Rags to Rags: The Multi-Generational Effects of Ending Cash Transfers in Victorian Britain

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This Paper

Question: What are the effects of cash transfers to low-income individuals across their lives and into subsequent generations?

- US: Food Stamps $\rightarrow$ Adults exposed as children (e.g., Bailey et al., 2023)
- Kenya: UBI $\rightarrow$ Short- and medium-run effects (e.g., Banerjee et al., 2023)

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Setting: Poor Law Amendment Act of 1834 ("New Poor Law") in England and Wales

- Ended 200+ years of wide geographic heterogeneity in the generosity of and eligibility for income support payments ("poor relief")

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Contribution: Effects of ending cash transfers (during own, father's, and grandfather's childhood) on economic outcomes

Roadmap

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   - From transferring 2% of GDP to 15% of the population ...
   - ... To transferring 1% of GDP to 10% of the population

2. **Diff-in-Diff: {Pre, Post} × {High-, Low-Decline Counties}**
   - Adults exposed in childhood (1861): ↓ 2-5% high-skilled job
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Old Poor Law in England and Wales

1597-1601: Elizabethan ("Old") Poor Law(s)

- Required parishes to support those who could not support themselves

  (Collinge and Falcini, 2022)

- Parishes assessed taxes on property / land – as high as 40% in some rural areas!

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- To those who were elderly, widowed, sick, disabled, unemployed, or working parents with many children

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Massive Increases in Poor Relief, 1750s-1830s

England and Wales: Poor relief as a share of GDP went from 1% in 1749 to 2% in 1830 (Lindert, 1998, p. 114)

- Scotland, Ireland, rest of Europe: Remained constant at around 1% of GDP throughout this period

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Backlash: The rise of political economy

> The clear and direct tendency of the poor laws, is in direct opposition to these obvious principles: it is not, as the legislature benevolently intended, to amend the condition of the poor, but to deteriorate the condition of both poor and rich; instead of making the poor rich, they are calculated to make the rich poor; and whilst the present laws are in force, it is quite in the natural order of things that the fund for the maintenance of the poor should progressively increase, till it has absorbed all the neat revenue of the country, or at least so much of it as the state shall leave to us, after satisfying its own never failing demands for the public expenditure.[9]

(Ricardo, 1817)

1834: New Poor Law

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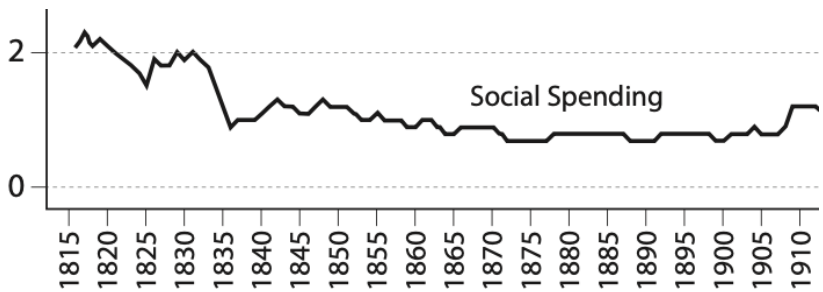

As Share of GDP

(Boyer, 2019, p. 17)

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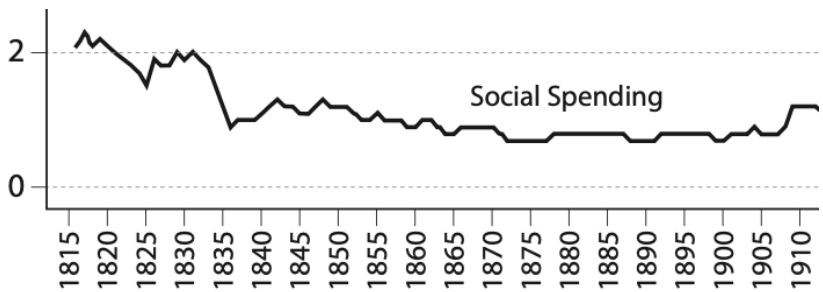

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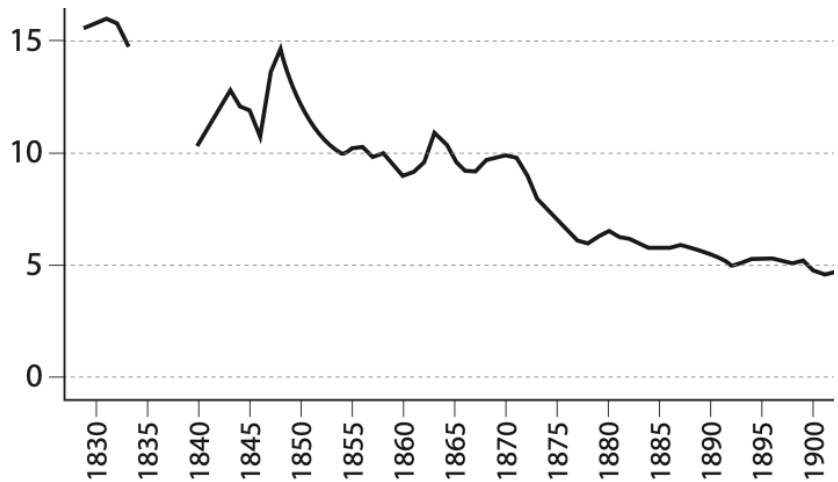

Share of Pop. Receiving Relief

(Boyer, 2019, p. 17)

Aftermath

Oliver Twist (1838) published partly as criticism of New Poor Law

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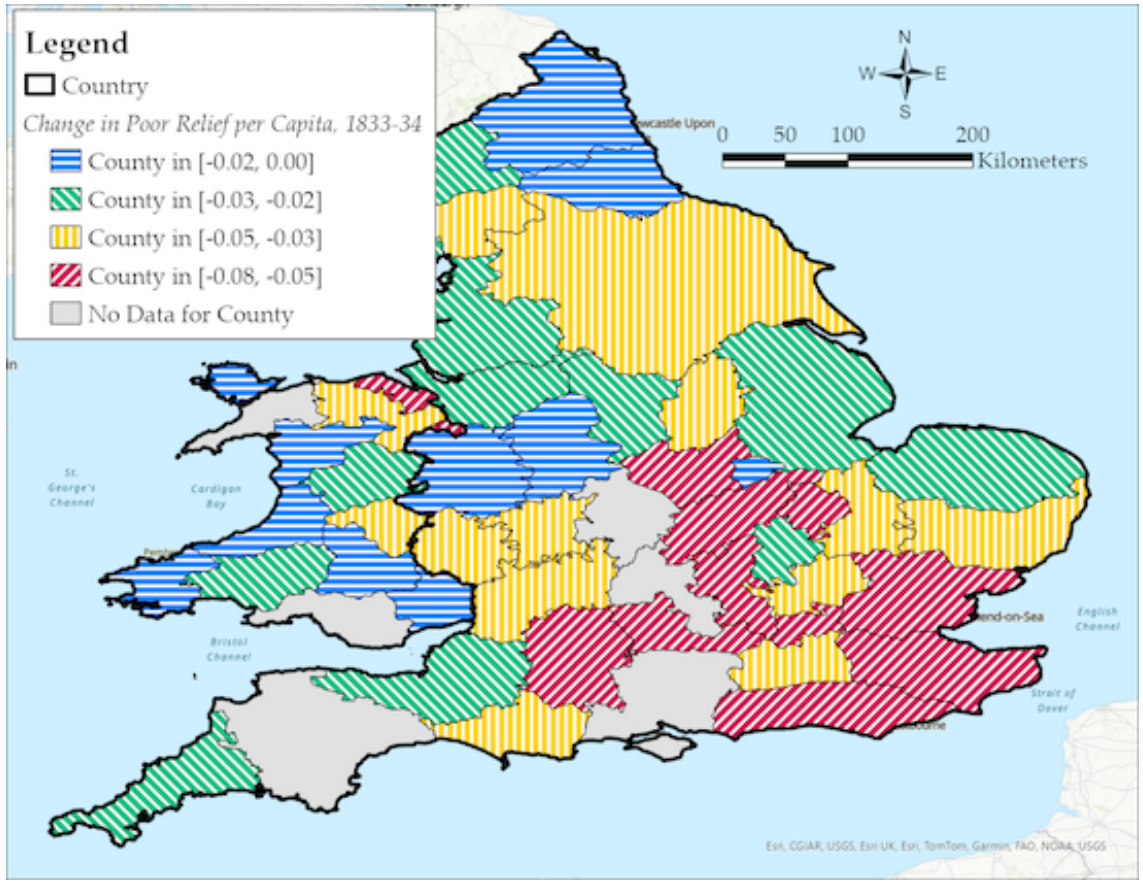
Defining Treatment and Control Counties



Change in Poor Relief per Capita from 1833 to 1834

(Spending data from Melander and Miotto, 2023)

Treatment counties: Above-median decline (red and yellow)

Empirical Strategy: Long-Run Effects on Children, 1861

Data: IPUMS full-count 1861 census of England and Wales

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Diff-in-diff:

$$y_{i,c,b} = \alpha_c + \gamma_b + \cdot(\mathbf{1}[b \geq 1819] \cdot \mathbf{1}\left[|\Delta_{c,\text{1833-34}}| \geq |\Delta_{\text{median,1833-34}}|\right]) + \gamma_b \cdot \kappa_{k(c)} + \epsilon_{i,c,b} \quad (1)$$

- α_c, γ_b: FE for county of birth c and year of birth b
- $\mathbf{1}[b \geq 1834]$: Indicator for age 15 or younger in 1834 (data driven)
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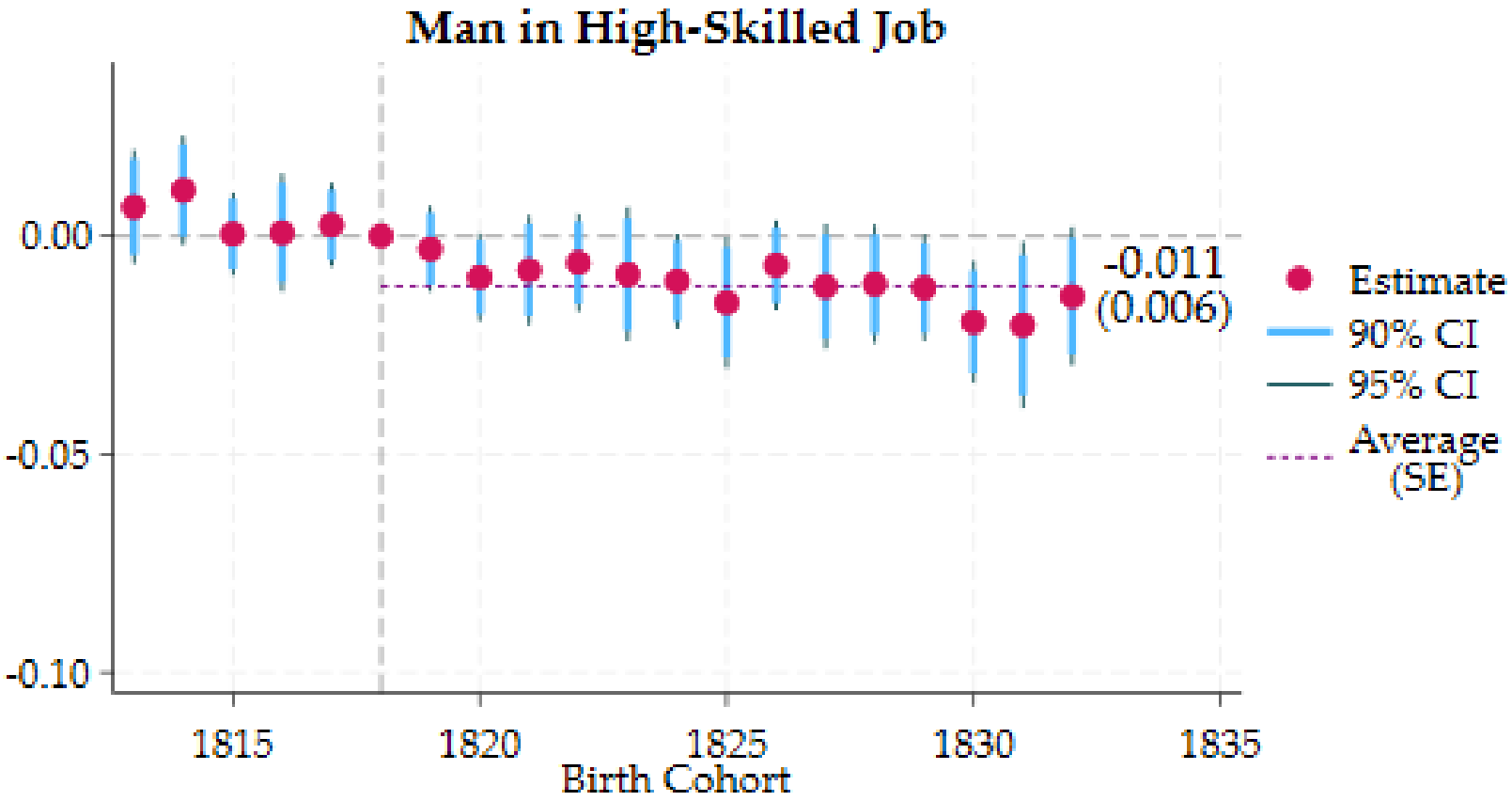
- $\kappa_{k(c)}$: FE for c's country k (so $\gamma_b \cdot \kappa_{k(c)}$ captures England- and Wales-specific trends)
- SE clustered by county
- Also use dynamic specification (event study)

Results: Long-Run Effects on Children, 1861



1.40 million obs., 50 clusters, pre-1819 birth cohort mean dependent variable 0.685

Men in high-skilled jobs: ↓ 1.1 p.p. (1.6%)

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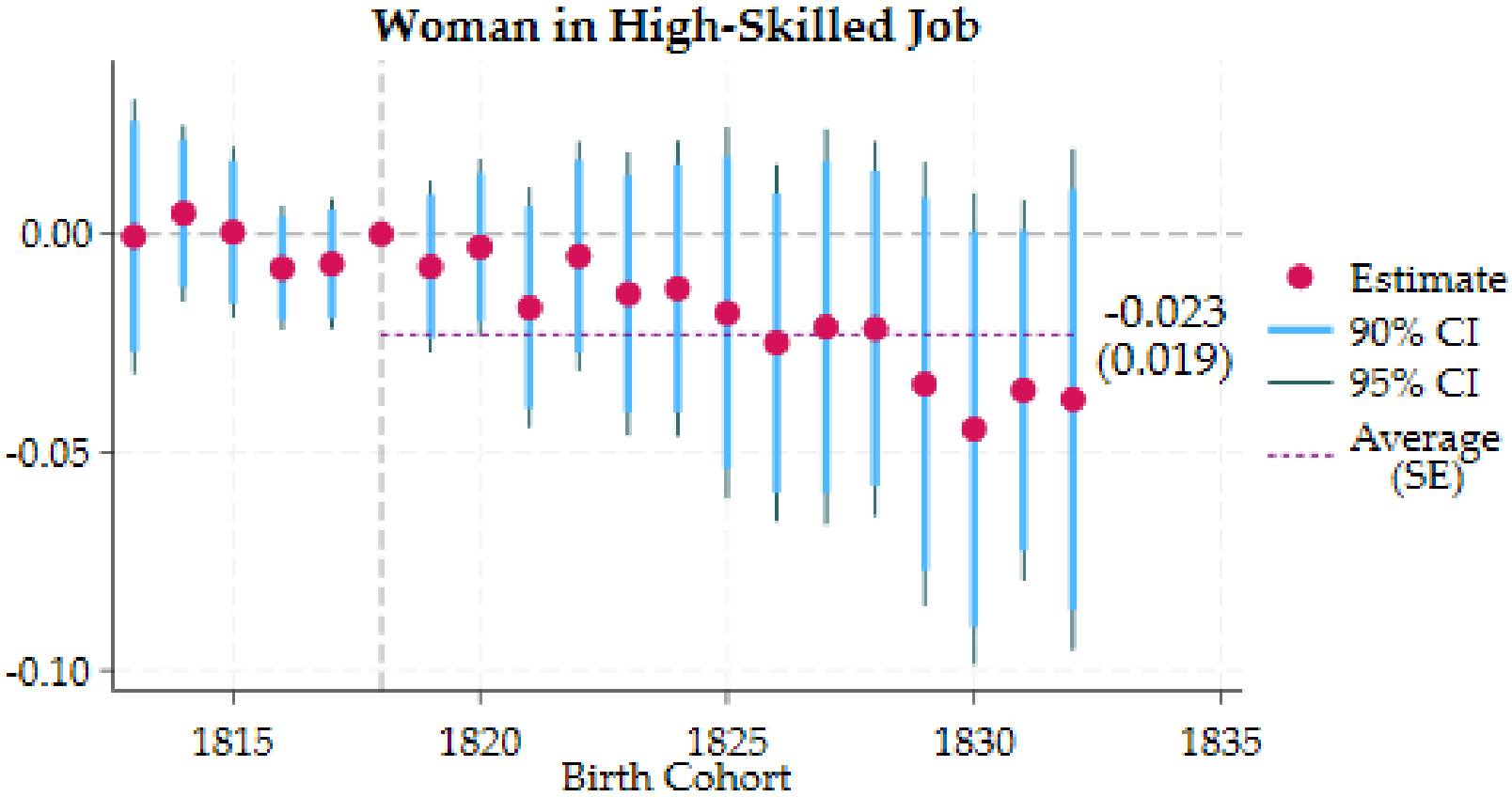

0.52 million obs., 50 clusters, pre-1819 birth cohort mean dependent variable 0.458

Women in high-skilled jobs: ↓ 2.3 p.p. (5.0%), but imprecise

Empirical Strategy: Effects on Next Gen. as Children, 1861

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- $\alpha_{\hat{c}}$, $\gamma_{\hat{b}}$: FE for father's county of birth $\hat{c}$ and year of birth $\hat{b}$
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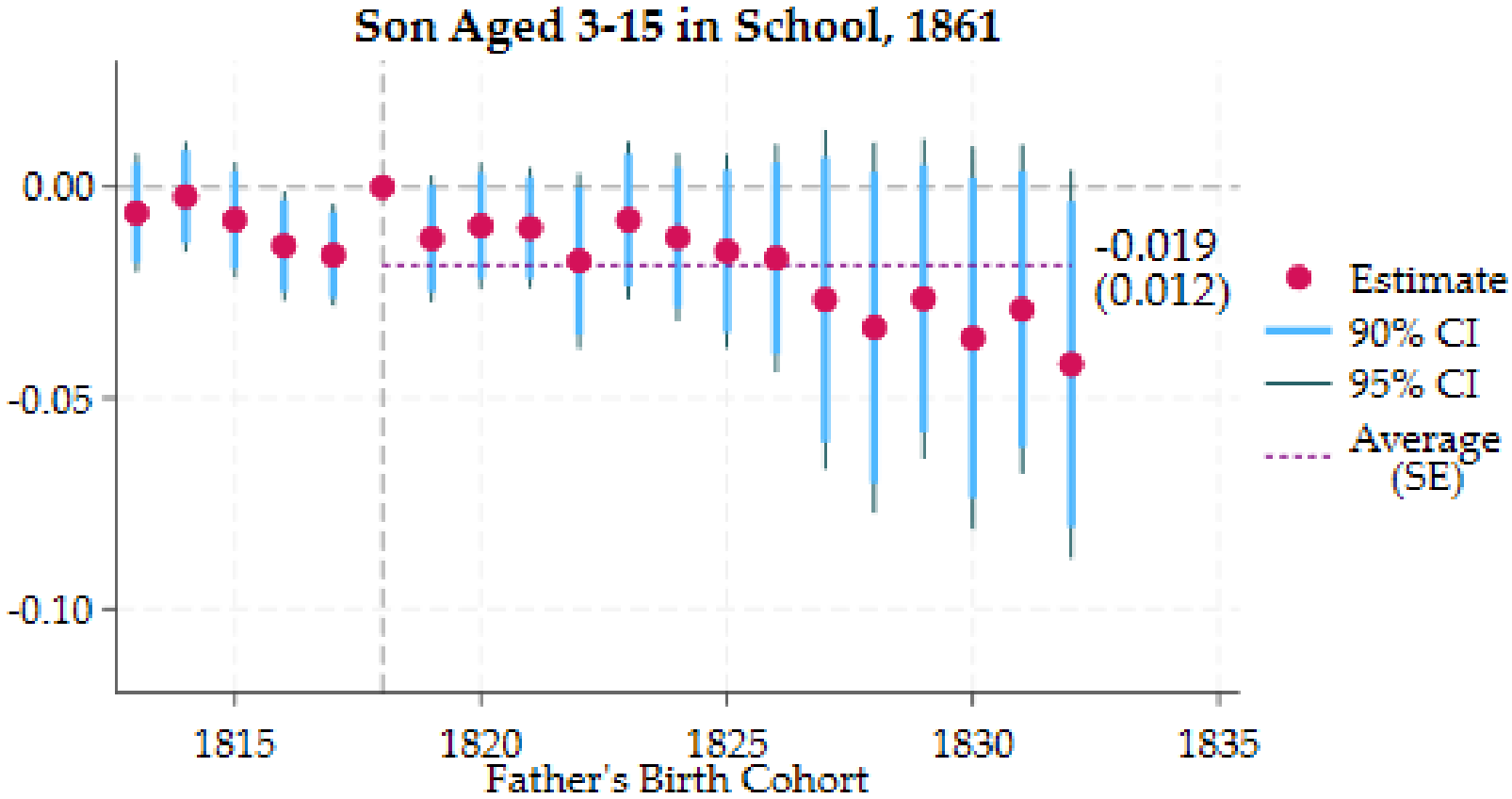
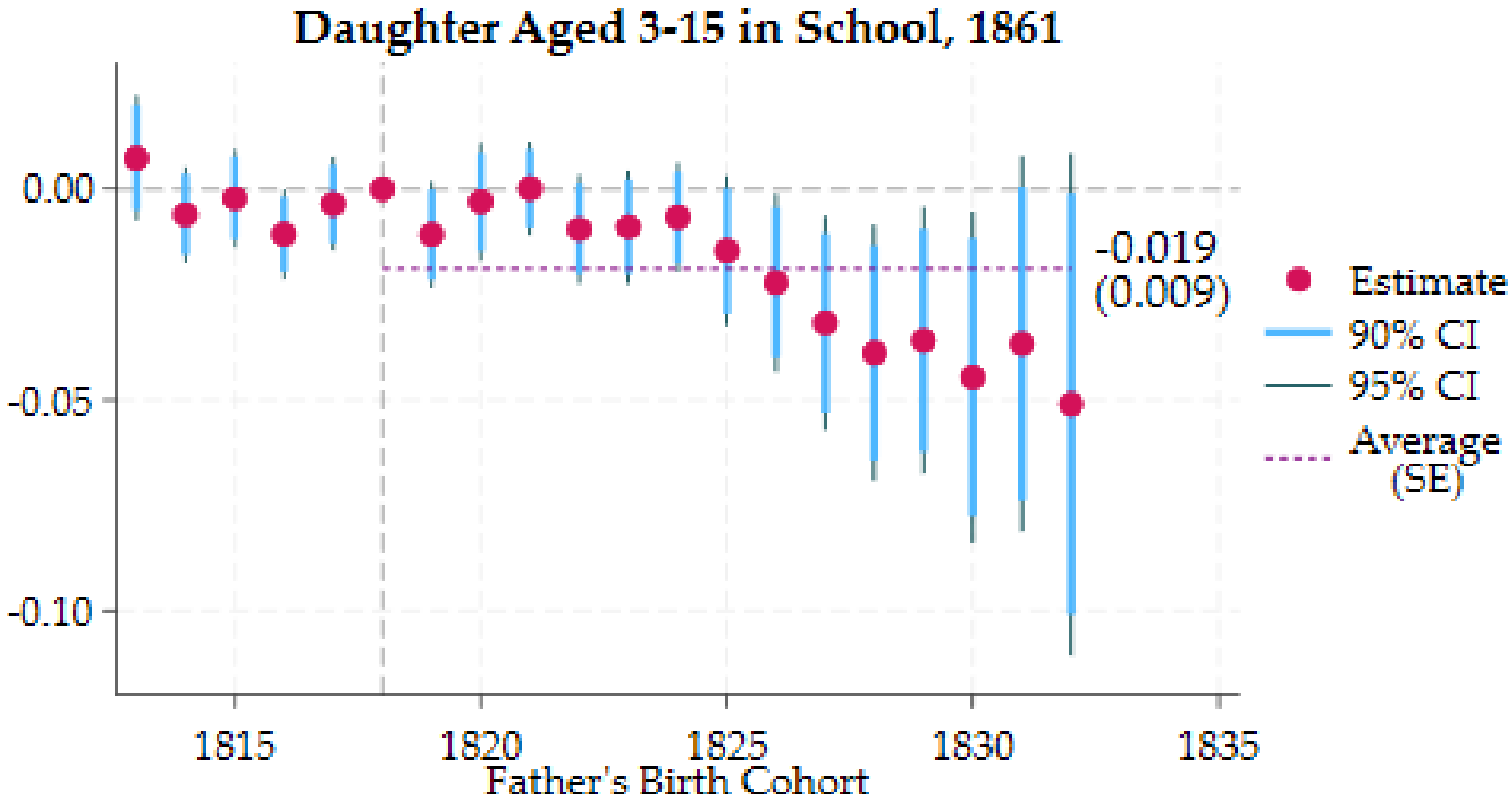


1.14 million obs., 50 clusters, pre-1819 father's birth cohort mean dep. var. 0.517

Boys in school: ↓ 1.9 p.p. (3.6%)

Results: Effects on Next Gen. as Children, 1861



1.13 million obs., 50 clusters, pre-1819 father's birth cohort mean dep. var. 0.557

Girls in school: ↓ 1.9 p.p. (3.4%)

Empirical Strategy: Effects on Next Gen. as Adults, 1901

Data: IPUMS full-count 1901 census of England and Wales $\rightarrow$ Find (now-adult) sons of men from 1813-32 cohorts

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Linking: Use ABE algorithm to match sons in 1861 results to their adult observations in 1901 (Abramitzky, Boustan and Eriksson, 2012, 2014, 2019; Bailey et al., 2020; Bailey, Cole and Massey, 2020)

Variables used for linkage: Surname (string), parish of birth (string), year of birth

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Match rates: 2% (we think due to no first names, parish spelling)

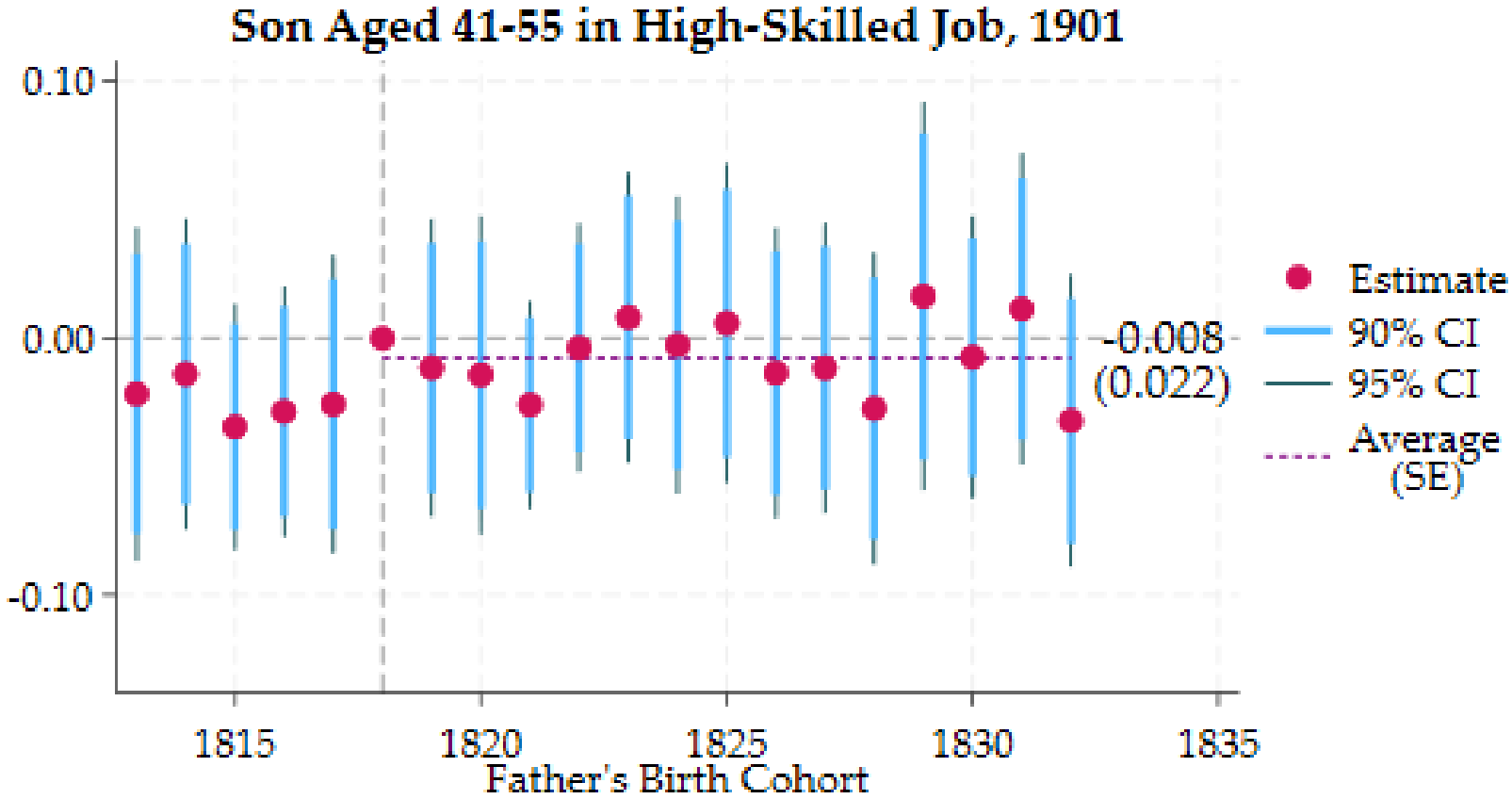
- Moving forward: Use first name in restricted data, create crosswalk between 1861 and 1901 parishes to increase (correct) matches
- Results shown today use inverse propensity score weighting to improve linked sample's representativeness (Bailey, Cole and Massey, 2020)

Representativeness of Linked Sample

	Unweighted (1)	IP weighted (2)
Living in England in 1901	0.0090	-0.0570
	(0.0007)	(0.1193)
Born in England	0.0156	-0.1015
	(0.0007)	(0.0165)
Age	-0.0002	0.0007
	(0.0001)	(0.0004)
Single	-0.0096	0.0078
	(0.0005)	(0.0143)
Any children	0.0074	-0.0026
	(0.0003)	(0.0026)
Employed	-0.0065	0.0107
	(0.0015)	(0.0096)
Employed in a low-skill job	-0.0019	0.0158
	(0.0003)	(0.0052)
Living on a farm in 1901	0.0111	-0.0289
	(0.0006)	(0.0042)
Observations	2,088,489	2,088,473
R^2	0.0017	0.0139
F-statistic	657.2	12.6

Notes: Dependent variable is whether an observation from the potential pool of matches is linked across the 1861 and 1901 samples. Column (2) uses inverse propensity score weights (Bailey, Cole and Massey, 2020).

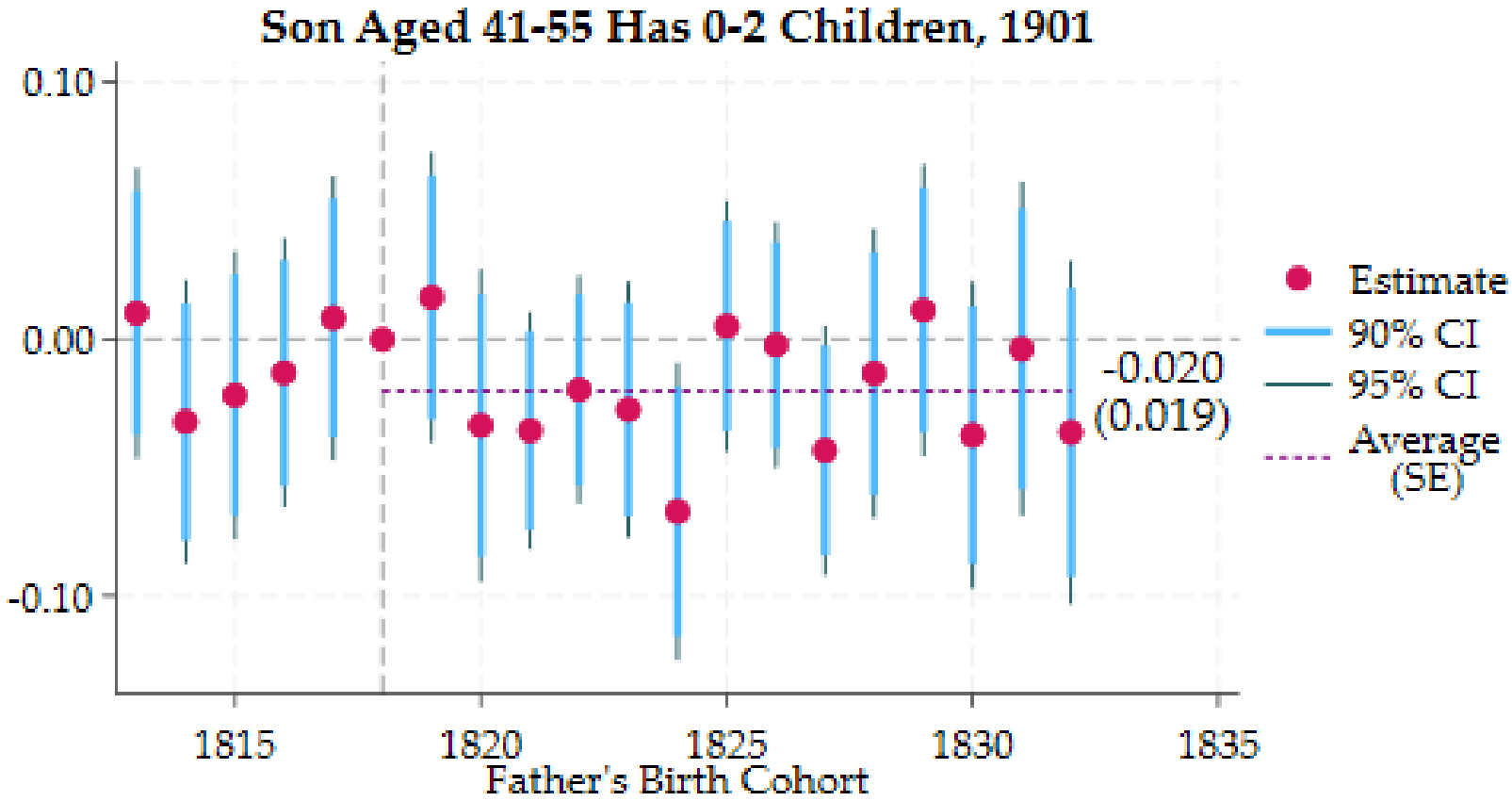
Results: Effects on Next Gen. as Adults, 1901



1.09 m. obs. (wtd.), 52 clust., pre-1819 father's birth cohort mean dep. var. 0.571

Men in high-skilled job: ↓ 0.8 p.p. (1.4%), but imprecise

Results: Effects on Next Gen. as Adults, 1901



Below-median no. of children: ↓ 2.0 p.p. (3.4%), but imprecise

- Possible indicator of QQ tradeoff (human capital matters more now)

Empirical Strategy: Effects on 3rd Gen. as Children, 1901

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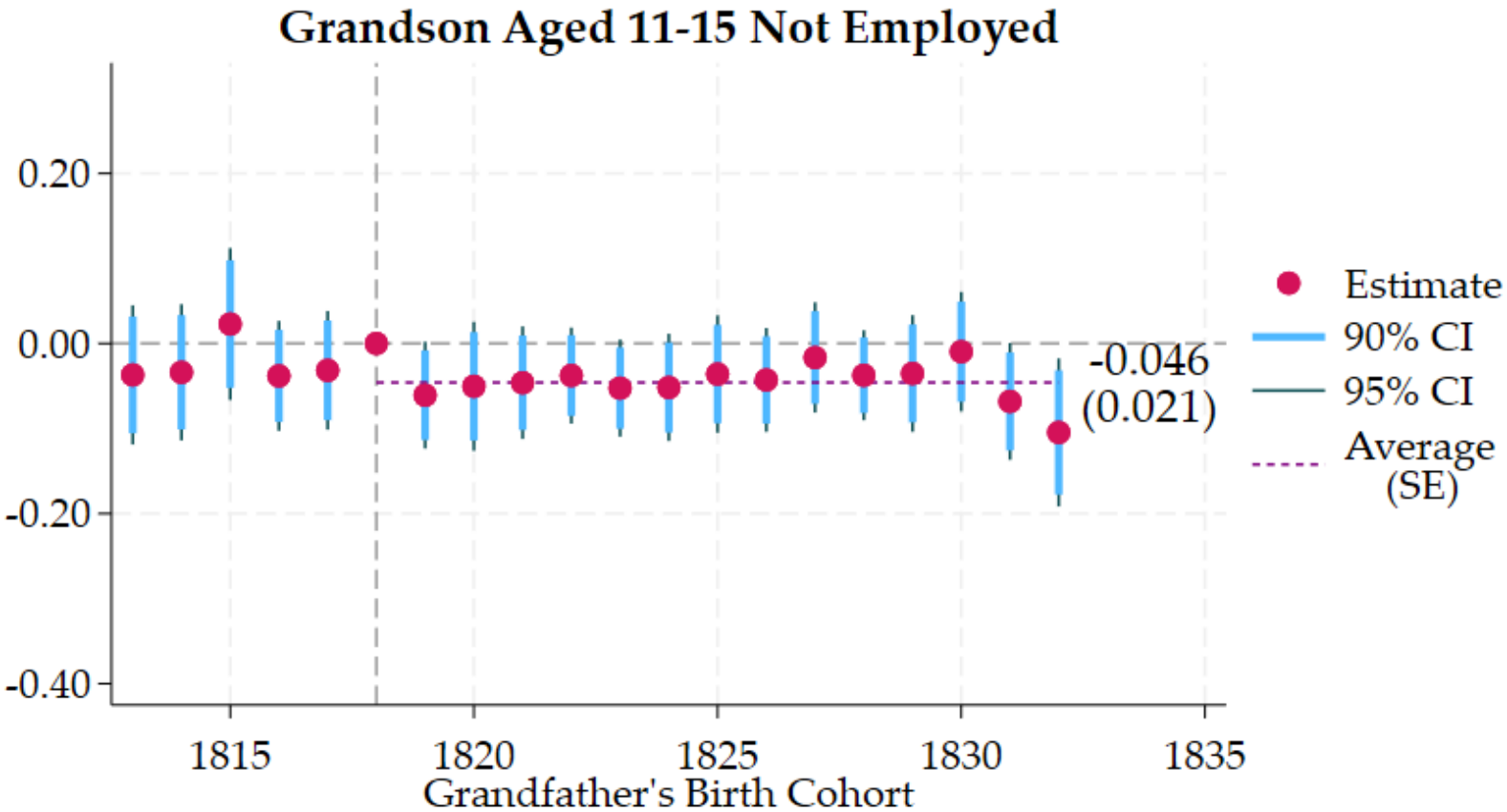
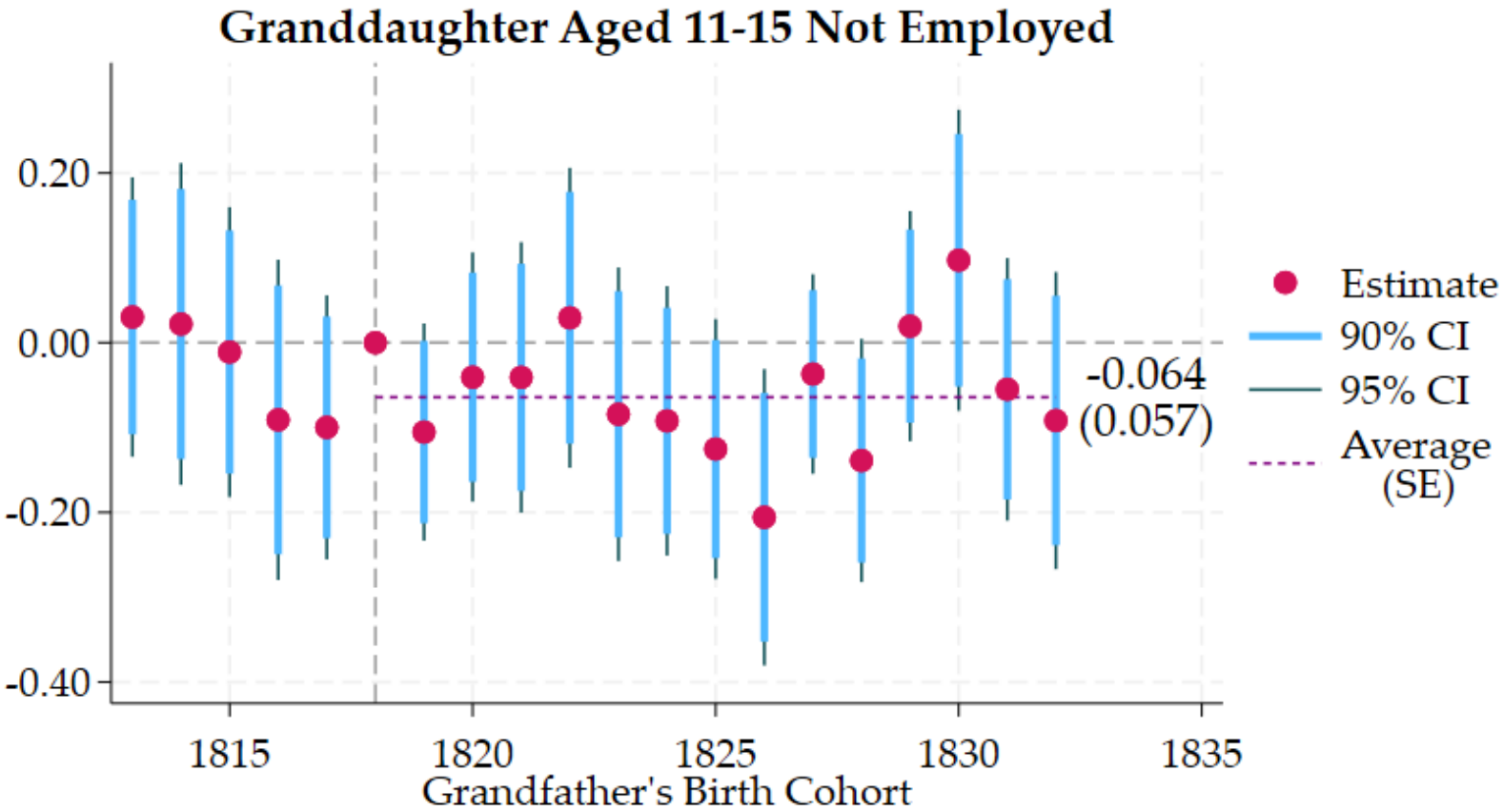


0.20 m. obs., 52 clust., pre-1819 father's birth cohort mean dep. var. 0.115

Boys not employed (i.e., in school): ↓ 4.6 p.p. (5.2%)

Results: Effects on 3rd Gen. as Children, 1901



0.09 m. obs., 52 clust., pre-1819 father's birth cohort mean dep. var. 0.248

Girls not employed: ↓ 6.4 p.p. (8.5%), but imprecise

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In progress: Digitizing parish-level data on poor relief, demographic outcomes (baptisms, marriages, deaths), getting access to first names

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Takeaway: Important to account for multi-generational effects in cost-benefit analyses of social programs

Thank you!

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Roadmap

❸ **Appendix Slides**

References I

Abramitzky, Ran, Leah Boustan, and Katherine Eriksson. 2019. "To the New World and Back Again: Return Migrants in the Age of Mass Migration." *Industrial and Labor Relations Review*, 72(2): 300–322.

Abramitzky, Ran, Leah Platt Boustan, and Katherine Eriksson. 2012. "Europe's Tired, Poor, Huddled Masses: Self-Selection and Economic Outcomes in the Age of Mass Migration." *American Economic Review*, 102(5): 1832–1856.

Abramitzky, Ran, Leah Platt Boustan, and Katherine Eriksson. 2014. "A Nation of Immigrants: Assimilation and Economic Outcomes in the Age of Mass Migration." *Journal of Political Economy*, 122(3): 467–506.

Bailey, Martha, Connor Cole, and Catherine Massey. 2020. "Simple Strategies for Improving Inference with Linked Data: A Case Study of the 1850-1930 IPUMS Linked Representative Historical Samples." *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 53(2): 80–93.

Bailey, Martha J., Connor Cole, Morgan Henderson, and Catherine Massey. 2020. "How Well Do Automated Linking Methods Perform? Lessons from US Historical Data." *Journal of Economic Literature*, 58(4): 997–1044.

Bailey, Martha J., Hilary Hoynes, Maya Rossin-Slater, and Reed Walker. 2023. "Is the Social Safety Net a Long-Term Investment? Large-Scale Evidence from the Food Stamps Program." *Review of Economic Studies*, rdad063.

References II

Banerjee, Abhijit, Michael Faye, Alan Krueger, Paul Niehaus, and Tavneet Suri. 2023. "Universal Basic Income: Short-Term Results from a Long-Term Experiment in Kenya." Working Paper.

Boyer, George R. 2019. *The Winding Road to the Welfare State: Economic Insecurity and Social Welfare Policy in Britain.* Princeton:Princeton University Press.

Clark, Gregory, and Marianne E. Page. 2019. "Welfare Reform, 1834: Did the Poor Law in England Produce Significant Economic Gains?" *Cliometrica*, 13(2): 221–244.

Collinge, Peter, and Louise Falcini. 2022. "Introduction: The Old Poor Law." In *Providing for the Poor: The Old Poor Law, 1750-1834*. , ed. Peter Collinge and Louise Falcini, 1–22. London:University of London Press.

Lindert, Peter H. 1998. "Poor Relief before the Welfare State: Britain versus the Continent, 1780-1880." *European Review of Economic History*, 2(2): 101–140.

Melander, Eric, and Martina Miotto. 2023. "Welfare Cuts and Crime: Evidence from the New Poor Law." *Economic Journal*, 133(651): 1248–1264.

Ricardo, David. 1817. *On the Principles of Political Economy and Taxation.* London:John Murray.