Gender, Assertiveness, and Economic Decisions

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March 31, 2016

Research Agenda

- Gender differences in labor market outcomes in the US persist:
  - Earnings gap: women earn approximately 78 cents for every dollar earned by a man (Goldin 2015)
  - Leadership gap: women make up only 4.2% of CEOs at S&P 500 firms, 19.2% of board members (Catalyst 2015)
  - Leaky pipelines in male-typed fields: for instance, in economics, women make up 30% of assistant professors, but only 12% of full professors (CSWEP 2014)

Research Agenda

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  - differences in human capital accumulation
  - demand for flexibility
  - discrimination and stereotypes
  - gender differences in preferences

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My work is focused on better understanding these two forces.

Research Agenda

- Draw insights from field data on labor market outcomes and other economically-important contexts to inform research questions

- Design a carefully controlled laboratory environment that (i) can isolate the forces at work, (ii) measure the impact of those forces on the efficiency/equity of outcomes, (iii) test potential policy interventions

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Today: Discuss one of my papers that exemplifies this approach

Willingness to guess
Baldiga (2014) in Management Science

In many important contexts, we face questions we aren't sure we know the answer to: the classroom, board meetings, job talks…

Our performance may depend on whether we're willing to guess

Willingness to guess

For example, consider the SATs - standardized tests taken by high school juniors and seniors, important for college admissions

- Multiple choice questions: 5 possible answers
- Earn 1 point for a right answer, lose ¼ point for a wrong answer, earn 0 points for a skipped question
- A risk neutral test-taker should always weakly prefer to guess

A strategy of skipping questions can be detrimental

Willingness to guess

This project focuses on this test context and asks:

1. Do women skip more questions than men?
2. What factors inform the decision to skip a question?
   - Knowledge of the material?
   - Confidence?
   - Risk aversion?
3. How does skipping questions impact test scores?
4. Does eliminating the penalty for wrong answers eliminate the gender gap?

Design

Part 1: SAT-style test with option to skip

- Use 20 Questions from College Board Practice Tests for World History and US History SAT II Tests
- Incentives:
  - Receive 1 point for a right answer
  - Receive 0 points for a skipped question
  - We randomly vary penalty for wrong answers across subject:
    - Lose **0,** or
    - Lose **¼** point for a wrong answer

Design

Part 2: Measure risk preferences

- Subjects must accept/decline a series of 20 gambles structured to mimic part 1 questions

- Key: Declining a gamble that succeeds Y% of time is like deciding to skip a question you are Y% sure about

Part 3: Repeat Part 1 test with forced response

- Revisit the same 20 SAT Questions from Part 1

- Each subject *must* provide an answer to each question

    - Provides a counterfactual that is unavailable in field data

- Also measure confidence in each answer

Mean Number of Questions Skipped

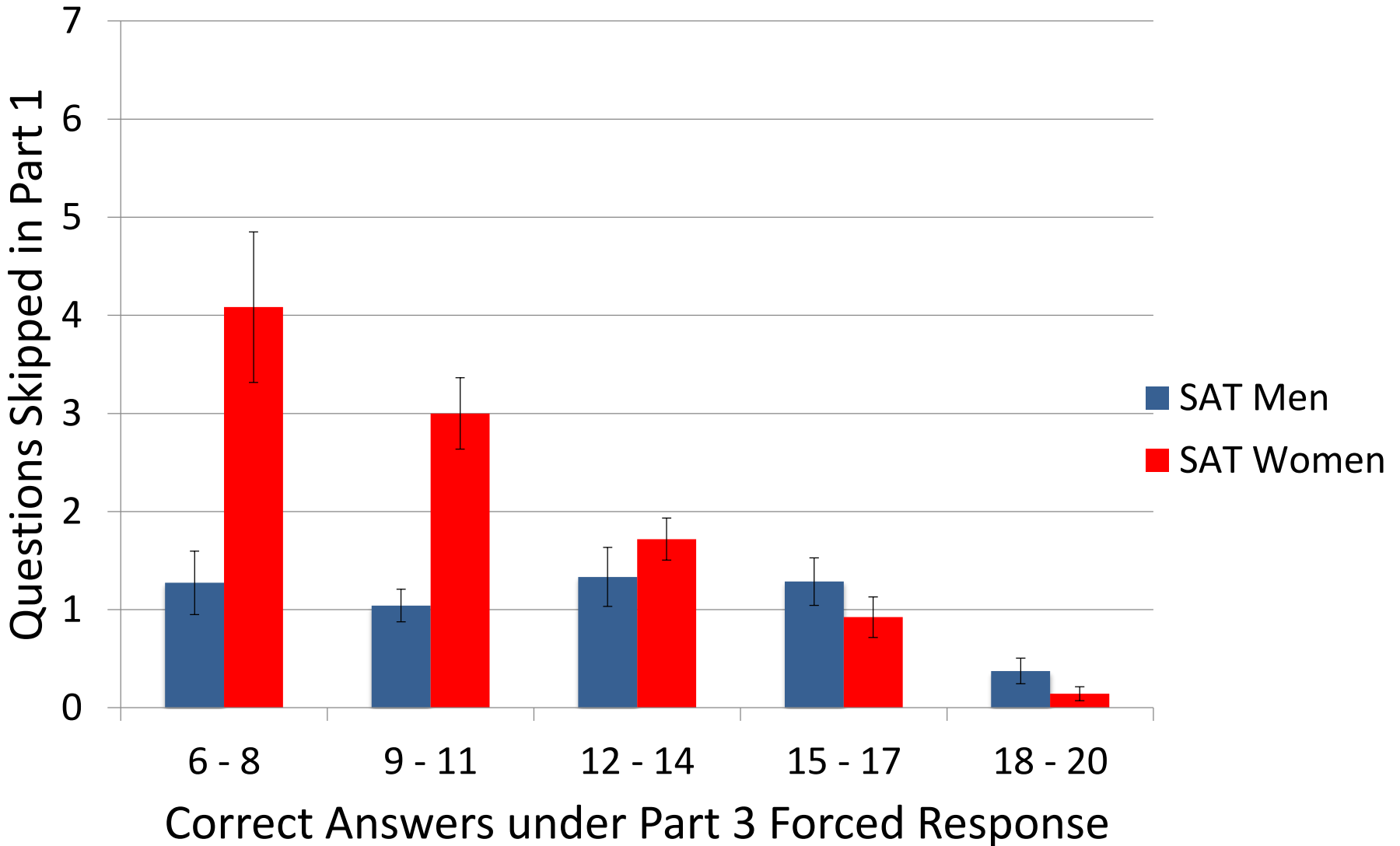|	Male Mean	Female Mean	p value
No Penalty			
Penalty	1.06	2.04	0.03

Mechanisms

We see a significant gender gap in questions skipped.

Why?

- Knowledge of the material?

- Confidence?

- Risk aversion?

Knowledge of the Material

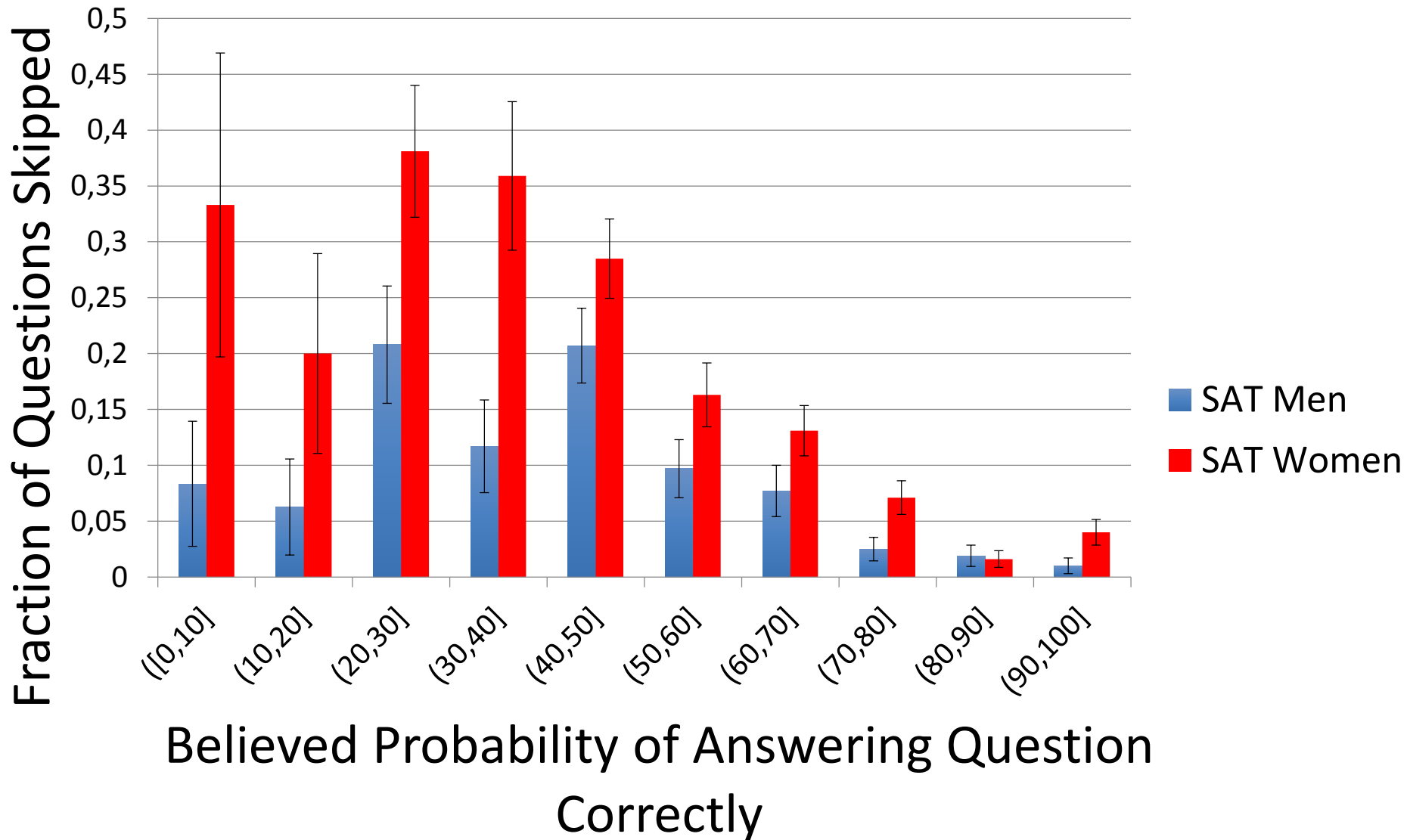# Mechanisms

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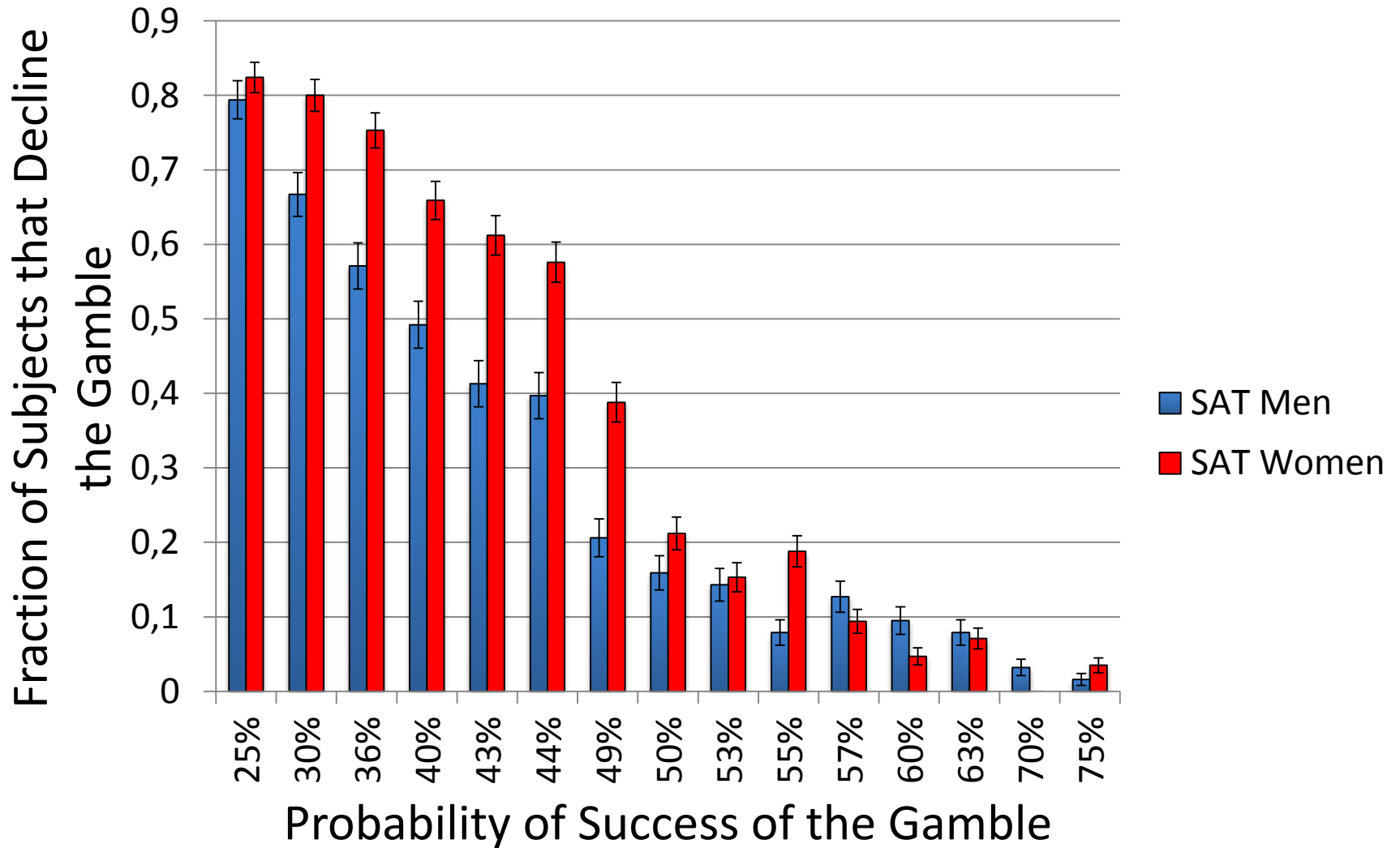
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Risk Preferences

Mechanisms

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- ~~Confidence?~~

- Risk aversion…

Risk preferences are a big part of the story: explain about half of the gender gap.

Implications for Performance

- Conditional on performance under forced response, test-takers who skip questions do significantly worse on our Part 1 test

- Because they skip more questions, women score *half a point* worse than equally knowledgeable men on our 20 point test

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Would a policy of removing the penalty for wrong answers eliminate the gender gap?

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	Male Mean	Female Mean	p value
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Conclusions

Why should we care?

- Penalties for wrong answers encourage risk averse test-takers and women to skip more questions

- Skipping questions can have a significant and negative impact on test scores

- This makes multiple-choice tests with penalties for wrong answers biased measures of knowledge

Possible policy recommendations

- Remove the penalty for wrong answers

- This is what will be done on the SAT going forward (announced March 2014)