A Gender Agenda

or

From the Lab to the Field to Policy

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Competitiveness

- Competitiveness: new behavioral trait
  - Design, Robustness
- Economic Relevance of Competitiveness
  - Can competitiveness predict education choices?
  - Can gender differences in competitiveness help account for gender differences in education choices?
- Behavioral Market Design
  - Some institutional designs may reward competitiveness more than others
  - Unintended consequences for the gender gap in education choices
  - Reexamine effect of Quota-like Affirmative Actions
    - Gender gap in competitiveness may be reduced in single sex tournaments, affecting the costs and benefits of implementing quotas
  - Empirical Evidence of Trickle-Down Affirmative Action
    - France implemented Affirmative Action at the top club level in 1990.

Competitiveness in the Field

Competitiveness:

- An important factor in educational choices
- Can help account for the gender gap in choices

Bridge the gap between laboratory experiments and the field:

- Use outcome measure of a lab experiment to predict outcomes outside of the laboratory.

Establish ***external relevance*** of competitiveness.

Is Competitiveness Important?

More common possible route for "external validity":

Replicate the laboratory experiment in the field:

- Less controls, harder to replicate..
- Field Experiment with Austrian farmers…
  - What is a good subject pool and decision?

Does competitiveness have ***external relevance***: Can competitiveness help account for vertical and horizontal job segregation?

Competitiveness and Education Choices

Similar findings by

Almås, Cappelen, Salvanes, Sørensen, and Tungodden (2016):

- Competitiveness predicts college track choice in Norway

Buser et al (2016):

- In Switzerland: competitiveness predicts choices of more prestigious tracks

External Relevance of Competitiveness

Reuben, Sapienza, Zingales (2015):

Chicago MBA's:

- Tournament Experiment a la NV 2007
- 2/3 men and 1/3 women enter tournament.
- Earnings two years later

Yearly earnings: First Job

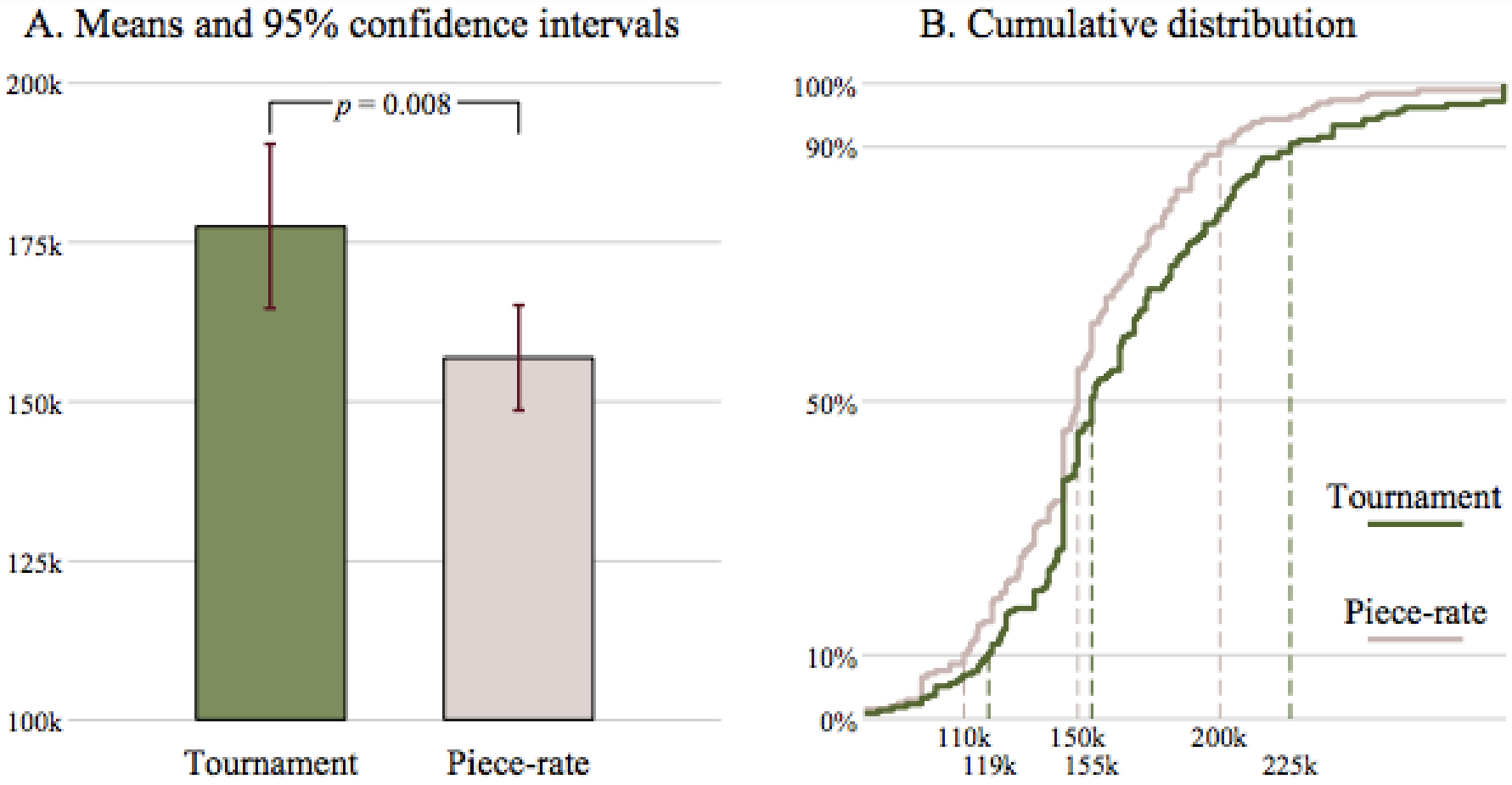

Figure 2 – Total yearly earnings in the first job after graduation by payment scheme choice

External Relevance of Competitiveness

Reuben, Sapienza, Zingales (2015):

- Competitive individuals earn 9 log points more (around $15k more per year)
- Effect is comparable in magnitude to the effect of gender.
- Competitiveness accounts for 10% of gender gap in earnings (about $ 2K)

External Relevance of Competitiveness

External relevance of competitiveness:

- Kamas and Preston (2015): college students in two US colleges who are competitive (and confident) earn more
- Berge, Bjorvatna, Pires and Tungodden (2015): “Competitiveness in the lab, successful in the field” business entrepreneurs in Tanzania
- Zhang (2015) competitive students in China take more exams.

Question for future research

Is competitiveness helpful in:

- Choosing more prestigious (math) tracks only?
- Does competitiveness predict the performance of students in various study profiles?

What is the role of competitiveness when

- measured in other domains?
- the most prestigious choice is not math?

In general: Is competitiveness linked to “better” outcomes in other domains?

- Need data set: has both “lab measure” competition, and outcome measures, either spot-measures or long-term outcomes.

Competitiveness

- Competitiveness: new behavioral trait
  - Design, Robustness
- Economic Relevance of Competitiveness
  - Can competitiveness predict education choices? YES
  - Can gender differences in competitiveness help account for gender differences in education choices? YES
- Behavioral Market Design: Policy Implications
  - Some institutional designs may reward competitiveness more than others
  - Unintended consequences for the gender gap in education choices
  - Reexamine effect of Quota-like Affirmative Actions
    - Gender gap in competitiveness may be reduced in single sex tournaments, affecting the costs and benefits of implementing quotas
  - Empirical Evidence of Trickle-Down Affirmative Action
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Policy Implications

Extreme measure:

"Changing the Women" (Lean in)

Can we manipulate/affect competitiveness and would it change educational choices?

- What else does competitiveness affect?
- Caution: Sometimes lean in can backfire, see Exley, Niederle and Vesterlund, 2016.

Knowing When to Ask: The Cost of Leaning-in

Exley, Niederle, Vesterlund, 2016

General consensus on gender gap in negotiation:

- Women enter negotiations less often
- Women gain less from negotiations

Knowing When to Ask: The Cost of Leaning-in

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General consensus on gender gap in negotiation:

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- Women gain less from negotiations

Several survey papers on earlier evidence (Stuhlmacher and Walters, 1999; Babcock and Laschever, 2003; Bowles and McGinn, 2008; Eckel et al., 2008; Bowles, 2013; Azmat and Petrongolo, 2014; Mazei et al., 2015) as well as recent evidence via

- Observational data (Card et al., 2016)
- Laboratory experiments (Dittrich et al., 2014)
- Field experiments (Leibbrandt and List, 2015)

Women Should Negotiate their Salary

- Department of Labor: "…encourage women to aim higher and negotiate better..."
- Equal Pay App Challenge: three (out of 4) grand prize winners are apps that provide tools for negotiation.
- Survey: 70% agree that women should negotiate their salaries more often.

But, extent of gender gap depends on

Activation of stereotypes
(Kray et al, 2001)

Ambiguity about negotiation opportunity
(Small et al, 2007; Leibbrandt and List, 2015)

Beneficiaries of negotiation
(Bowles et al, 2005)

Communication mode
(Greenberg and Petrie, 2015)

Cultural context
(Andersen et al, 2013)

Fear of Backlash
(Bowles et al, 2007)

Framing as negotiation vs ask
(Small et al, 2007)

Information on others or recommendations
(Bowles et al, Rigdon, 2012)

Relative Positional power
(Andersen et al, 2013, Dittrich et al, 2014, Greenberg and Petrie, 2015)

Sex of opponent
(Eckel and Grossman, 2001, Solnick, 2001, Bowles et al 2007; Sutter et al, 2009, Hernandez-Arenaz and Iriberri, 2016)

Signaling of vals/ experience
Castillo et al, 2013, Busse et al 2016

Do Women Financially Benefit from Always Negotiating?

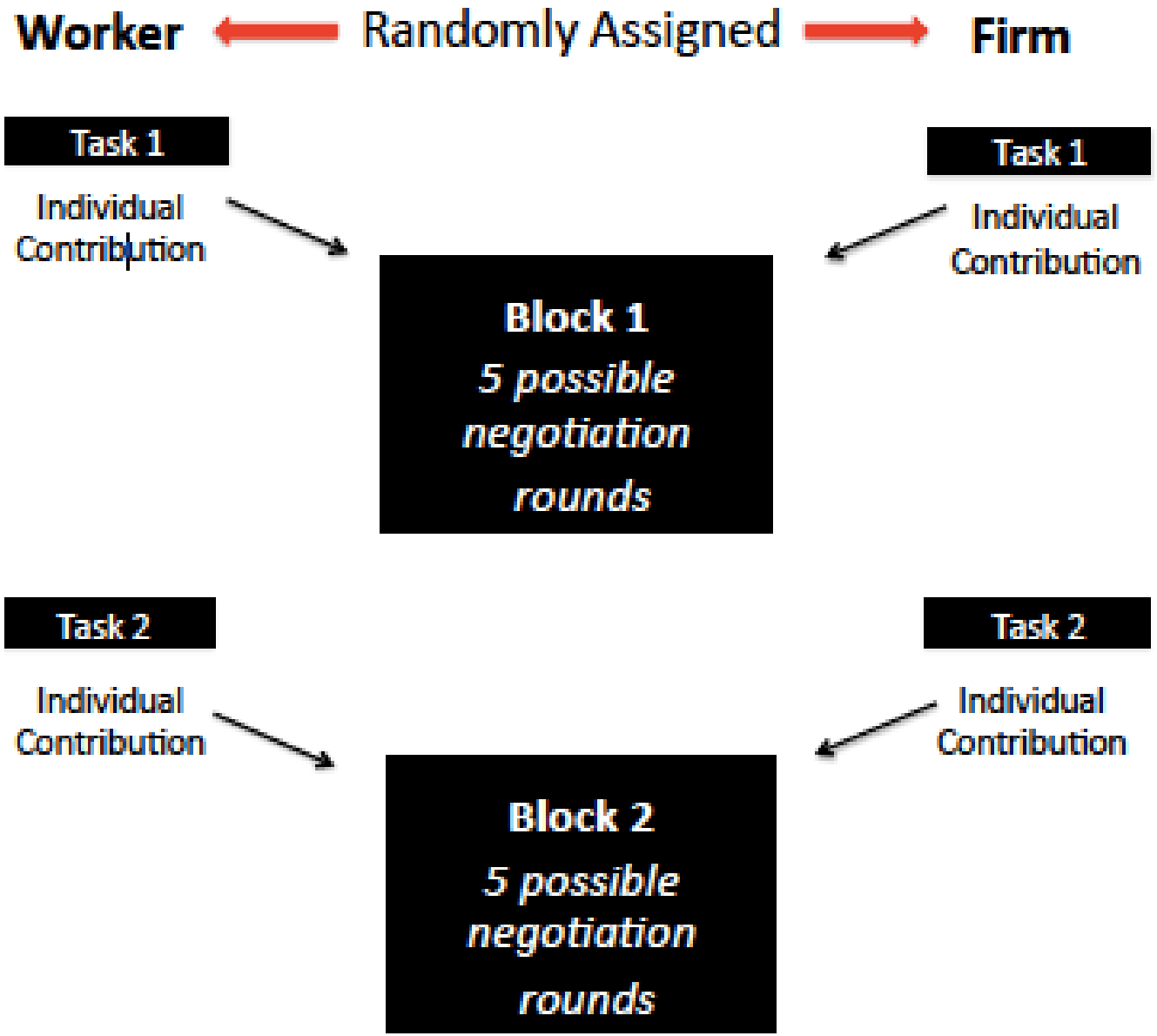
Do Women Financially Benefit from Always Negotiating?

Need to compare negotiation outcomes:

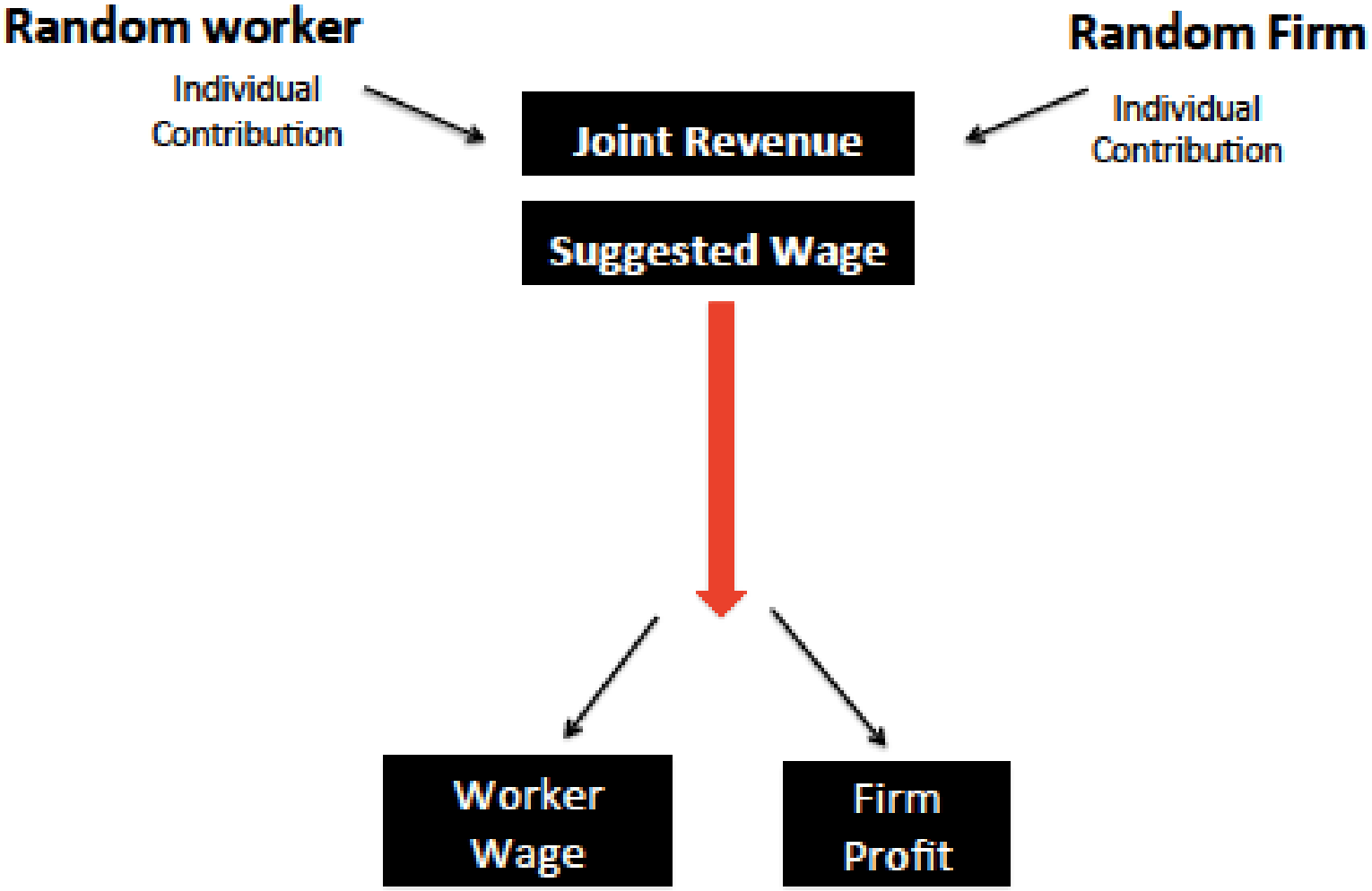
- **Women select into negotiations**
- **All women have to negotiate**

in otherwise similar environments where there could be losses from entering a negotiation

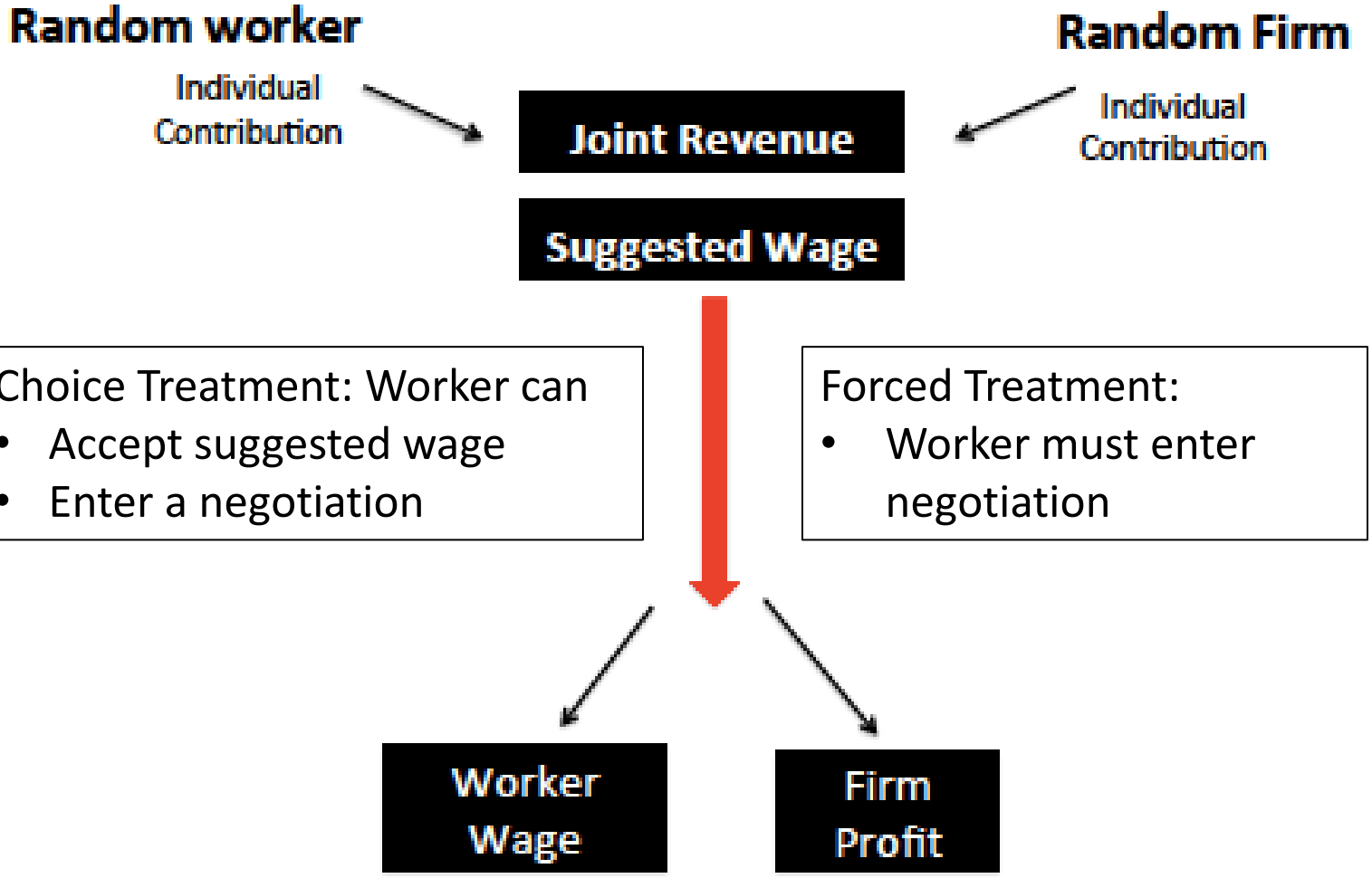
Overall Structure



Structure in each round



Structure in each round



Negotiation: 3 minutes, Chat messages. Subjects not allowed to identify themselves. Separate window for formal proposals

Payoff Structure

Joint revenue=

- Worker contribution: 20, 15 or 10
- Firm contribution: 25 or 20

Suggested Wage = worker contr. + Bonus (-4, -2, 0, 2)

Payoff Structure

Joint revenue=

- Worker contribution: 20, 15 or 10
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Suggested Wage = worker contr. + Bonus (-4, -2, 0, 2)

Negotiation	Choice	Forced
Opt-Out	W = suggested wage F = joint revenue - suggested wage	N/A
Successful	W = agreed upon wage F = joint revenue - agreed upon wage	
Failed	W = suggested wage - $5 F = joint revenue - suggested wage - $5	

Design features

- Multiple focal points
  - 50:50 splits
  - Individual contributions
  - Suggested wage
- Eliminate known channels for gender differences:
  - Individual contribution is known
  - Explicit negotiation opportunity
  - Anonymous negotiation (no backlash)
  - Explicit cost of failed negotiation

Data

Stanford Economic Research lab:

- 292 participants
- Modal session: gender balanced: 42-63% females
- No gender differences in individual contributions
- Participants: receive $5 show up fee, payment from one round per block
  - $22- $99, average $56, for 1.4-2 hours

Analysis

1. Women's Decisions and Outcomes
2. Men's Decisions and Outcomes
3. Comparison of Women and Men
4. Selection into negotiations: Role of observables and unobservables

Two Questions

Female workers enter negotiations 66% of the time.

Entering negotiations is largely beneficial:

- Agreements are reached 89% of the time.
- Relative to the suggested wage, female workers achieve an average gain of $1.45 from negotiating.
- 74% of negotiations result in gains, only 13% in losses.

Classic environment for lean-in: Women should negotiate more!

Two Key Questions:

1. Is a requirement to always negotiate financially beneficial?
2. Is there positive selection into negotiations?

Two key questions

Is a requirement to always negotiate financially beneficial?

- not sufficient to consider the negotiation returns from women who choose to negotiate.

Need to compare:

- Returns women achieve when they can choose to negotiate in the Choice treatment to
- The counterfactual: returns women achieve when they always negotiate in the Forced treatment.

Two key questions

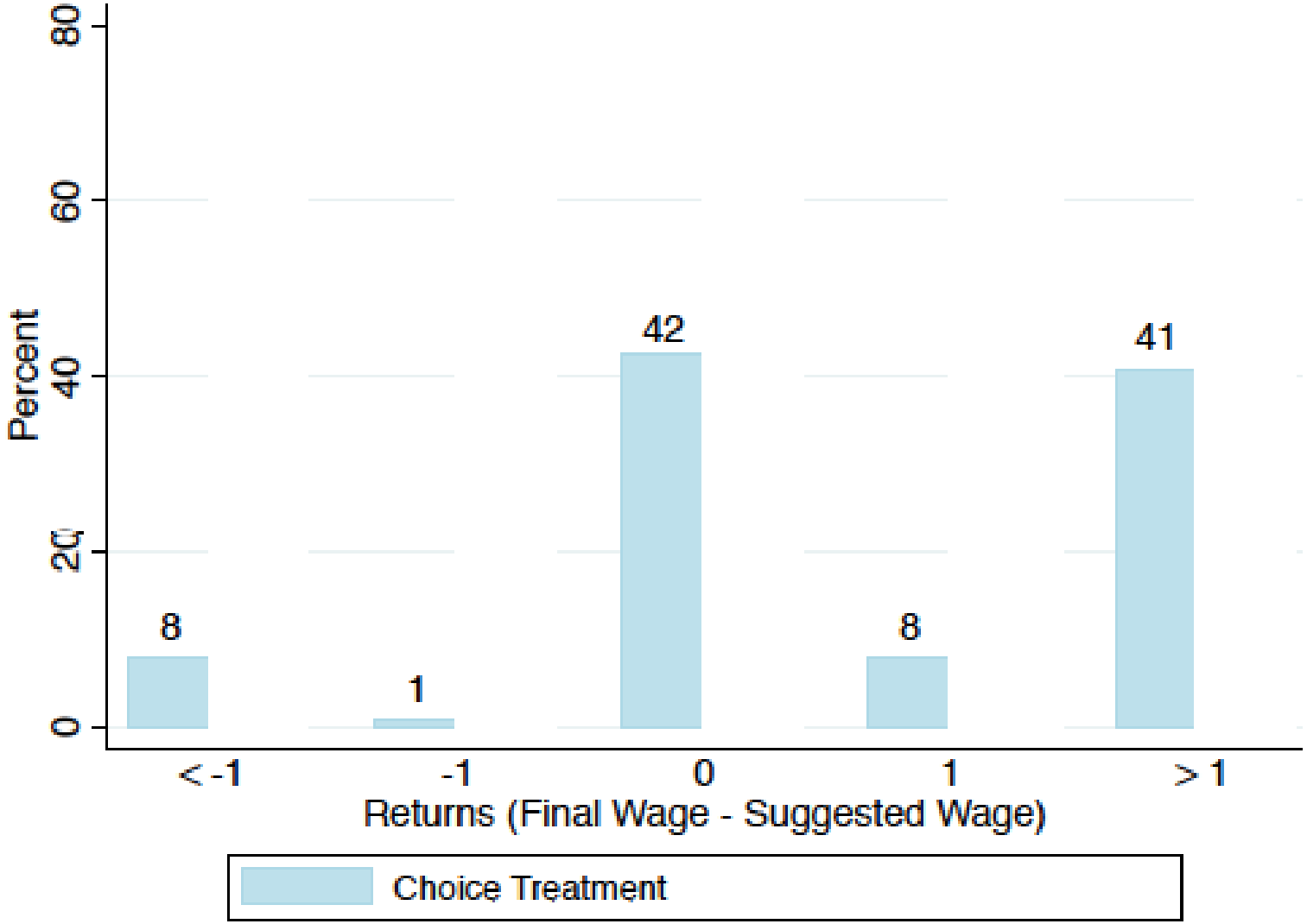
Is there positive selection into negotiations?

Compare

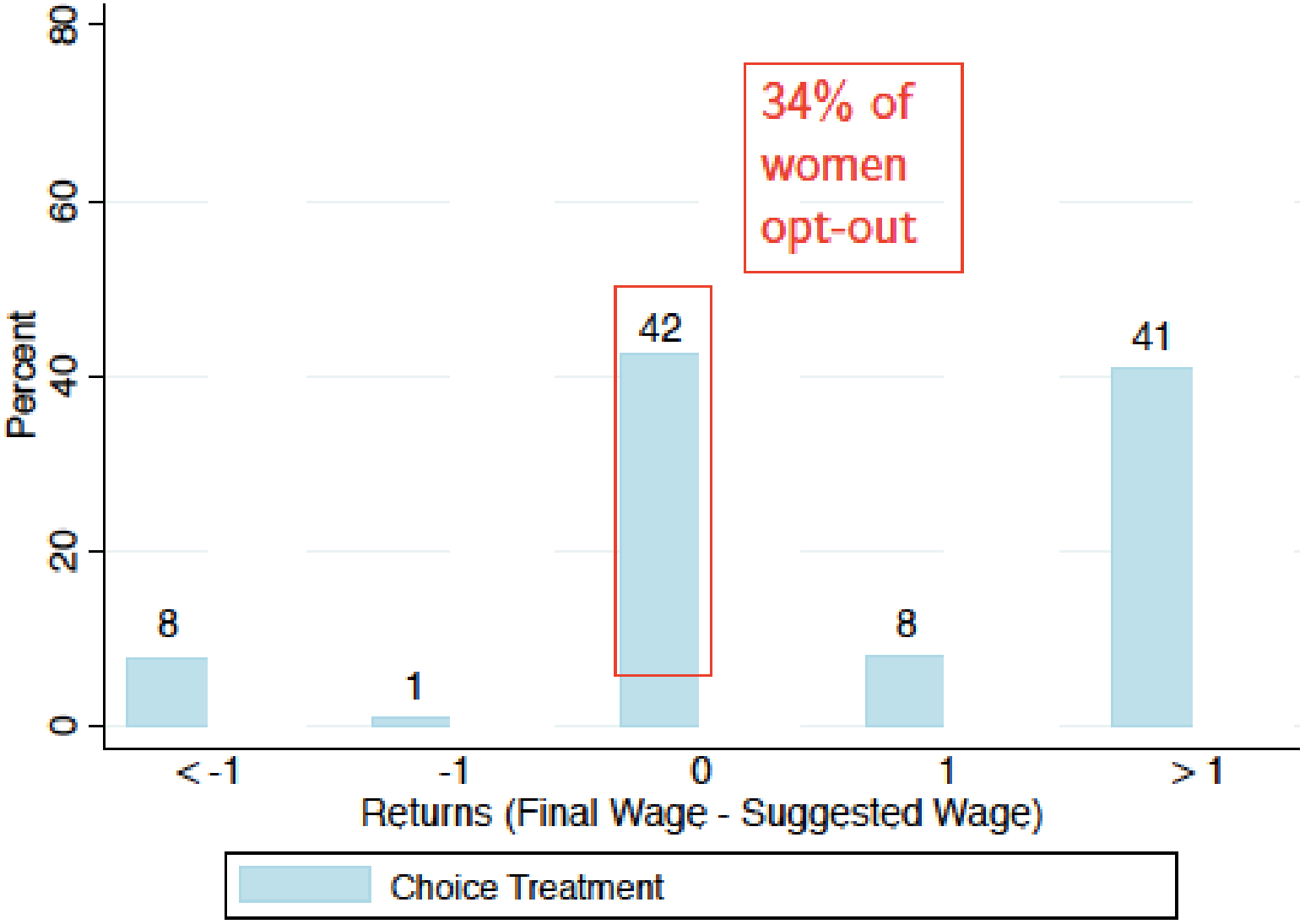
- returns from “selected” negotiations (where workers choose to enter negotiations in the Choice treatment) to
- returns from “non-selected" negotiations (those in the Forced treatment).

- Whether returns from selected negotiations exceed (or fall short of) those from non-selected negotiations then indicates whether workers positively (or negatively) select into negotiations.

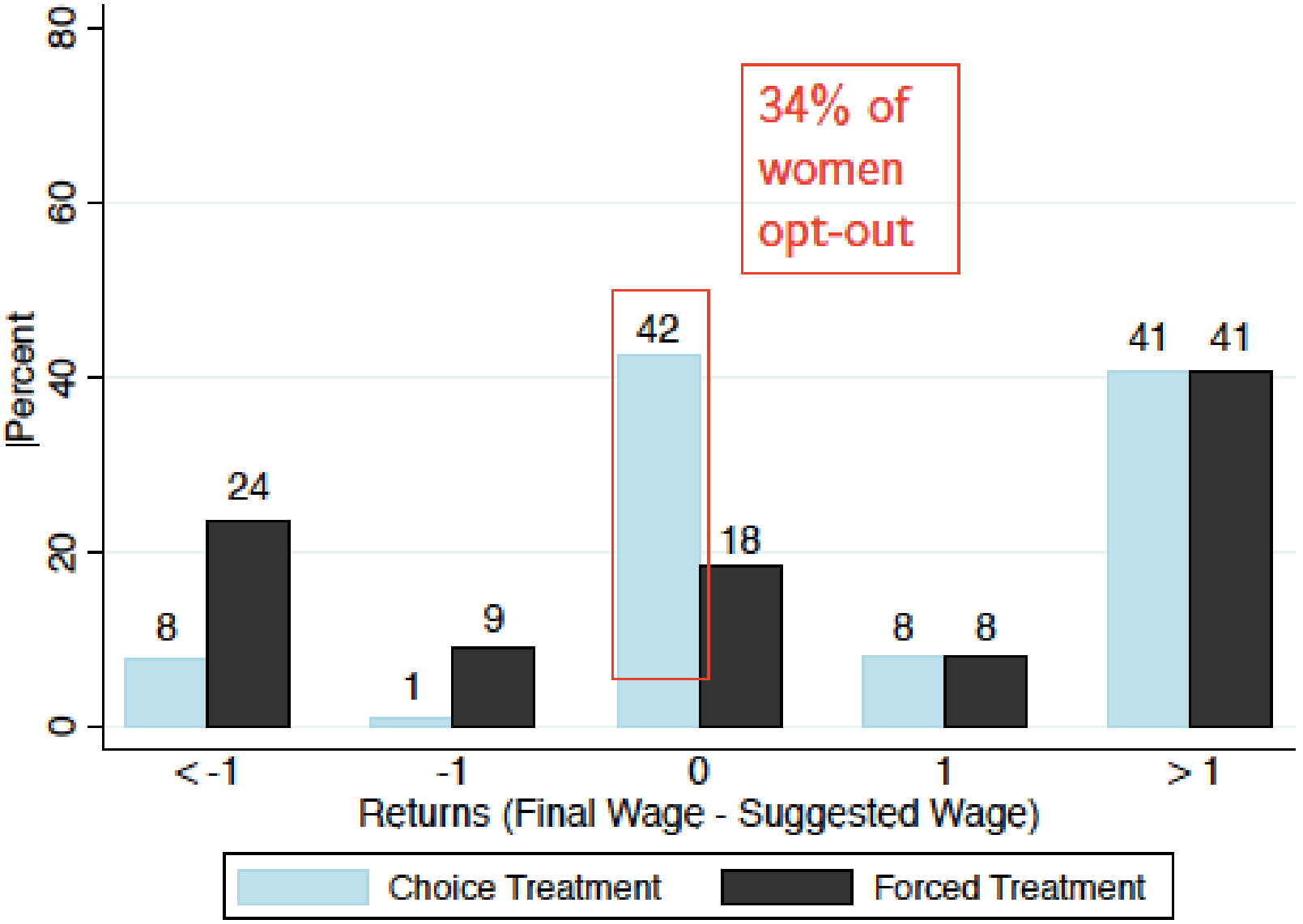
Women:
Returns: Final Wage – Suggested Wage



Women: Always Negotiating is….



Women: Always Negotiating is harmful



Gains: No Change among women

	Linear Probability model of			
	1(return > 0)		1(return > 1)	
Forced	0.00	0.00	0.00	0.00
	(0.05)	(0.05)	(0.05)	(0.05)
Constant	0.77***	0.68***	0.71***	0.44**
	(0.05)	(0.22)	(0.05)	(0.22)
Controls	no	yes	no	yes
Bonus FE	yes	yes	yes	yes
N	740	740	740	740

Controls include indicators for the negotiation round (from 1 to 10), the worker's contribution, the difference between the worker's and firm's contributions, an indicator for whether the firm's contribution is known, and the interaction between these last two variables.

Losses: Increase among women

	Linear Probability model of			
	1(return < 0)		1(return < -1)	
Forced	0.23***	0.24***	0.15***	0.16***
	(0.03)	(0.03)	(0.03)	(0.03)
Constant	0.02	-0.03	0.04	0.00
	(0.03)	(0.16)	(0.02)	(0.13)
Controls	no	yes	no	yes
Bonus FE	yes	yes	yes	yes
N	740	740	740	740

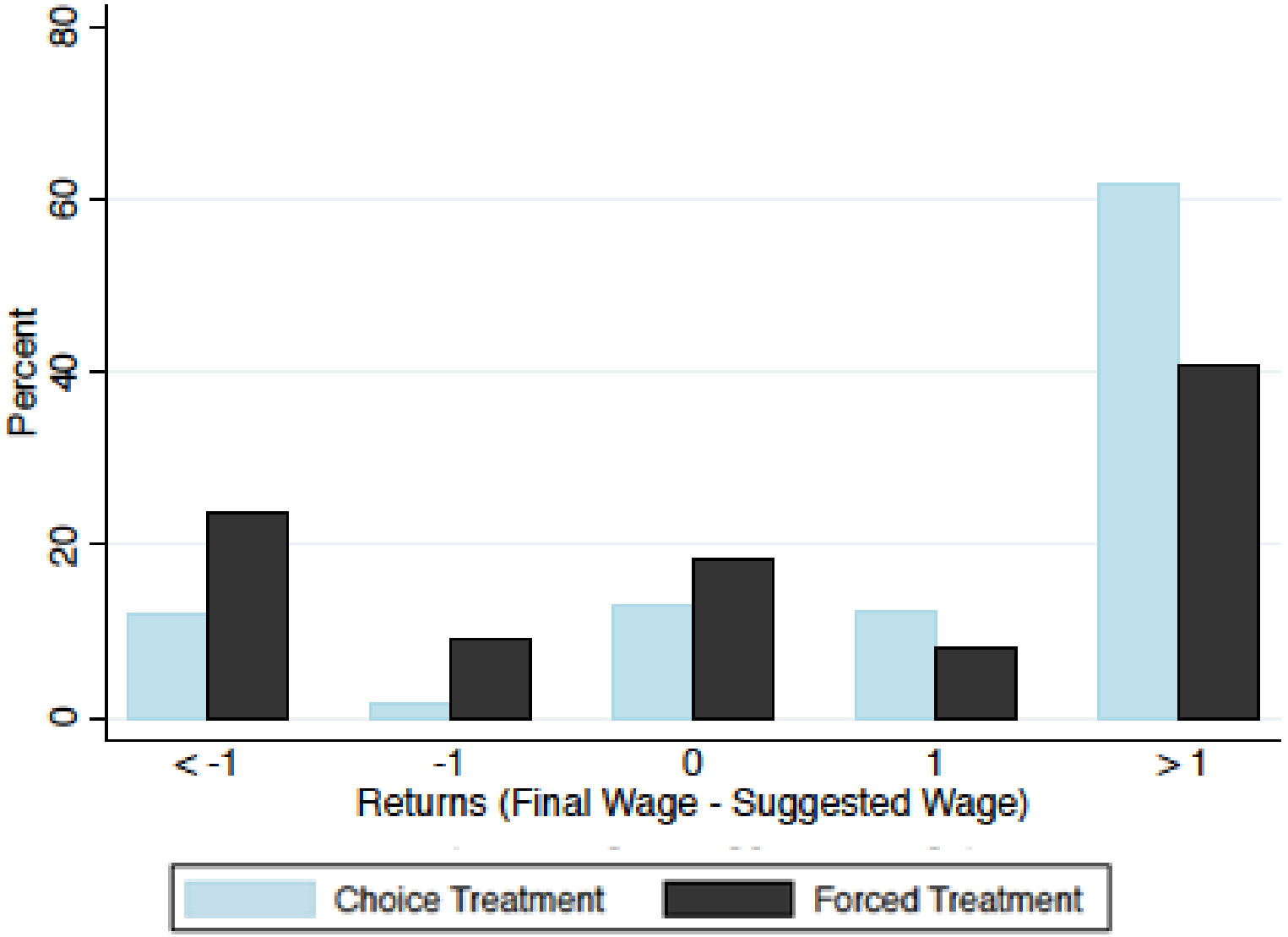
Two questions

Is a requirement to always negotiate financially beneficial?

NO: women are more likely to financially lose when negotiating more often

- This suggests that women positively select into negotiations and know when to ask in the Choice treatment.

Women Selection: Outcomes from negotiations



Gains: Positive selection

	Linear Probability model of			
	1(return > 0)		1(return > 1)	
Forced	-0.19***	-0.19***	-0.13**	-0.14***
	(0.05)	(0.05)	(0.05)	(0.05)
Constant	0.90***	0.87***	0.81***	0.55**
	(0.03)	(0.22)	(0.04)	(0.24)
Controls	no	yes	no	yes
Bonus FE	yes	yes	yes	yes
N	601	601	601	601

Losses: positive selection

	Linear Probability model of			
	1(return < 0)		1(return < -1)	
Forced	0.15***	0.17***	0.09***	0.10***
	(0.04)	(0.03)	(0.03)	(0.03)
Constant	0.06*	0.01	0.07***	0.05
	(0.03)	(0.20)	(0.03)	(0.17)
Controls	no	yes	no	yes
Bonus FE	yes	yes	yes	yes
N	601	601	601	601

Negotiation Decisions

1. Women's Decisions and Outcomes
2. **Men's Decisions and Outcomes**
3. Comparison of Women and Men
4. Selection into negotiations: Role of observables and unobservables

Two Questions

Male workers enter negotiations 74% of the time.

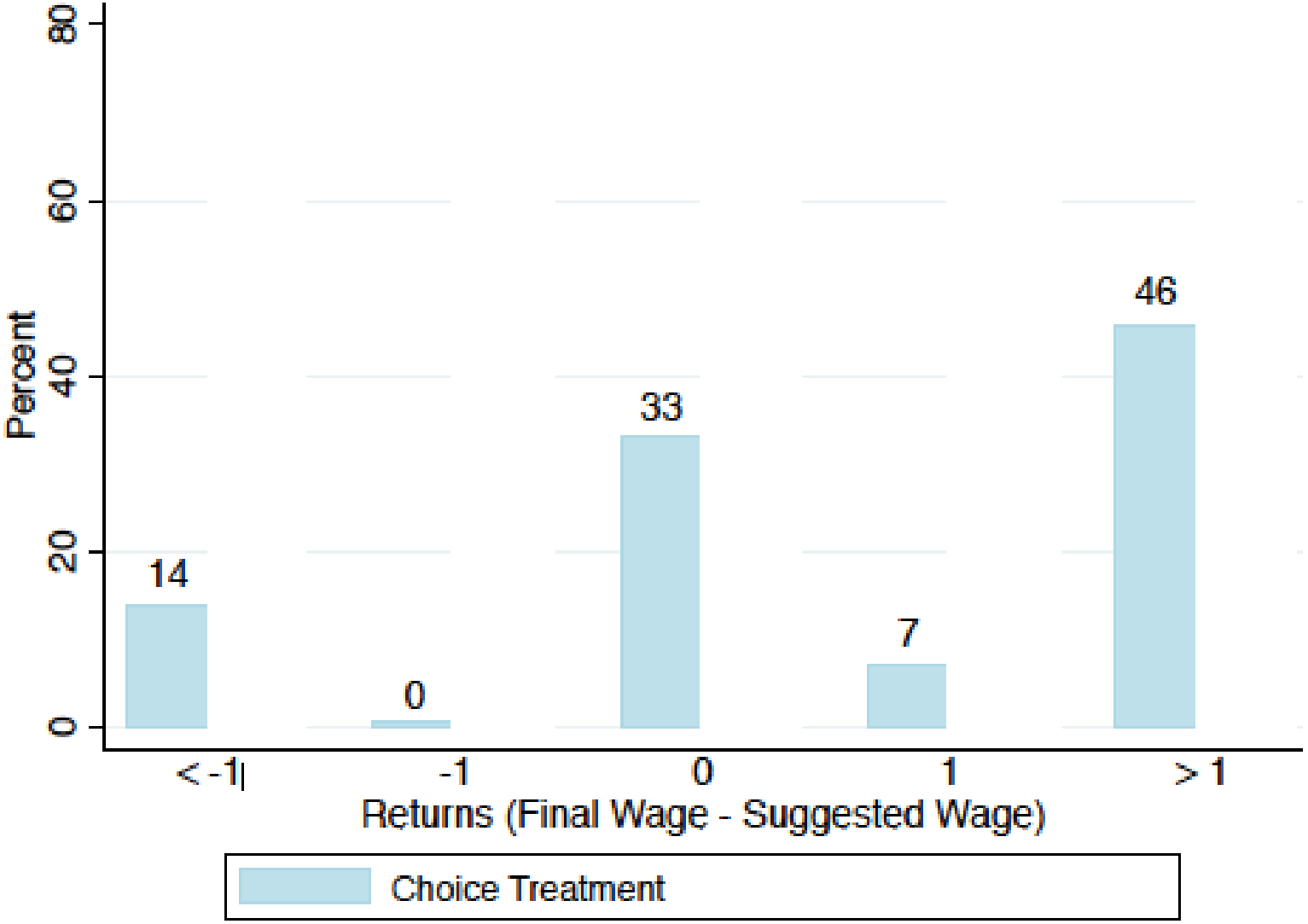
Entering negotiations is largely beneficial:

- Agreements are reached 84% of the time.
- Relative to the suggested wage, male workers achieve an average gain of $1.12 from negotiating.
- 71% of negotiations result in gains, only 19% in losses.

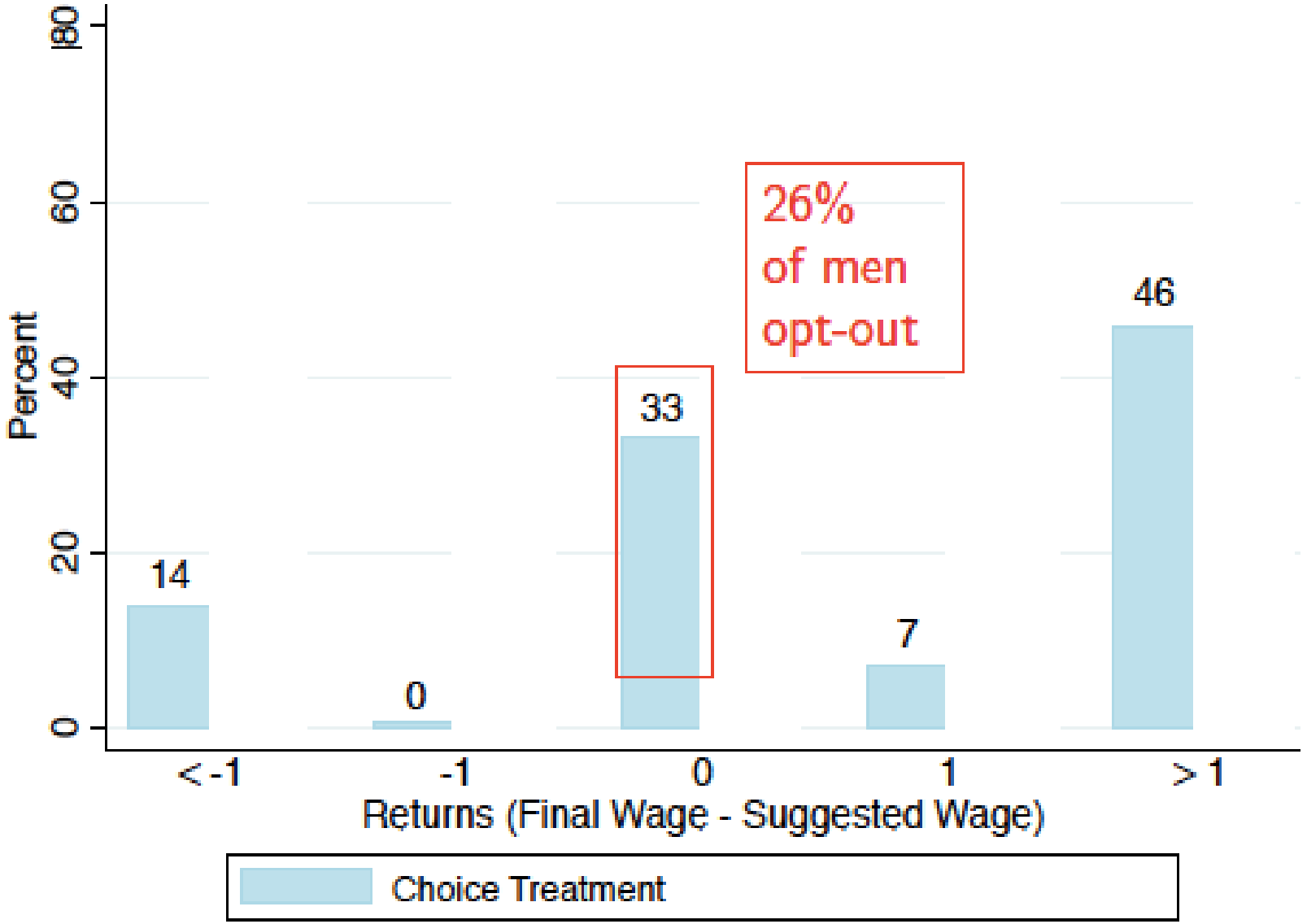
Two Key Questions:

1. Is a requirement to always negotiate financially beneficial?
2. Is there positive selection into negotiations?

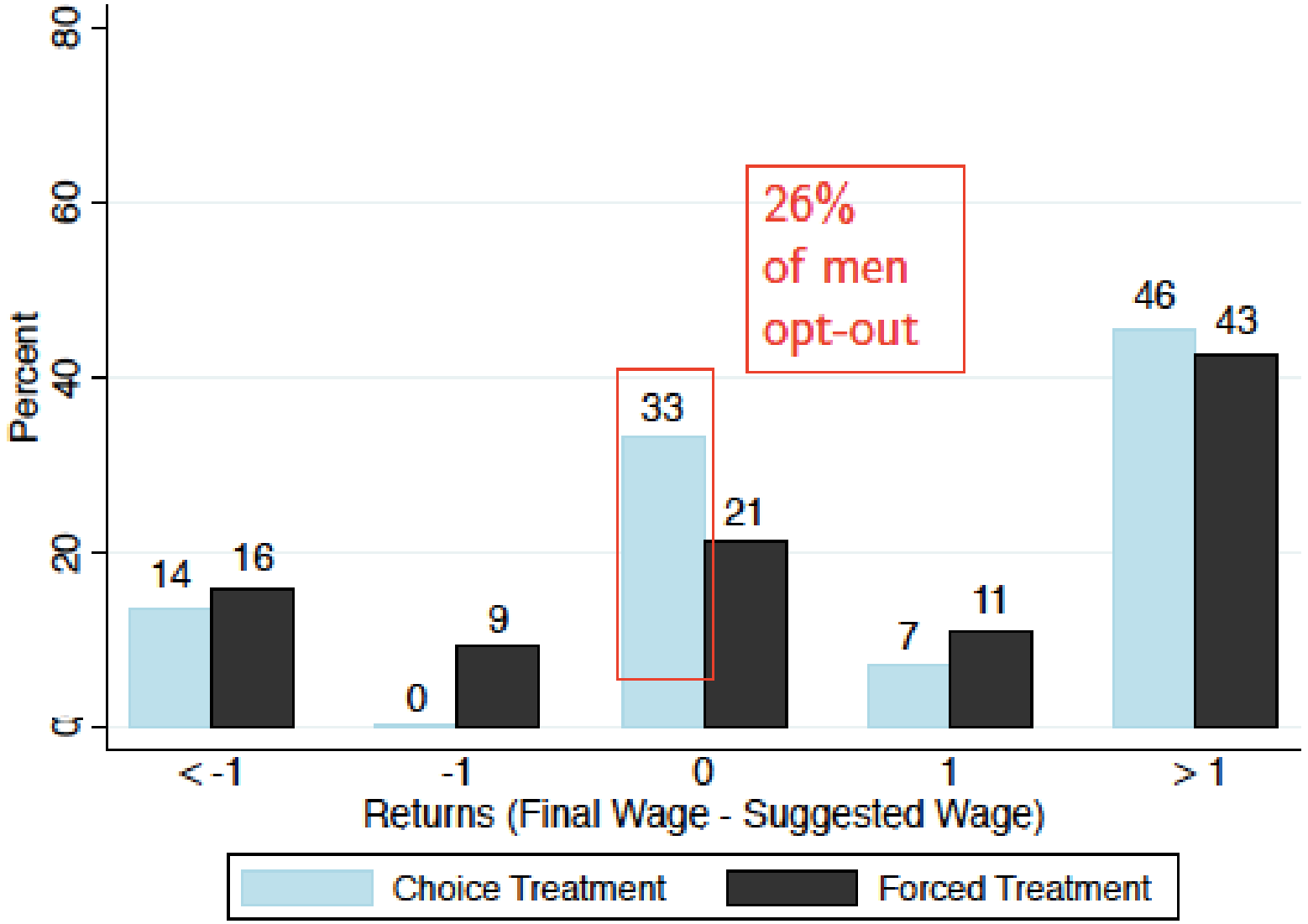
Men:
Returns: Final Wage – Suggested Wage



Men: Always Negotiating is….



Men: Always Negotiating is harmful



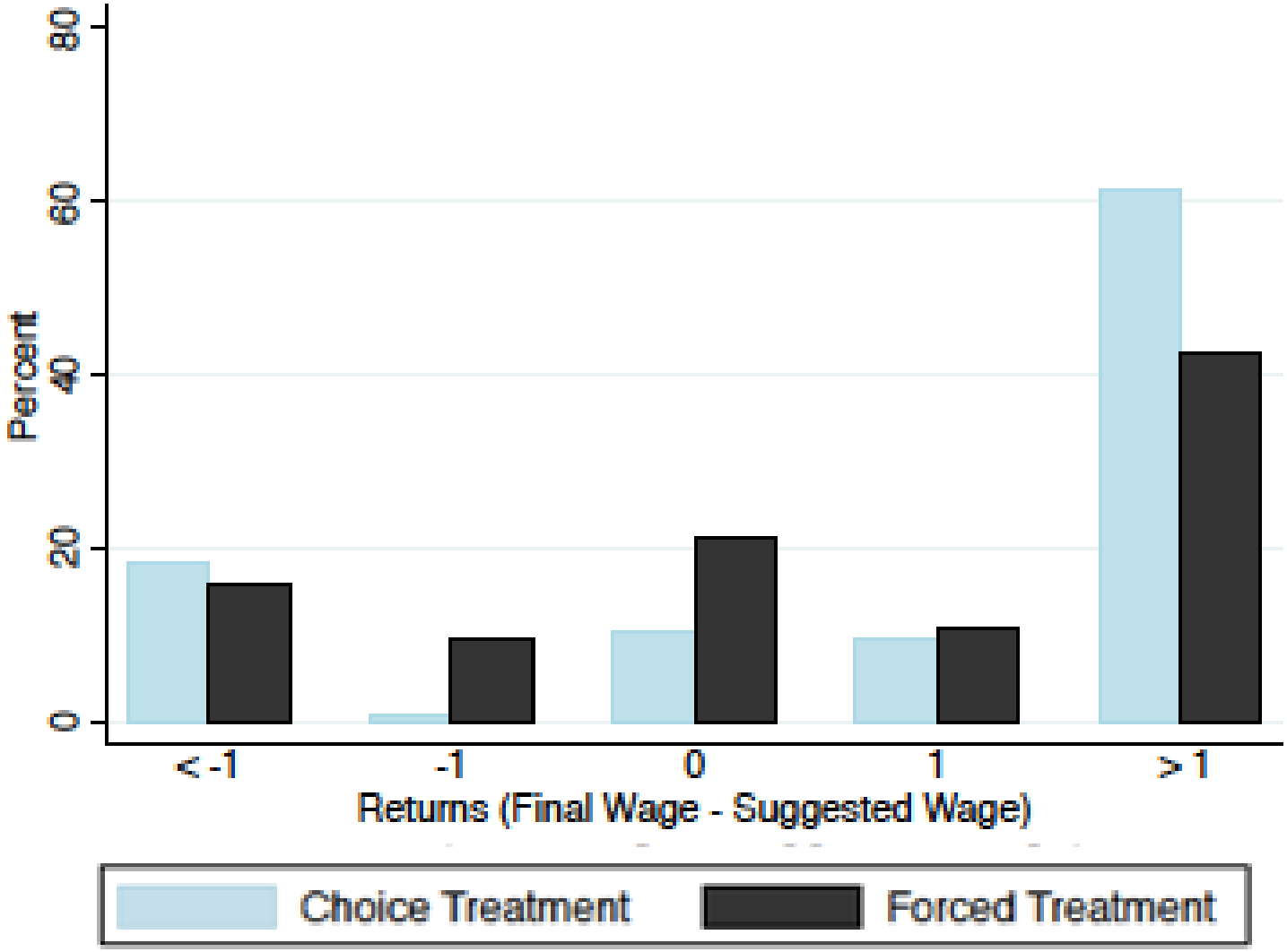
Gains: No change among men

	Linear Probability model of			
	1(return > 0)		1(return > 1)	
Forced	-0.01	-0.01	-0.05	-0.05
	(0.05)	(0.05)	(0.05)	(0.05)
Constant	0.80***	0.65***	0.76***	0.73**
	(0.03)	(0.17)	(0.03)	(0.18)
Controls	no	yes	no	yes
Bonus FE	yes	yes	yes	yes
N	720	720	720	720

Losses: Increase among men

	Linear Probability model of			
	1(return < 0)		1(return < -1)	
Forced	0.11***	0.11***	0.02	0.02
	(0.04)	(0.04)	(0.03)	(0.03)
Constant	0.10***	0.04	0.11***	0.01
	(0.03)	(0.14)	(0.03)	(0.13)
Controls	no	Yes	no	yes
Bonus FE	yes	yes	yes	yes
N	720	720	720	720

Men Selection: Outcomes from negotiations



Gains: Positive selection

	Linear Probability model of			
	1(return > 0)		1(return > 1)	
Forced	-0.12***	-0.12***	-0.13**	-0.13***
	(0.05)	(0.05)	(0.05)	(0.05)
Constant	0.87***	0.80***	0.81***	0.86***
	(0.03)	(0.18)	(0.04)	(0.19)
Controls	No	yes	no	yes
Bonus FE	Yes	yes	yes	yes
N	615	615	615	615

Losses: no evidence of positive selection (men)

	Linear Probability model of			
	1(return < 0)		1(return < -1)	
Forced	0.03	0.03	-0.05	-0.05
	(0.04)	(0.04)	(0.03)	(0.03)
Constant	0.14***	0.11	0.15***	0.06
	(0.03)	(0.16)	(0.03)	(0.15)
Controls	no	yes	no	yes
Bonus FE	yes	yes	yes	yes
N	615	615	615	615

Gender Differences in negotiation decisions and outcomes

Requirement to negotiate

- Men: More losses though not significantly more large losses
- Women: increase in instances of losses twice as large as for men, and also significant increase in large losses.

Is the financial harm from always negotiating larger for women than men?

- Women miss out on more negotiations: only negotiate 66% of the time compared to 74% for men ($p<0.01$)

Gains:
No difference from being forced to negotiate

	Linear Probability model of			
	1(return > 0)		1(return > 1)	
Forced	0.01	0.00	0.01	0.01
	(0.05)	(0.05)	(0.05)	(0.05)
Male	0.06	0.06	0.07	0.07
	(0.05)	(0.05)	(0.05)	(0.05)
*Forced**	-0.01	-0.01	-0.05	-0.05
Male	(0.07)	(0.07)	(0.06)	(0.06)
Constant	0.75***	0.64***	0.70***	0.55***
	(0.04)	(0.14)	(0.04)	(0.14)
Controls	No	yes	no	yes
Bonus FE	Yes	yes	yes	yes
N	1460	1460	1460	1460

Losses:
Women lose more from being forced to negotiate

	Linear Probability model of			
	1(return < 0)		1(return < -1)	
Forced	0.24***	0.24***	0.15***	0.16***
	(0.03)	(0.03)	(0.03)	(0.03)
Male	0.05**	0.05**	0.05**	0.06**
	(0.02)	(0.02)	(0.02)	(0.02)
*Forced**	-0.12**	-0.13**	-0.13***	-0.14***
Male	(0.05)	(0.05)	(0.04)	(0.04)
Constant	0.04*	-0.04	0.05**	-0.03
	(0.01)	(0.11)	(0.02)	(0.09)
Controls	No	yes	no	yes
Bonus FE	Yes	yes	yes	yes
N	1460	1460	1460	1460

Gender Difference: Being forced to negotiate

- Always negotiating is significantly more likely to result in losses for women than men.
- This suggests that, if anything, women are particularly adept to knowing when to ask and positively selecting into negotiations.

Only outcomes for negotiations: Gains

	Linear Probability model of			
	1(return > 0)		1(return > 1)	
Forced	-0.18***	-0.18***	-0.13**	-0.13***
	(0.05)	(0.05)	(0.05)	(0.05)
Male	-0.01	-0.01	0.02	0.02
	(0.04)	(0.04)	(0.05)	(0.05)
*Forced**	0.05	0.06	-0.01	0.00
Male	(0.07)	(0.07)	(0.07)	(0.07)
Constant	0.89***	0.85***	0.80***	0.70***
	(0.03)	(0.14)	(0.04)	(0.15)
Controls	No	yes	no	yes
Bonus FE	Yes	yes	yes	yes
N	1216	1216	1216	1216

Losses: Women lose more from being forced to negotiate

	Linear Probability model of			
	1(return < 0)		1(return < -1)	
Forced	0.15***	0.17***	0.09***	0.10***
	(0.04)	(0.04)	(0.03)	(0.03)
Male	0.05	0.05*	0.06*	0.06*
	(0.03)	(0.03)	(0.03)	(0.03)
*Forced**	-0.12**	-0.14**	-0.14***	-0.15***
Male	(0.05)	(0.05)	(0.05)	(0.05)
Constant	0.08*	0.03	0.08***	0.01
	(0.02)	(0.13)	(0.02)	(0.11)
Controls	No	yes	no	yes
Bonus FE	Yes	yes	yes	yes
N	1216	1216	1216	1216

Analysis

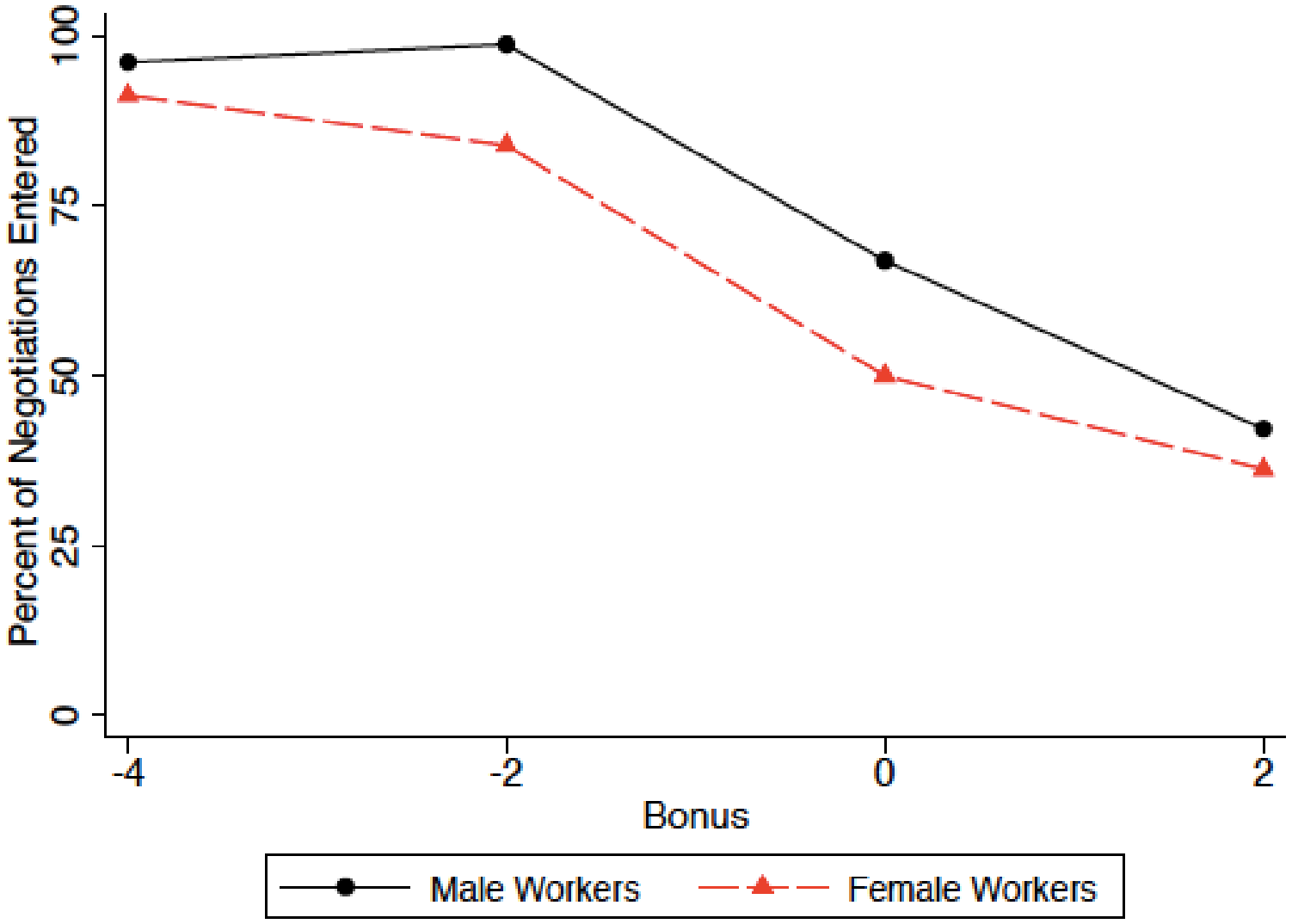
1. Women's Decisions and Outcomes
2. Men's Decisions and Outcomes
3. Comparison of Women and Men
4. **Selection into negotiations: Role of observables and unobservables**

What drives positive selection into negotiations?

Observable characteristics:

- Bonus: -4, -2, 0, 2:
- Suggested wage = worker contribution + bonus
- The higher the bonus, the harder it may be to be able to gain from negotiation: negotiate more than the suggested wage.

Entry decreases as bonus increases



Observable characteristics

- Returns to negotiations are lower for non-negative bonuses (0, 2) than for negative bonuses (-4, -2)
- Entry into negotiation is lower for non-negative bonuses (0, 2) than for negative bonuses (-4, -2)
- Does selection on observables contribute to gender difference in selection?

Negotiation entry by bonus level

	Linear Probability model of entry given any bonus	
Male	0.10**	0.09**
	(0.04)	(0.05)
$b \geq 0$	-0.44***	-0.45***
	(0.06)	(0.06)
$b \geq 0$*	0.01	0.02
Male	(0.08)	(0.08)
Constant	0.88***	1.23***
	(0.04)	(0.10)
Controls	No	yes
Bonus FE	Yes	yes
N	820	820

Selection by unobservable characteristics

Are the gender differences driven by selection on unobservable characteristics?

1. Ability to negotiate
2. Risk aversion
3. Fairness measures

Bargaining Ability

- Bargaining outcomes: good measure for bargaining ability: need to ensure no selection
- Use negotiations at bonus -4: virtually all such negotiations are entered.
- Ability measure 1: average return from negotiations with a bonus of -4.
- Ability measure 2: is the average return from negotiations with a bonus of -4 that reach an agreement.

Validation of ability measure: Forced Treatment

	return given non-negative bonus			
	Ability Measure 1		Ability Measure 2	
Male	0.28	0.27	0.05	0.32***
	(0.39)	(0.40)	(0.48)	(0.12)
Ability	0.20**	0.19**	0.24**	0.23**
	(0.09)	(0.09)	(0.10)	(0.10)
*Ability**	-0.09	-0.09	-0.00	-0.00
Male	(0.11)	(0.11)	(0.13)	(0.14)
Constant	-0.57	-1.96	-0.75*	-1.98
	(0.35)	(1.30)	(0.42)	(1.27)
Controls	No	yes	No	yes
Bonus FE	Yes	yes	Yes	yes
N	314	314	314	314

Selection on bargaining ability

	Entry given non-negative bonus			
	Ability Measure 1		Ability Measure 2	
Male	0.27***	0.28***	0.31**	0.32***
	(0.10)	(0.09)	(0.14)	(0.12)
Ability	0.07***	0.10***	0.10***	0.08***
	(0.02)	(0.03)	(0.03)	(0.03)
*Ability**	-0.06*	-0.06**	-0.06	-0.06
Male	(0.03)	(0.02)	(0.04)	(0.04)
Constant	0.36***	1.04***	0.22**	0.85***
	(0.08)	(0.15)	(0.11)	(0.20)
Controls	No	yes	No	yes
Bonus FE	Yes	yes	Yes	yes
N	410	410	401	401

What drives positive selection into negotiations?

1. Workers choose to enter "better" negotiations opportunities

- Evidence consistent with workers positively selecting on an observable factor: the bonus
- Does not explain the greater evidence for positive selection among women

2. "Better" workers choose to enter negotiations

- Evidence consistent with workers positively selecting on unobservable factor: ability
- Stronger evidence among women...may help to explain the greater evidence for positive selection among women

Other potential drivers of gender difference in selection?

When considering negotiations with non-negative bonuses:

1. **Fairness Concerns**: no gender difference: But: men who think their contribution is "fair" are less likely to select into negotiations (not true for women). However, fairness concerns are not predictive of negotiation outcomes.
2. **Risk Aversion**: no gender differences:
   - Not correlated with returns in the Forced treatment;
   - Not predictive of entry decisions in Choice treatment
3. **Chat Tendencies**: Not correlated with returns in the Forced treatment; Somewhat predictive of entry decisions

Conclusions

We ask: Do individuals financially benefit from negotiating more often?

- Need to observe how outcomes differ when individuals can and cannot select into negotiations in otherwise similar environments.
- Compare Choice (of negotiation) treatment and Forced (negotiation) treatment.

Conclusions

- Both men and women gain when they choose to negotiate in the Choice treatment.
- Requiring to always negotiate in the Forced treatment results in financial harm.
- Both men and women positively select into negotiations.

However:

- likelihood of financial harm from this requirement
- evidence for positive selection into negotiations

is greater for women than men.

Conclusions

- Both men and women gain when they choose to negotiate in the Choice treatment.
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- Both men and women positively select into negotiations.

However:

- likelihood of financial harm from this requirement
- evidence for positive selection into negotiations

is greater for women than men.

- Both men and women positively select into negotiations on observable factors (the bonus level)
- Only women positively select on their bargaining ability.
- Women in our study appear particularly adept at knowing when to ask.

Open Questions

- We eliminate several factors that may drive gender differences in negotiation outcomes.
- In non-anonymous contexts: backlash concerns may beget additional benefits from negotiating less often.
- Women may undervalue what they bring to the table
  - they do not know their individual contributions and whether their outside options would shortchange them.
  - This may lead women to not negotiate often enough.

Policy Implications

Extreme measure:

"Changing the Women" (Lean in)

Can we manipulate/affect competitiveness and would it change educational choices?

- What else does competitiveness affect?
- Caution: Sometimes lean in can backfire, see Exley, Niederle and Vesterlund, 2016.