Experimental evidence on the acceptance of males falling behind

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The female gender gap

Females have traditionally been falling behind in:

- Education (STEM)
- Labor market (CEOs)
- Representation in government

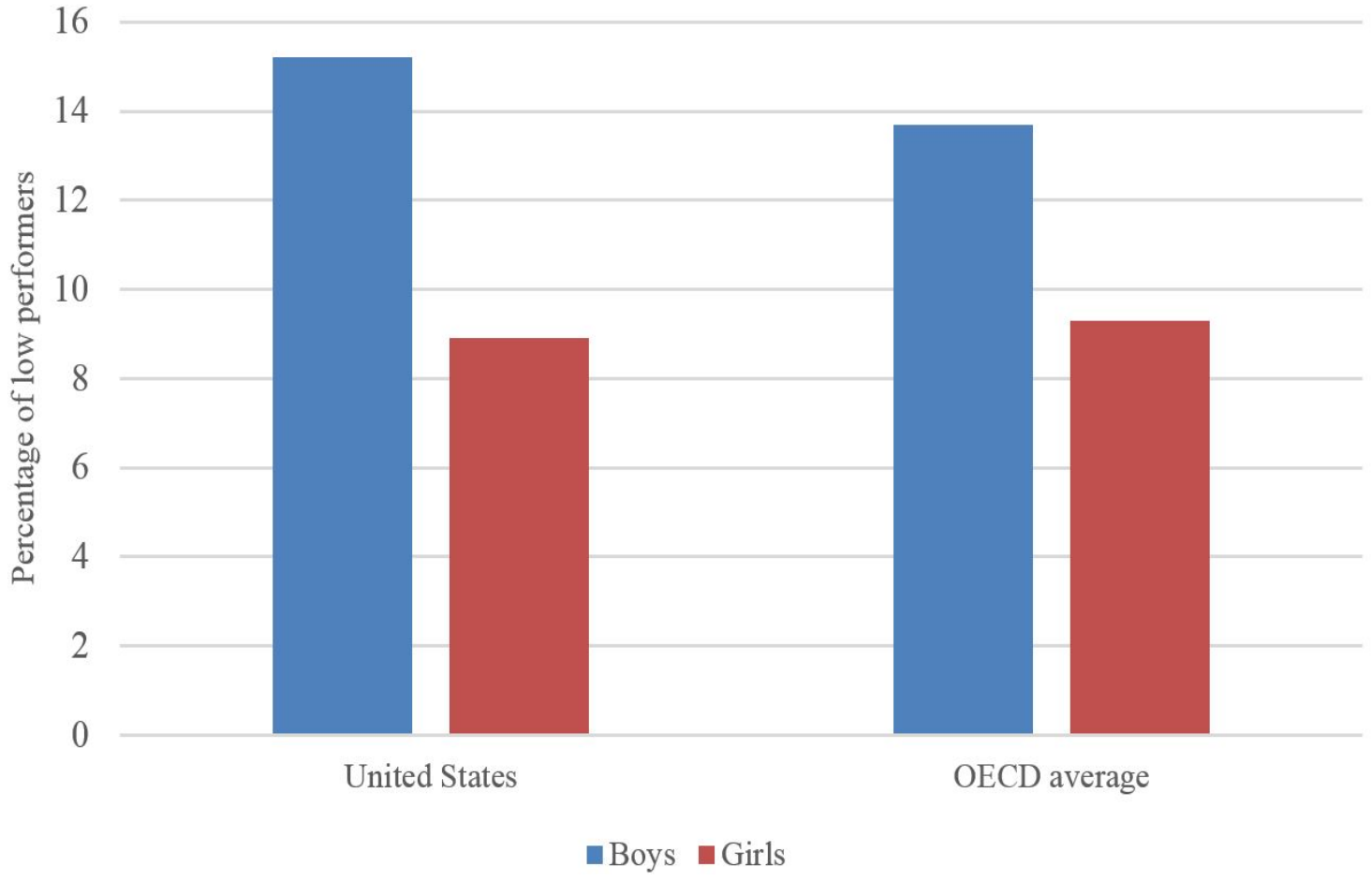
The female gender gap has received a lot of political attention. And rightly so.

Males falling behind

But another gender gap is emerging, where *low-performing males are falling behind* in important life outcomes:

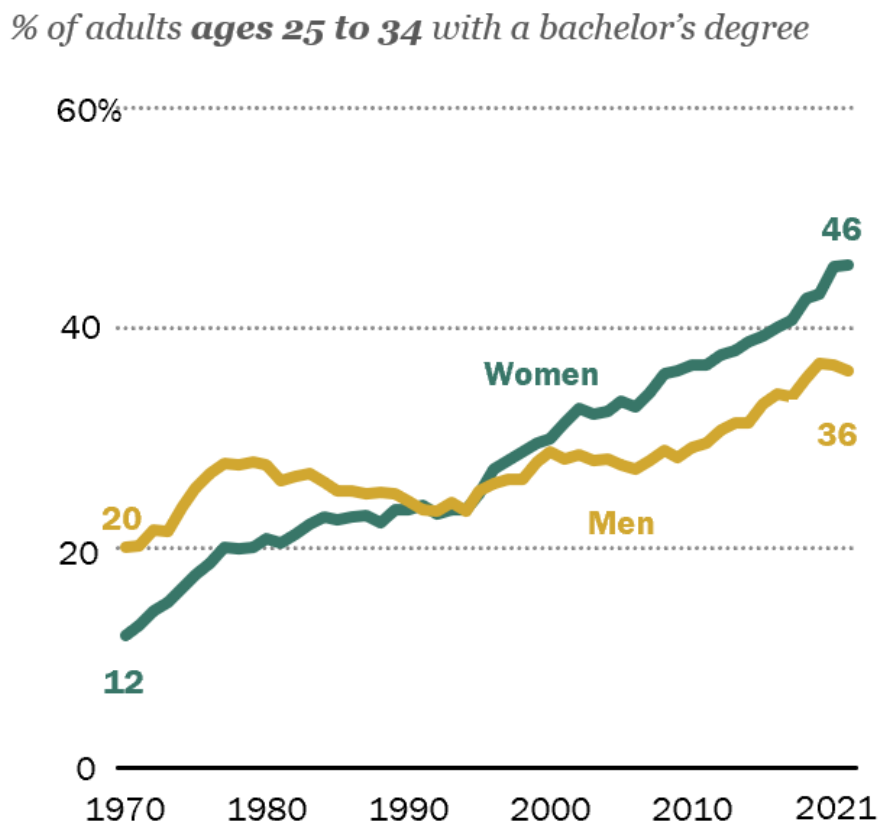
- In *school* - more low-performing boys than girls in most OECD countries.
- In *labor markets* - a large decrease in labor market participation for prime age men.
- In *health and other well-being measures*.

Boys falling behind - early years



The figure shows the percentage of low performers in all PISA subject areas (mathematics, reading and science), by gender. The data is from PISA 2012 (OECD, 2015).

College graduation by gender in the US



Source: PEW Research Center analysis of Current Population Survey Annual Social and Economic Supplement (IPUMS).

Research question

- Do we find it **morally more acceptable when males fall behind** than when females fall behind?

Our approach

Large-scale study in controlled labor market environment:

- **Experimental design: Third-party spectators** decide whether to **redistribute earnings** to a **low-performing worker**.
  - **Main focus**: Are the spectators gender biased in their concern for the low-performer?
- **Mechanism:**
  - Treatment variation in the **source of inequality** and **gender composition**
  - Elicit beliefs about **effort** in a separate sample.
- **Policy relevance:** Separate survey experiment on people falling behind in the labor market and education.
- **Sample:** General population sample of 35,000 US adults.

Choice experiment: Design

Participants

- **Workers** recruited through an international online labor market (mTurk).
- **Spectators** recruited through TNS Gallup, Ipsos and NORSTAT (several rounds).

Choice experiment: Spectator choice

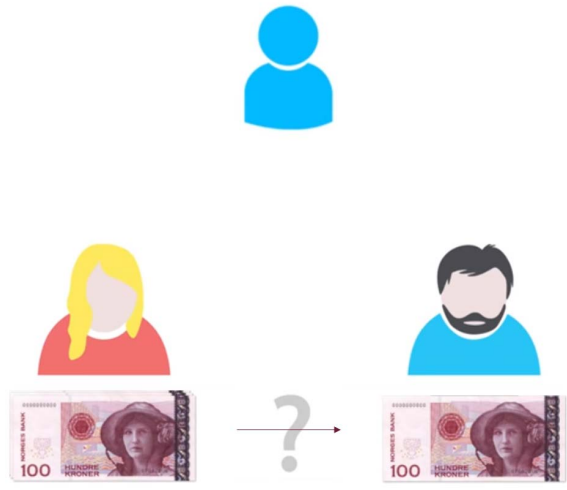
Setting

- Two workers (a man and a woman) completes an assignment.
- One of them is more productive and earns the full wage for the assignment. The other earns nothing.

Choice experiment: Spectator choice

We then ask a third-party spectator to choose whether to redistribute the earnings between the two workers.

- Anonymous
- Incentivized
- Between-individual



Main question: Are spectators less willing to redistribute when a male is falling behind than when a female is falling behind?

Statistical fairness discrimination

- The spectator makes an inference about the deservingness of a person based on observable characteristics.
- Our context: The spectator makes an **inference about the effort** exerted by the person falling behind based on gender.
  - Hypothesis: People believe that males falling behind have exerted less effort than females falling behind and that they therefore are less deserving.

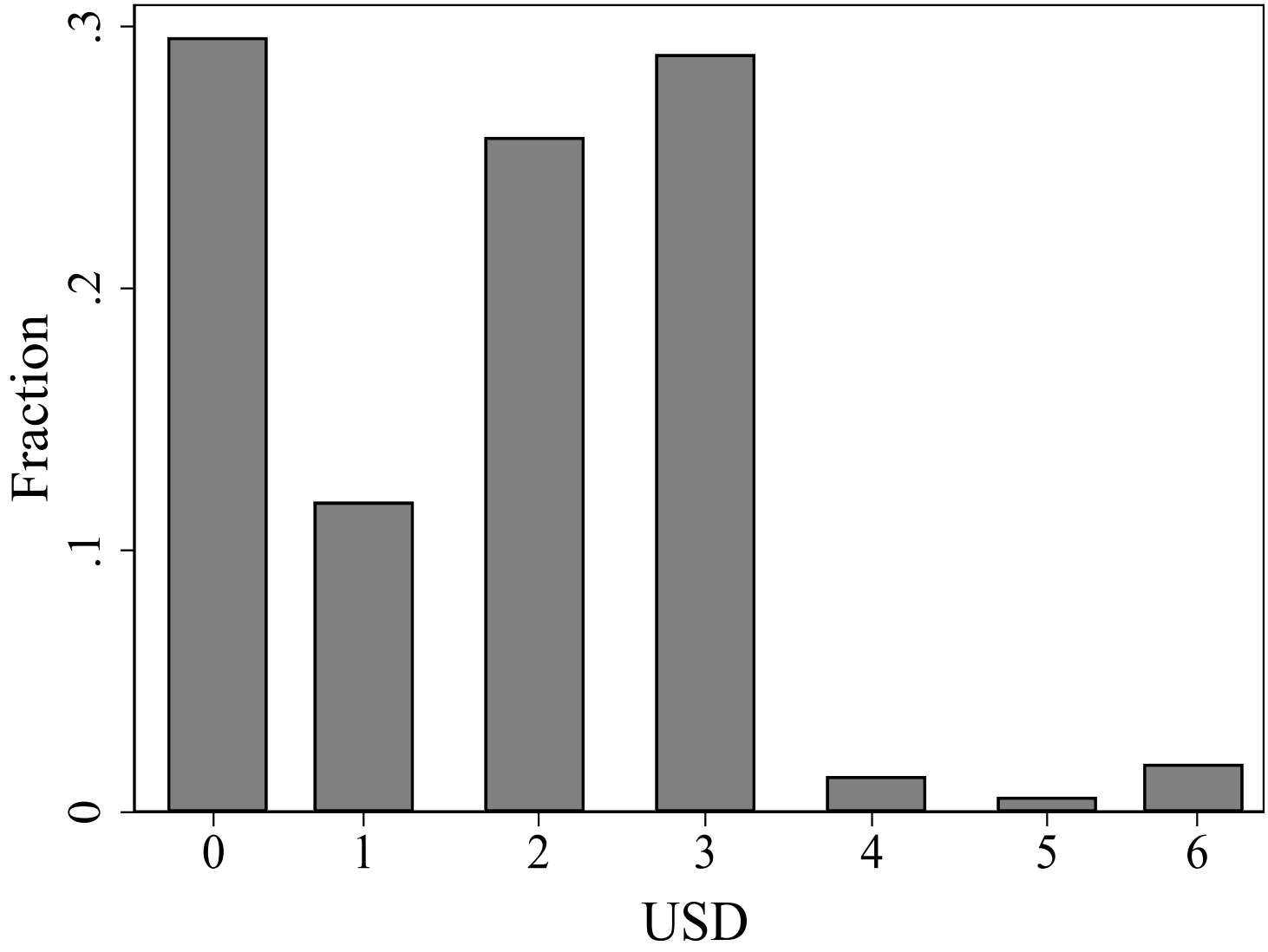
Choice experiment: Effort beliefs

- **Recruited a separate sample:** asked them about their beliefs about the effort provided by the workers.

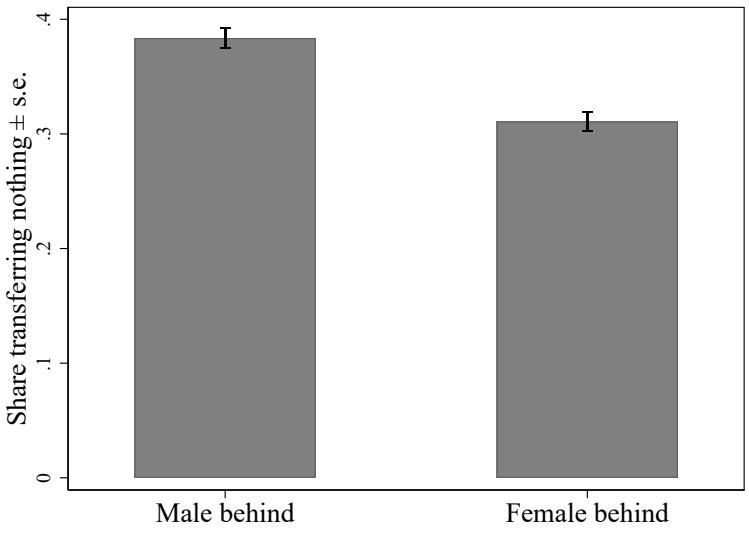
- We would like to know the extent to which you agree with the following statement (strongly disagree (1) – strongly agree (5)):
  - "I expect that the less productive man (woman) exerted less effort on the assignment than the more productive woman (man)."

Choice experiment: Main results

Transfer to worker with no earnings

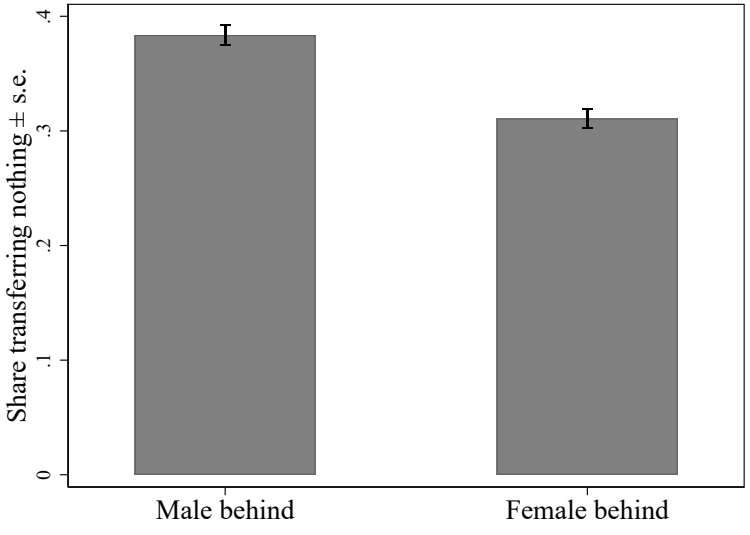


Choice experiment: Main findings

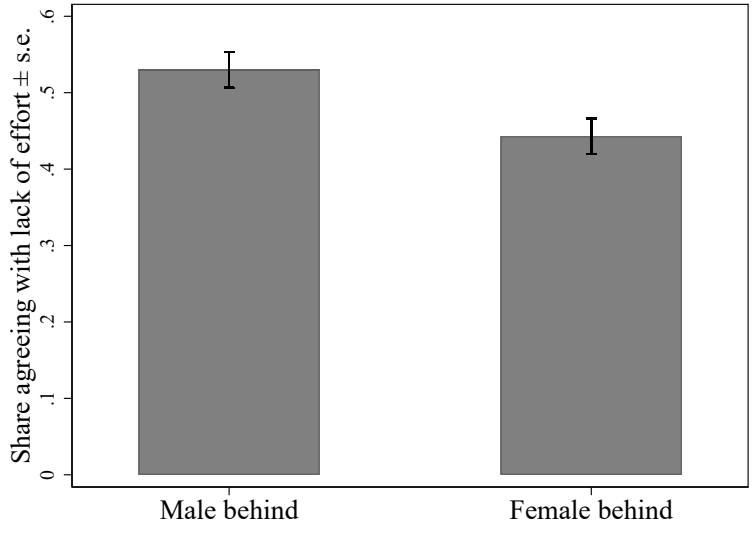


Share transferring nothing

Choice experiment: Main findings



Share transferring nothing



Share agreeing with lack of effort

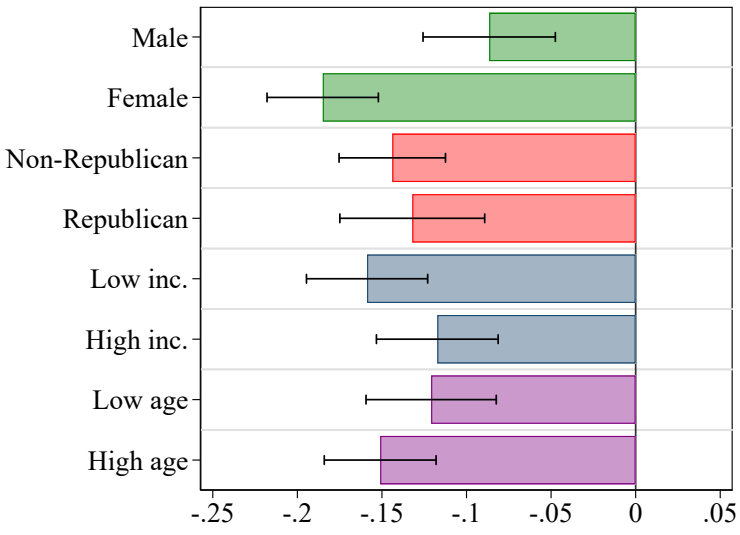
Regressions: Choice experiment

	Spectator choice				Effort beliefs			
	Nothing to worker behind		Amount to worker behind (std)		Agree low effort		Level of agreement (std)	
Male behind	0.073***	0.074***	-0.129***	-0.130***	0.087***	0.089***	0.216***	0.217***
	(0.012)	(0.012)	(0.024)	(0.024)	(0.033)	(0.033)	(0.057)	(0.057)
Luck	-0.079***	-0.077***	0.480***	0.476***	-0.271***	-0.261***	-0.816***	-0.796***
	(0.012)	(0.012)	(0.026)	(0.026)	(0.029)	(0.029)	(0.064)	(0.062)
Luck × Male behind	-0.040**	-0.042**	0.061*	0.067*	0.011	0.003	0.328***	0.314***
	(0.017)	(0.017)	(0.037)	(0.036)	(0.043)	(0.042)	(0.086)	(0.084)
Male participant		0.039***		-0.057***		0.034		0.094**
		(0.009)		(0.018)		(0.022)		(0.044)
Republican		0.087***		-0.189***		0.015		0.036
		(0.009)		(0.019)		(0.022)		(0.044)
Low income		-0.005		0.054***		-0.040*		-0.050
		(0.009)		(0.018)		(0.022)		(0.043)
Low age		-0.029***		0.038**		0.178***		0.365***
		(0.009)		(0.018)		(0.022)		(0.043)
Constant	0.310***	0.276***	-0.168***	-0.118***	0.443***	0.356***	0.215***	0.009
	(0.009)	(0.012)	(0.018)	(0.024)	(0.023)	(0.030)	(0.042)	(0.056)
Male behind (luck)	0.033***	0.031***	-0.067**	-0.063**	0.098***	0.092***	0.544***	0.531***
	(0.012)	(0.012)	(0.028)	(0.028)	(0.027)	(0.026)	(0.064)	(0.062)
Observations	13,495	13,495	13,495	13,495	1,998	1,998	1,998	1,998
R^2	0.016	0.028	0.069	0.081	0.087	0.123	0.150	0.185

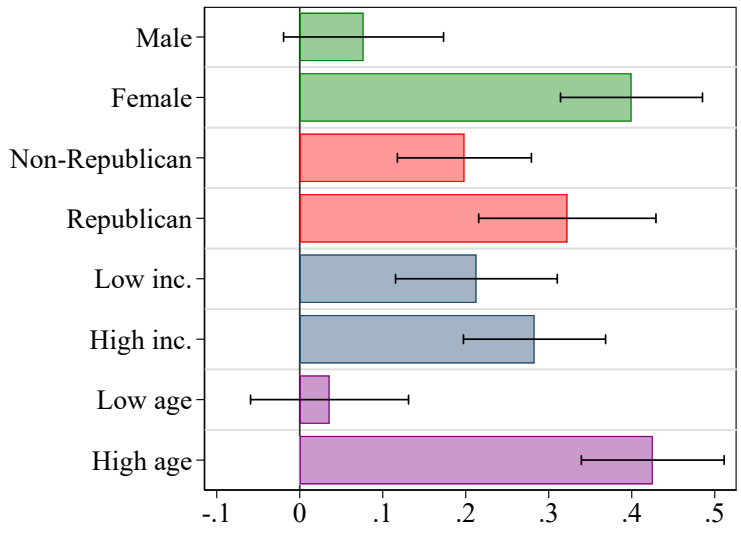
Choice experiment: Heterogeneity

- **Sex:** Male, Female
- **Political preference:** Republican, non-Republican
- **Income:** Above or below US median
- **Age:** Above or below median age in the 18y+ sample

Choice experiment: Heterogeneity mixed-gender merit



Amount to worker behind (std)



Agreement lack of effort (std)

Single-gender treatments

- We also had a set of treatments where both workers were women, or where both were men.
  - varying whether the source of inequality was luck or merit.

Single-gender treatments

- We also had a set of treatments where both workers were women, or where both were men.
  - varying whether the source of inequality was luck or merit.

*Find **no evidence** of a gender bias when comparing the single-gender settings.*

- Hence, people do not generally treat males and females different.
- The gender bias only emerges in situations involving a male worker and a female worker (consistent with statistical fairness discrimination).

Follow-up study

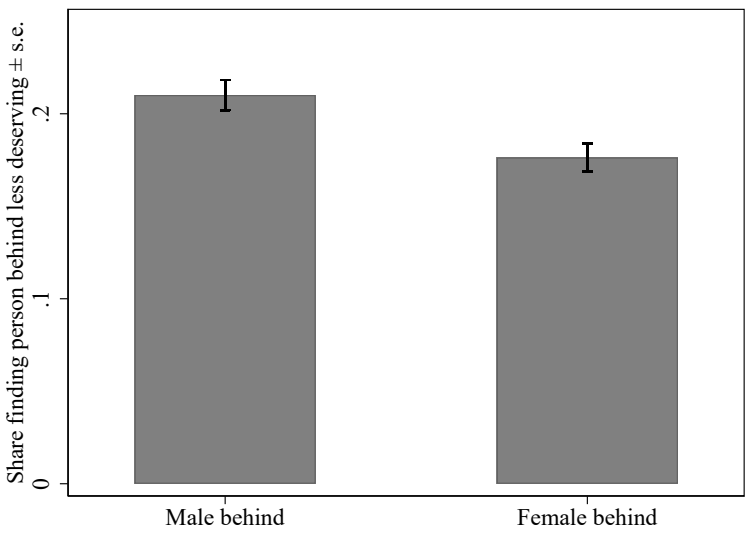
Follow-up study of mixed-gender merit treatments:

- US general population sample of 5,000 participants make a spectator choice, provide their choice rationale *and* their effort beliefs.

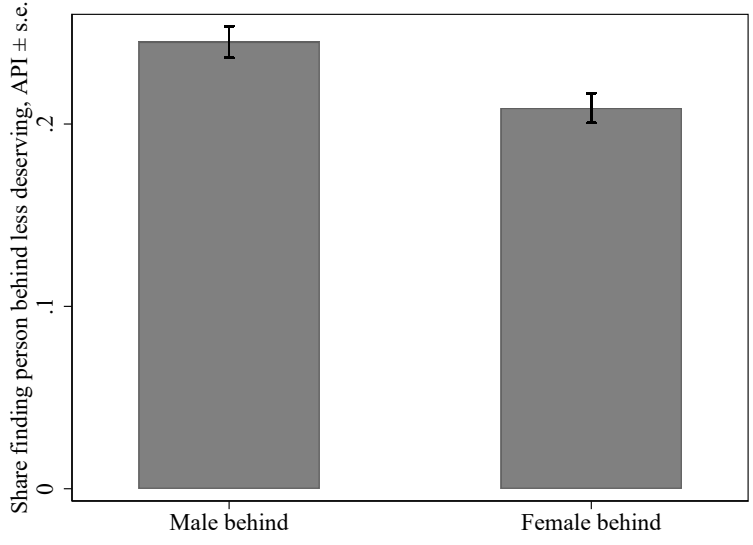
Results:

- Replicate our main findings: Gender bias in transfers and effort beliefs.
- Find strong correlation between spectator choices and effort beliefs (in the expected direction).
- *Controlling for effort beliefs nearly halves the gender bias* in the share transferring nothing to the low productive worker

Open question: Main reason



Hand-coded



Large language model-coded (GPT)

Survey experiment: Policy relevance

Survey experiment: Design

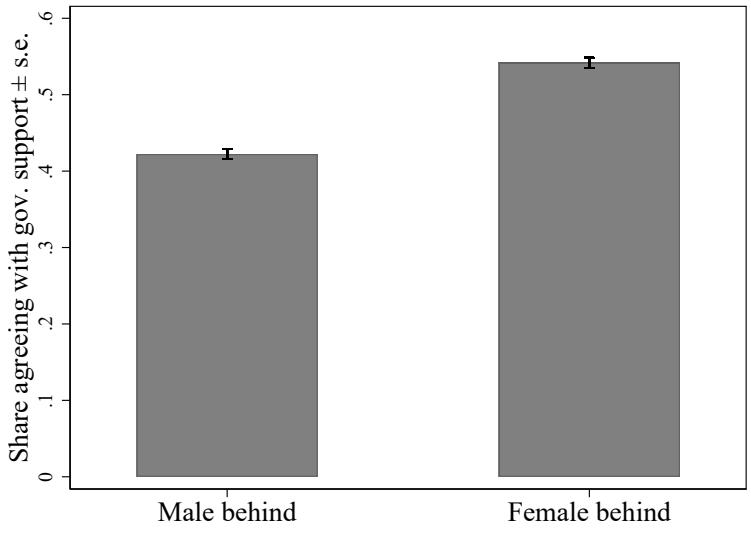
Strongly disagree (1) - strongly agree (5):

- **Agreement government support:** Agreement with it being very important that the government provides support for females (males) who fall behind in the labor market and education."

- **Agreement lack of effort:** Agreement that when males/females fall behind in education and in the labor market, having exerted low effort.

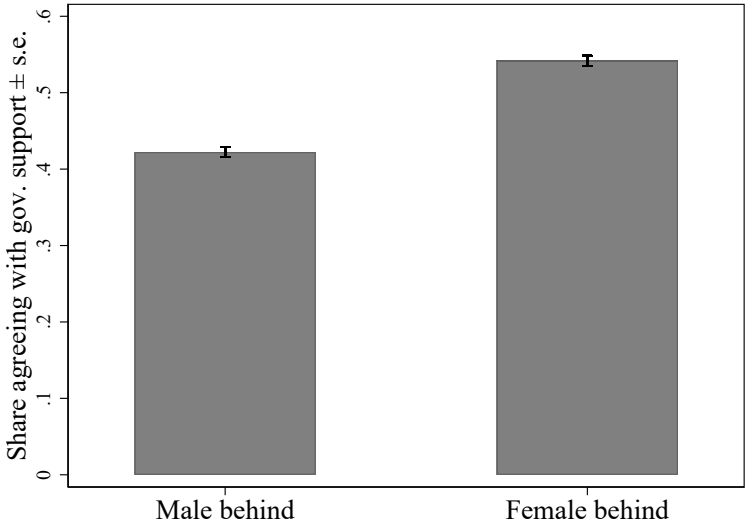
Randomly vary whether asked about males or females.

Survey experiment: Main findings



Share agreeing with government support

Survey experiment: Main findings



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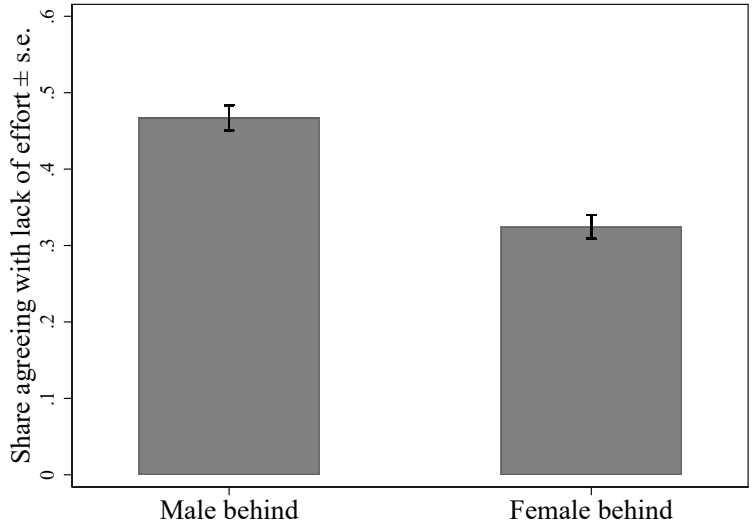
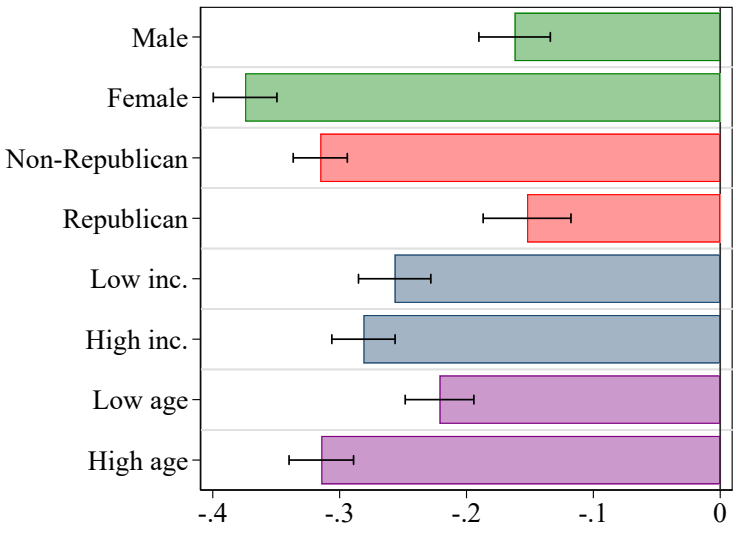
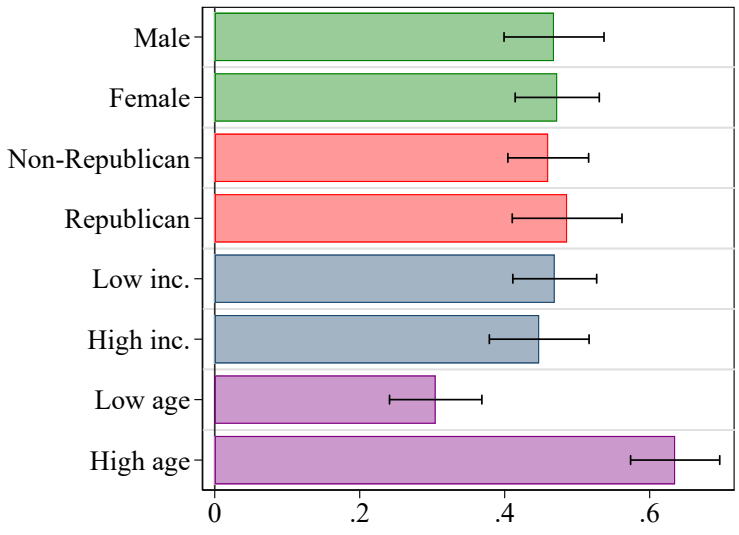


Share agreeing with lack of effort

Survey experiment: Heterogeneity



Agreement government support (std)



Agreement lack of effort (std)

Main findings

In a general population sample of including more than 35,000 Americans:

- **People are more accepting of males falling behind than they are of females falling behind**
- **and less in agreement with government policies supporting males falling behind**.

Suggested underlying mechanism: *Statistical fairness discrimination*

- People consider males falling behind to be less deserving of support than females falling behind because they are more likely to believe that males fall behind due to lack of effort.

Findings important for understanding how society perceives and responds to the growing number of disadvantaged males.