

Violence Against Women at Work & Home

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Gender Wage Gap Project Celebration

Harassment Questions

- ▶ In the past 12 months, in the course of your work, have you had one or more people systematically:
 - ▶ make sexual propositions to you
 - ▶ say obscene or degrading things to you
- ▶ In the past 12 months, in the course of your work, have you been physically or sexually assaulted by your colleagues or superiors?
- ▶ At work, I hear derogatory remarks or jokes about women

Who knows at least one person who would answer “yes”
to one of these questions?

Our Paper

- ▶ Harness unique Finnish data to provide new insights into the impact of workplace violence
 - ▶ Who suffers more severe labor market impacts: victims or perpetrators?
 - ▶ How does the relationship between victim/perpetrator affect outcomes?
 - ▶ Are there spillover effects on wider recruitment and retention?
 - ▶ What role does management play in mediating negative impacts?

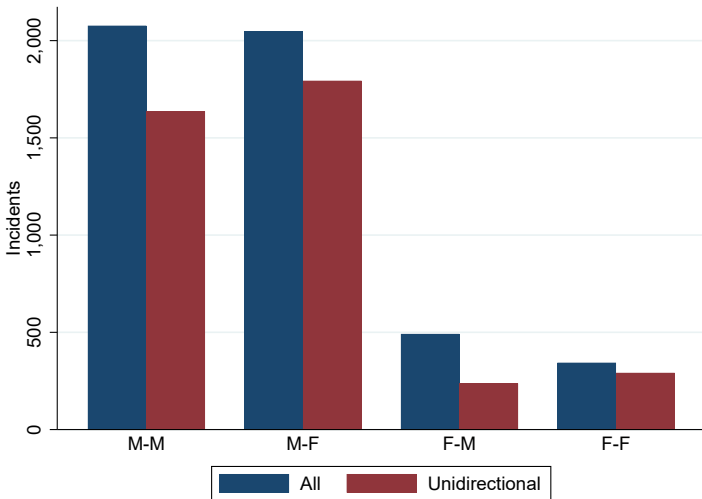
Contribution

- ▶ **Sexual harassment:** Folke & Rickne (2022); Dahl and Knepper (2022); Sharma (2021); Batut et al. (2021)
 - ▶ We consider realized events, asymmetry in impacts on and role of the relationship between victims/perpetrator, and impacts on the broader firm.
- ▶ **Role of Management:** Bertrand and Schoar (2003); Bloom et al. (2007,2013); Bandiera et al. (2007,2020); Sarsons (2022); Egan et al. (2022); Chakraborty et al. (2021)
 - ▶ Male perpetrators face more severe impacts with female managers, mediating the impact on women within the wider firm.
- ▶ **Peer Effects:** Brune et al. (2020); Papay et al. (2020); Nix (2015); Cullen and Perez-Truglia (2019); Stoddard et. al. (2022)
 - ▶ The impacts of violence at work creates spillovers to the wider workforce.

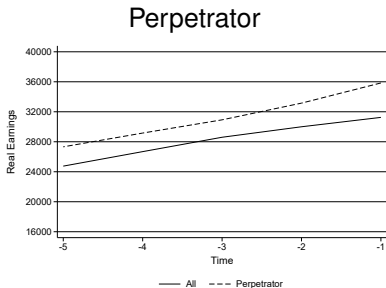
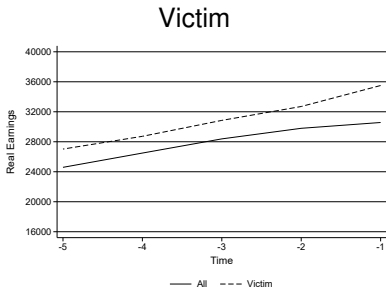
Data

- ▶ Universe of police reports filed in Finland from 2006-2019
- ▶ Merge with administrative data on tax records, employment, & demographics
- ▶ Police reports: first step in a police investigation (before charging)
 - ▶ Can be filed online or in person at a police station (but not by telephone)
 - ▶ After an investigation, case only charged if the prosecutor considers sufficient evidence to convict on basis of police's case
- ▶ Violence between colleagues: a police report filed and both the victim and perpetrator worked in the same firm

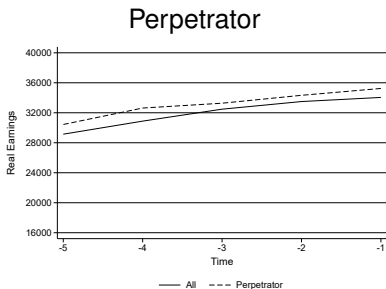
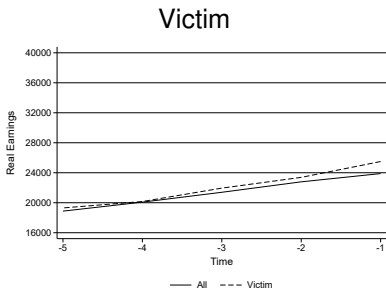
Gender Composition of Workplace Violence



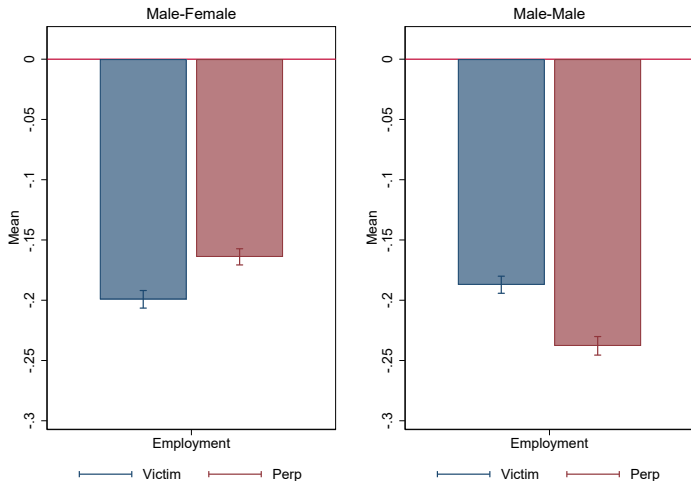
Male-Male Raw Means: Earnings



Male-Female Raw Means: Earnings



Descriptive Impacts on Employment



Concerns

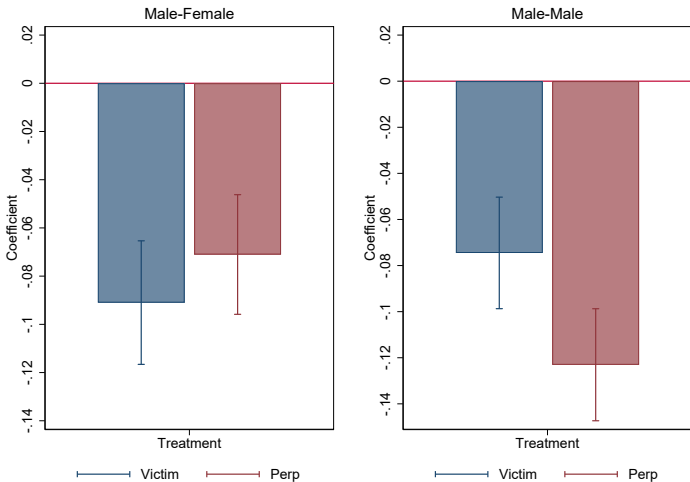
- ▶ Precipitous employment losses following violence between colleagues in the raw data might not be caused by the violence itself
- ▶ Some workers always separate from employers; poor labor market potential might lead someone to assault a colleague (or more exposed to abuse)
- ▶ To mitigate these concerns, we employ a matched difference-in-differences design with individual fixed effects

Matched Difference-in-Differences

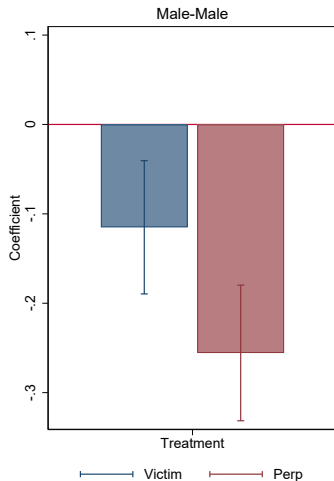
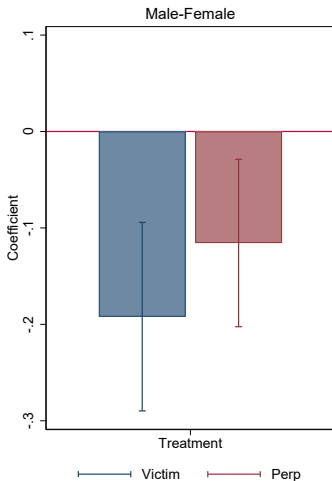
$$Y_{ibt} = \sum_{j=-5, j \neq -1}^5 \delta_j D_{b,t-j} + \alpha_i + \gamma_t + \gamma_j + \mathbf{Age}_{it} + \epsilon_{ibt} \quad (1)$$

- ▶ Y_{ibt} : individual employment and earnings, as well as firm outcomes (turnover, share female, profits, etc.)
- ▶ $D_{b,t-j}$: an indicator variable for the treatment (workplace violence) for year j since the event, in year t
- ▶ δ_j : the coefficients of interest
- ▶ α_i individual (firm) fixed effects
- ▶ γ_t : year fixed effects
- ▶ γ_j : time since event fixed effects
- ▶ \mathbf{Age}_{it} : age

Asymmetry in Impacts: Employment



Asymmetry in Impacts: Earnings



Victim-Perpetrator Inequality: Male-Female Male-Male

Table: Matched Non-Violence Control

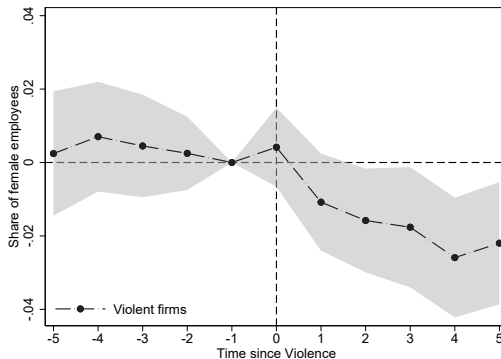
Employment of:	Victims		Perpetrators	
	(1)	(2)	(3)	(4)
Treatment*Perpetrator is Manager	-0.056 (0.029)		0.059 (0.018)	
Treatment*Income Gap		-0.018 (0.017)		0.065 (0.017)
Treatment	-0.079 (0.012)	-0.075 (0.014)	-0.058 (0.012)	-0.085 (0.016)
Year fixed effects	✓	✓	✓	✓
Time since crime fixed effects	✓	✓	✓	✓
Individual fixed effects	✓	✓	✓	✓
Age x time since crime	✓	✓	✓	✓
Observations	29,813	29,813	30,056	30,056
Dependant variable mean	0.824	0.824	0.845	0.845

Spillover Effects on Other Employees?

$$Y_{fbt} = \sum_{j=-5, j \neq -1}^5 \delta_j D_{b,t-j} + \alpha_f + \gamma_t + \gamma_j + \epsilon_{fbt} \quad (2)$$

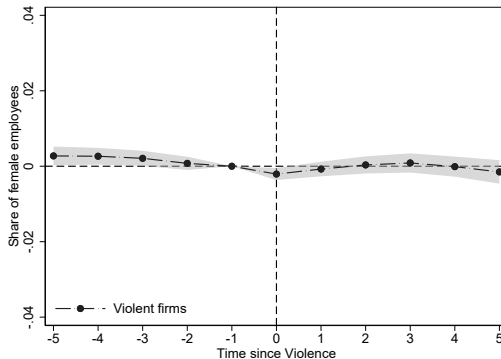
- ▶ Y_{fbt} : firm outcomes (turnover, share female, profits, etc.)
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Impact on Share Female Employees: Male-Female

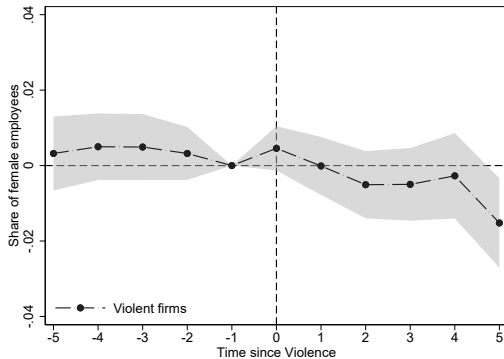


Impact on Share Female Employees: Male-Female

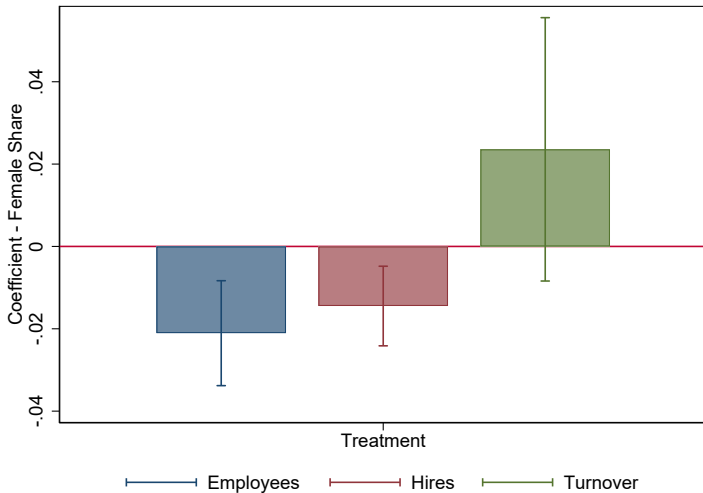
Figure: Non-Colleague Violence Counterfactual



Impact on Share Female Employees: Male-Male



Channels Contributing to Fall in Female Share

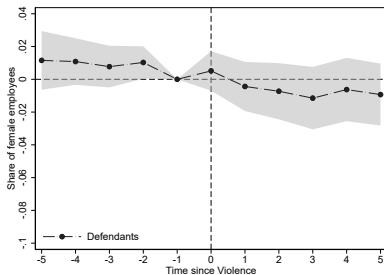


Motivation for Examining Managers

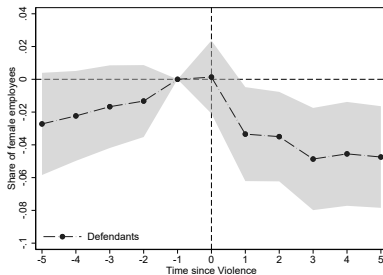
- ▶ Managers play a vital role in determining profits and direction of firm
 - ▶ Bertrand and Schoar (2003), Bloom et al. (2007), Bandiera et al., (2007), Ichniowski et al. (1995), Alan et al. (2021)
- ▶ Recent evidence that the gender composition of management might affect how firms react to negative behavior by male and female employees
 - ▶ Egan et al. (2021): gender asymmetry in punishment of misconduct is mediated by female management
 - ▶ Chakraborty et al. (2021): male and female managers react differently when workers send them angry message

Management Gender and Share Female Workers

Female Managed Firms



Male Managed Firms



Employment Impact: Female Management

	Male-Female		Male-Male	
	Victim	Perpetrator	Victim	Perpetrator
	(1)	(2)	(3)	(4)
Treatment*Female Manager	-0.018 (0.017)	-0.044 (0.017)	0.016 (0.017)	-0.047 (0.018)
Treatment	-0.075 (0.015)	0.030 (0.014)	-0.050 (0.014)	-0.082 (0.014)
Year fixed effects	✓	✓	✓	✓
Time since crime fixed effects	✓	✓	✓	✓
Firm fixed effects	✓	✓	✓	✓
Observations	29,813	30,056	27,618	28,046
Non-Violent Mean	0.824	0.845	0.819	0.828

Female Share Impact: Female Management

	Male-Female			Male-Male		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment*Fem Manager	0.021 (0.008)		0.001 (0.013)	0.005 (0.006)		-0.019 (0.006)
Treatment*PerpUE		0.016 (0.009)	-0.005 (0.014)		0.005 (0.005)	-0.008 (0.008)
Treatment*Fem Manager*PerpUE			0.029 (0.016)			0.0324 (0.010)
Treatment	-0.020 (0.008)	-0.034 (0.008)	-0.021 (0.012)	-0.015 (0.005)	-0.011 (0.005)	-0.004 (0.007)
Year fixed effects	✓	✓	✓	✓	✓	✓
Time since crime fixed effects	✓	✓	✓	✓	✓	✓
Firm fixed effects	✓	✓	✓	✓	✓	✓

Summary of Results

- ▶ We found that:
 - ▶ Victims suffer significant and persistent employment impacts from workplace violence
 - ▶ Perpetrators of workplace violence face significantly weaker employment impacts when victims are female; Power dynamics play a key role in explaining this difference
- ▶ In terms of broader impacts for the firm:
 - ▶ Current & future female employees impacted by these events, with greater impacts in male-managed firms
 - ▶ Whisper networks are not strong contributors to firm effects
 - ▶ Female managers do at least one important thing differently: fire perpetrators

Discussion

- ▶ Weak incentives for female victims to report
 - ▶ Few perpetrators lose their jobs
- ▶ Relying on informal information channels to reduce exposure to perpetrators of assault appears fragile
 - ▶ Whisper networks do not seem to explain firm hiring effects
- ▶ Workplace violence creates pressures for gender segregation in the workforce
 - ▶ Following male-female violence, the gender composition of male-managed firms becomes more male

Rethinking Domestic Violence

“The **first feature of control was financial**. As soon as I had less economic independence that’s when the [violence] started.”

Testimony

“**Economic abuse is designed to reinforce or create economic instability... Lack of resources can result in women staying with abusive men for longer**, experiencing more harm as a result.”

Select Committee Evidence

Existing Literature

- ▶ Focus has often been on causal mechanism running in opposite direction, i.e. quasi-exogenous “shocks” on prevalence of domestic violence
 - ▶ **Economic:** Aizer (2010); Heath (2014); Anderberg et al (2016); Bhalotra et al (2021); Erten & Keskin (2021); Sanin (2022).
 - ▶ **Emotional:** Card & Dahl (2009); Sanz-Barbero et al (2018)
 - ▶ **Covid:** Berniell & Facchini (2021); Leslie & Wilson (2020); Beland et al (2020) Hsu & Henke (2021); Arenas-Arroyo (2021)
- ▶ Data limitations holding back dynamic analysis
 - ▶ Survey data centered on point of report
 - ▶ Few panel data sets that track individuals across relationships

This Paper

- ▶ Develop a new set of facts on the evolution of women's economic outcomes from the **point of cohabitation**
 - ▶ Universe of police reports filed in Finland matched to register employment & demographic data
- ▶ Causal identification is tricky — leverage rich data environment to harness two complementary identification strategies:
 - ▶ **Matched Control Event Study**: compare post-cohabitation economic outcomes of observationally identical women cohabiting with non-abusive observationally identical men
 - ▶ **Within-Victim Across-Relationship**: triple-difference design across non-abusive relationships that victims form

This Paper

- ▶ Establish three new stylized facts
 1. Large, immediate falls in victims' economic outcomes from point of cohabitation
 - ▶ 12% fall in employment rates & 26% fall in earnings relative to their matched controls & other relationships
 - ▶ Robust to battery of tests for reverse causality & "relationship" effect
 2. Men who are violent towards women suppress the economic outcomes of all women they cohabit with, even if no physical violence is reported
 - ▶ Analyse economic outcomes of women who cohabit with partners that are reported for physical violence towards women in other settings
 - ▶ Bounds a selection into reporting effect
 3. Decline in outcomes is non-monotonic in victims' outside options
 - ▶ Declines largest for those with "intermediate" outside options defined by education or pre-cohabitation earnings

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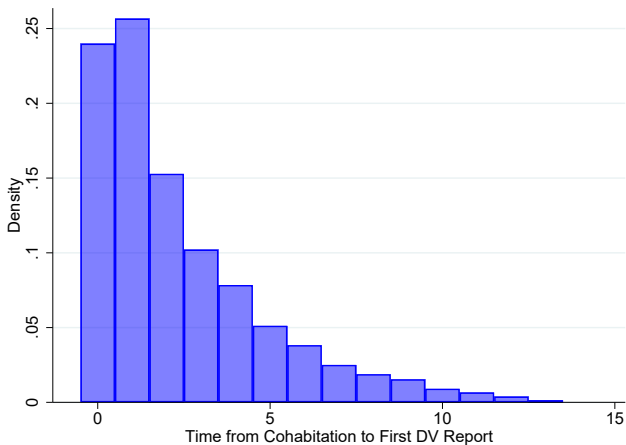
This Paper

- ▶ Develop a novel theoretical framework to rationalize our findings
 - ▶ Women do not perfectly observe partner's type at cohabitation
 - ▶ Abusive men have an incentive to exert coercive control early in the relationship to reduce a woman's outside option and ability to exit the relationship
- ▶ Harness model predictions to revisit some classic results
 - ▶ Aizer (AER, 2010): local labor markets with \uparrow female outside options \downarrow domestic violence due to within household change in bargaining power
 - ▶ Our paper: this variation is linked crucially to break-up dynamics (see also Stevenson & Wolfers (2006) & Sanin (2022))
 - ▶ Policy should also include support to exit bad matches & we include some suggestive evidence on the role of women's shelters

Data

- ▶ Universe of police reports filed in Finland from 2006-2019 matched perfectly with administrative data on tax records, employment, demographics, and cohabitation status
 - ▶ Police data contains personal IDs for **both** perpetrators and victims
- ▶ Police reports: first step in a police investigation before charging
 - ▶ Can be filed online or in person at a police station
- ▶ Identify a report as domestic violence following Statistics Finland approach:
 - ▶ List of violent crimes recommended by SF
 - ▶ Perpetrator & victim were either cohabiting at the time of the crime or had cohabited in the previous five years
- ▶ Prevalence: **2.9%** of cohabitation spells starting in 2006 associated with at least one report of domestic abuse

Time to First Report



Demographics at Cohabitation ($t = -1$)

	DV-Violent		MF-Violent		Non-Violent	
	Women	Men	Women	Men	Women	Men
Age	31.43 (10.7)	33.73 (10.57)	29.47 (10.61)	31.59 (10.45)	29.38 (10.62)	31.16 (10.94)
College	0.10 (0.295)	0.12 (0.32)	0.12 (0.337)	0.08 (0.27)	0.24 (0.425)	0.18 (0.387)
High School	0.53 (0.499)	0.47 (0.499)	0.56 (0.496)	0.49 (0.500)	0.6 (0.490)	0.61 (0.488)
Dropouts	0.38 (0.485)	0.42 (0.493)	0.31 (0.464)	0.43 (0.496)	0.17 (0.372)	0.21 (0.405)
Employed t-1	0.51 (0.500)	0.51 (0.500)	0.57 (0.495)	0.53 (0.499)	0.67 (0.471)	0.66 (0.473)
Earnings t-1	12,137 (14520)	16,549 (19907)	13,248 (14891)	16,213 (19470)	16,138 (16439)	22,008 (23440)
Prior Crimes	0.09 (0.747)	0.77 (3.169)	0.07 (0.747)	1.04 (3.923)	0.01 (0.207)	0.02 (0.279)
Observations	13,767		41,646		577,550	

Empirical Strategy

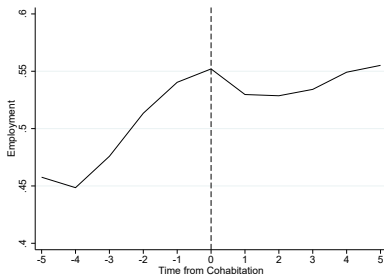
- ▶ **Event of Interest:** cohabitation with an abusive partner
- ▶ Causal identification is tricky
 - ▶ Decision of whether and when to cohabit, and who to cohabit with are not random events
 - ▶ Women forming relationships with abusive men have worse economic outcomes pre-cohabitation
- ▶ Cohabitation with an abusive partner is a **bundled treatment**
 - ▶ Multiple dimensions to their behaviour that might be driving observed effects (e.g. coercive fertility and migration; physical violence; coercive control)

Empirical Strategy

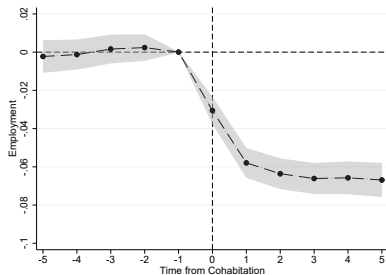
- ▶ Leverage the rich data available in our context in a series of matched difference-in-differences event study designs
- ▶ Harness the following key sources of variation
 1. Changes in **victims'** outcomes before-after cohabitation with a **partner who is violent to them** relative to observationally equivalent **women who cohabit with non-violent men**
 2. Changes in **victims'** outcomes before-after cohabitation with a **partner who is violent to them** relative to observationally equivalent women who cohabit with non-violent men compared to the change in **victims' relative outcomes in non-violent relationships** that they form
 3. Changes in **women's** outcomes before-after cohabitation with a **partner who is violent to other women** relative to observationally equivalent **women who cohabit with non-violent men**

Impacts of Cohabitation on Victim Employment

(a) Raw Mean

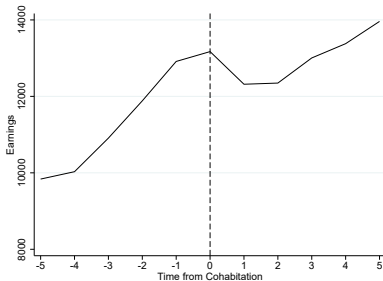


(b) Event Study

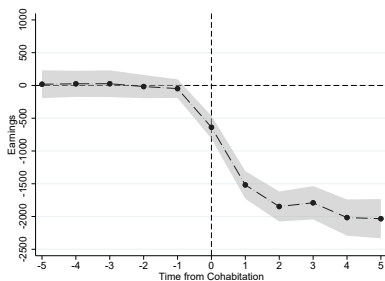


Impacts of Cohabitation on Victim Earnings

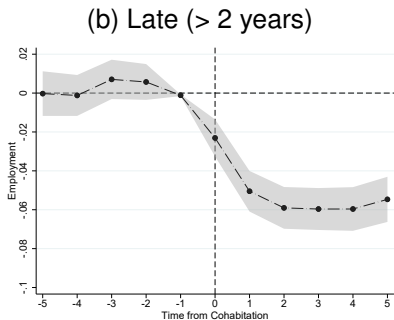
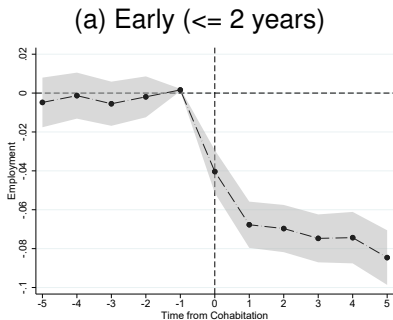
(a) Raw Mean



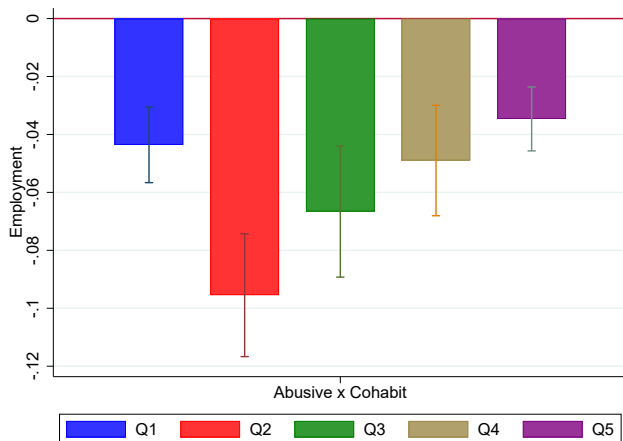
(b) Event Study



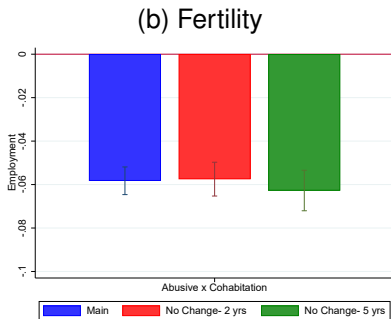
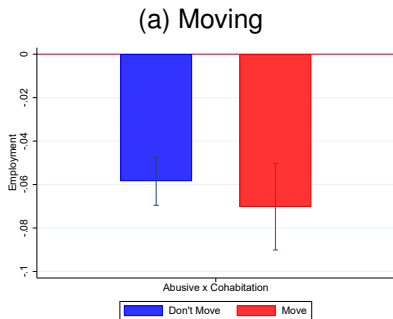
Heterogeneity: Timing of Report



Heterogeneity: By Victim's Earnings



Heterogeneity: Choices



Reverse Causality

- ▶ Key threat to identification: cohabit with an abusive partner due to negative economic shock
- ▶ Do victims' experience systematically different economic shocks?
 - ▶ **Local labour market level:** Bartik index, $\bar{Y}_{rget} = \sum_j \gamma_{rge0j} Y_{-rgetj}$
 - ▶ **Firm level** indicators for those employed at $t = -1$

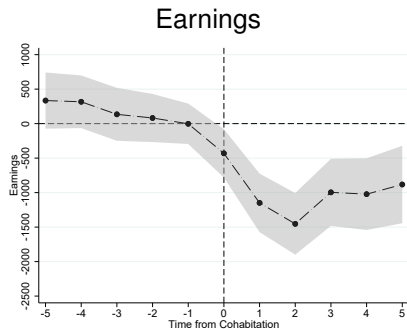
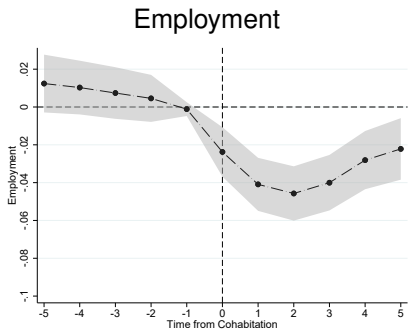
	(1)	(2)	(3)	(4)	(5)
	Bartik Index	Av. Earnings	Firm Size	Turnover	Emp at $t = -1$
Abusive × Cohabit	0.0003 (0.0006)	-12.9972 (92.83)	-18.0727 (10.46)	0.0012 (0.0026)	-0.0463*** (0.0032)
Observations	709484	318812	318812	303348	429360
Dependent Mean	.647	23228	469	.282	1.000
<i>Fixed effects</i>					
Year	✓	✓	✓	✓	✓
Time cohabit × Match	✓	✓	✓	✓	✓

“Relationship” Effect

- ▶ Our treatment is a combination of two events: (i) cohabitation; (ii) partner is abusive
- ▶ Note: matched controls also start new cohabitation spell at $t = 0$
- ▶ **Concern:** victims' may systematically reduce their LFP in *all* relationships they form
- ▶ **Within-Individual Across-Relationship Design:** compare the difference in employment outcomes for victims relative to their matched controls in their abusive and non-abusive relationships

$$Y_{it} = \sum_{j=-5, j \neq -1}^5 \left(\underbrace{\delta_j (V_{i,j} \times A_{i,j})}_{D_{i,j}} + \omega_j V_{i,j} + \mu_j A_{i,j} + \alpha_{m(i),j} \right) + \gamma_t + \epsilon_{it} \quad (1)$$

Triple DiD Using Victim's Other Relationships

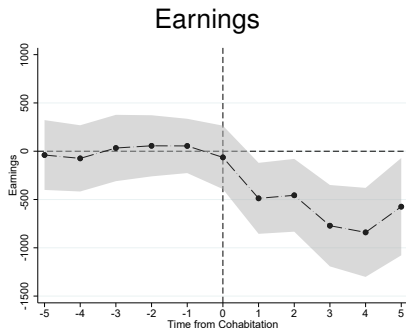
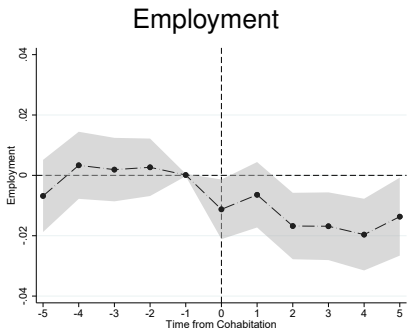


Male Types & Reporting

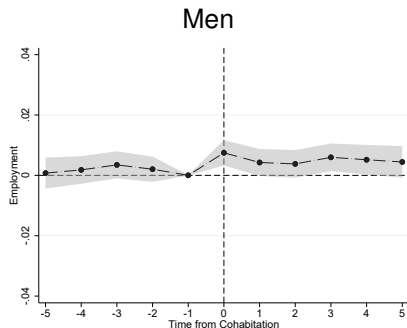
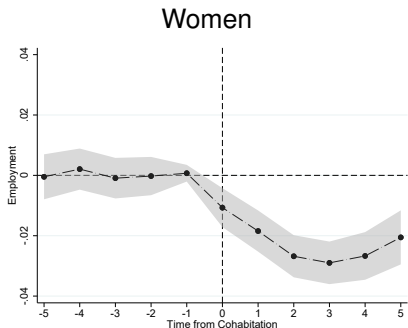
- ▶ If reporting is more likely with large declines in economic outcomes, we will overstate the impact of cohabiting with an abusive man
- ▶ We observe **the universe of men who are reported as being violent towards women** (intimate partners and in other settings)
 - ▶ Identify women who cohabit with these men but who do not report domestic violence to the police
 - ▶ Includes perpetrators of domestic violence in other relationships they form
 - ▶ What is the impact of cohabiting with a man who is physically violent to women?
 - ▶ Address potential selection into reporting and probe whether exists a male “type”
- ▶ Still find a significant drop in economic outcomes at cohabitation of ~ 2 p.p

Results

Non-Reporting Women with DV-Violent Partner



Non-Reporting Women with Violent Partner



Conclusion

- ▶ Analyze women's economic outcomes with an abusive partner from point of cohabitation
- ▶ Document new stylized facts on the dynamics of abusive relationships
 - ▶ Find large & significant costs of cohabiting with an abusive spouse
 - ▶ Fall in women's economic outcomes across all relationships abusers form, even if no physical abuse reported
 - ▶ Economic costs of abuse non-monotonic in victim pre-cohabitation outside options
- ▶ Develop a dynamic model of strategic economic suppression & violence to rationalize these findings

Conclusion

- ▶ Reinterpretation of findings on relationship between outside options and incidence of domestic violence
- ▶ Show that break up appears to be a key mediating factor for reducing exposure to abuse
- ▶ Important policy implications to inform an ongoing public discourse around coercive control and how best to serve victims