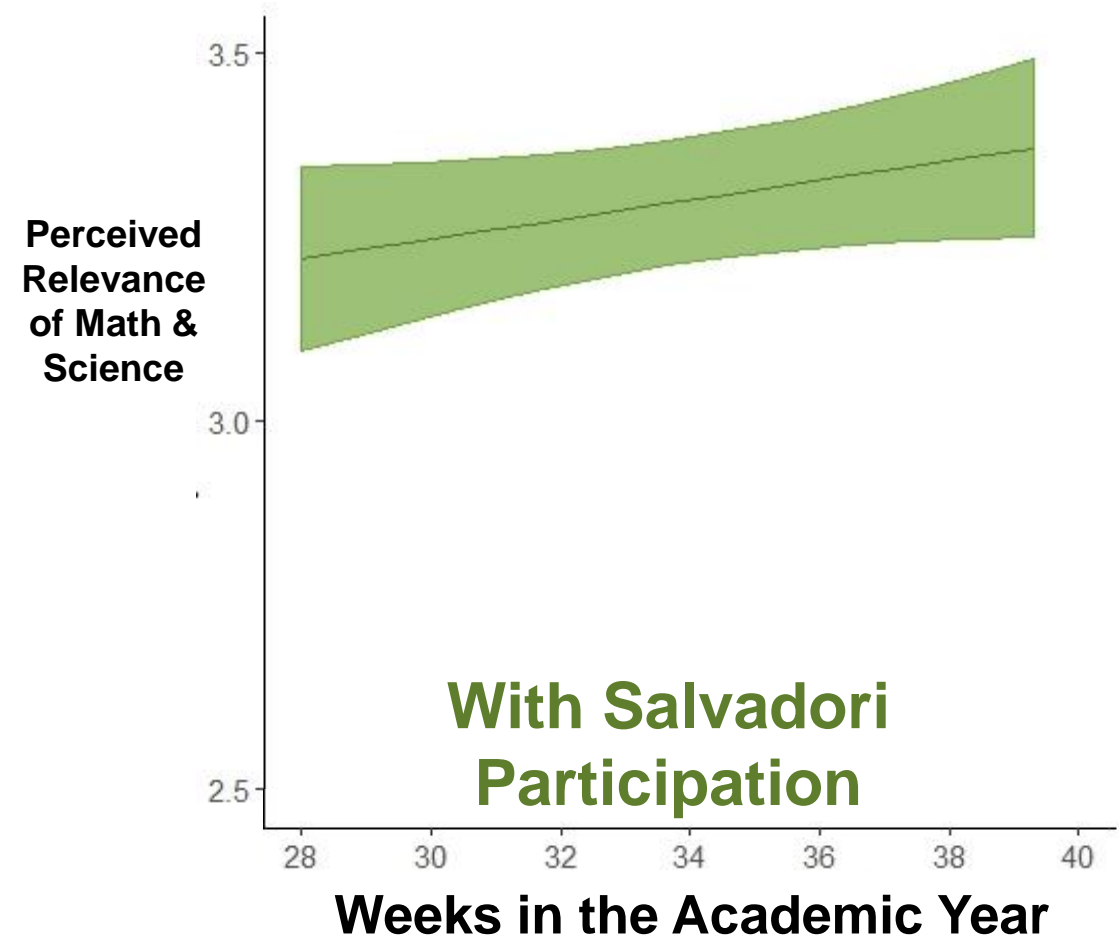
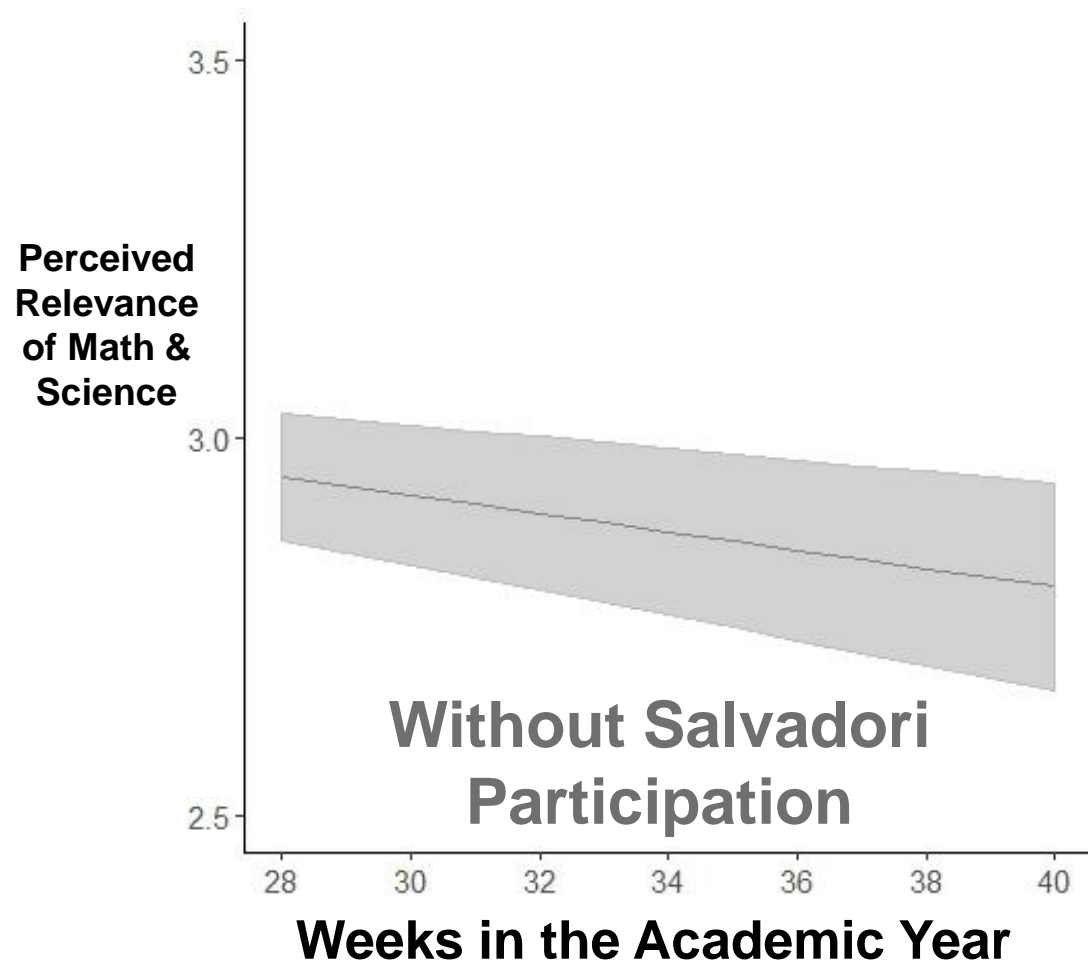
# Perceived Relevance Before Salvadori



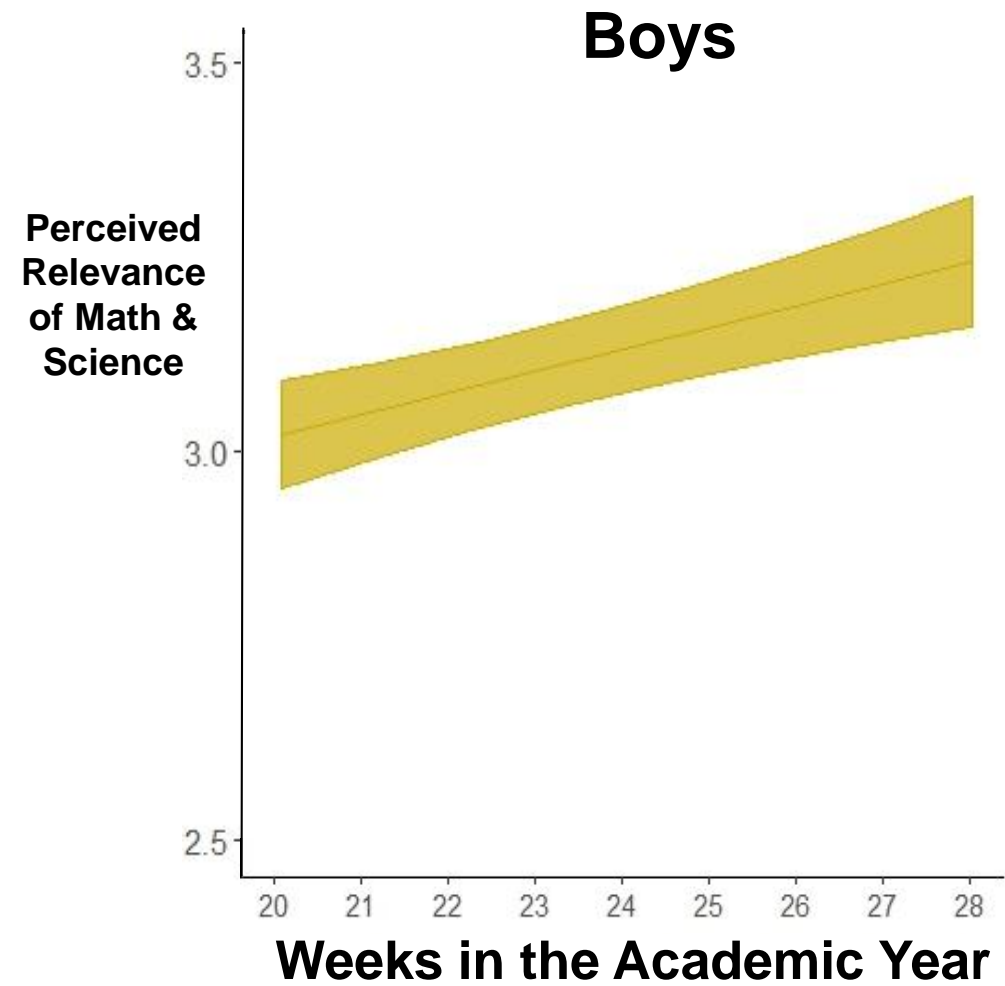
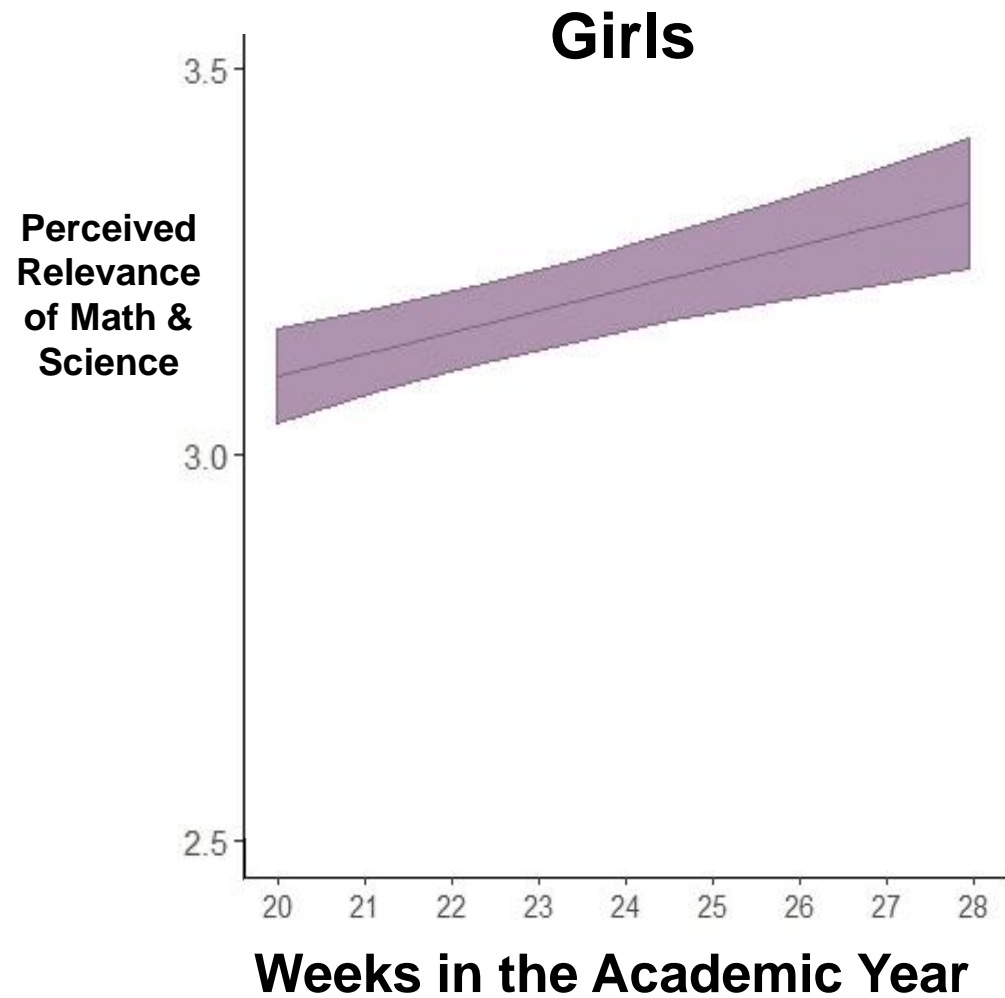
# Perceived Relevance During Salvadori



# Perceived Relevance After Salvadori

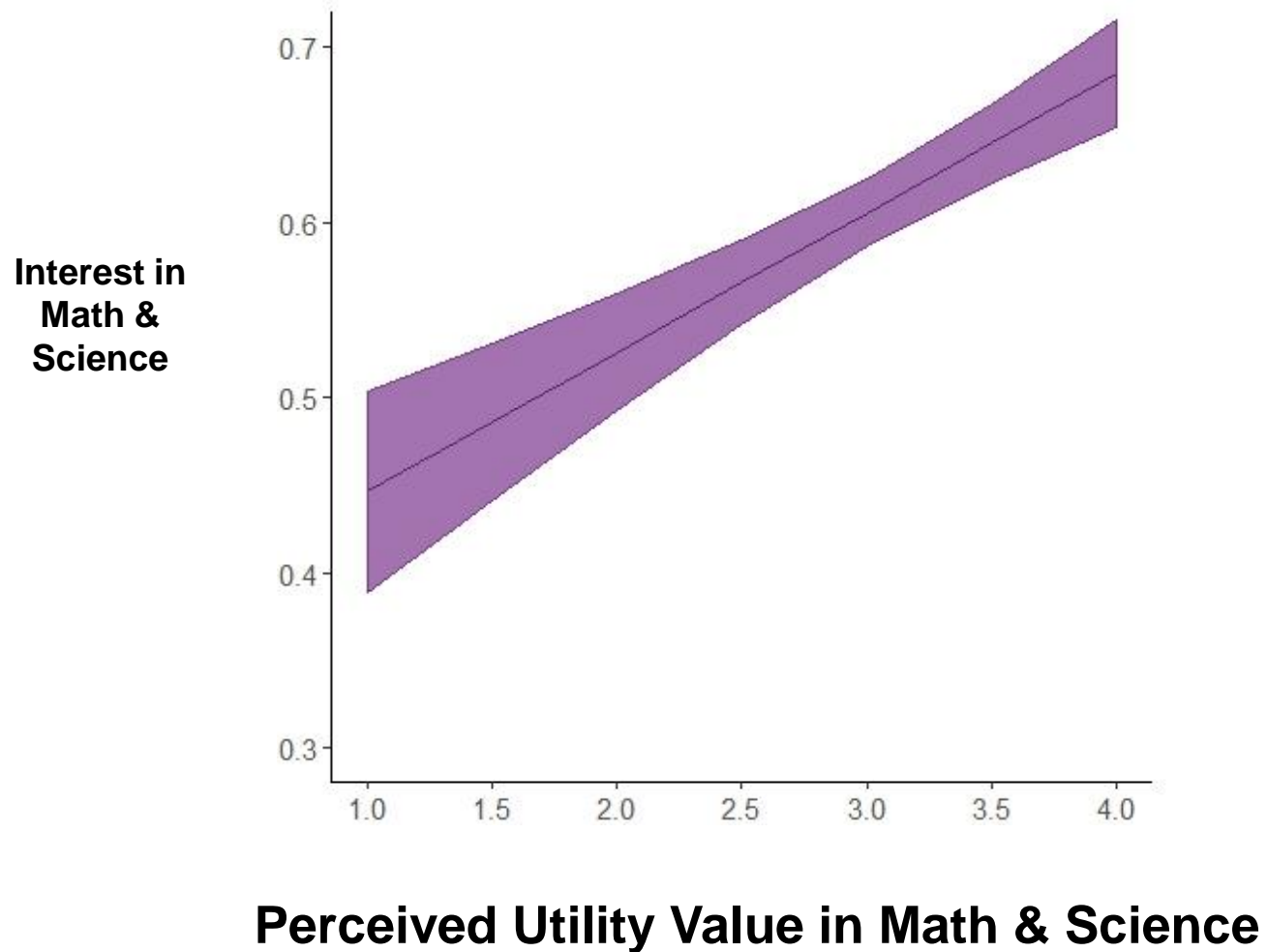


# By Gender: During Salvadori

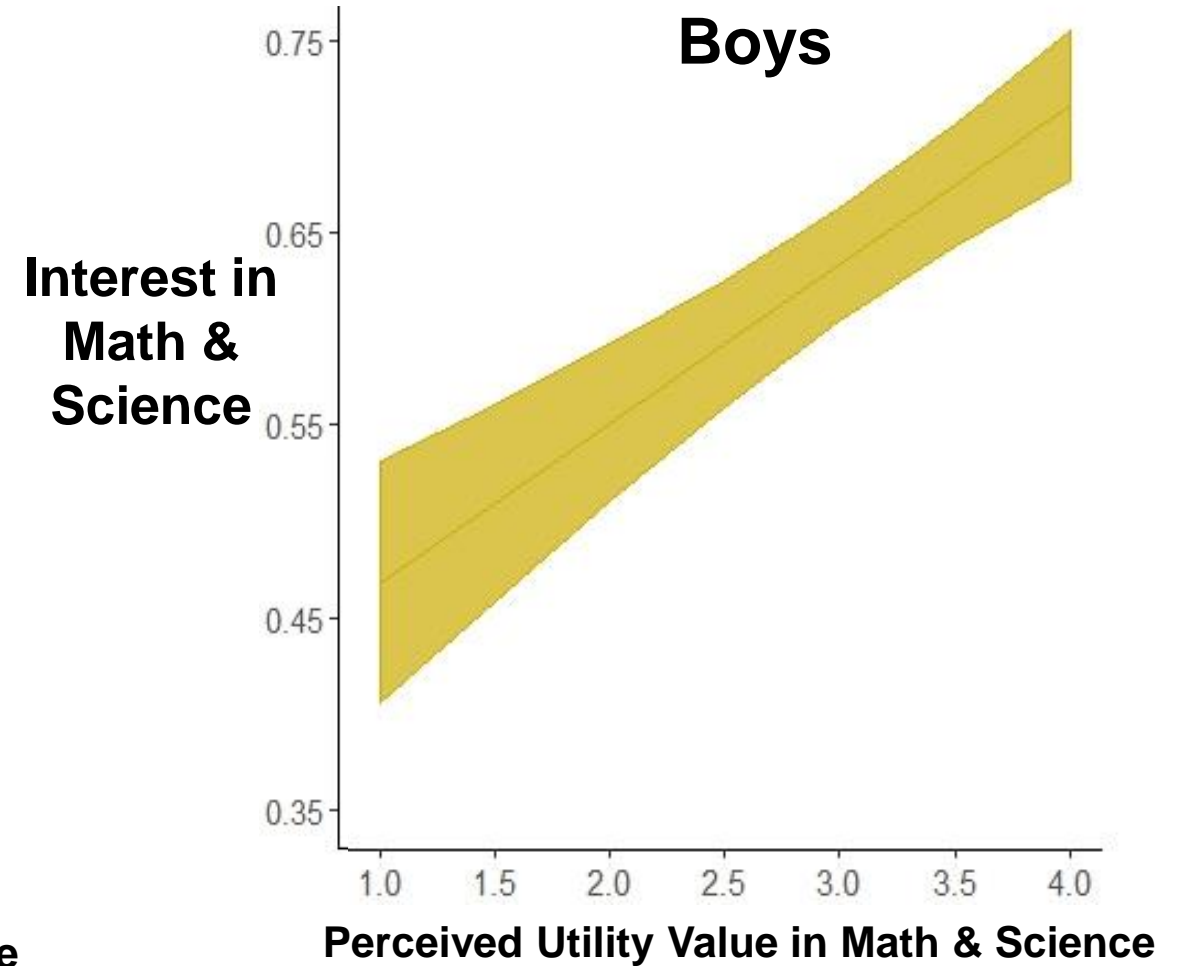
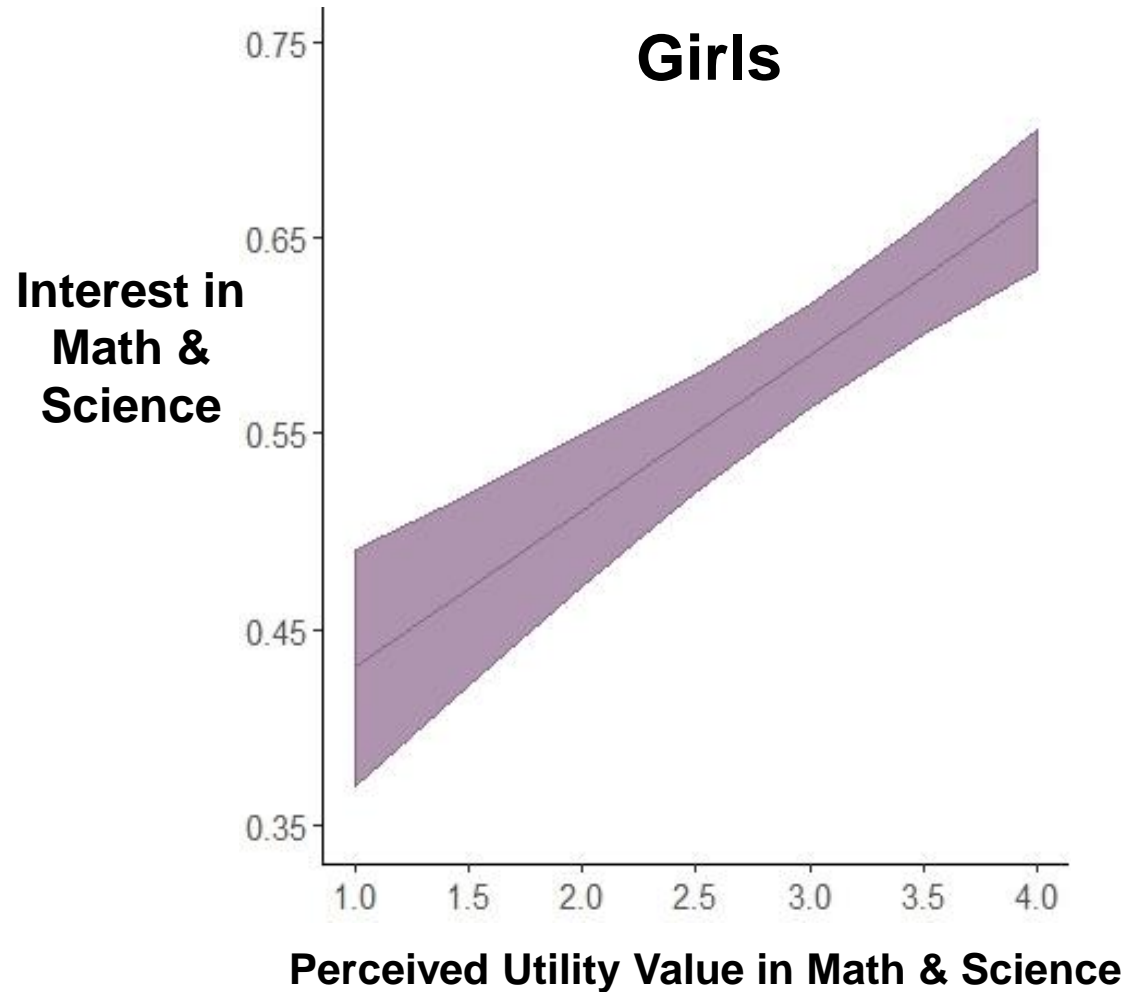




# Relevance and Interest



# By Gender: UV and interest



# Conclusion

- Children's perceptions of utility value in math and science typically decline throughout the school year
- Salvadori programs boost children's utility value throughout their participation in the program
- This boost persists at least 12 weeks after participation
- Greater utility value is associated with more interest in math and science

