Deadwood Labor?

The Effects of Eliminating Employment Protection for Older Workers

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Employment Protection Legislation (EPL): rules that mainly **constrain dismissals** (just cause, advance notice, redress in court,...)

Universal feature: EPL protects jobs of high-tenured, older insiders most

"Deadwood labor" problem: protection grows in age/tenure, while $p - w$ (may) fall

Common solution—huge heterogeneity across countries (ongoing synthesis for our paper): sharp phase-out of EPL at a certain cutoff age ("mandatory retirement"—misnomer!)

Our paper: how does the elimination of EPL ("mandatory retirement") affect employment (and earnings) of older workers?

Empirical challenges: confounders and endogeneity concerns (data, other policy discontinuities in, e.g., pension incentives,...)

Our setting: empirical context of Sweden w/ clean EPL phase-out and ideal data

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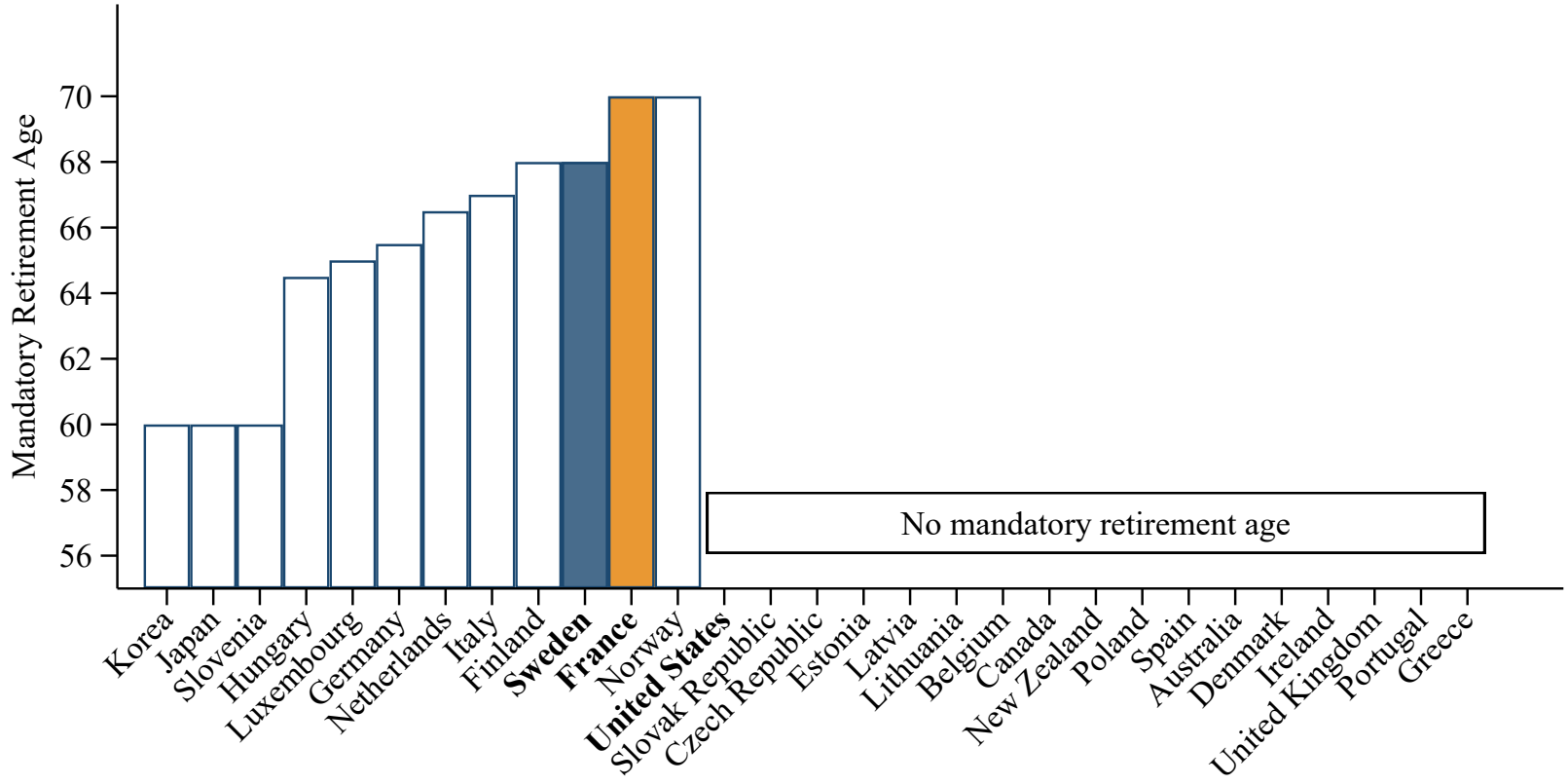
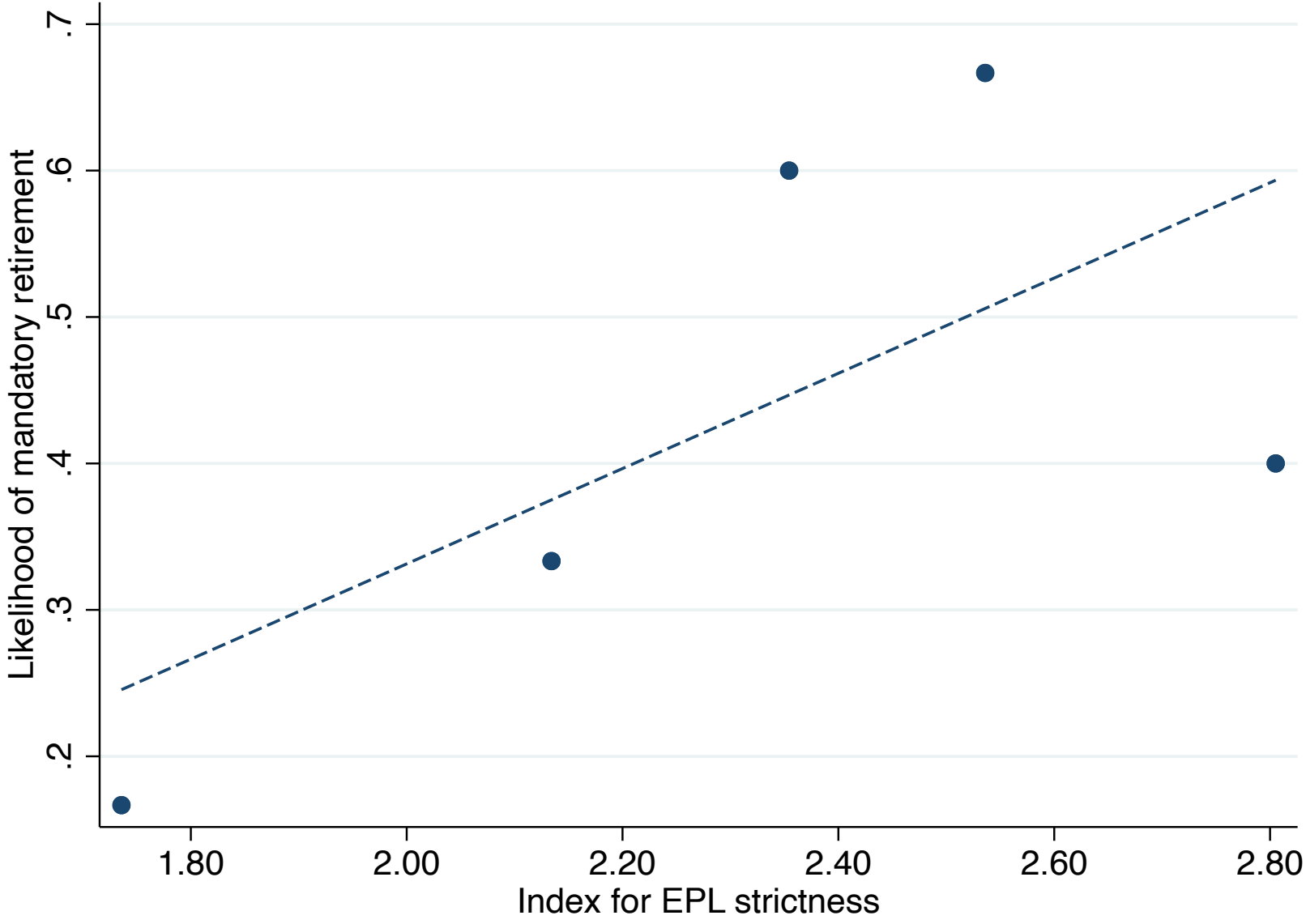
"Mandatory Retirement" Around the World

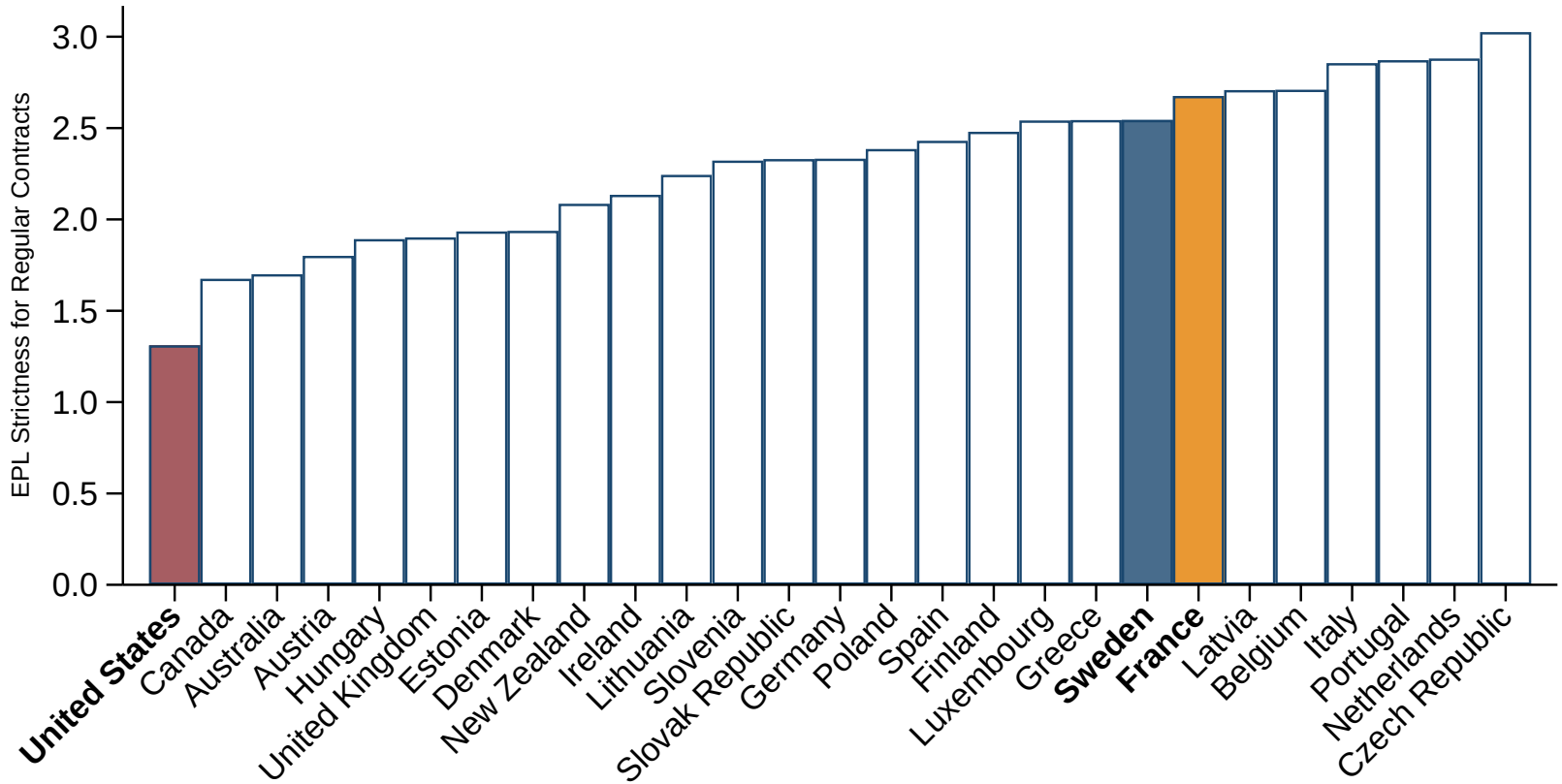


OECD (2022) – (our own table + expansion + check/corrections in progress)

"Mandatory Retirement" Around the World vs. EPL Strictness

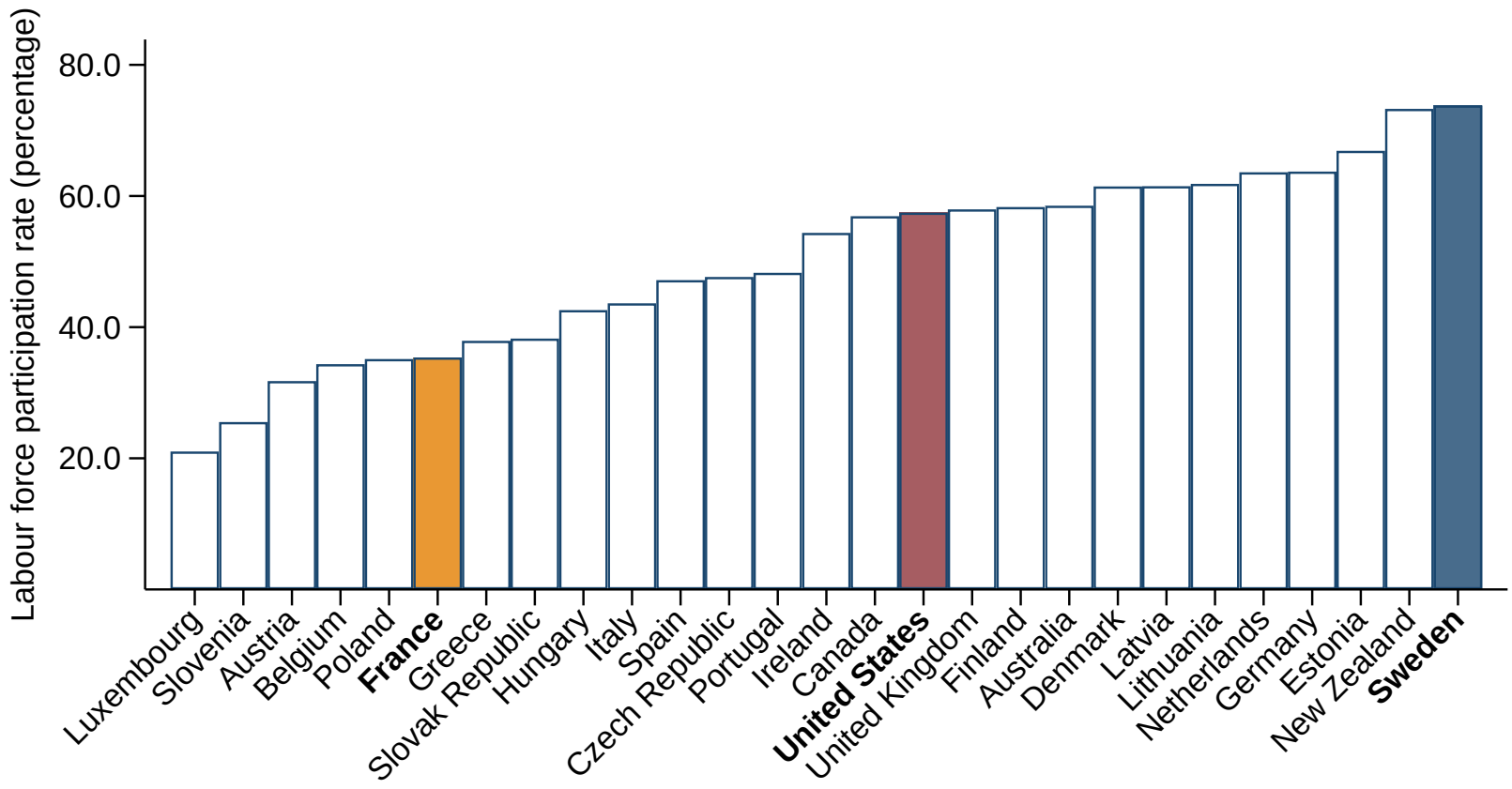


Sweden as a Setting: Strong EPL (OECD Index)



OECD 2019; Anglo-Am/EU comparison

Sweden as a Setting: High LFP Rate Among 60-64



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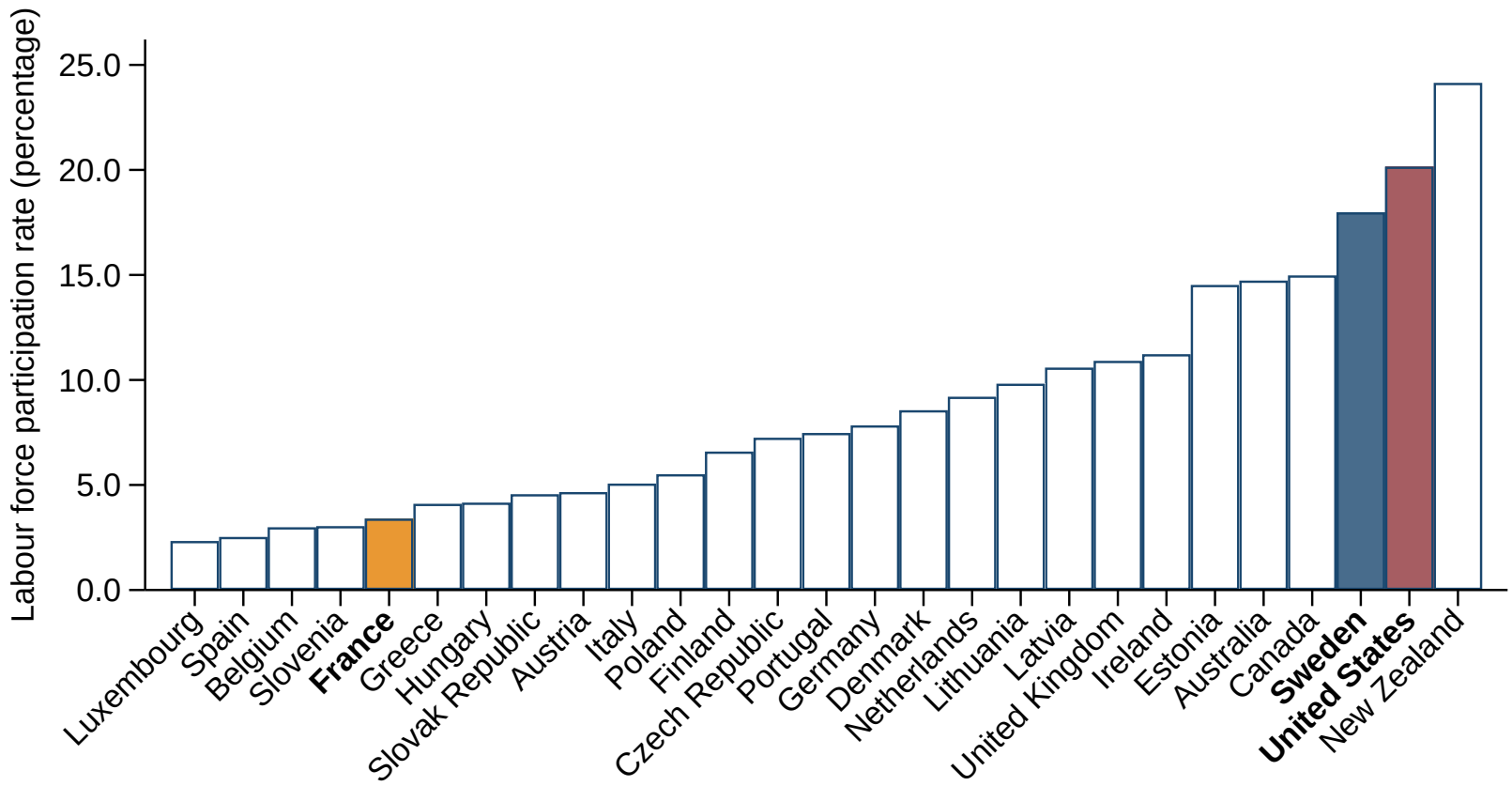
Sweden as a Setting: High LFP Rate Among 65+



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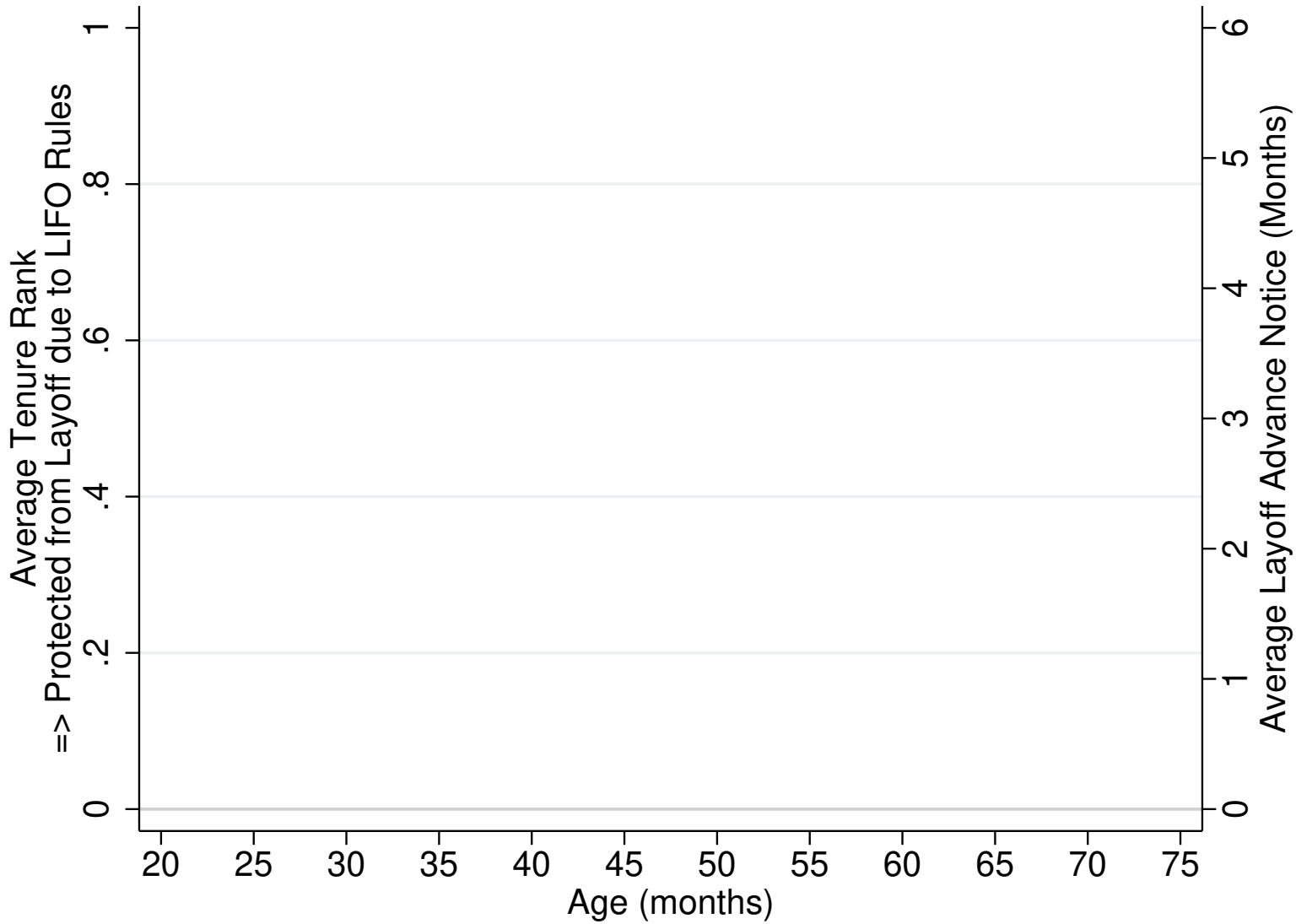
Sweden: Strong EPL Among Older Workers



Plus additional CBA-based advance notice rules that are age-based (up to 12 months).
Age also breaks tenure ranks in LIFO.

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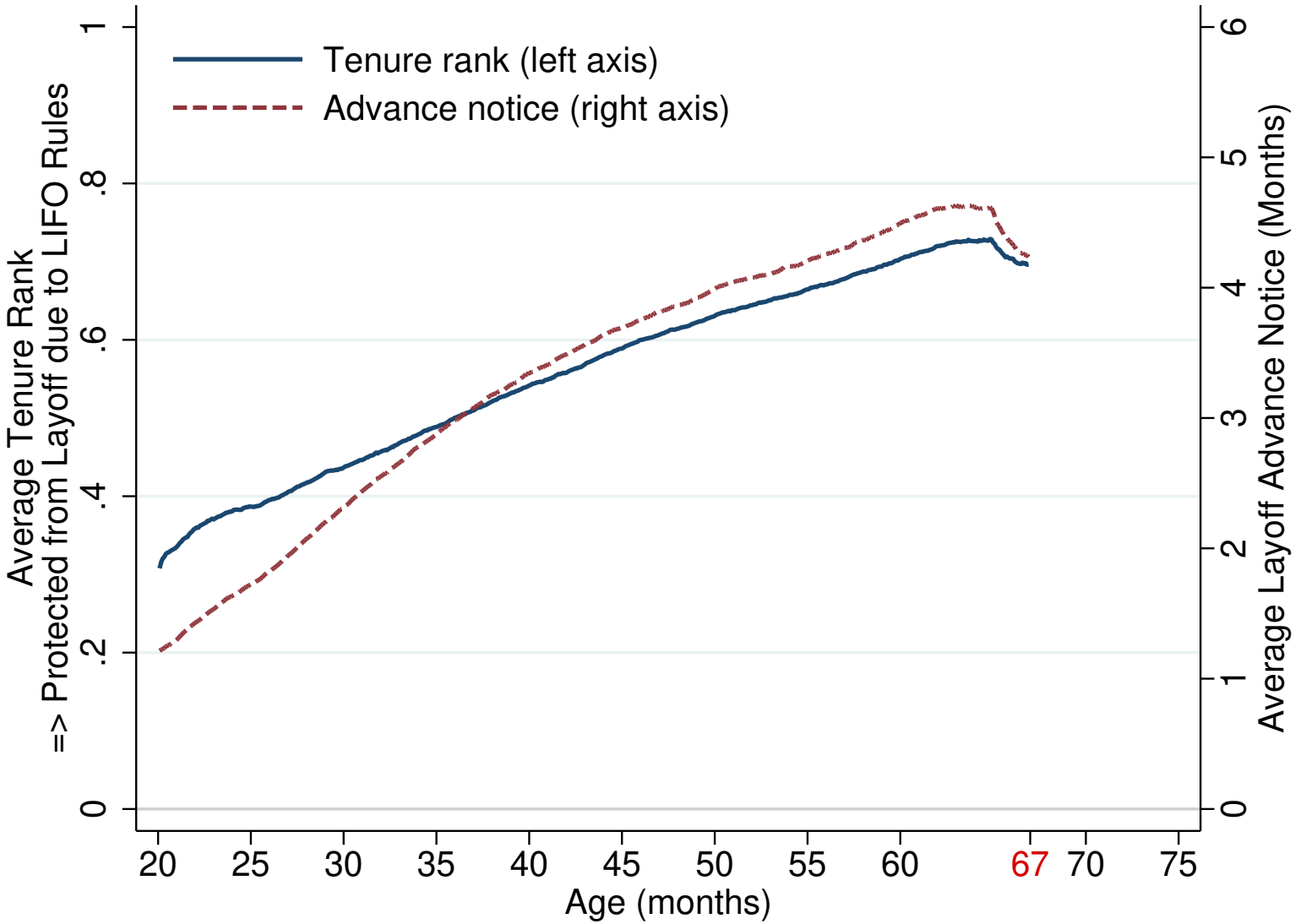

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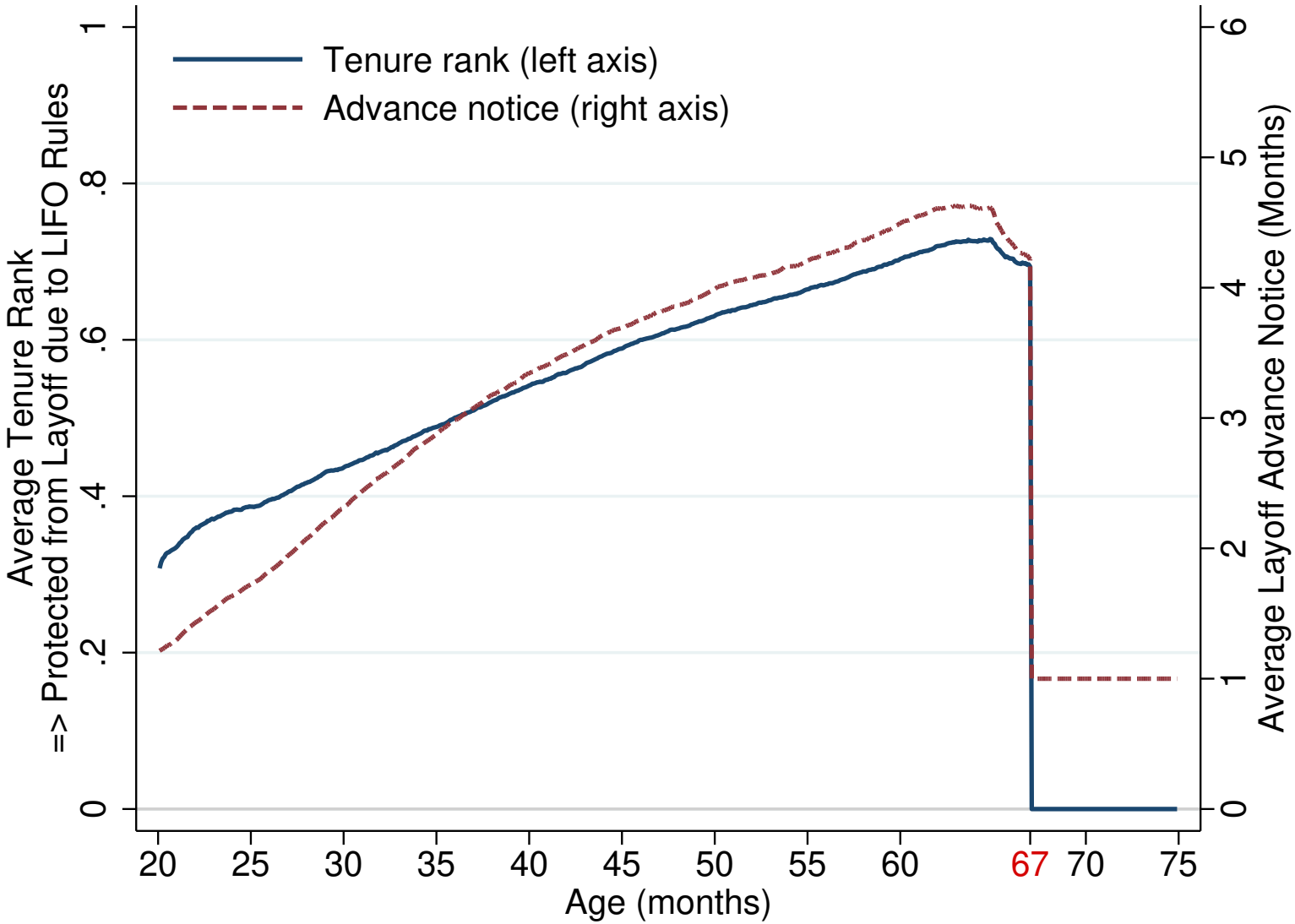
Research Design: Elimination of EPL at Age 67



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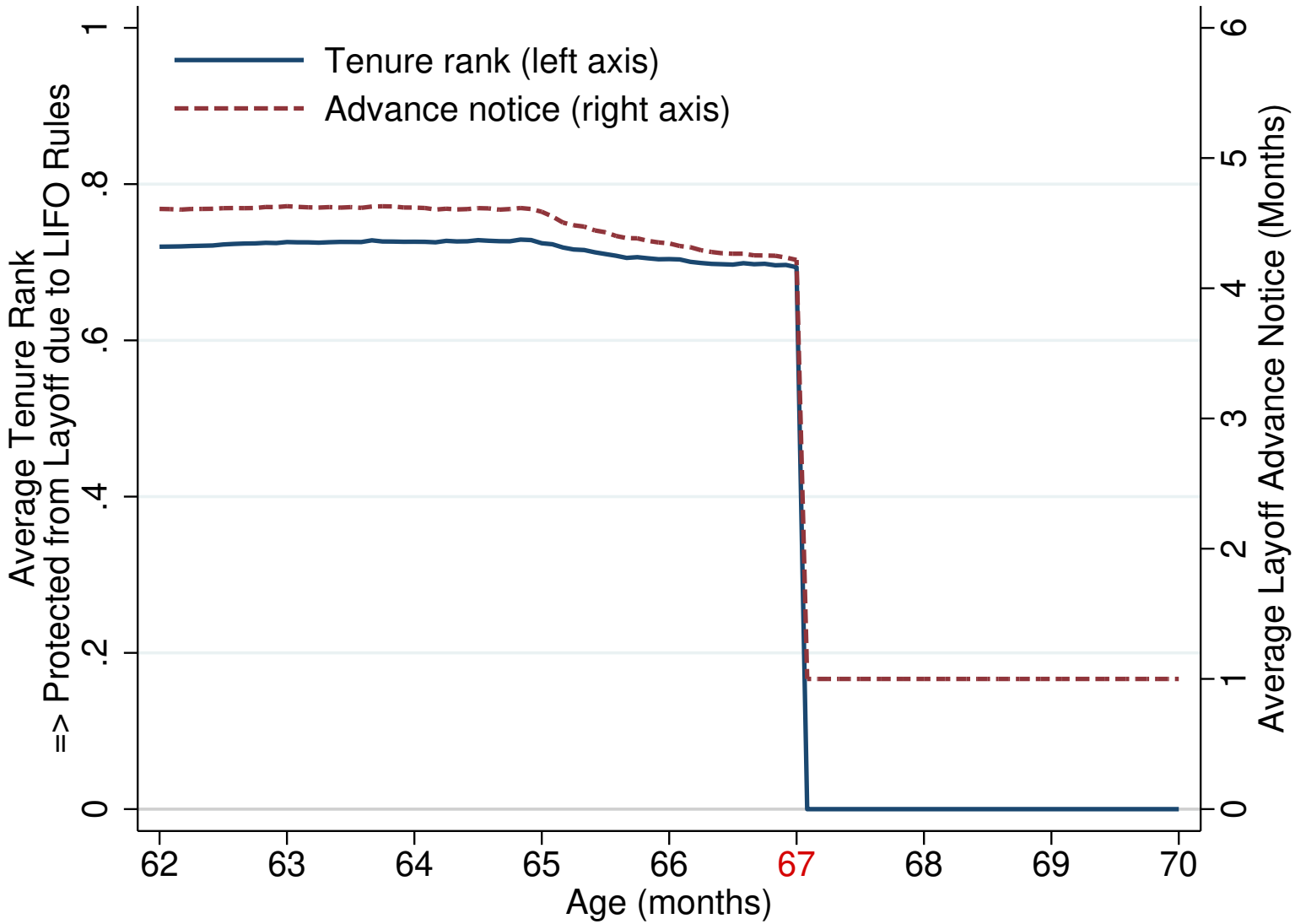

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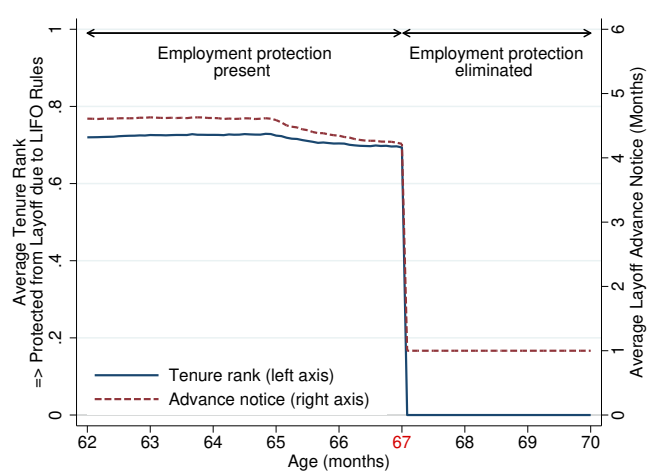
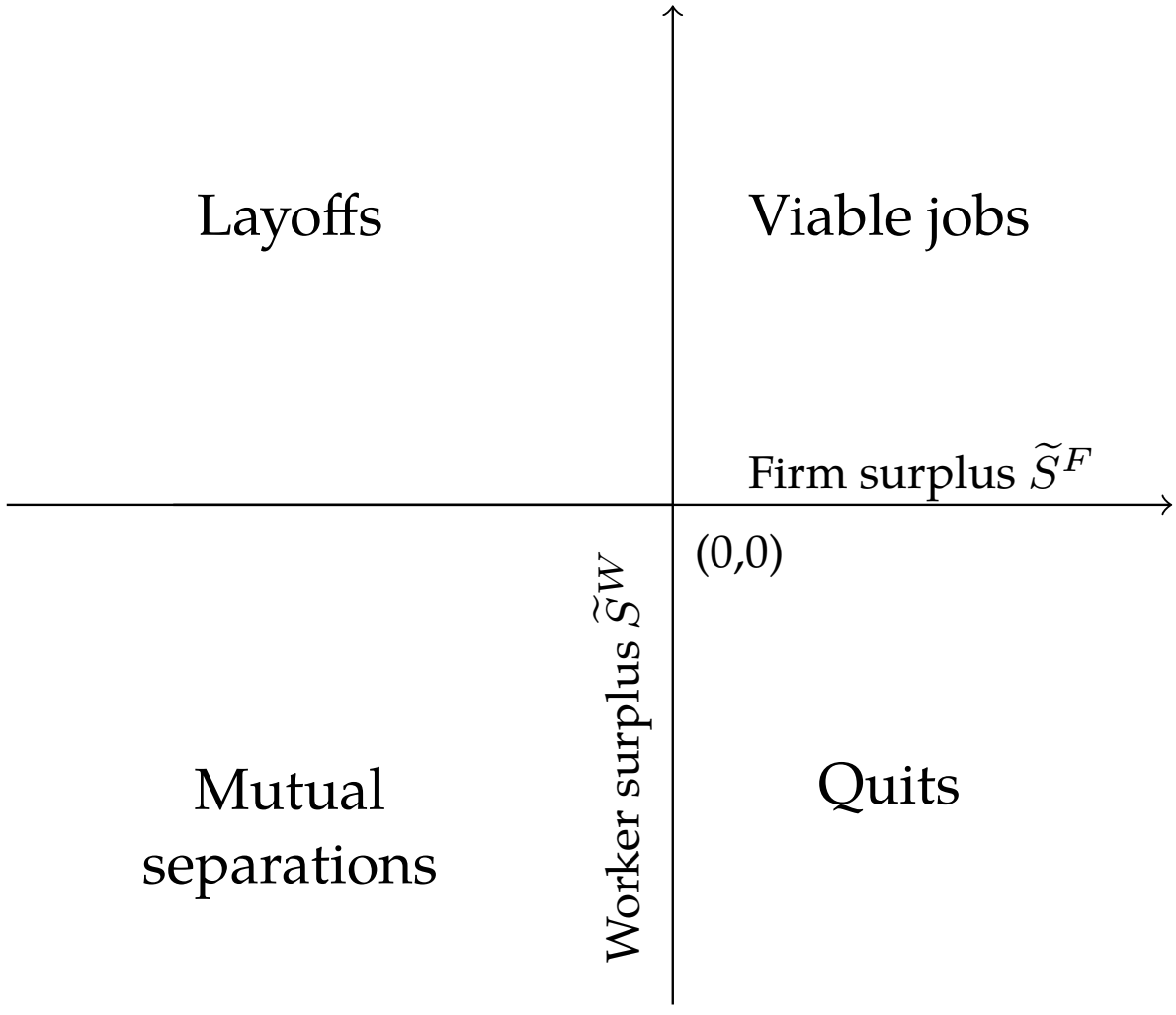


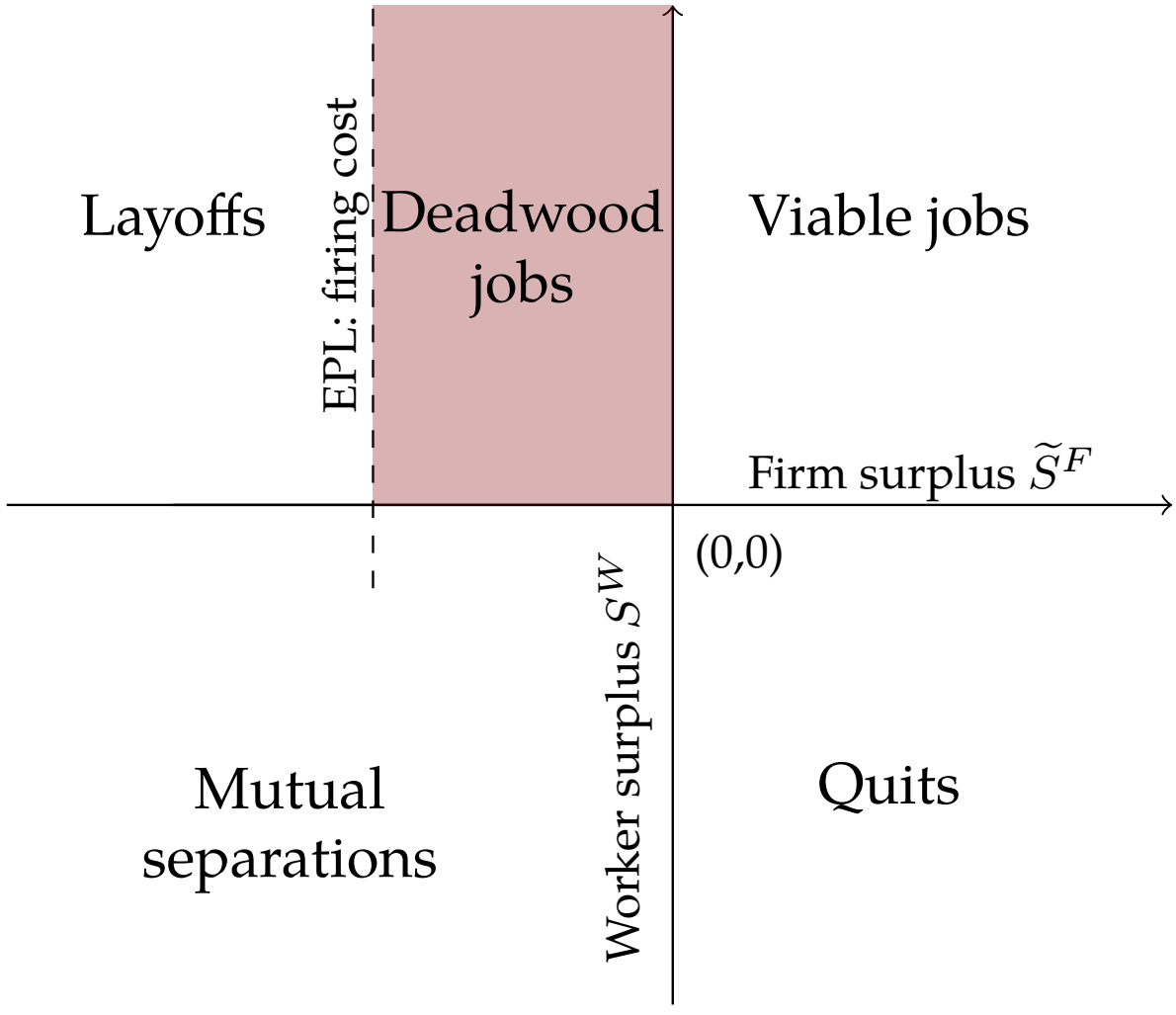
Identification opportunity from EPL variation at 67:

- Unusually **large**: from maximal EPL to zero
- **Sharp** discontinuity—age measured precisely in admin data, and **not manipulatable**
- **Clean:** no other policy change at threshold (pension, UI, DI,...)
  - Modern Swedish pension system is flexible and actuarially fair w.r.t. to retirement age
  - Pension reform from DB to DC not affecting incentives at age 67 (Kolsrud, Landais, Reck and Spinnewijn, AER)
- Combine several admin data (incl. pop-level) and surveys
- Additional **reform-based variation** of cutoff (next slide)

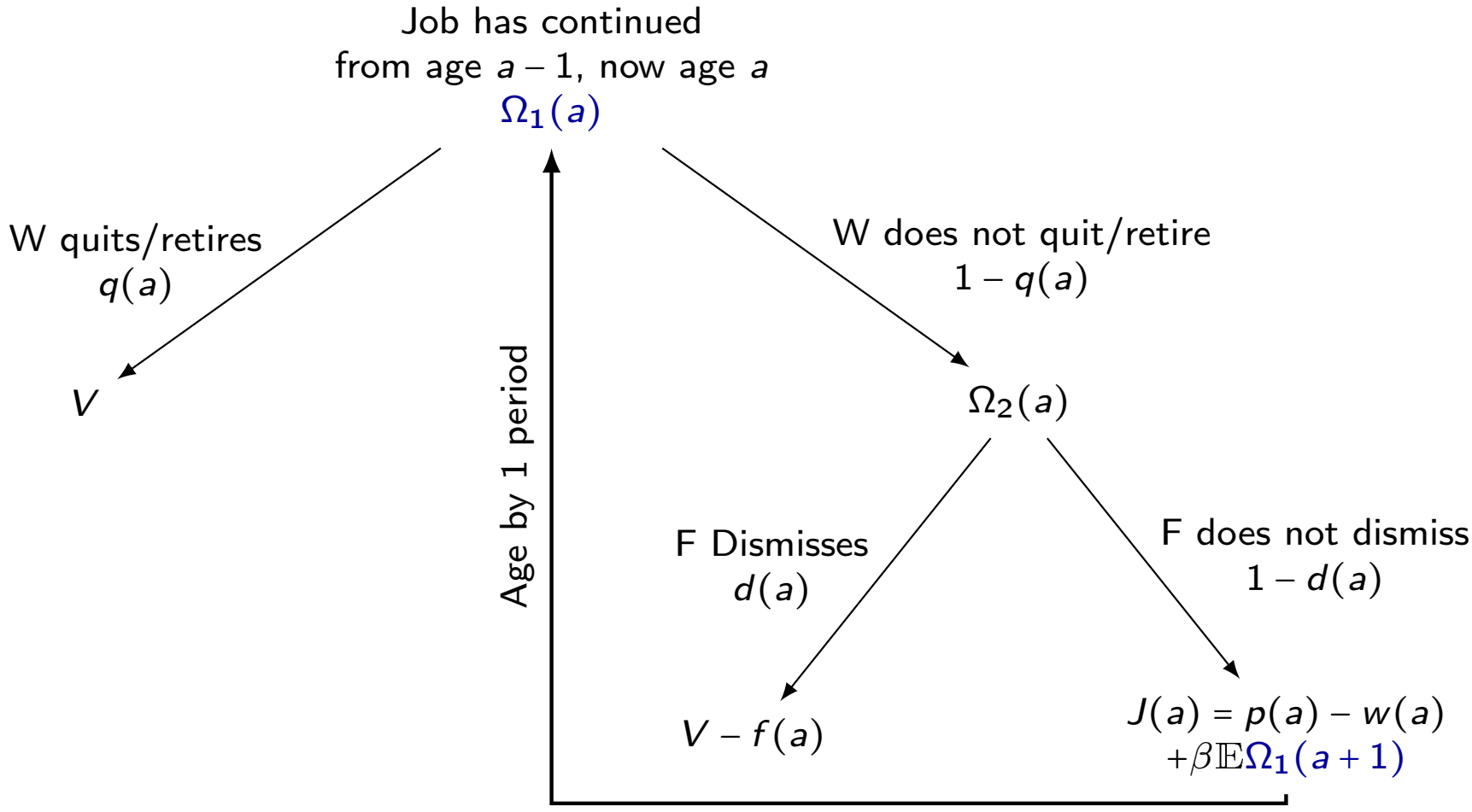
Simple Model: Turnover Regions



Simple Model: "Deadwood" Jobs

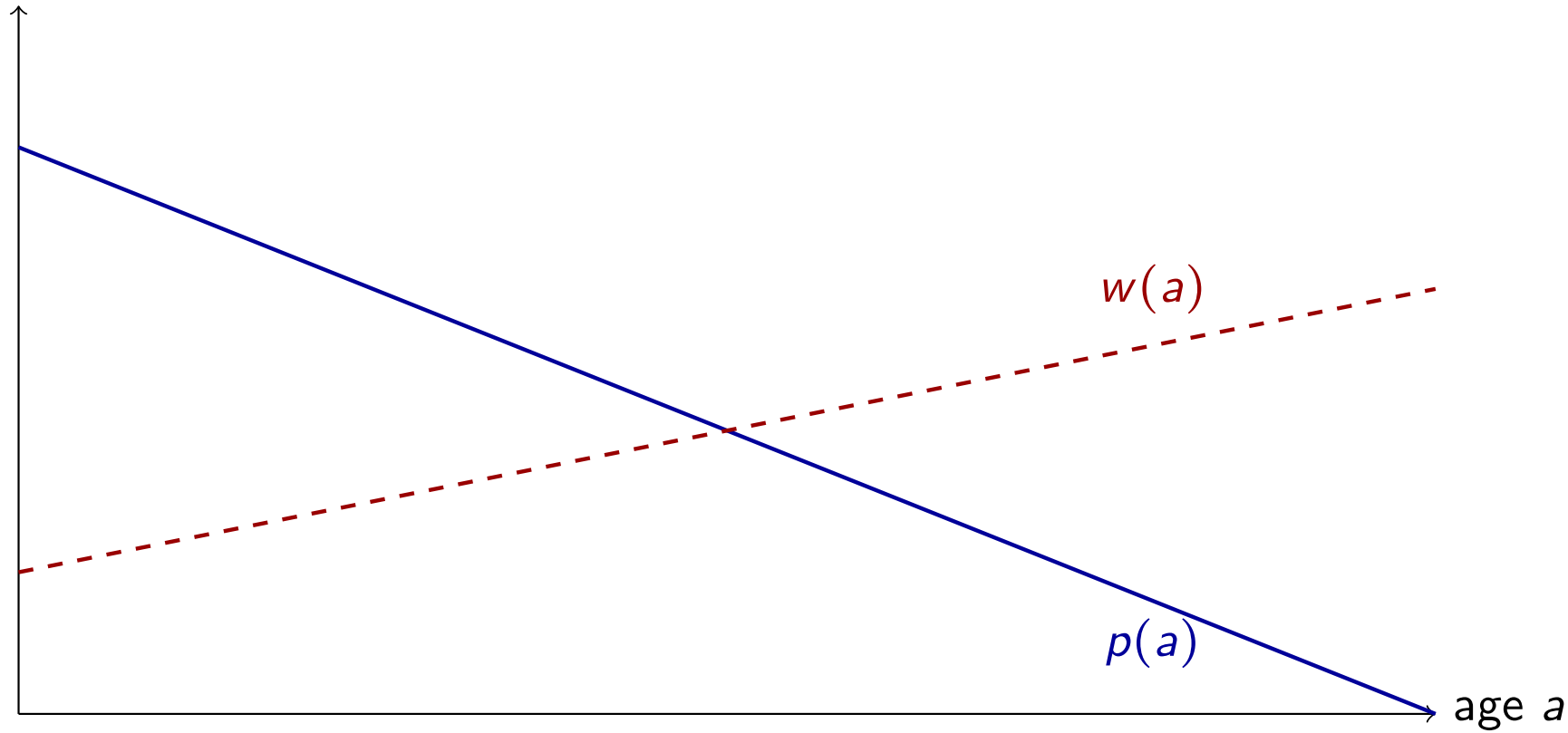


Simple Model: Aging and Dynamics

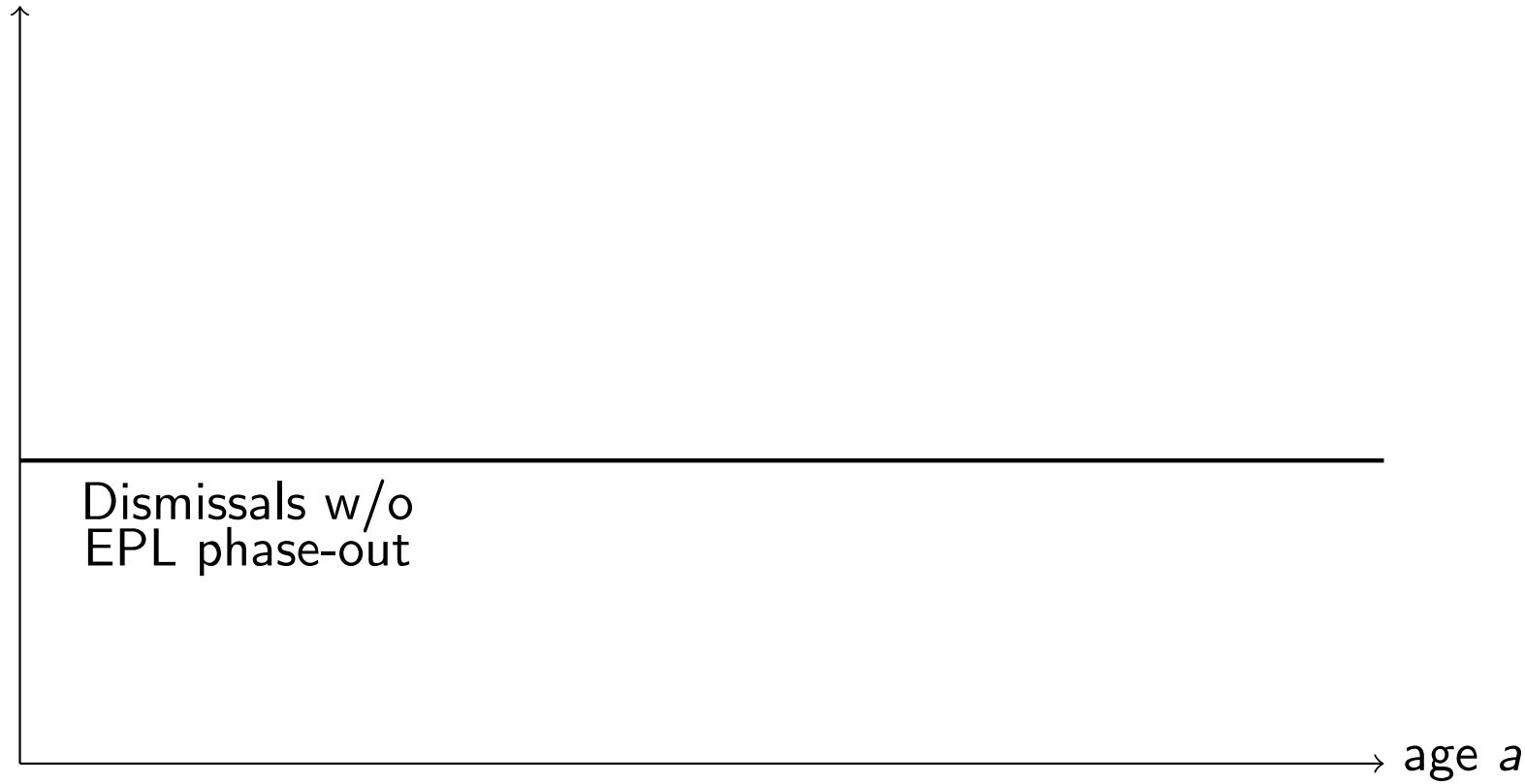


- F takes quit/retirement prob $q(a)$ as given
- DWL—latent: $-f < J(a) < 0$—firm waits for worker to quit, otherwise continues—would dismiss if $f = 0$.

Dynamics and Aging



Simple Model: Dynamics and Aging: Separations



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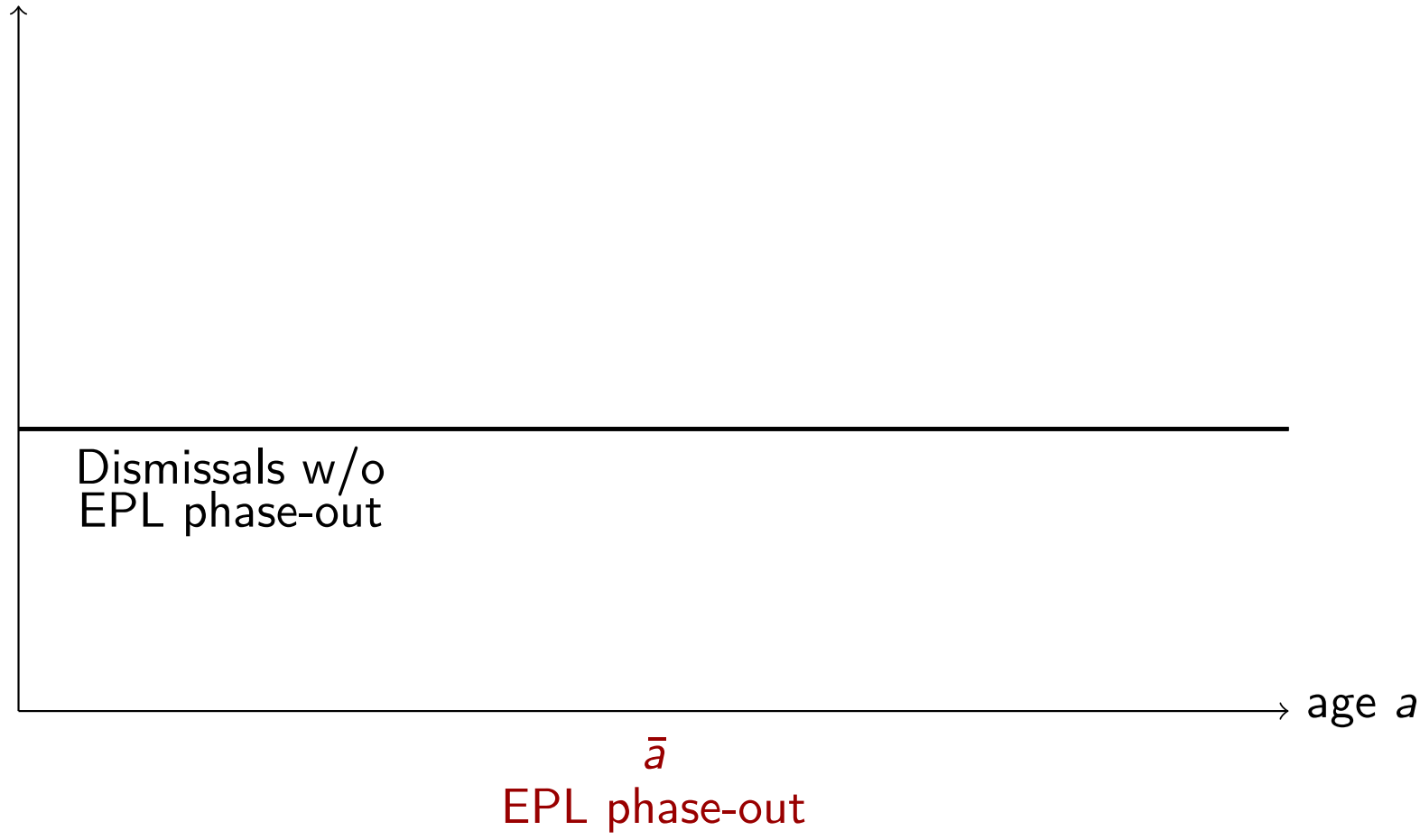

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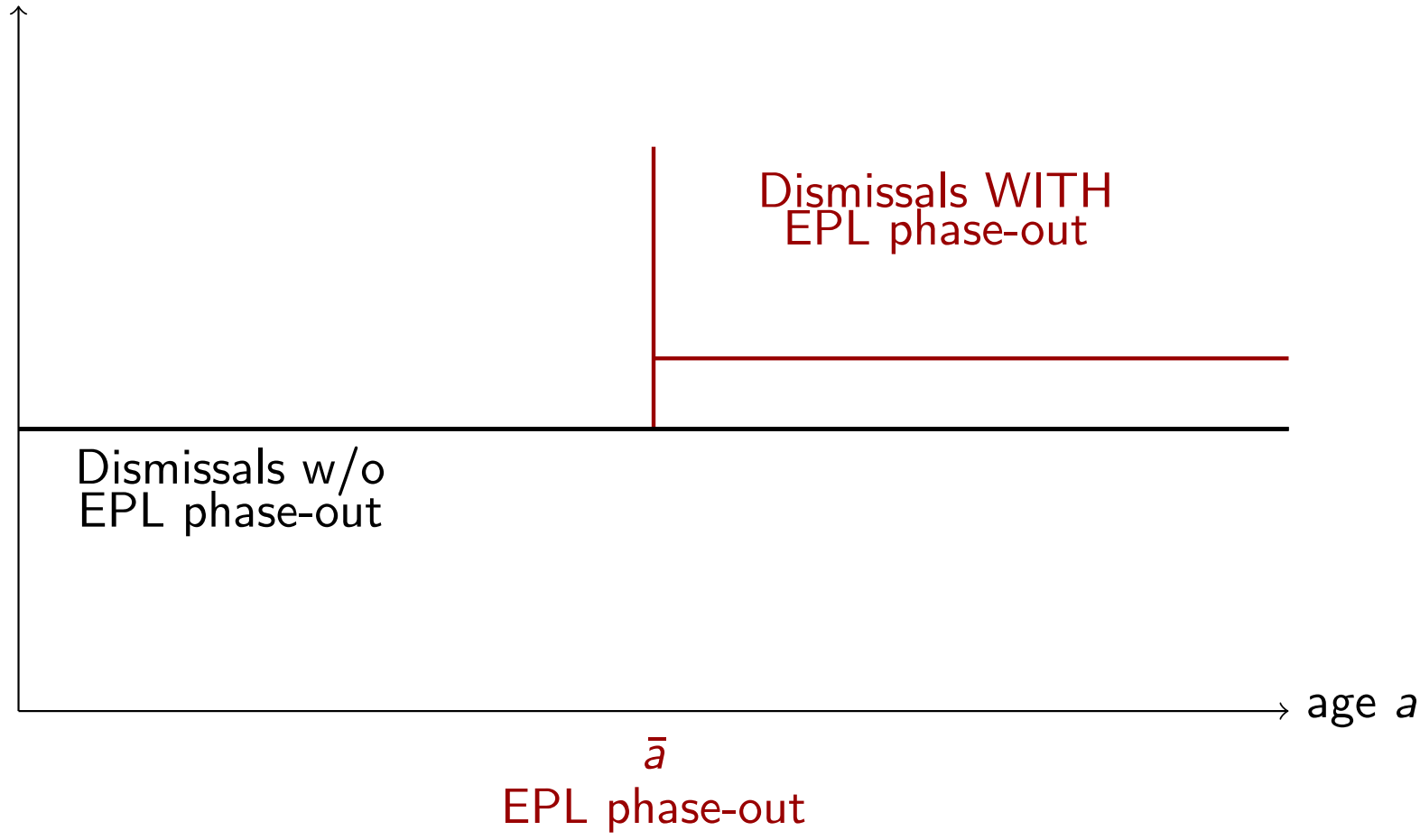

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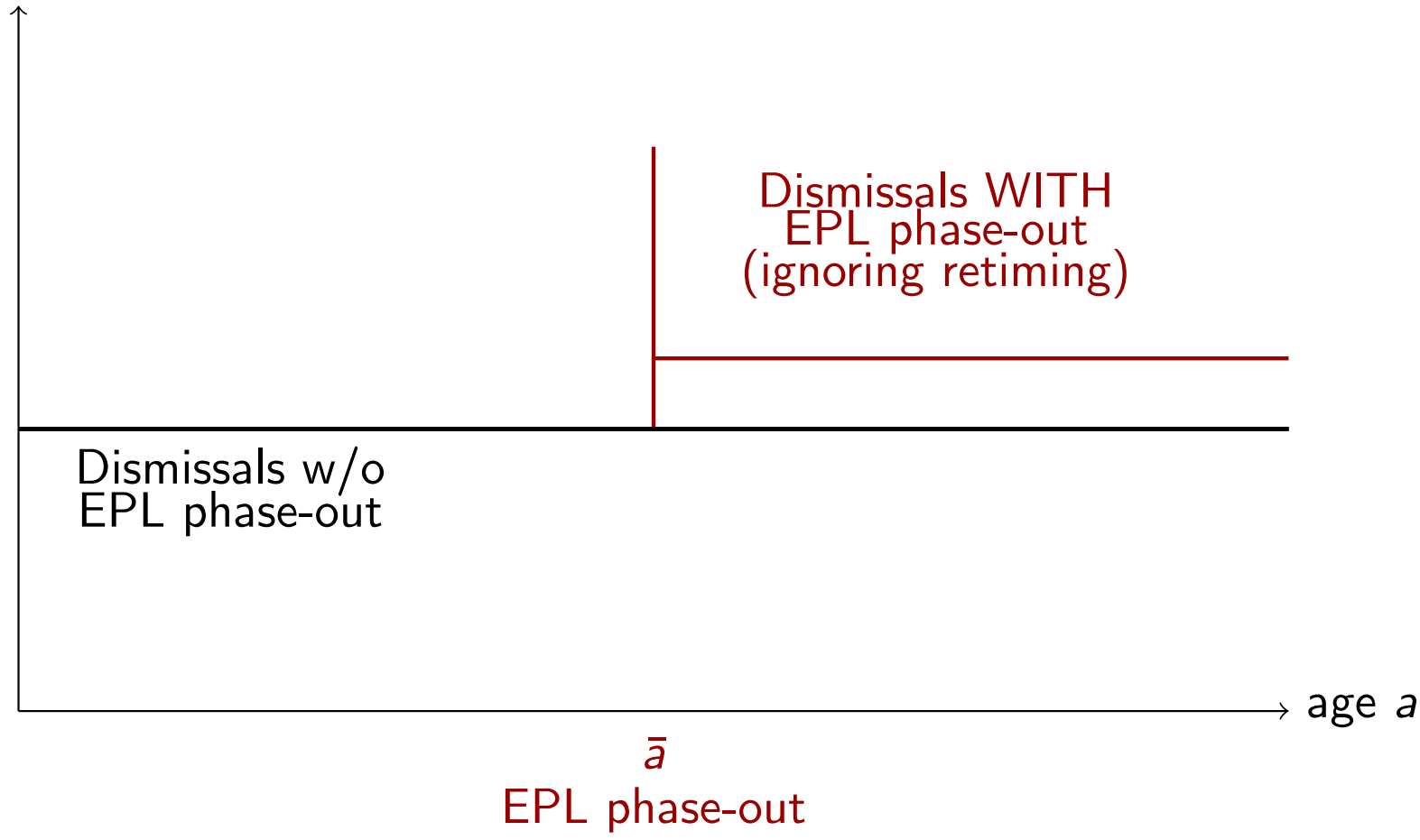

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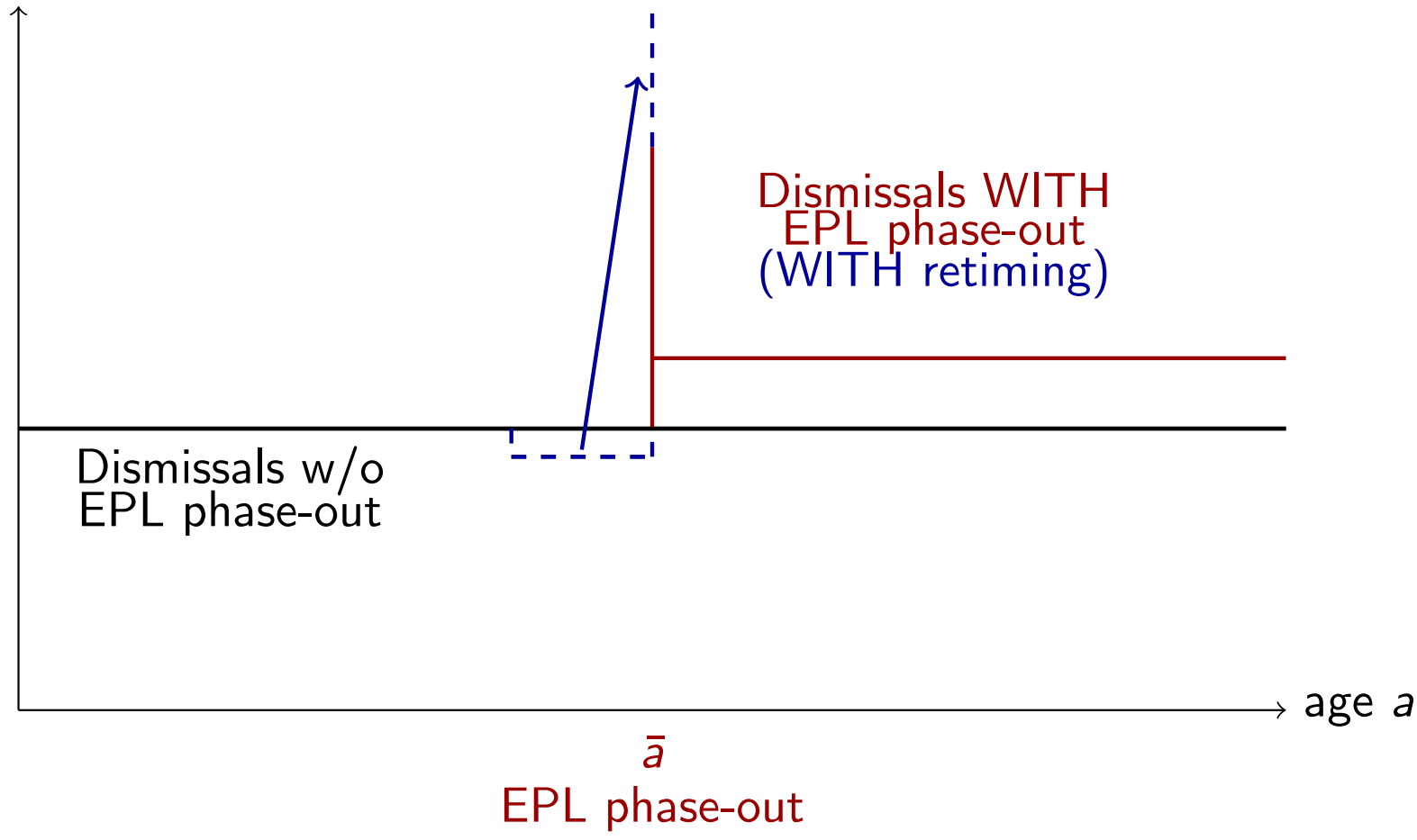
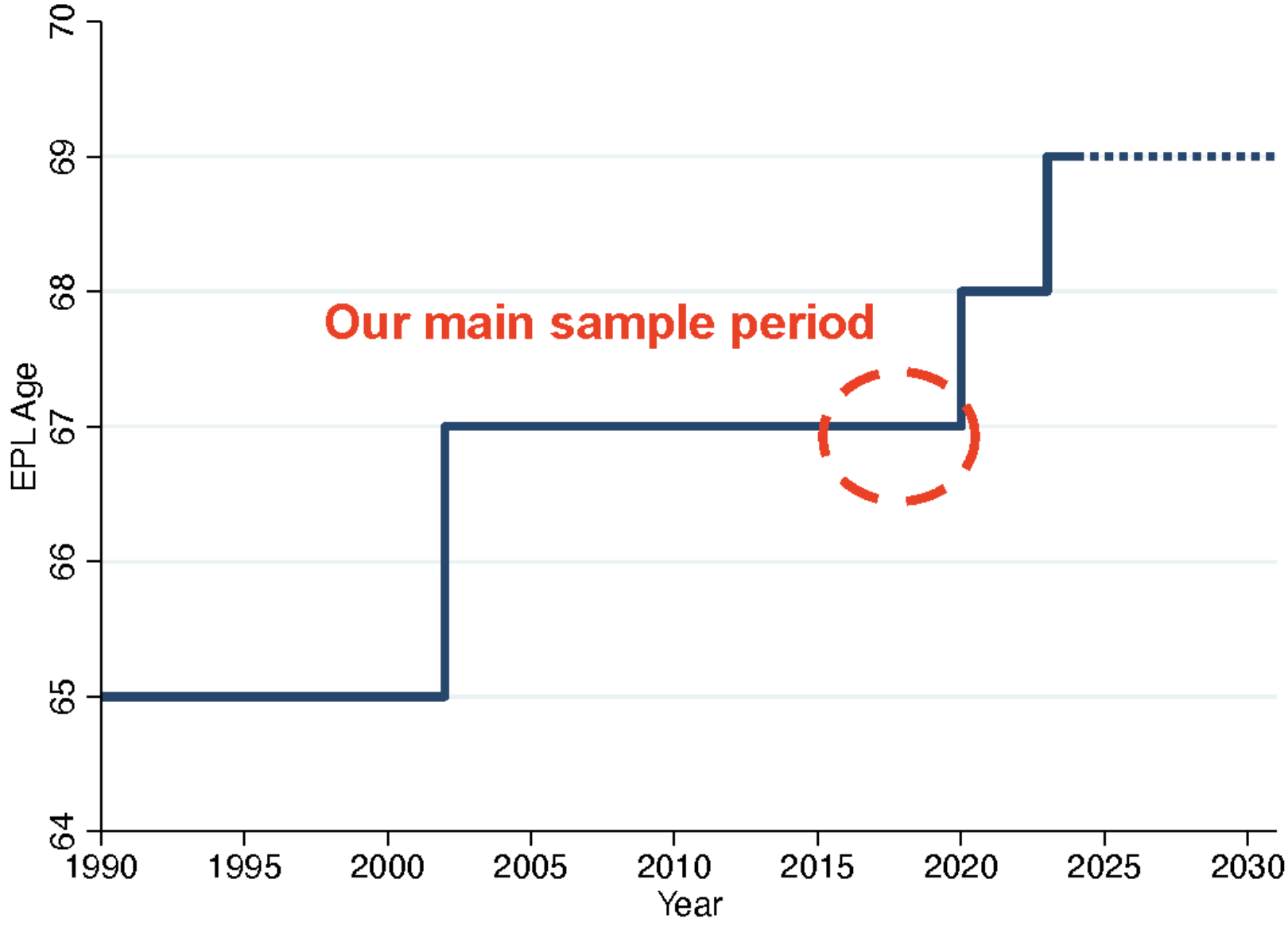


Add. Policy Variation: Reforms of EPL Cutoff Age



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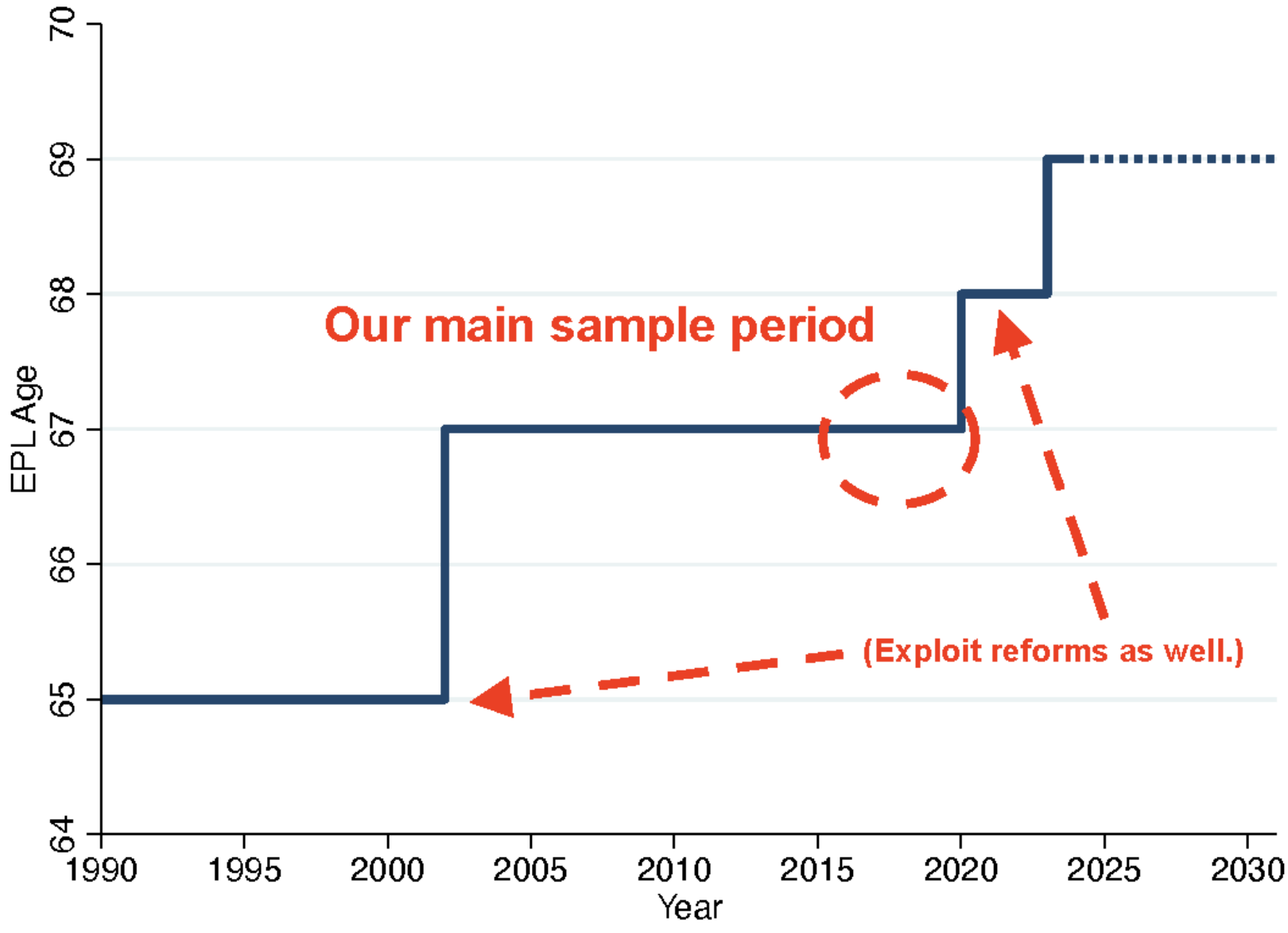
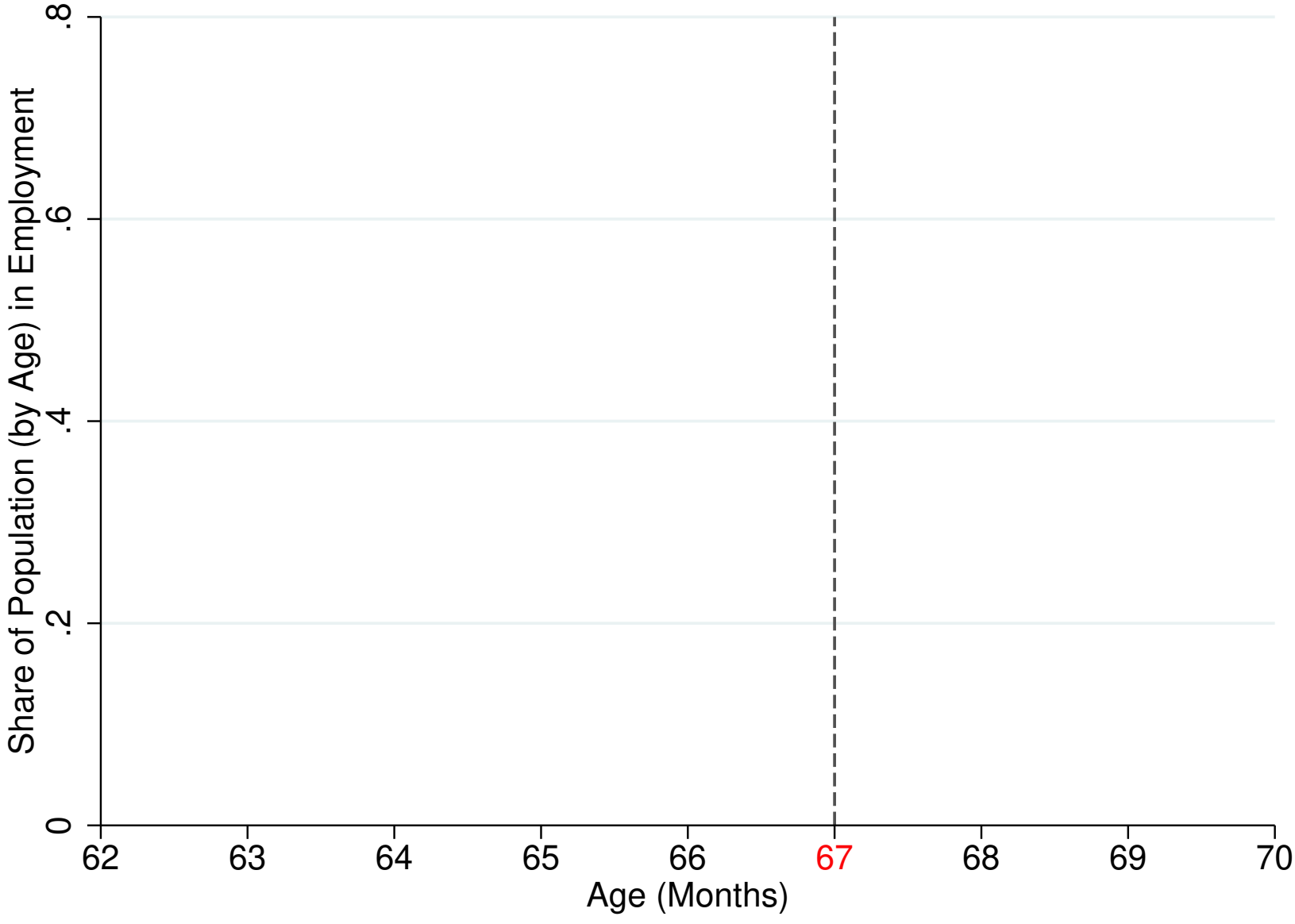


Employment-Population Ratio in 2019 (by Monthly Age)



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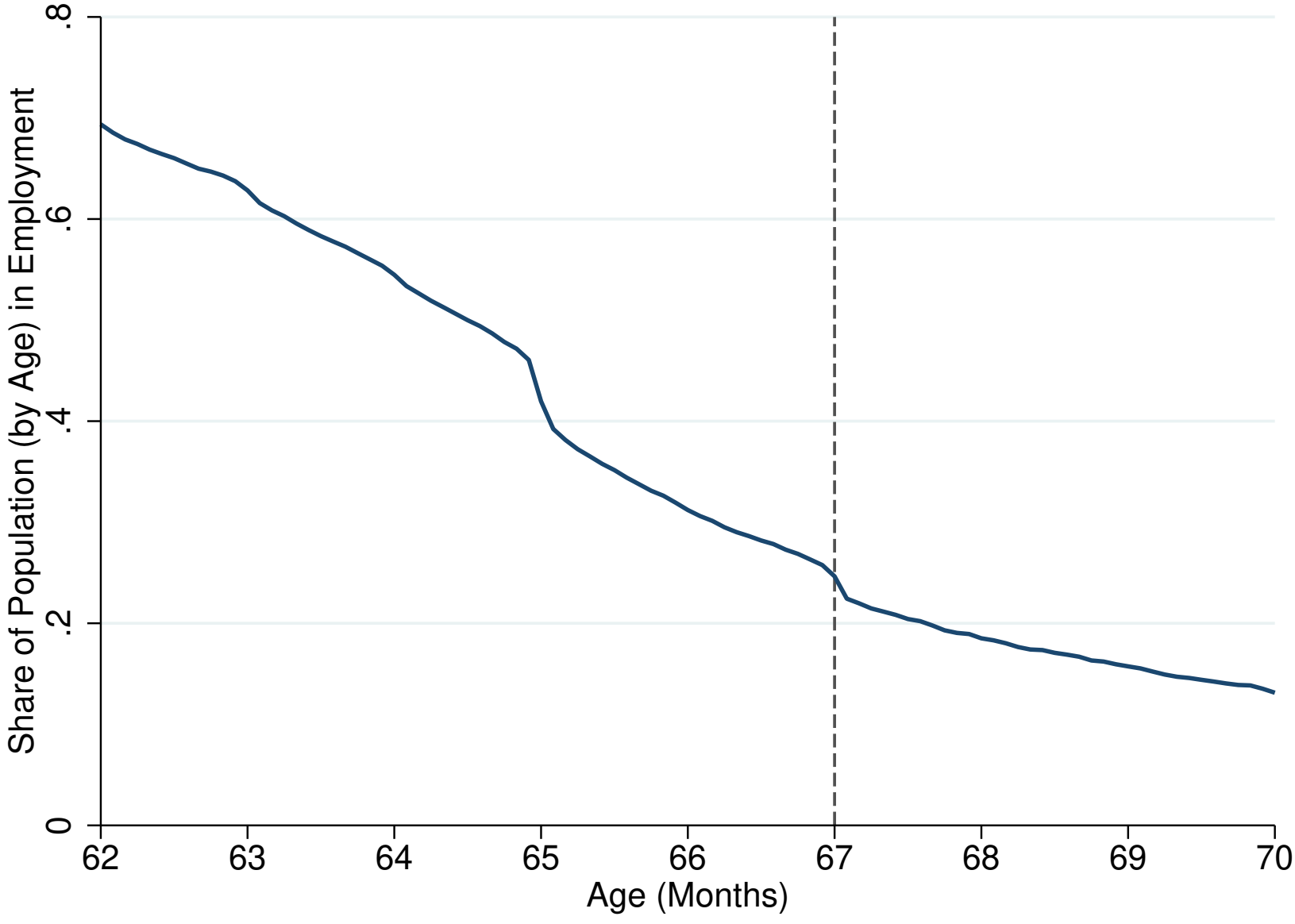

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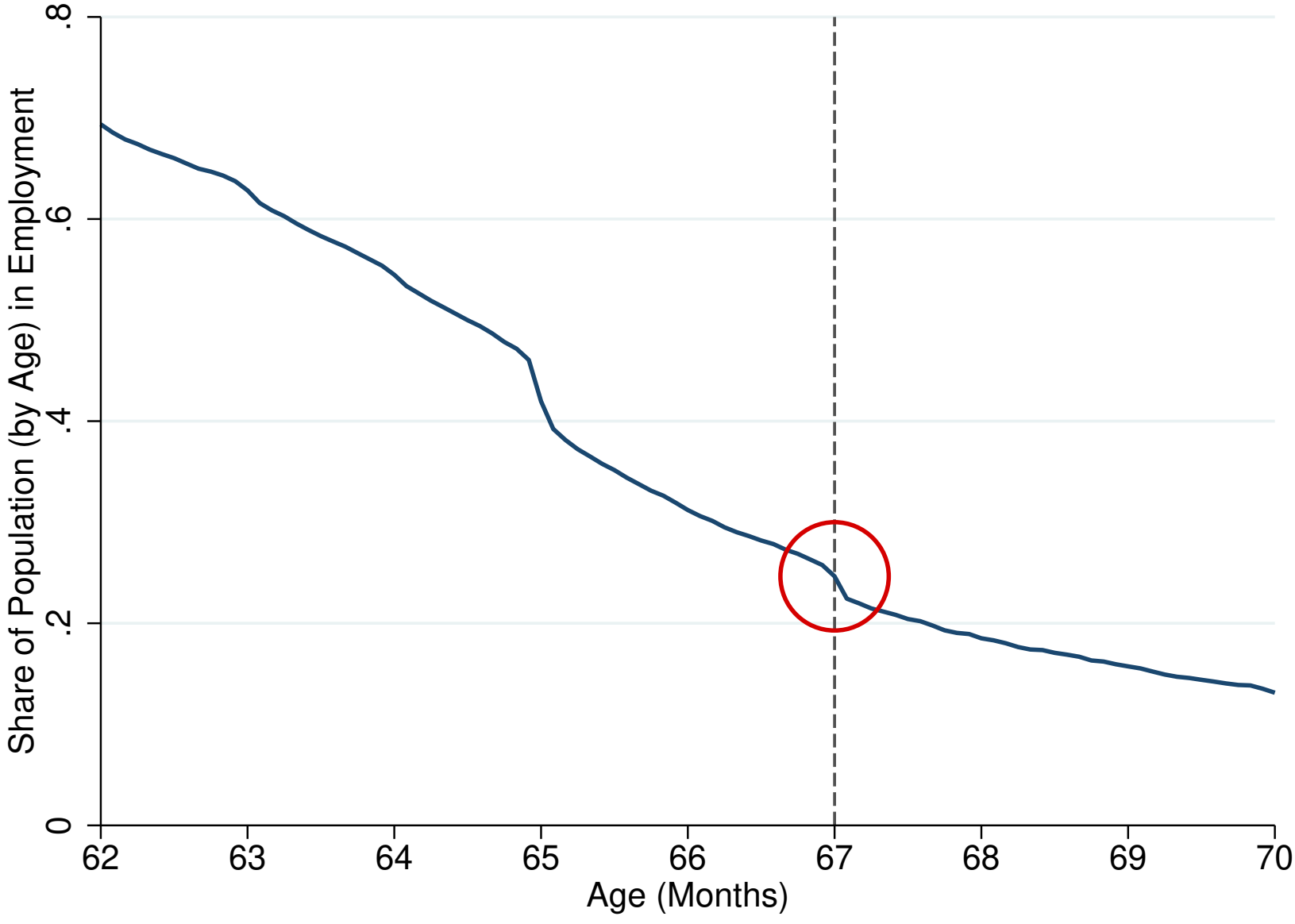

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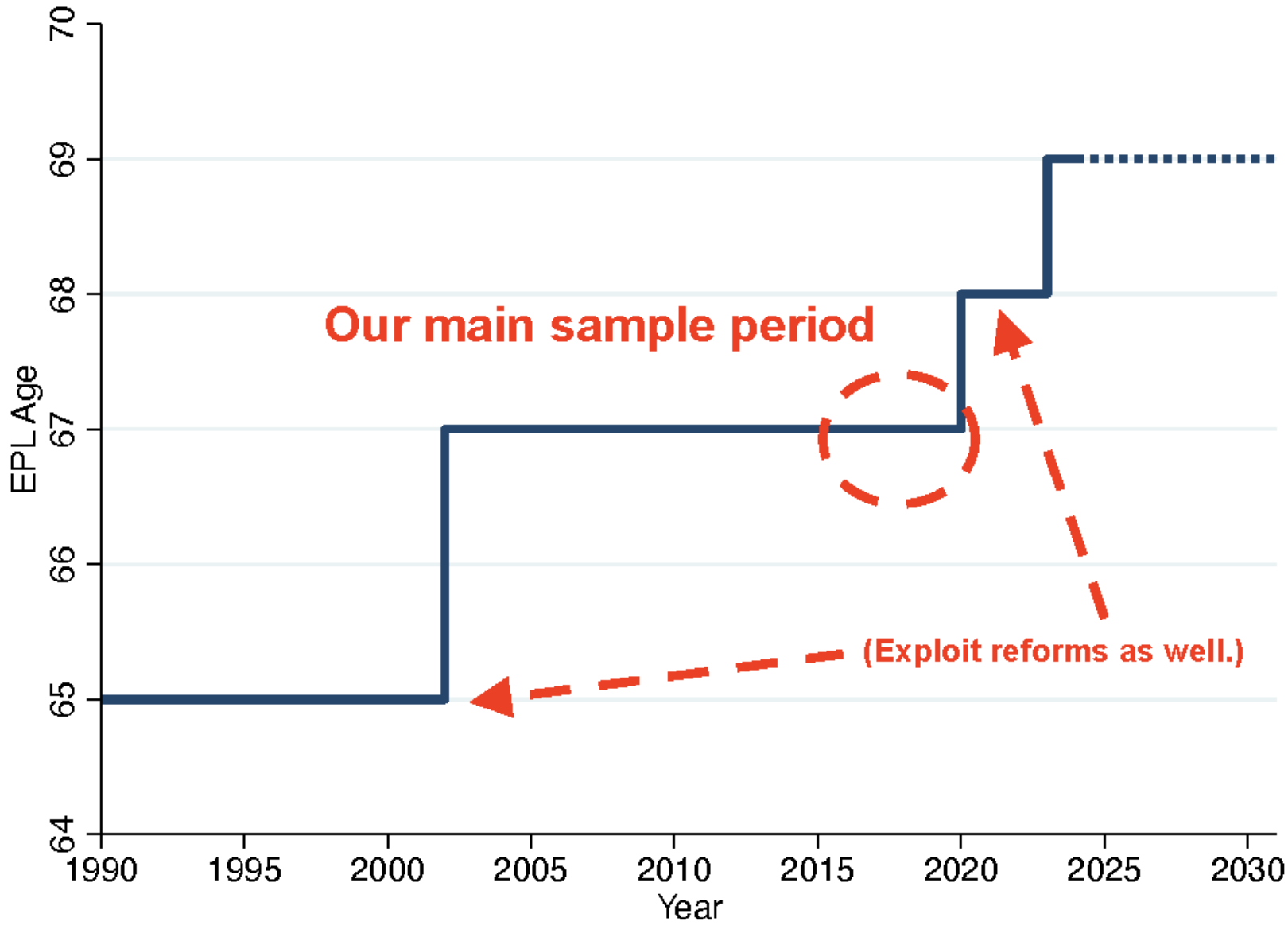

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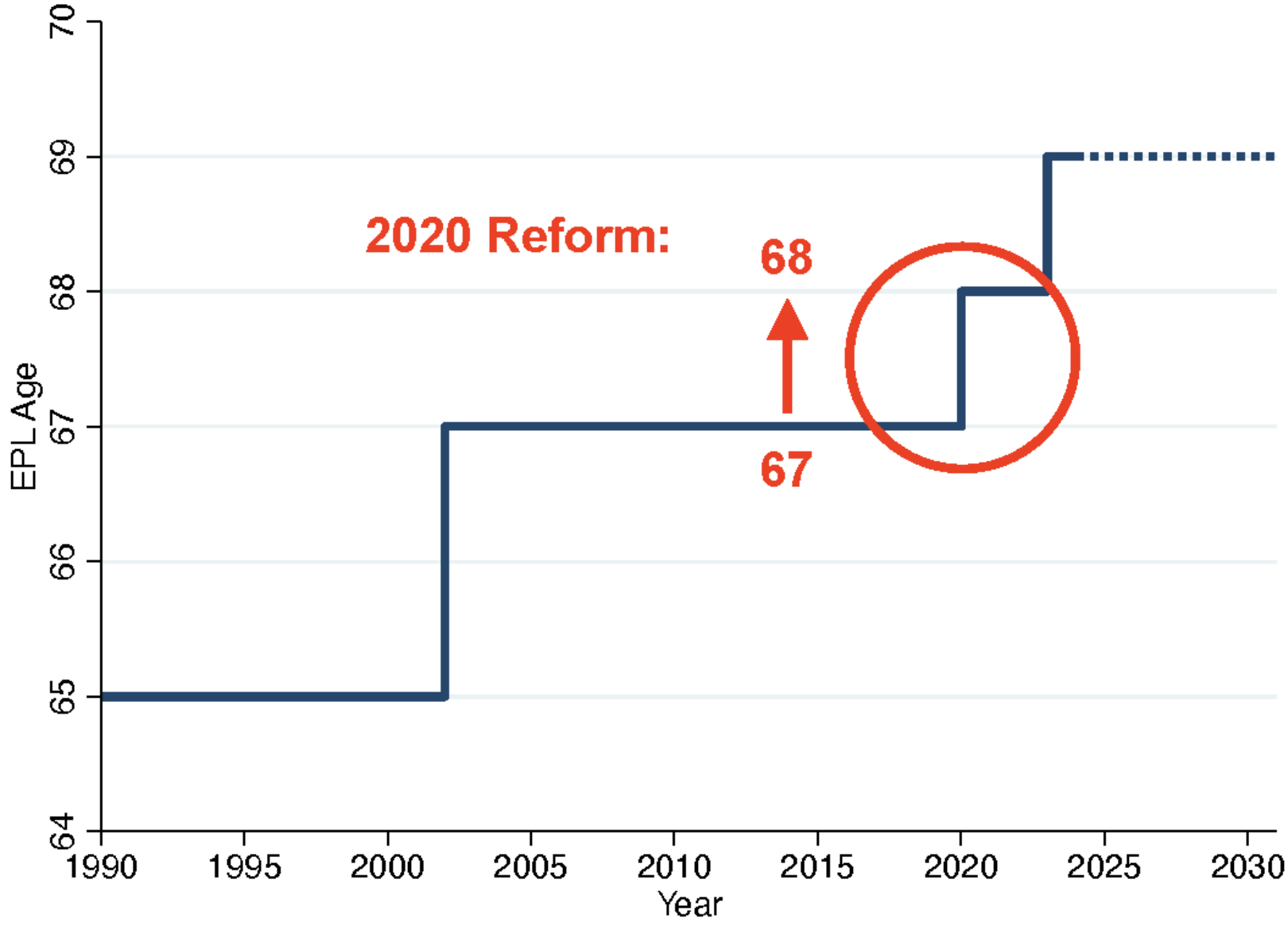
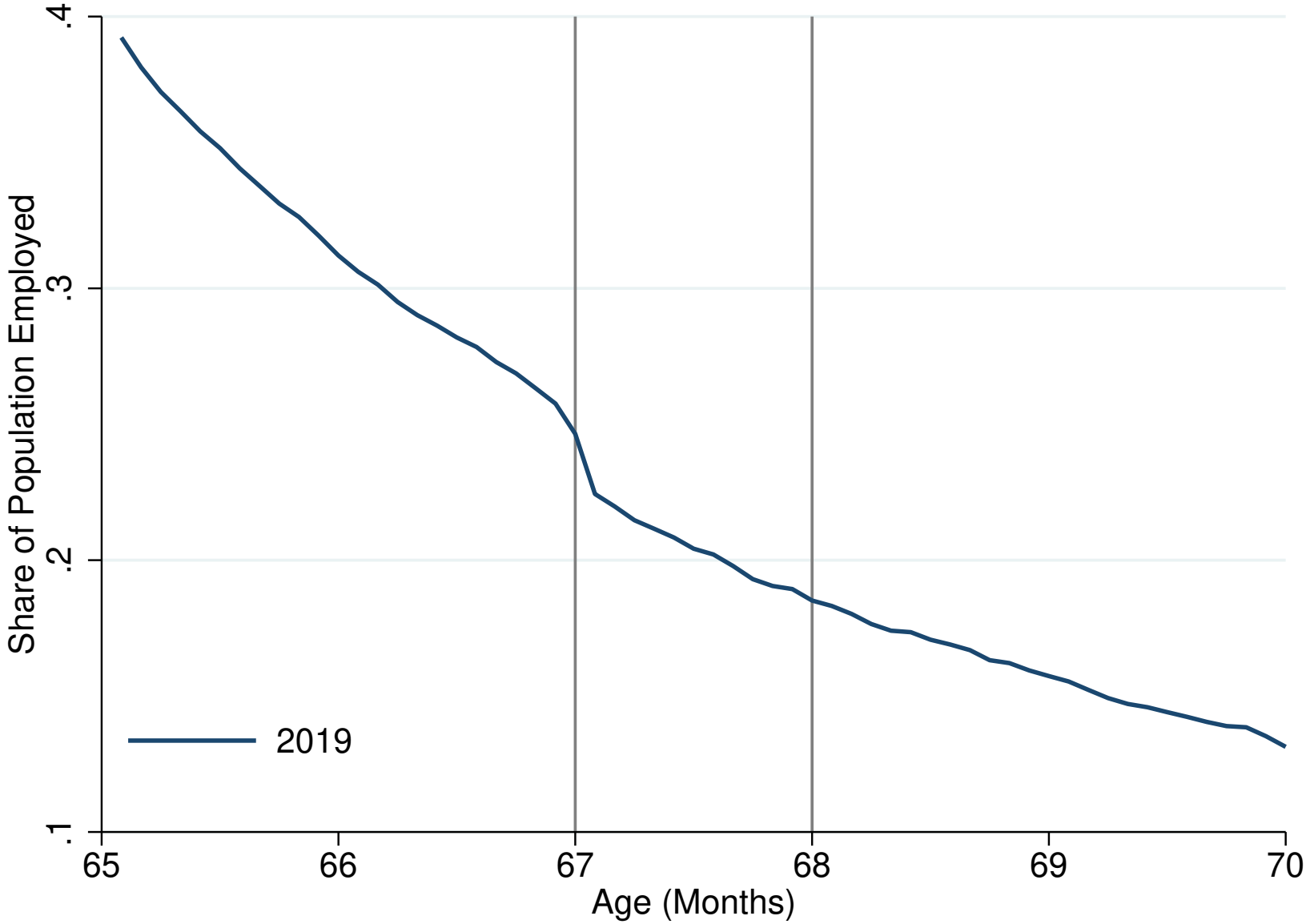


E-Pop with EPL until 67 (2019) vs until 68 (2022)



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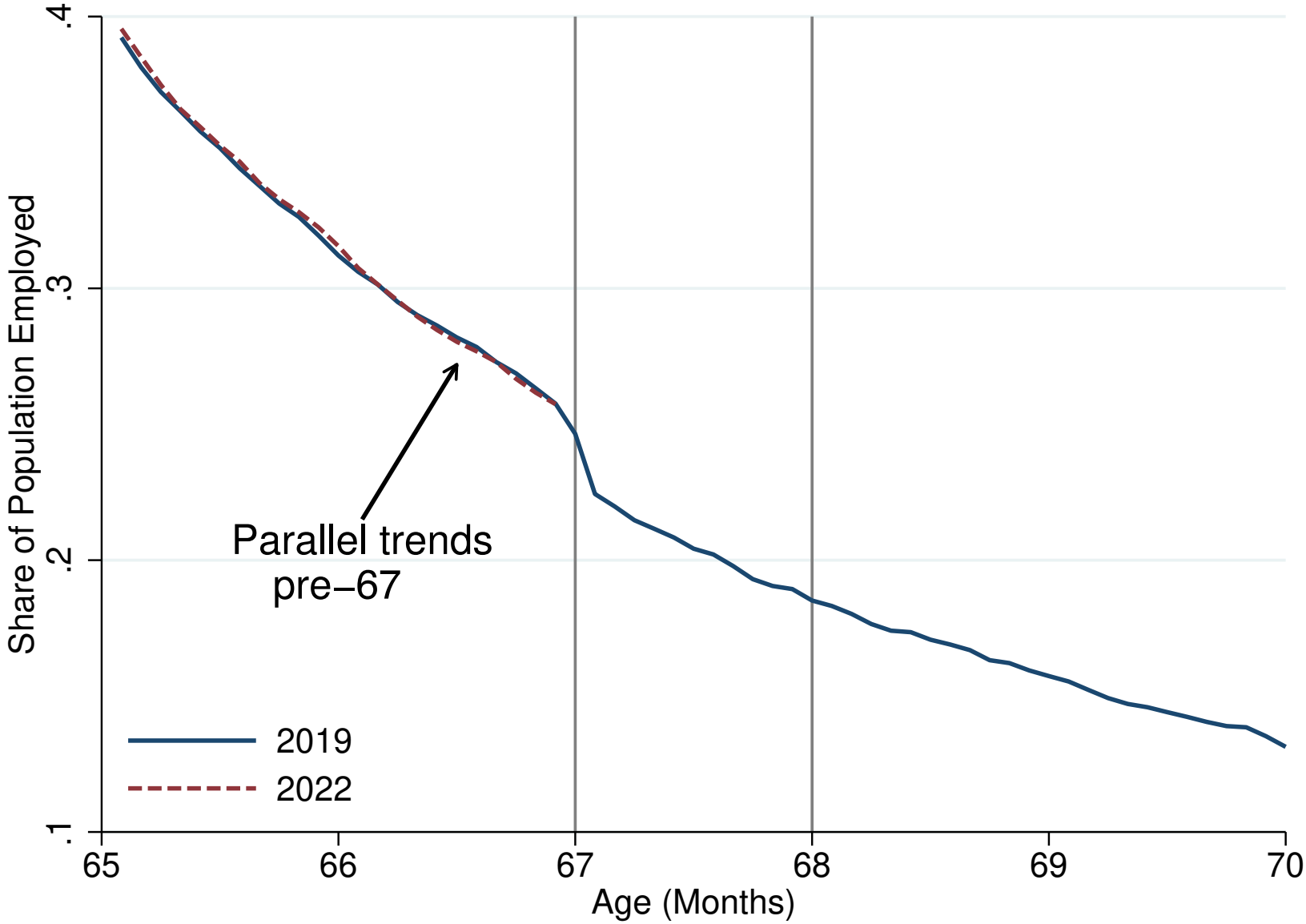

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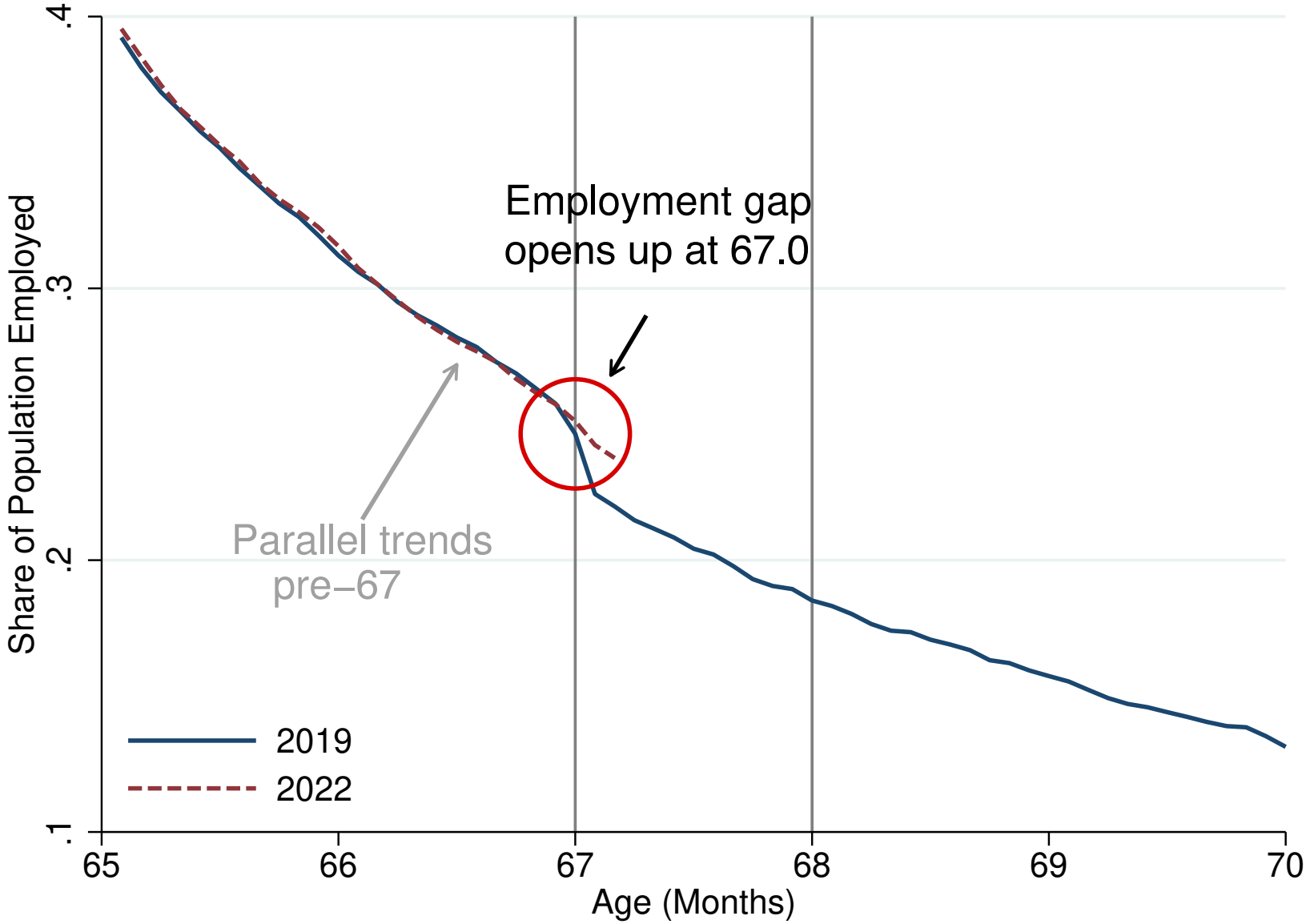

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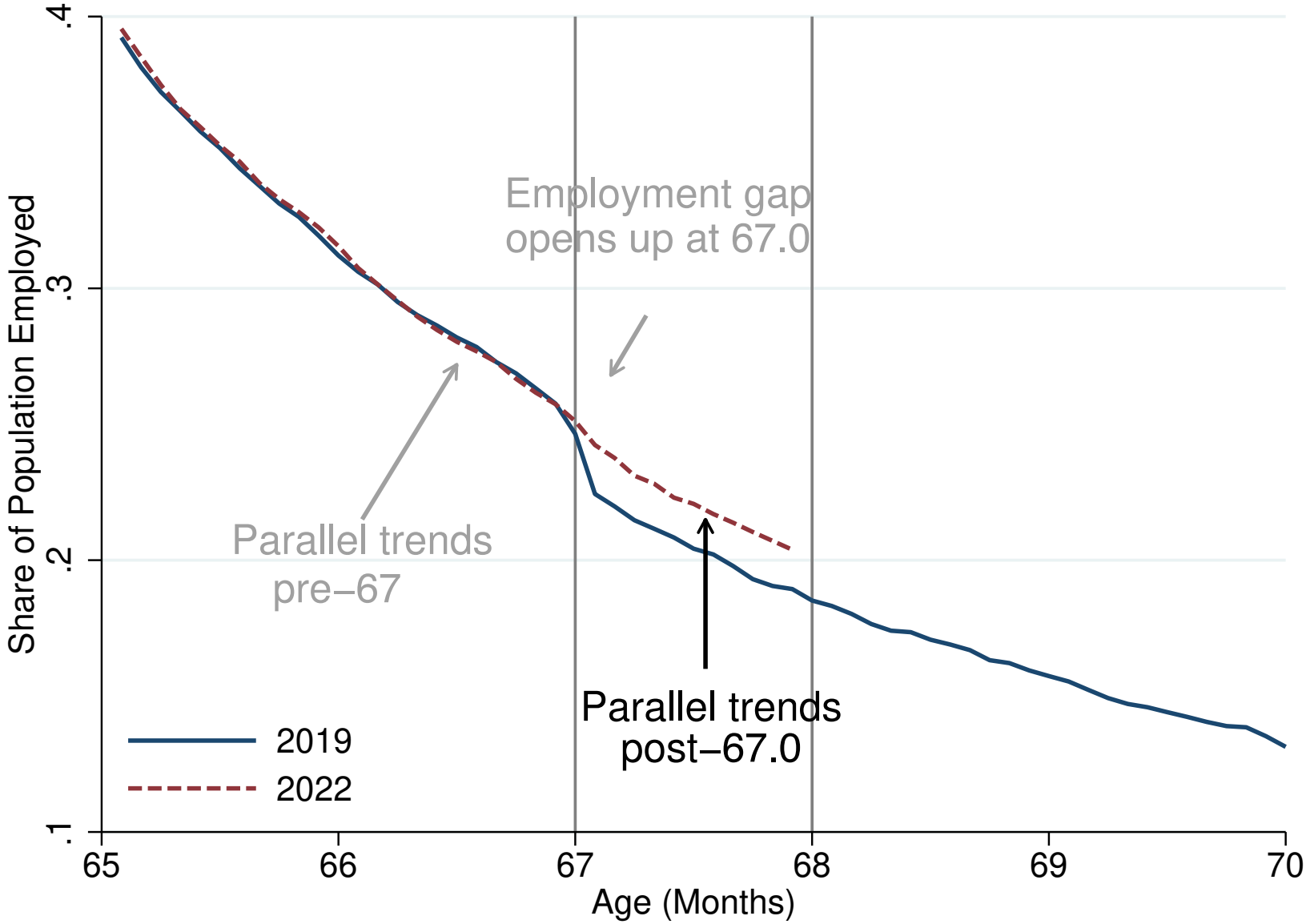

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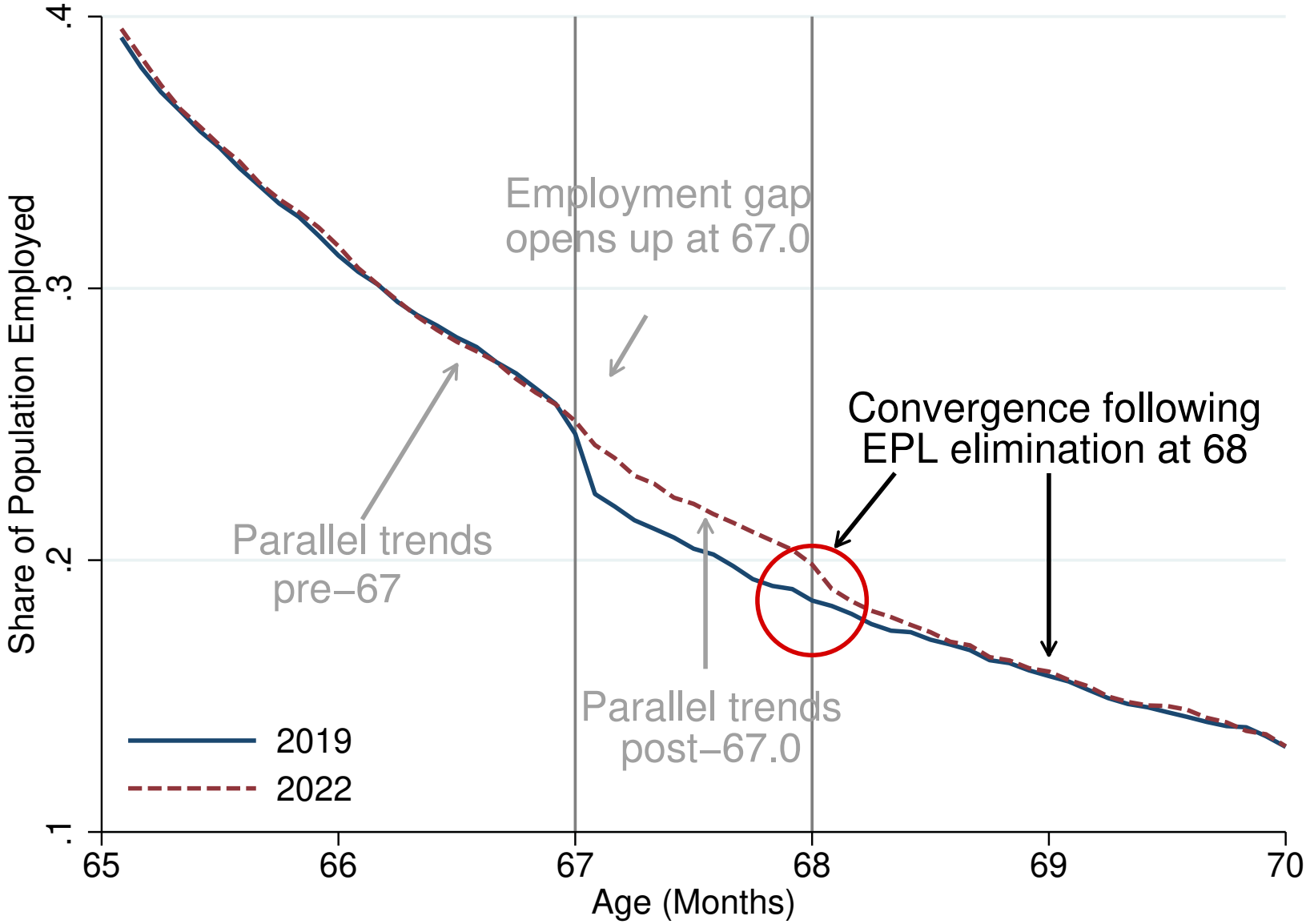

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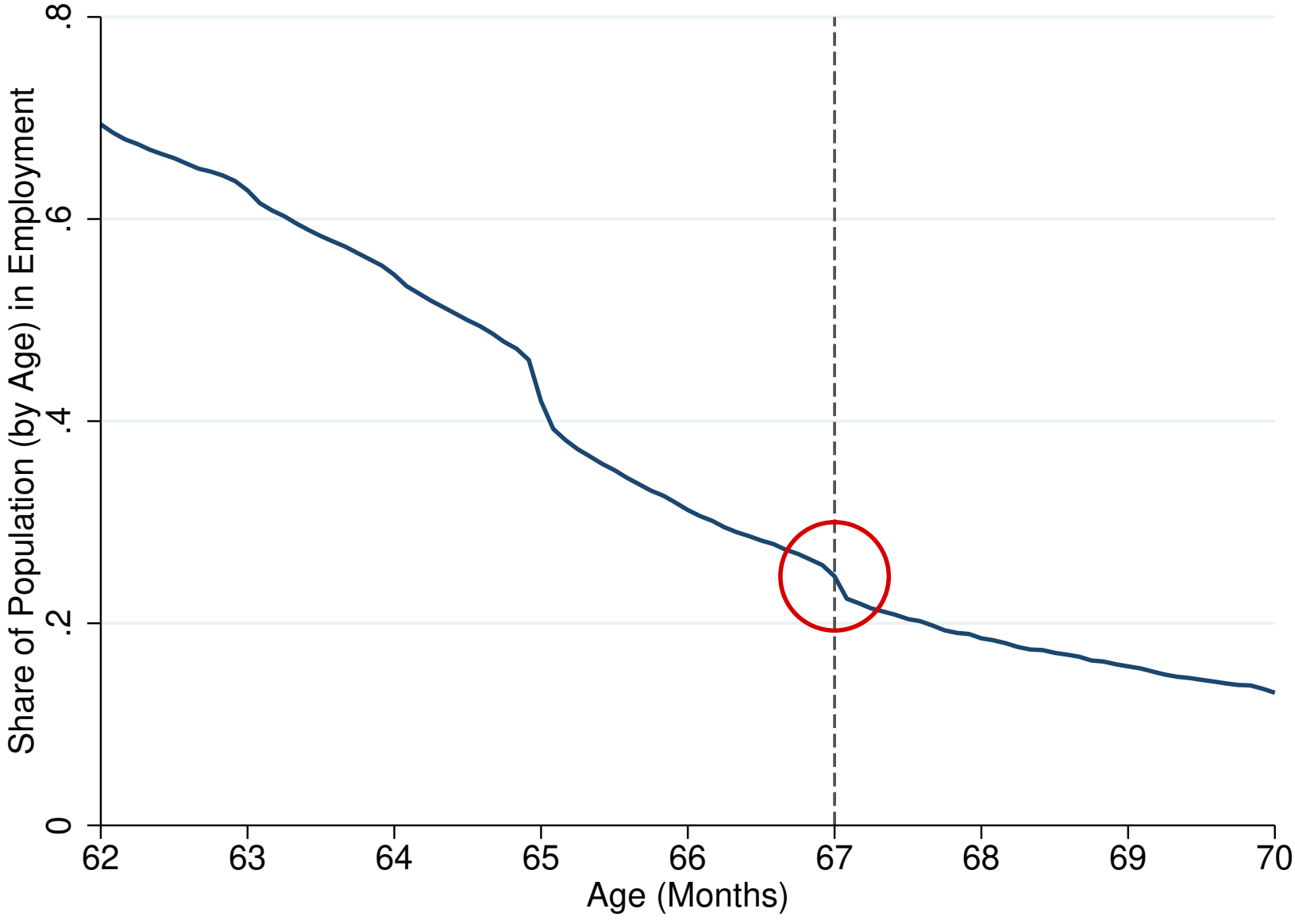
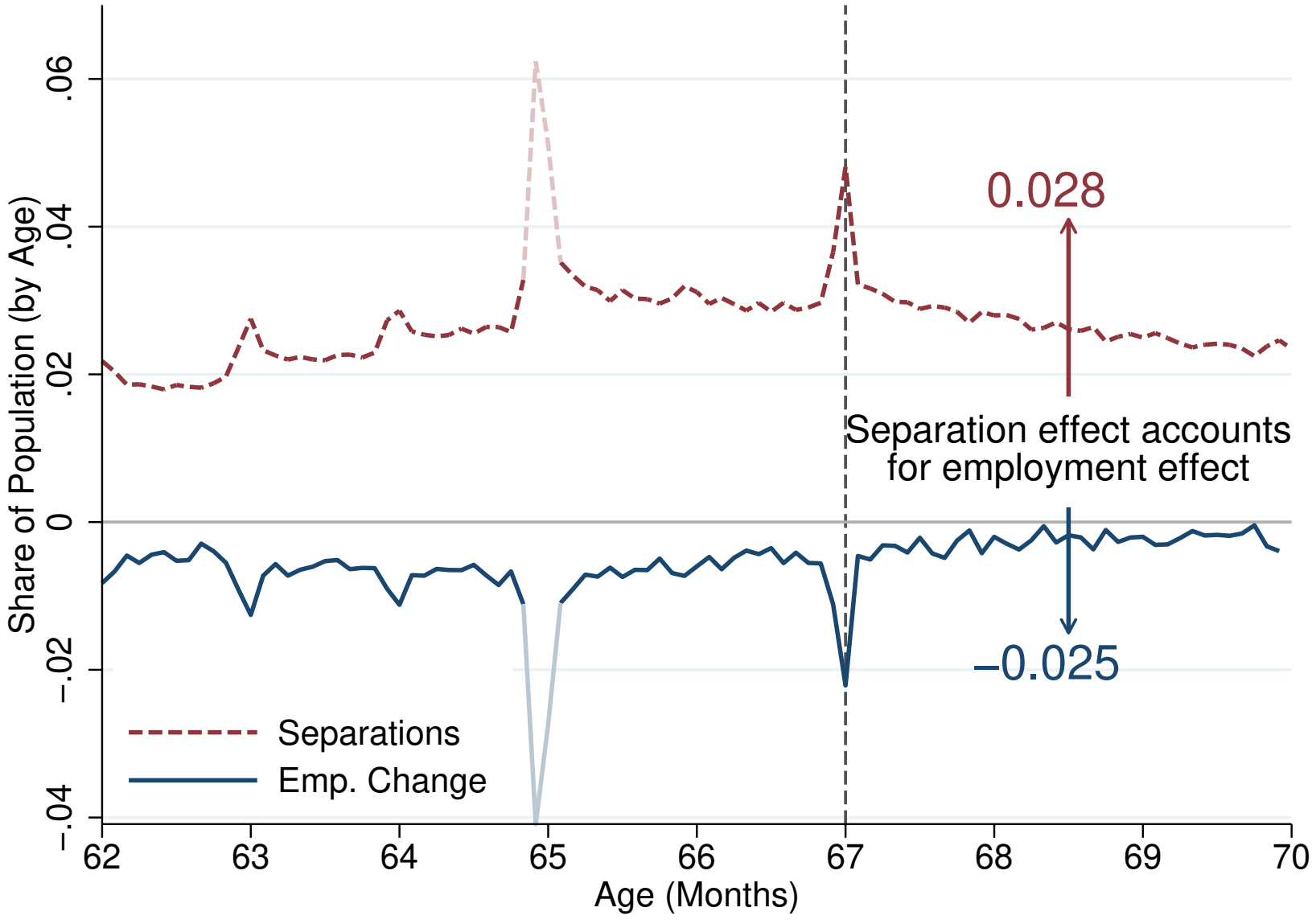
Margins of Adjustment? E-Pop Ratio in 2019



E-Pop: Change Decomp

ΔEmp = Hires – Sep's



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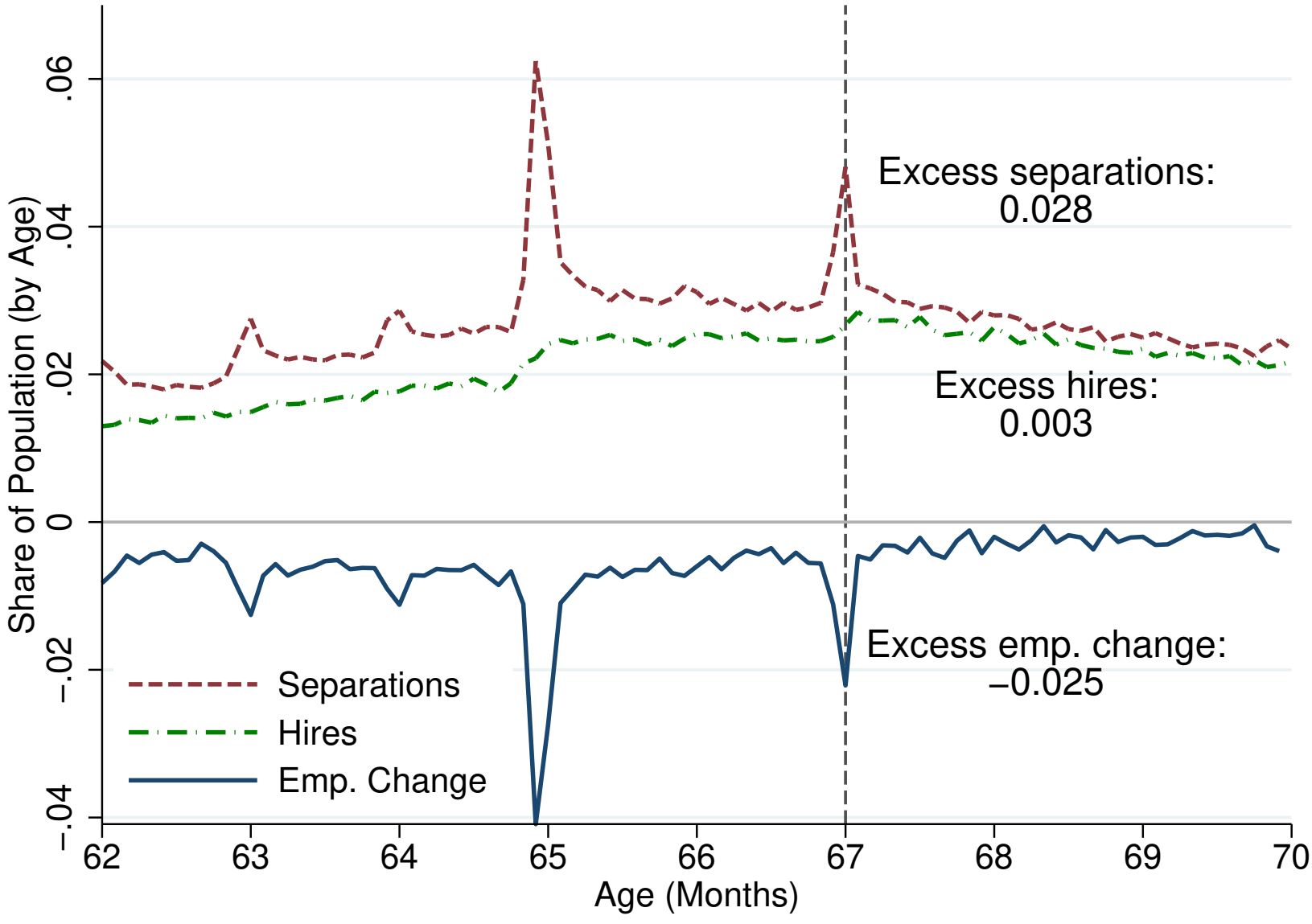
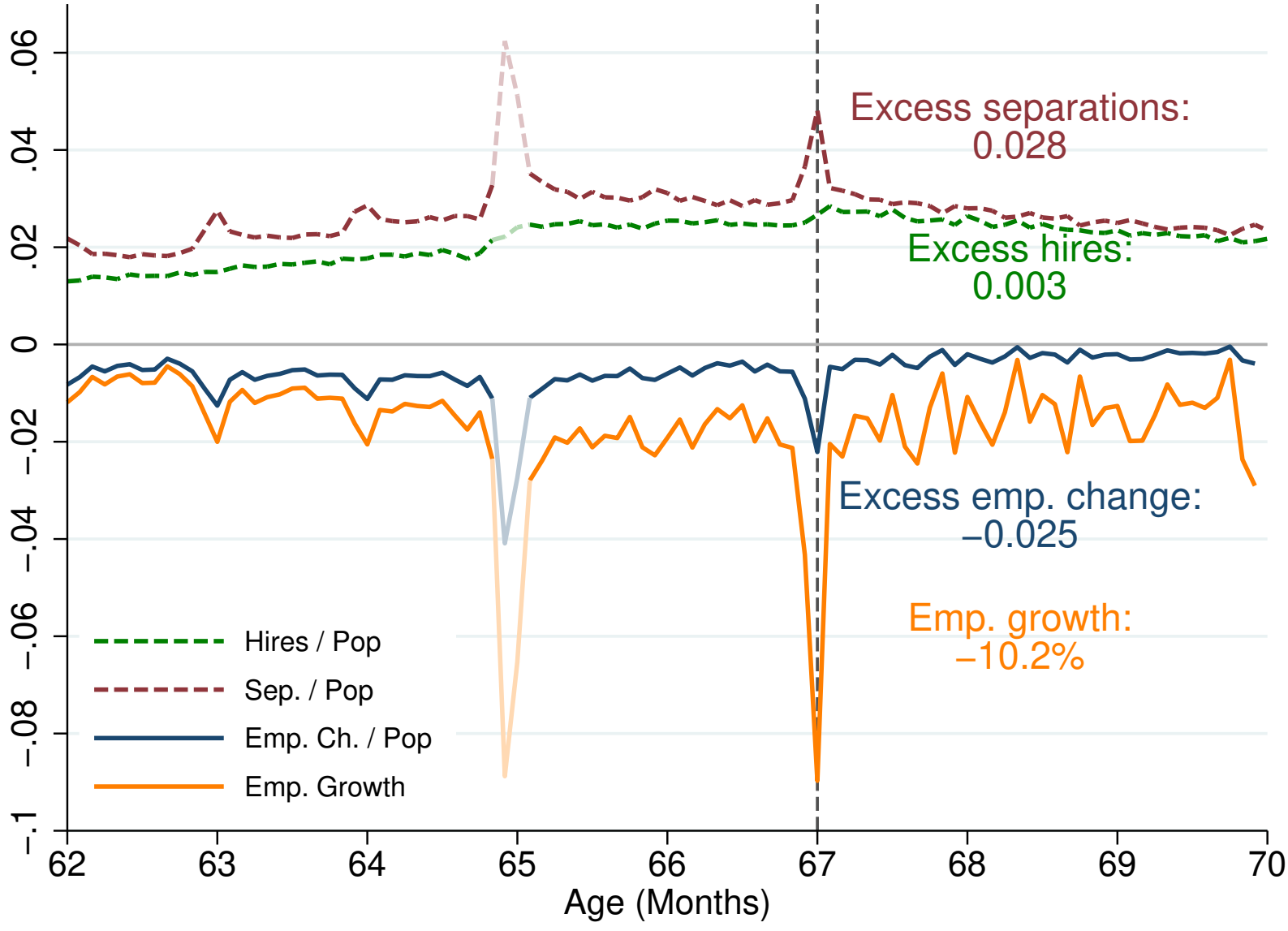
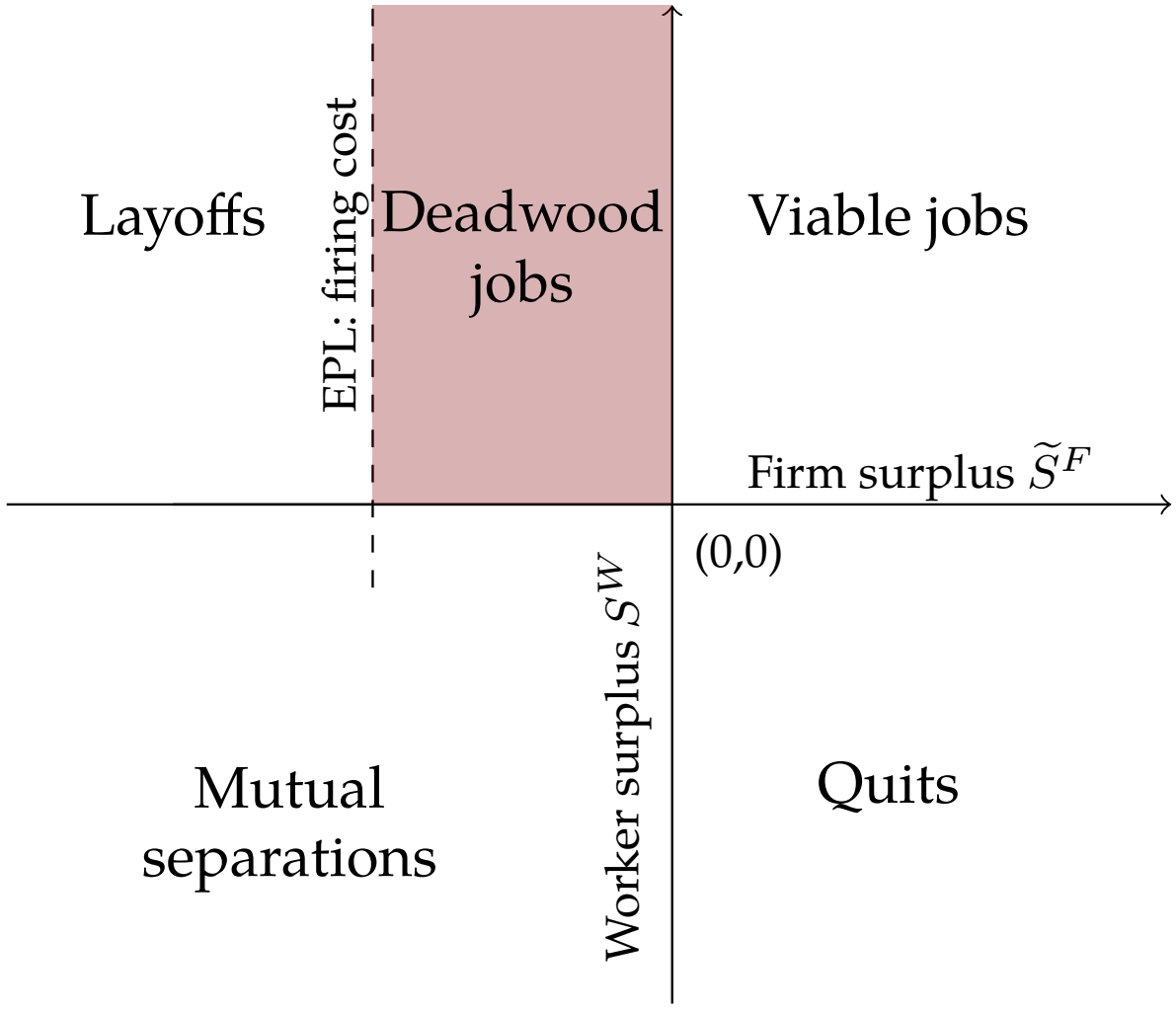


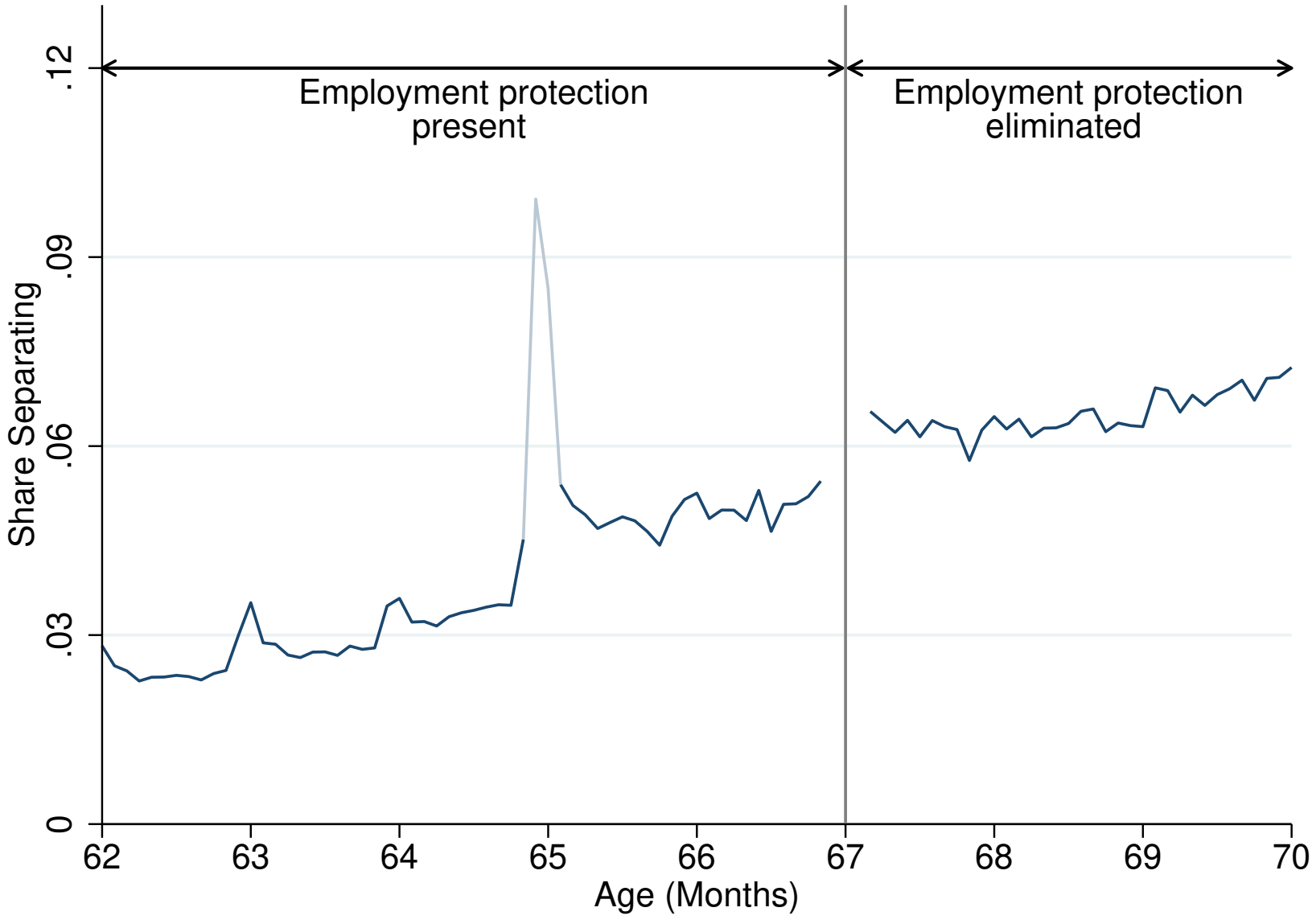
E-Pop: Change (ΔEmp) vs. Growth ($\frac{\Delta \text{Emp}}{\text{Emp}}$)



Simplest Possible Model: "Deadwood" Jobs



Spike of Job Separations at EPL Phase-Out Age 67



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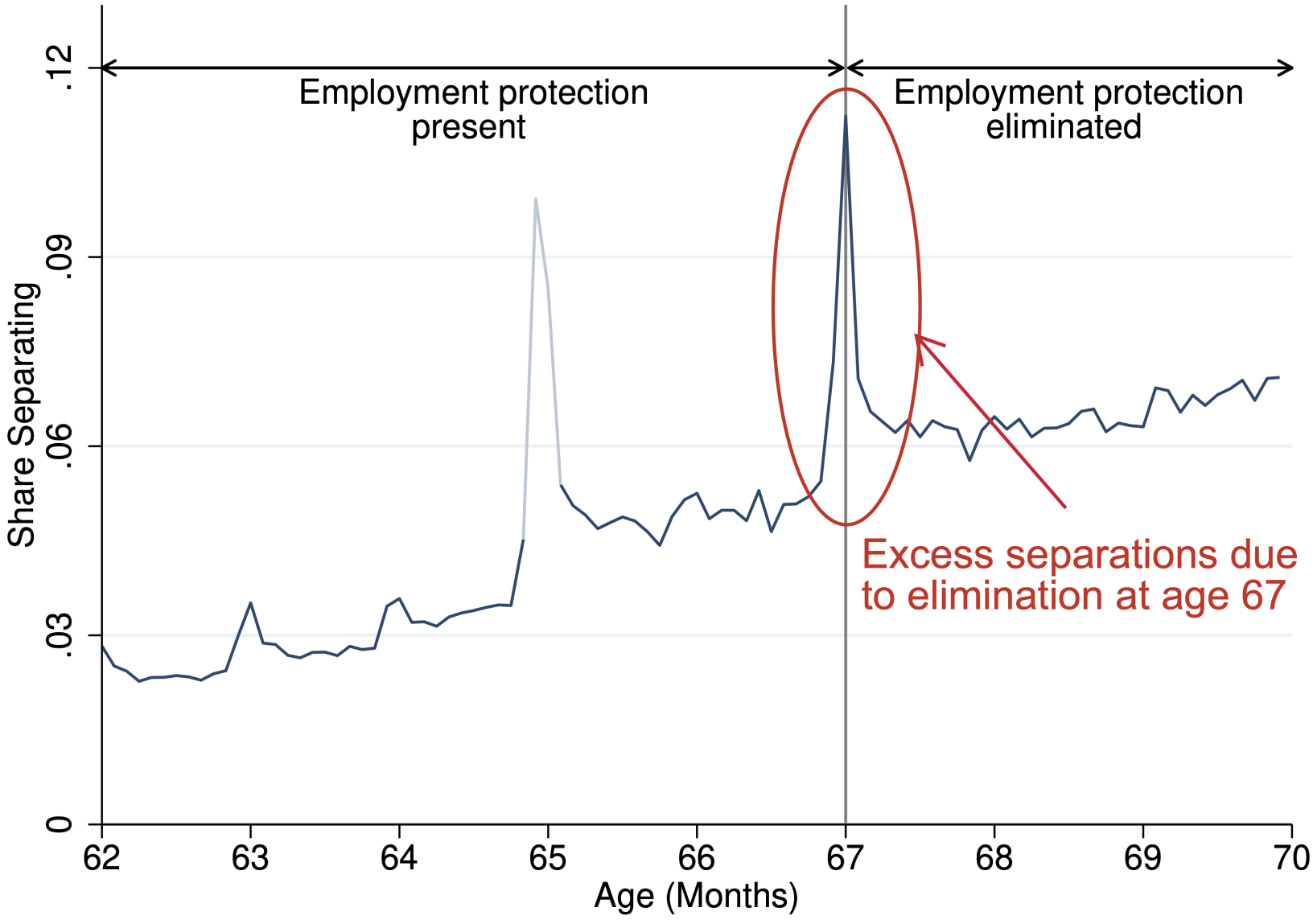
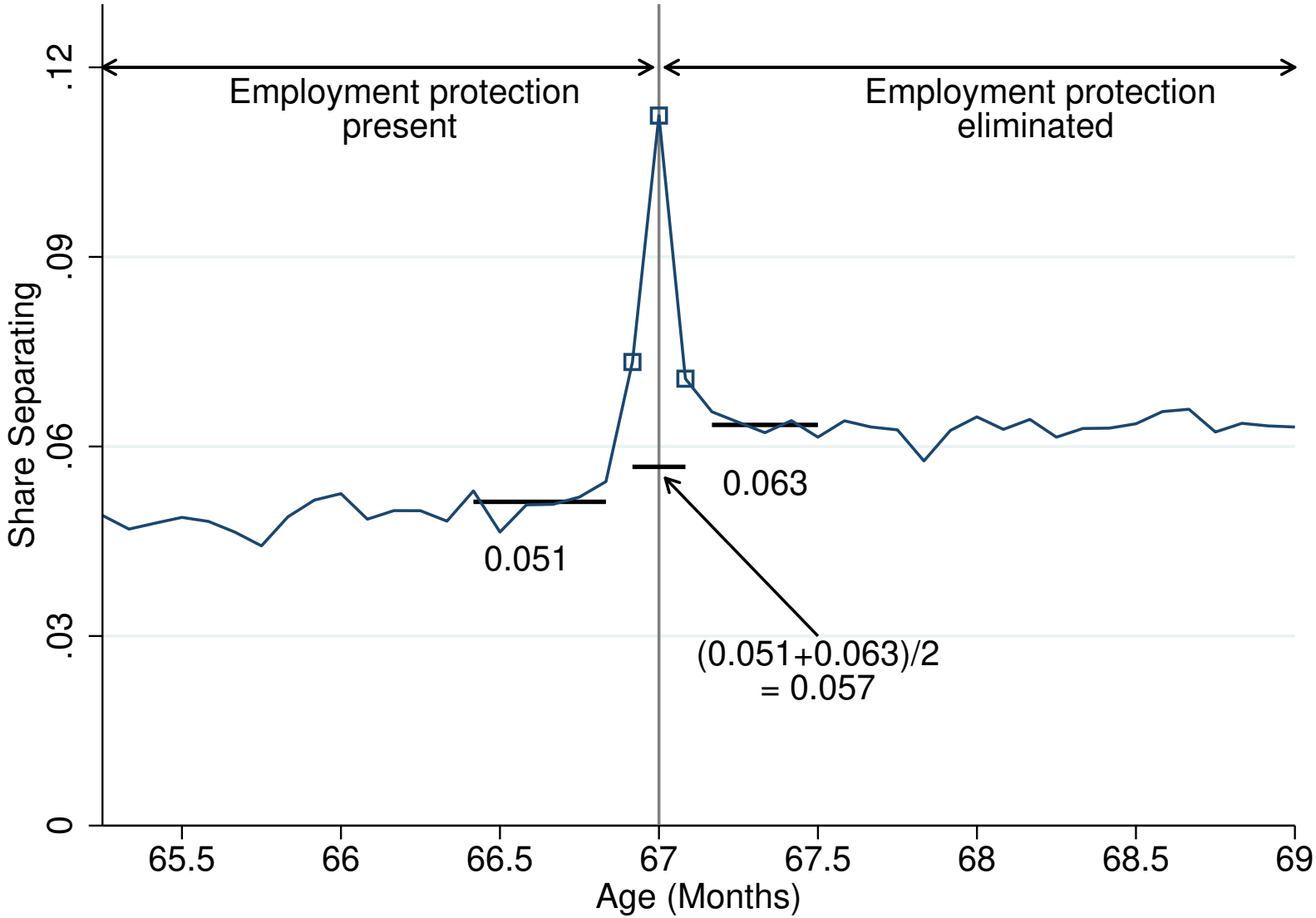


Quantifying the Effect: Bunching Analysis



Basic Saez (2010) bunching method. Similar results w/ polynomial counterfactual (Chetty et al. 2014).

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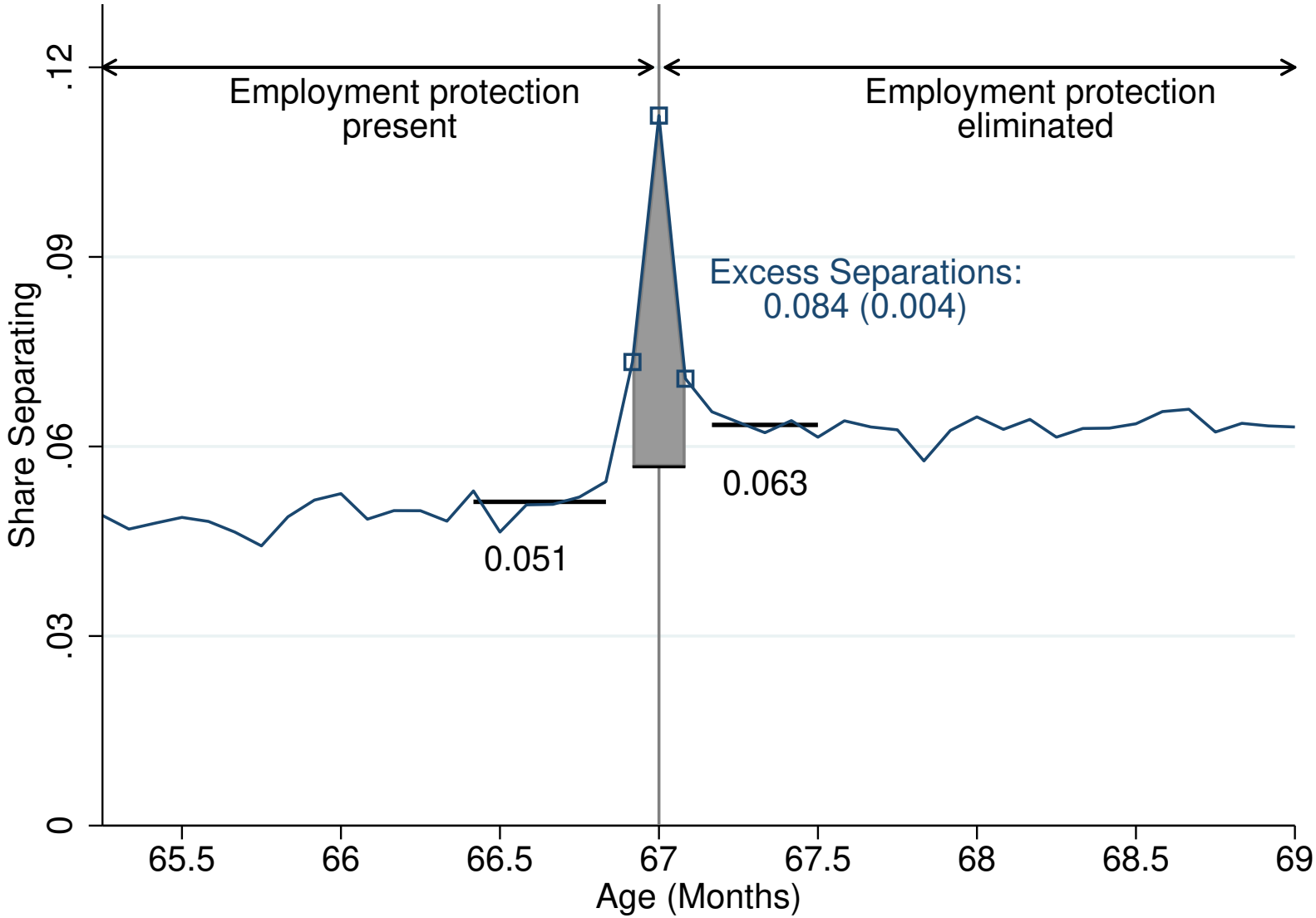

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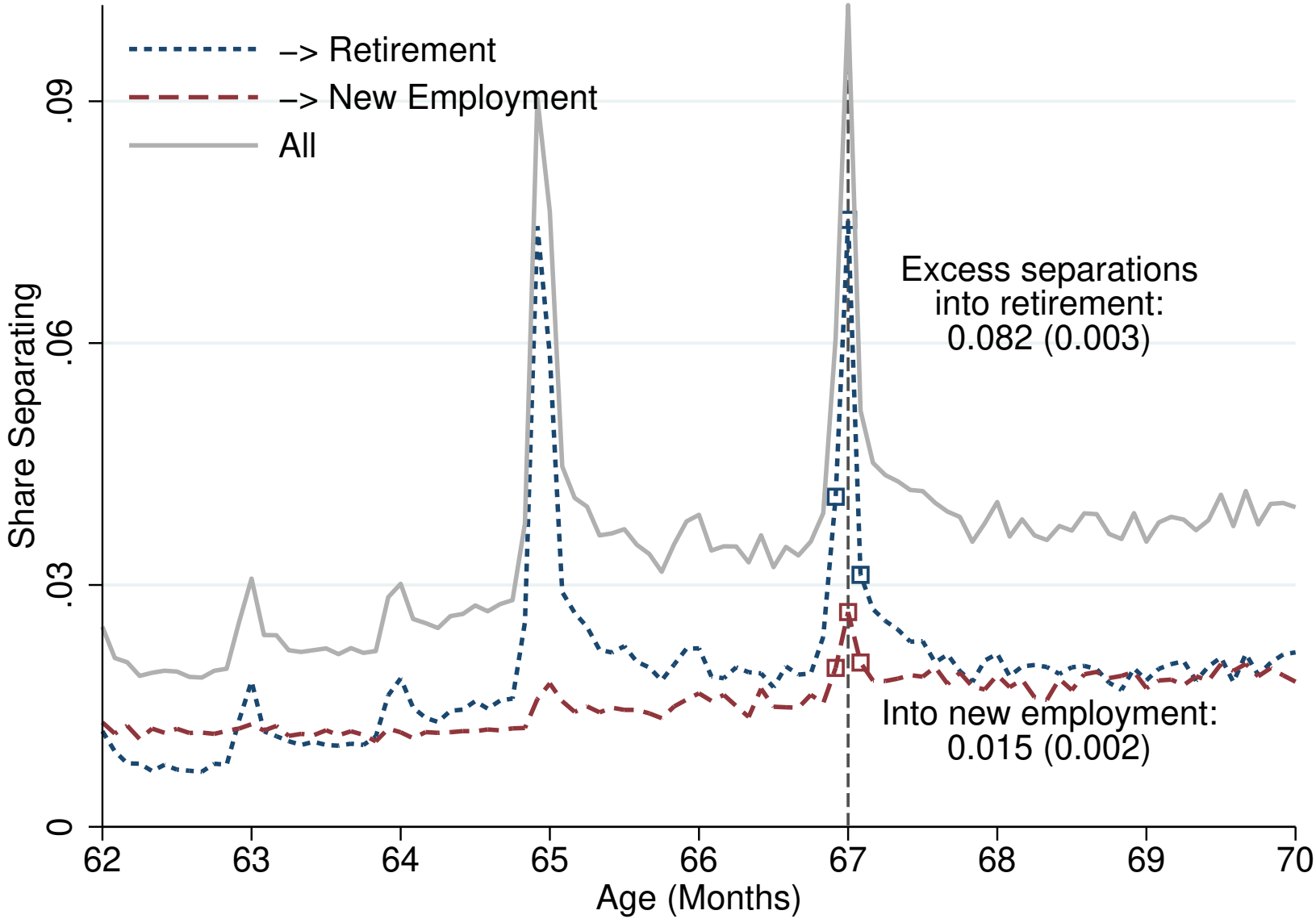
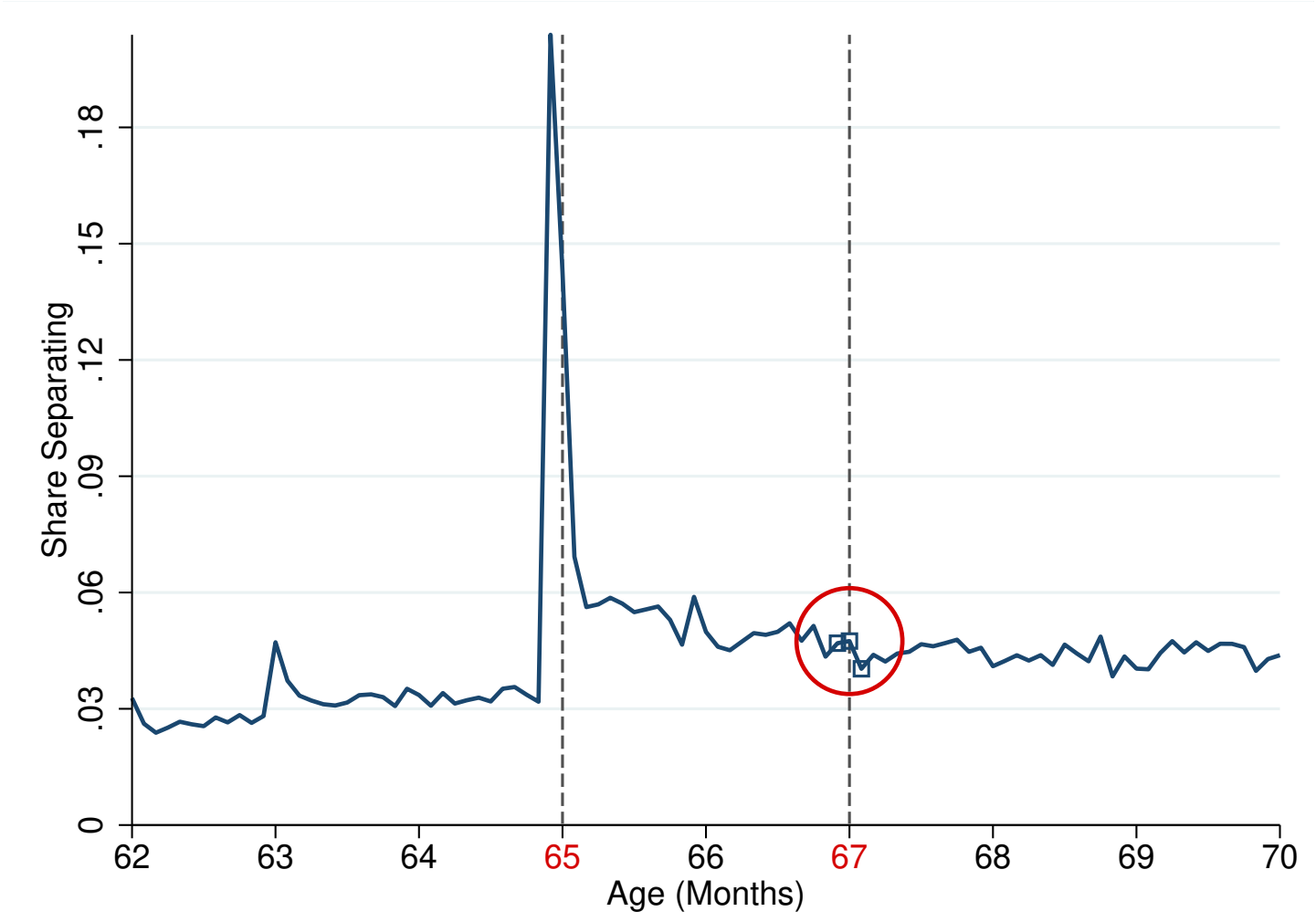
Spike Goes Into Permanent Nonemployment

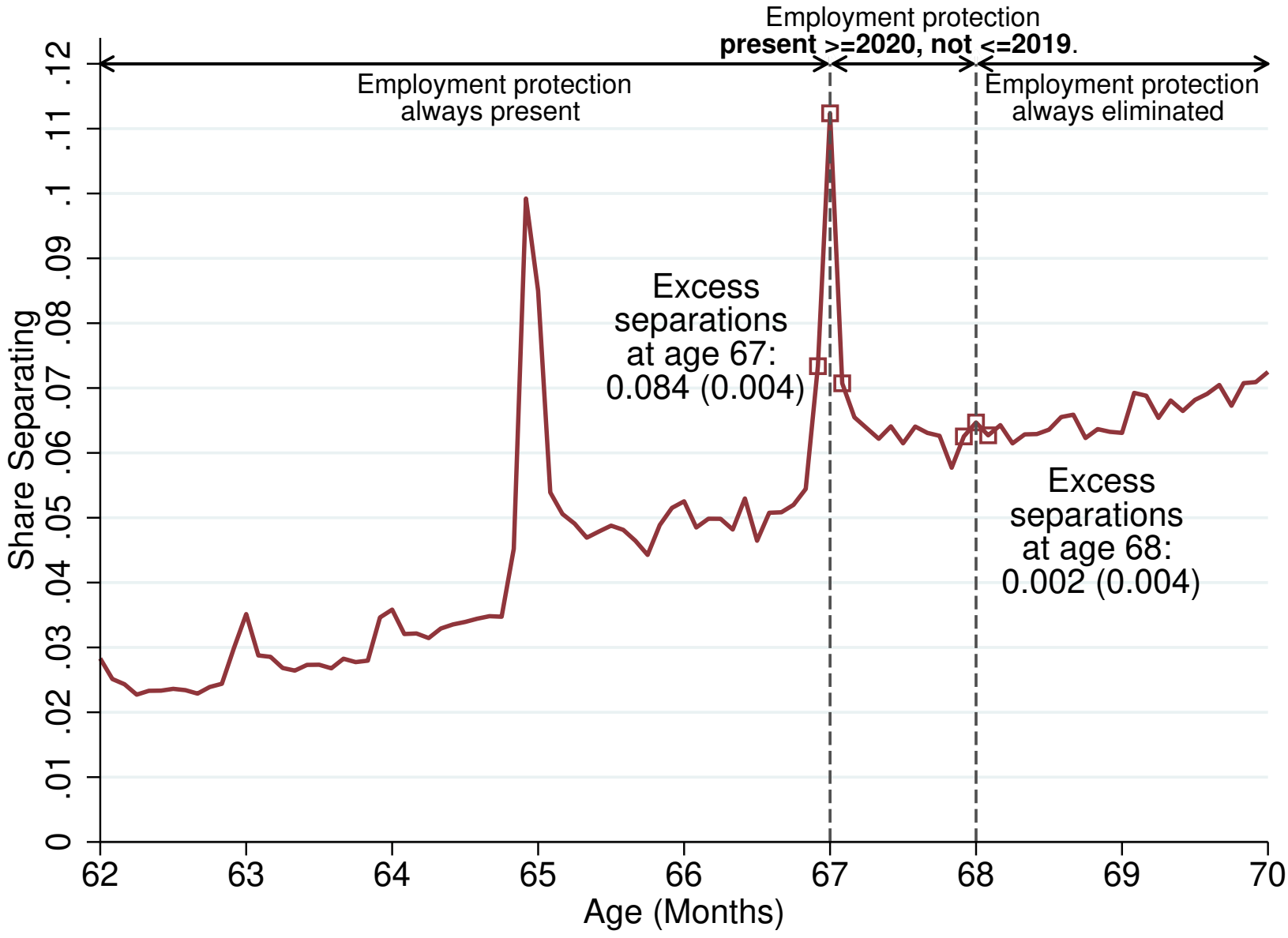


Placebo: No Spike in 2002 (Cutoff was 65 Pre-2003)

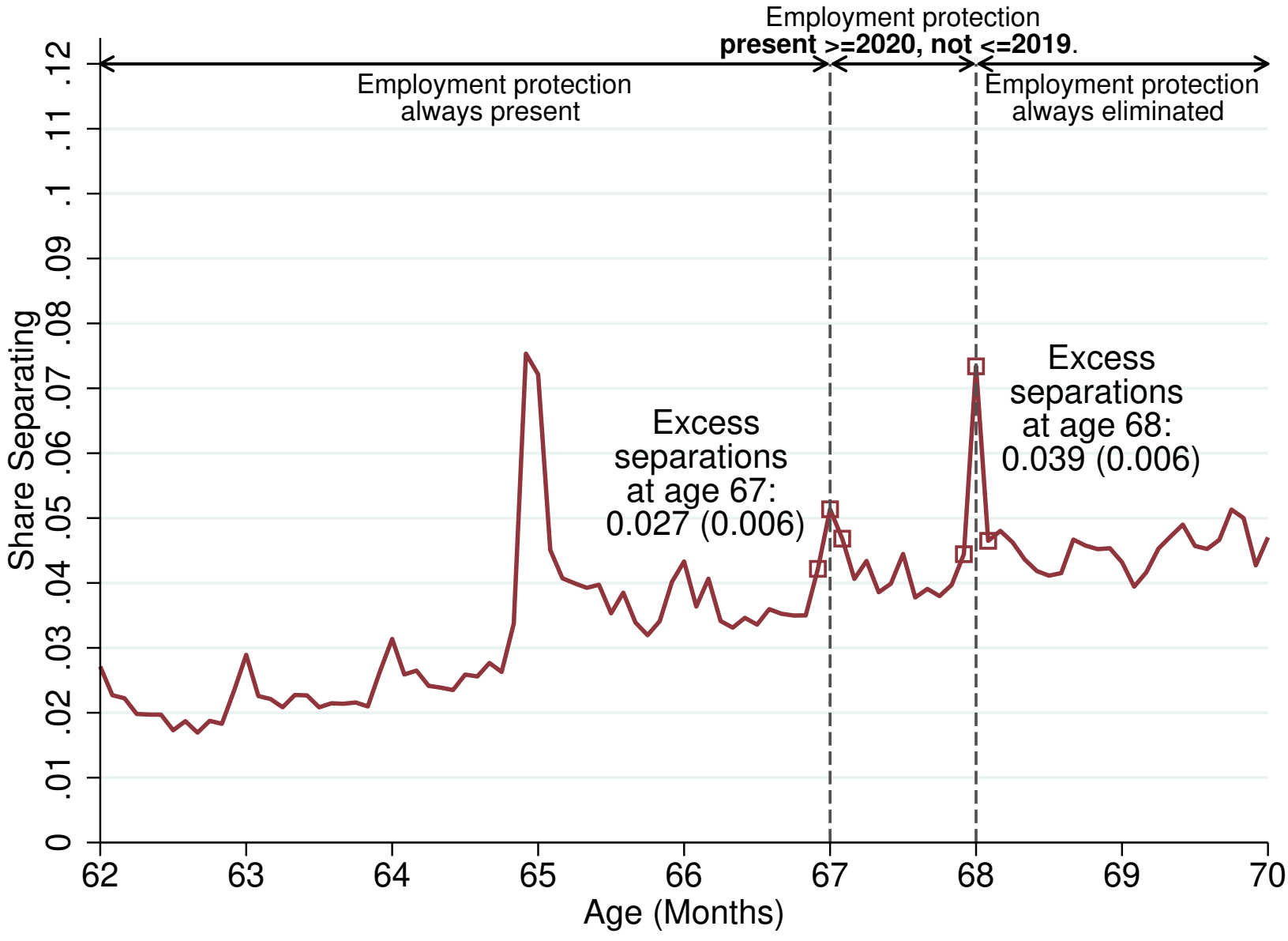


Note: due to (monthly) data quality limitations pre-2019 and additionally reflecting retirement norms / incentives at 65 in those years, the spike at 65 pre-2003 does not lend itself to identifying EPL effects, and we focus on the post-2019 period.

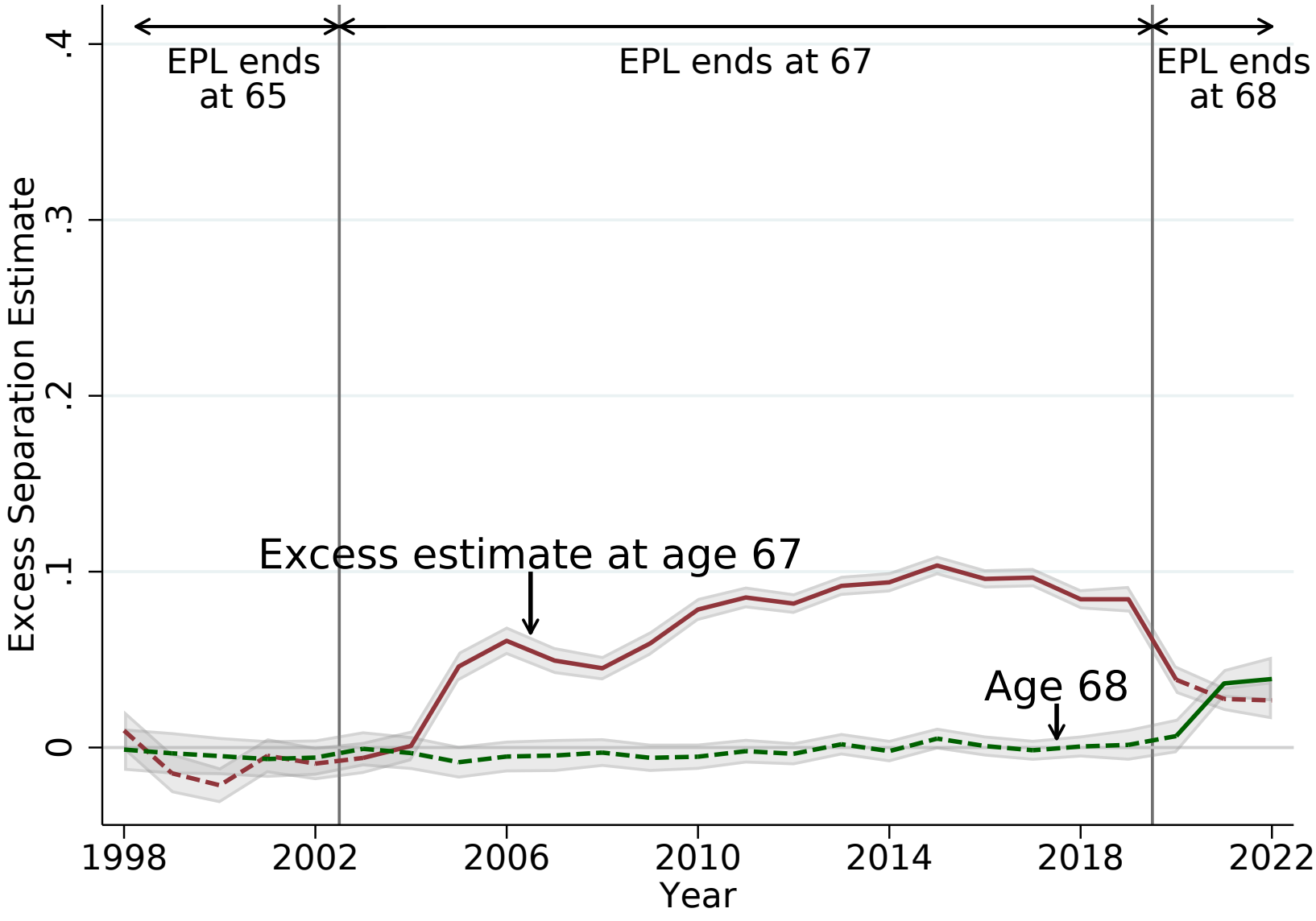
Recap Pre-Reform (2019)



Post-Reform: Spike Migrates from 67 to 68 (2022)



Excess Separations over Time

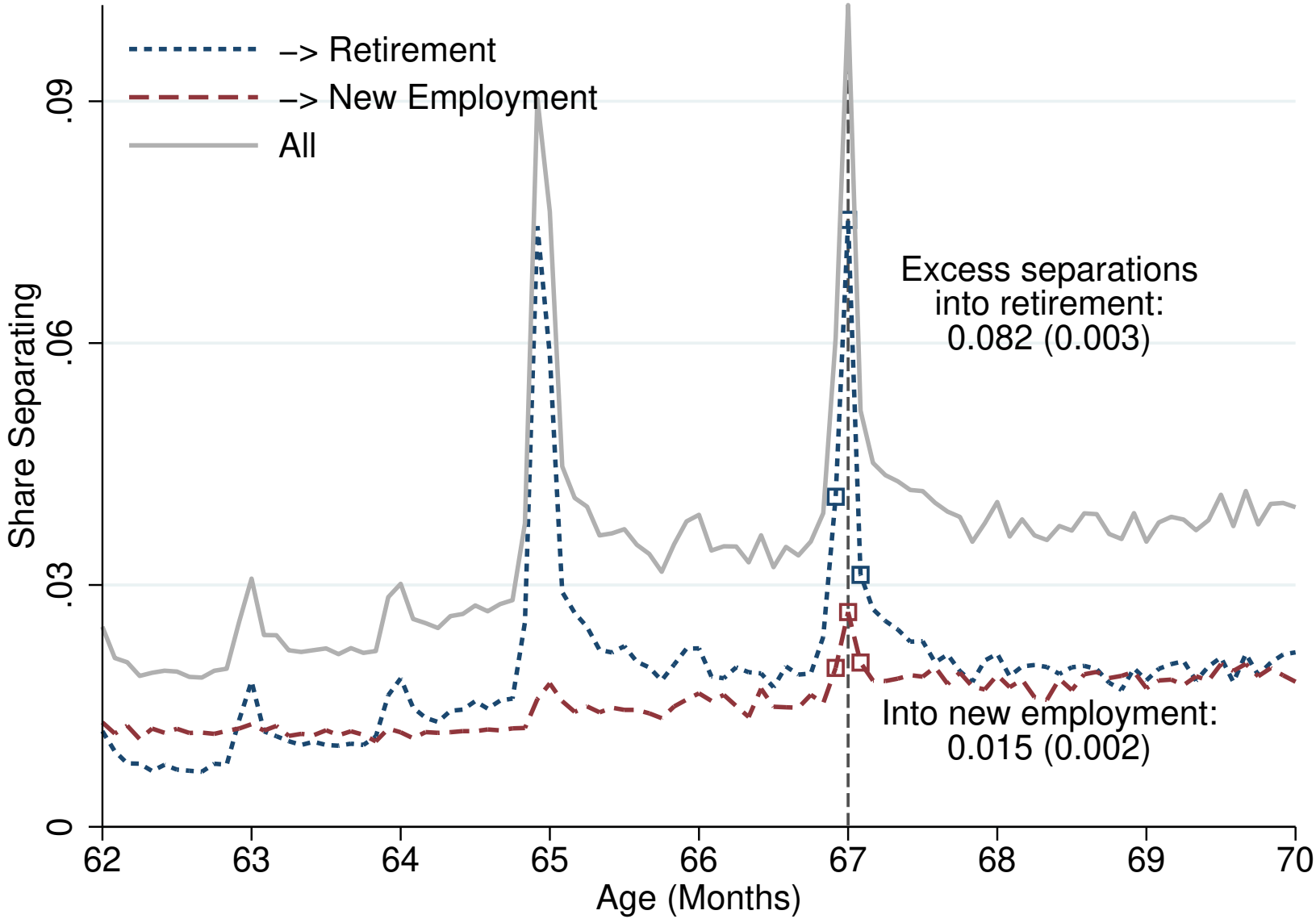


Many Heterogeneity Checks in Paper

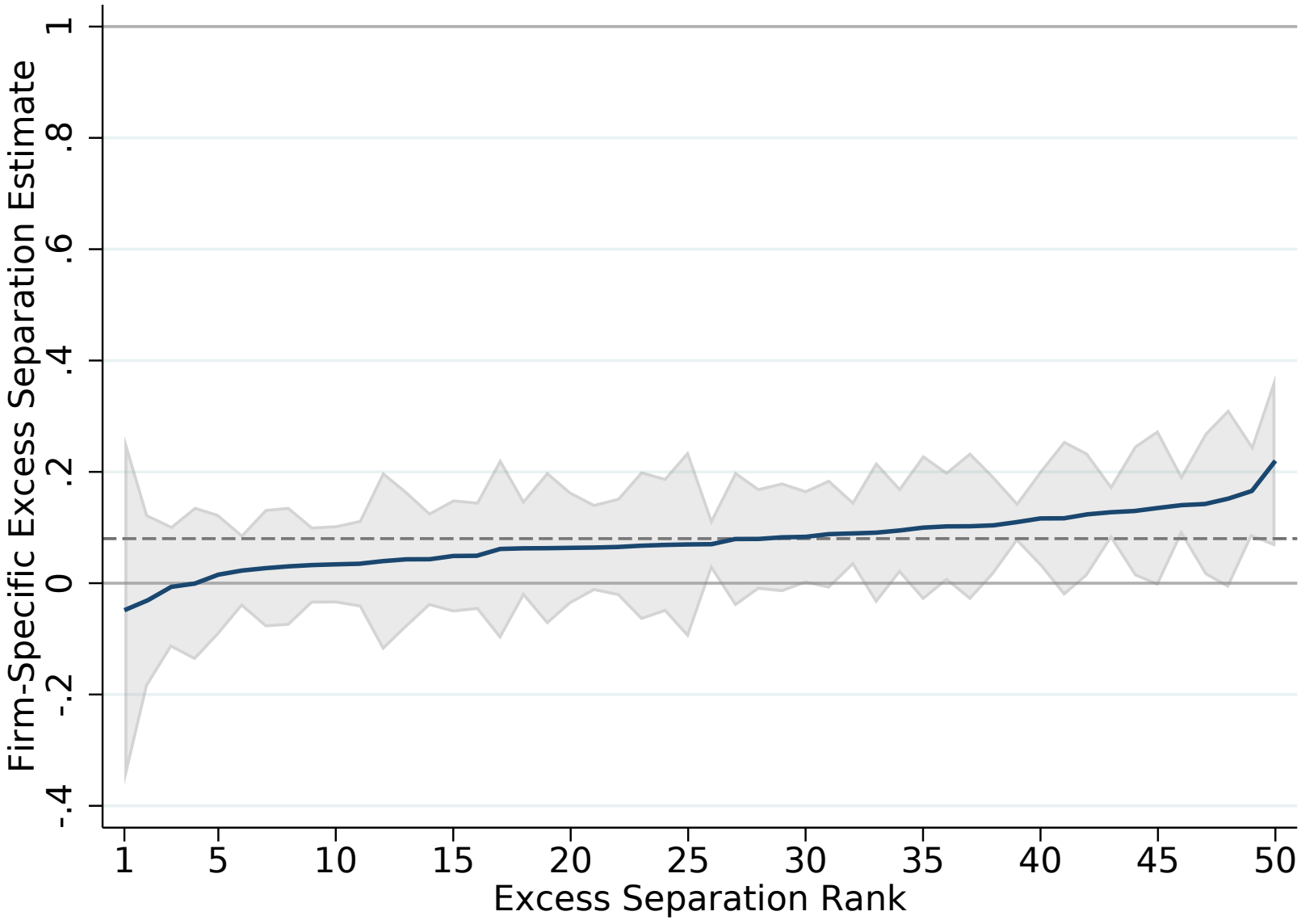
Which jobs does EPL prop up among older workers?

Which workers? Which firms?

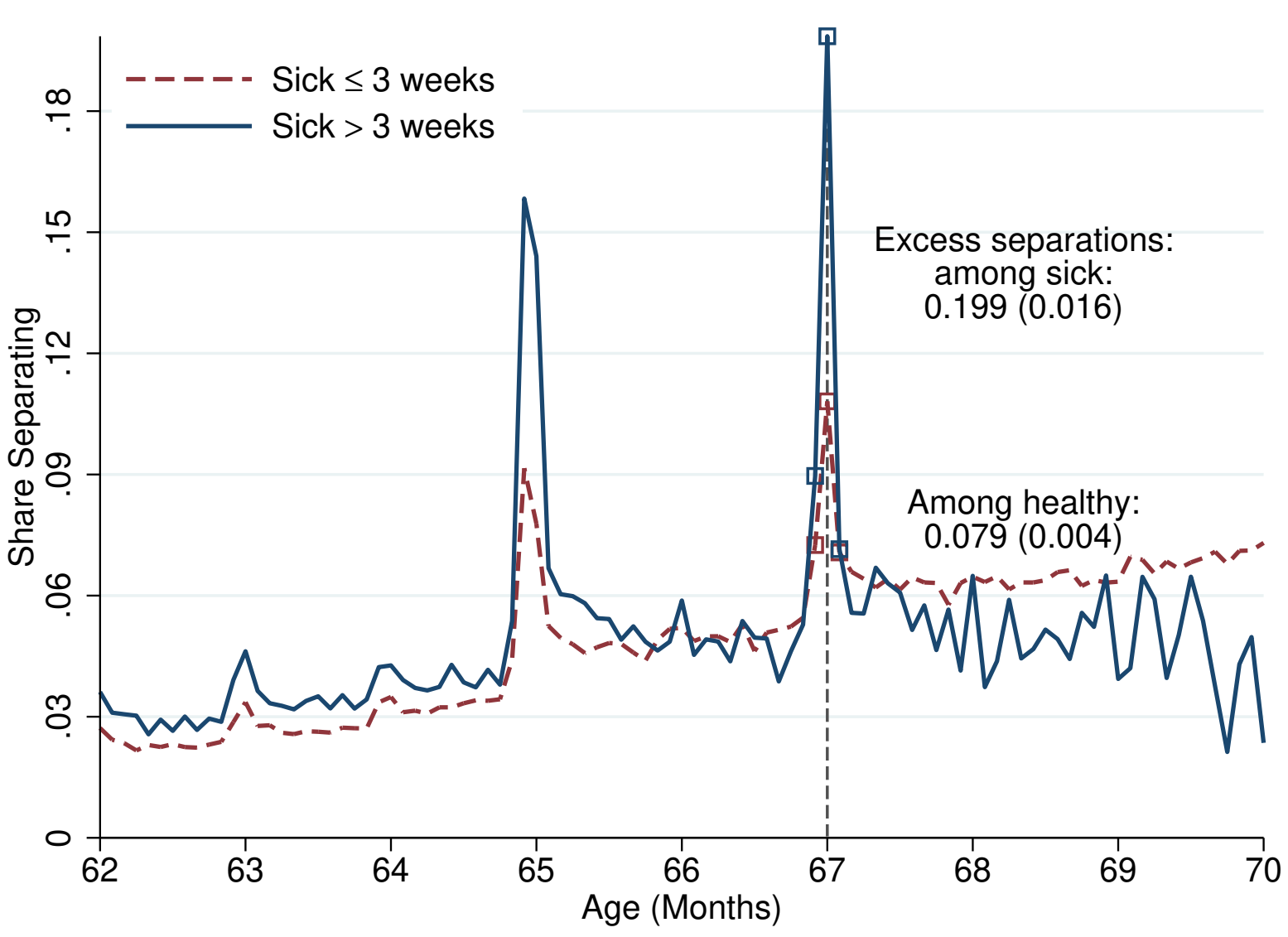
Spike Goes Into Permanent Nonemployment



Excess Seps Not Concentrated in Specific Firms

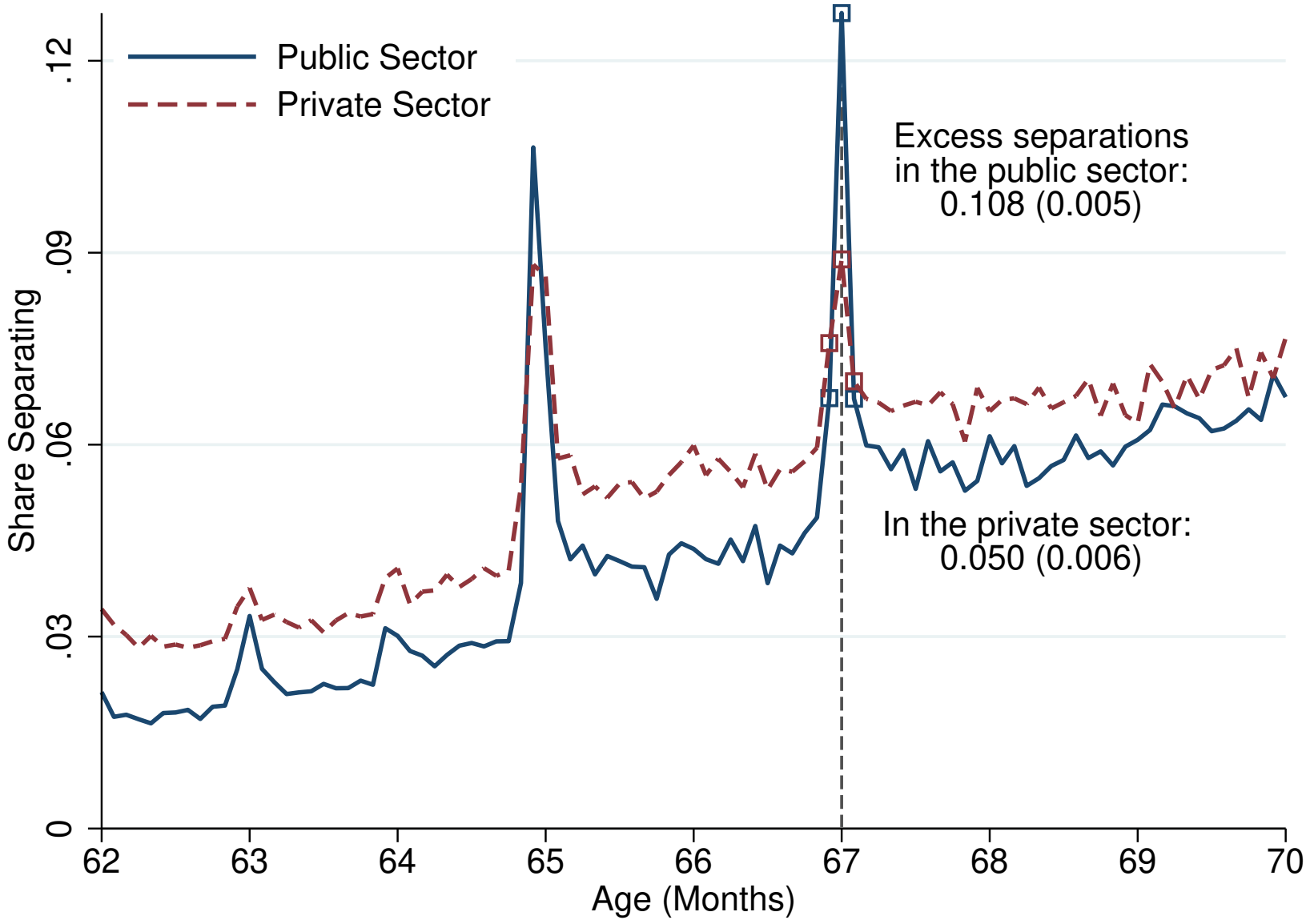


Recently (in 2018) Sick Workers Separate at 67

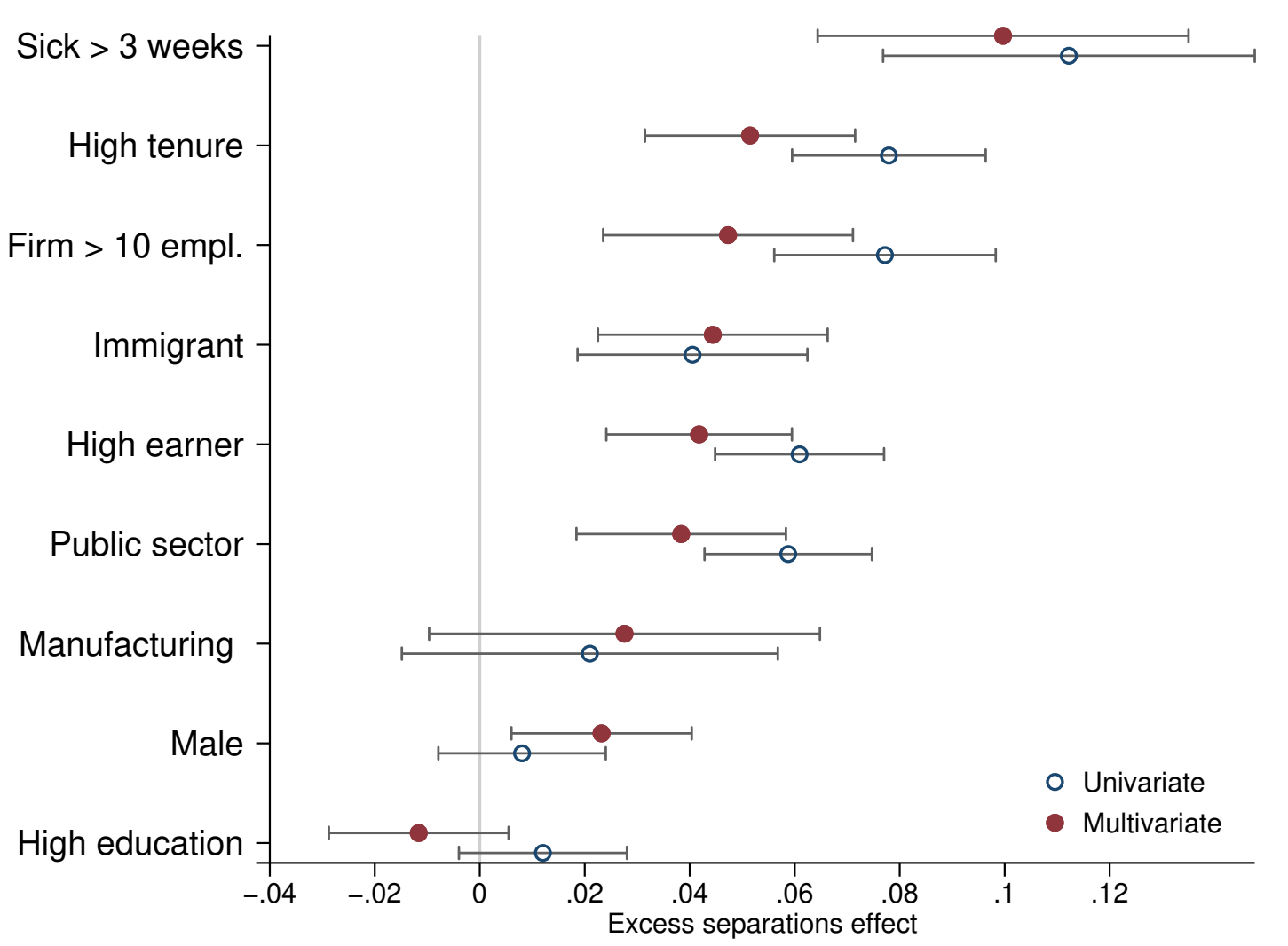


Sickness in 2018 flagged in administrative data corresponding to about 3 weeks of sickness.

Effect Stronger in Public Sector



Heterogeneity: Regression Analysis



Method of regression-based bunching analysis: regression in micro data with age dummies interacted with binary variable(s); bunching analysis is done on the basic of interaction coefficients on focal ages as in baseline bunching analysis.

Earnings per capita and Intensive Margin

Standard focus: extensive (separations) margin.

We also study earnings p.c. (age-based) and hence novel intensive margin adjustment:

$$\overbrace{Y}^{\text{Earnings p.c.}} = \overbrace{\overline{y}}^{E[y|y>0]} \cdot \overbrace{E}^{\text{Emp rate}}$$

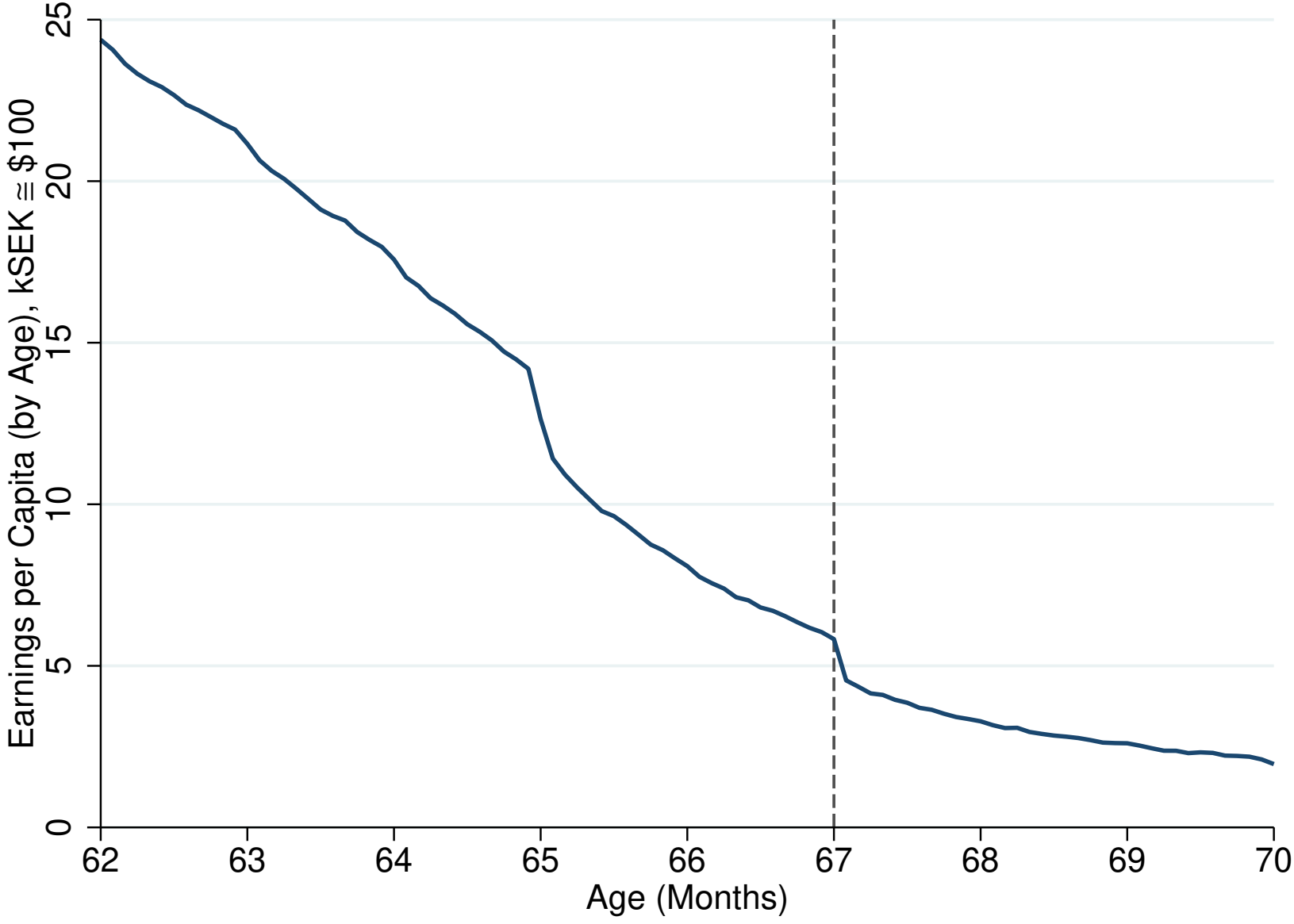
$$\Rightarrow \frac{\Delta Y}{Y} \approx \underbrace{\frac{\Delta \overline{y}}{\overline{y}}}_{\text{Intensive margin}} + \underbrace{\frac{\Delta E}{E}}_{\text{Extensive margin}}$$

Three sub-margins at intensive margin:

- Earnings reductions among stayers (hours, wage cuts)
- Composition (see heterogeneity cut—quantify residually)

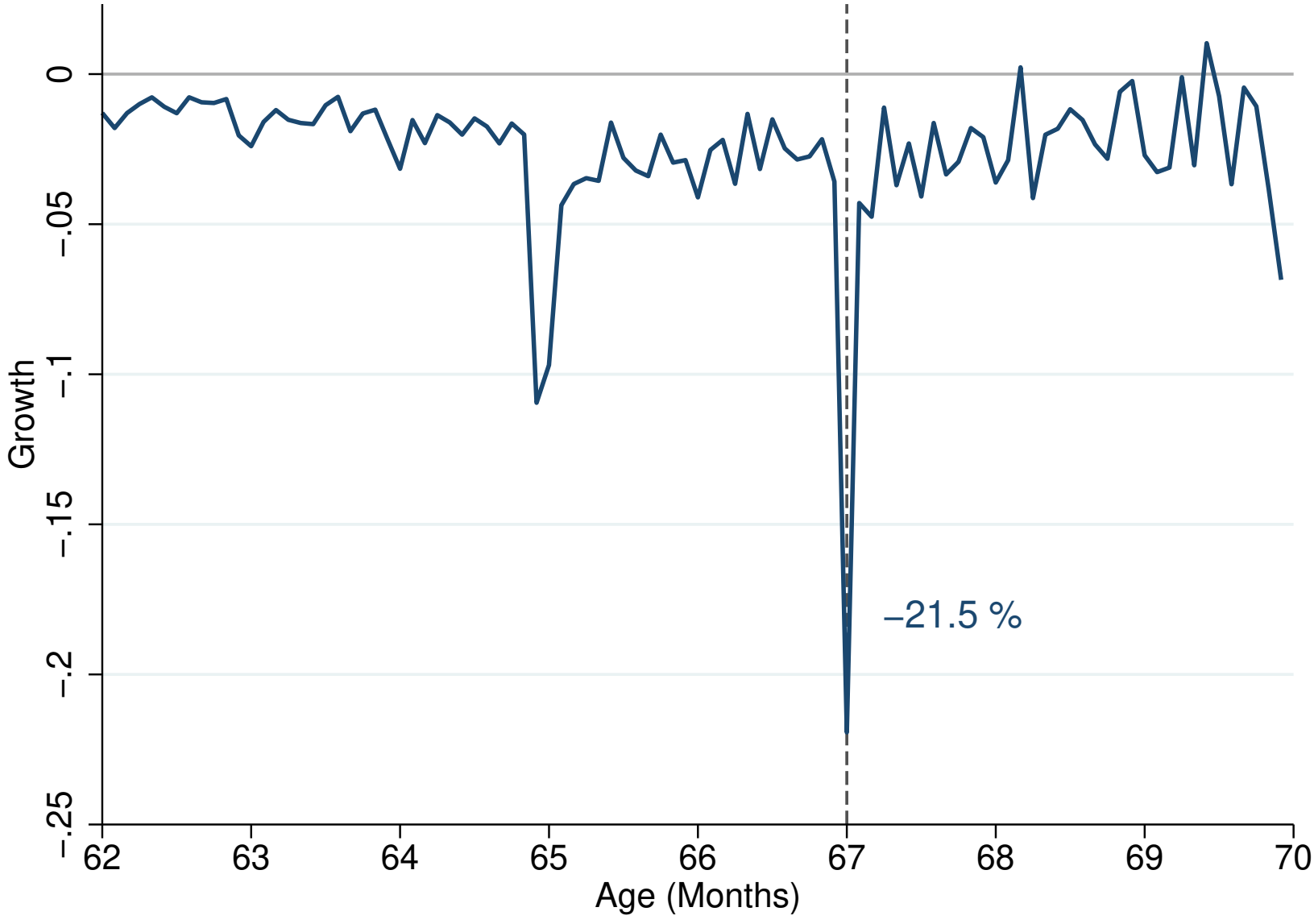
Earnings Per Capita

$$Y = \overline{y} \cdot E + 0 \cdot (P - E) = \overline{y}E$$



Earnings Per Capita: Growth

$$\frac{\Delta(\bar{y}E)}{\bar{y}E}$$



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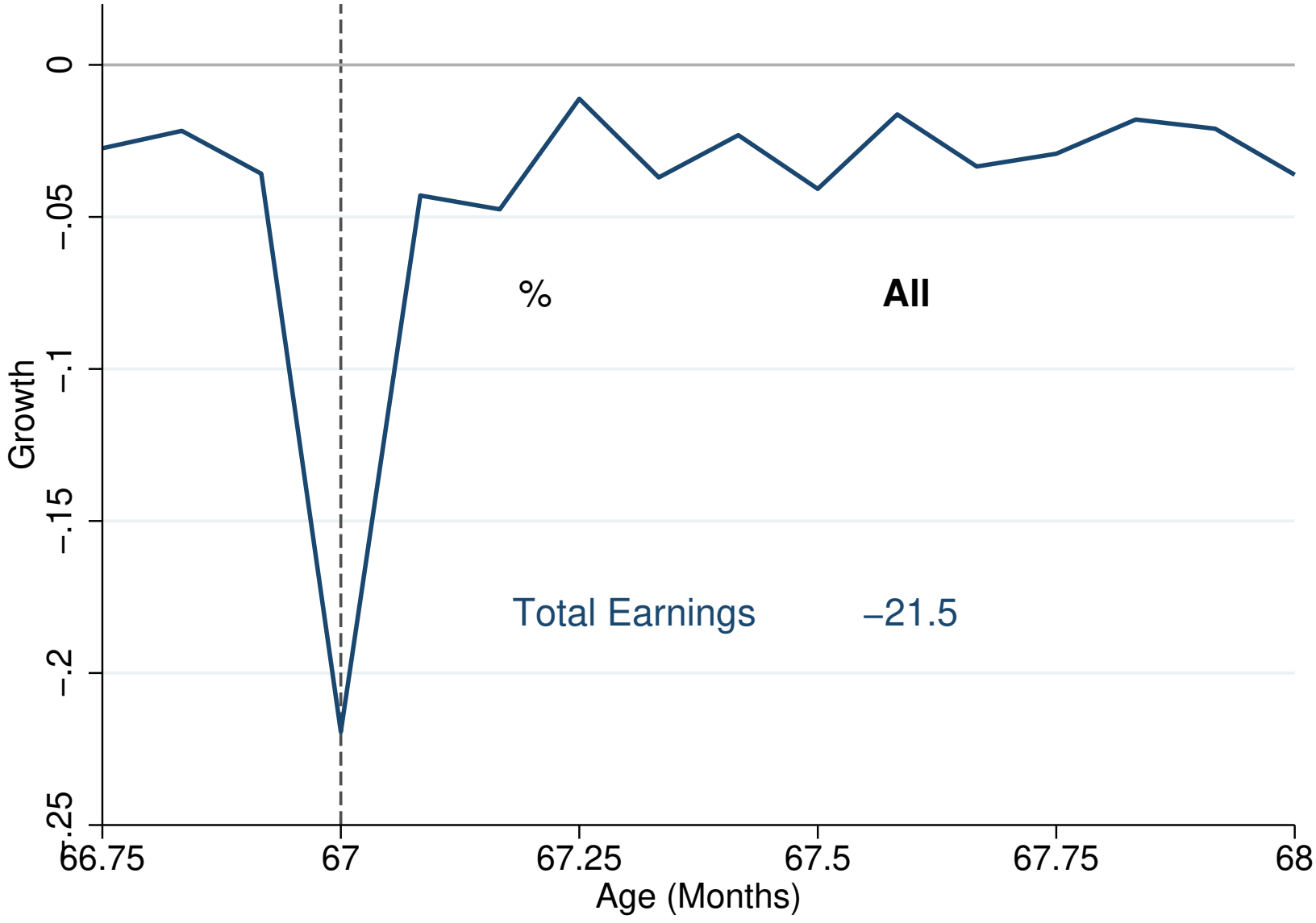
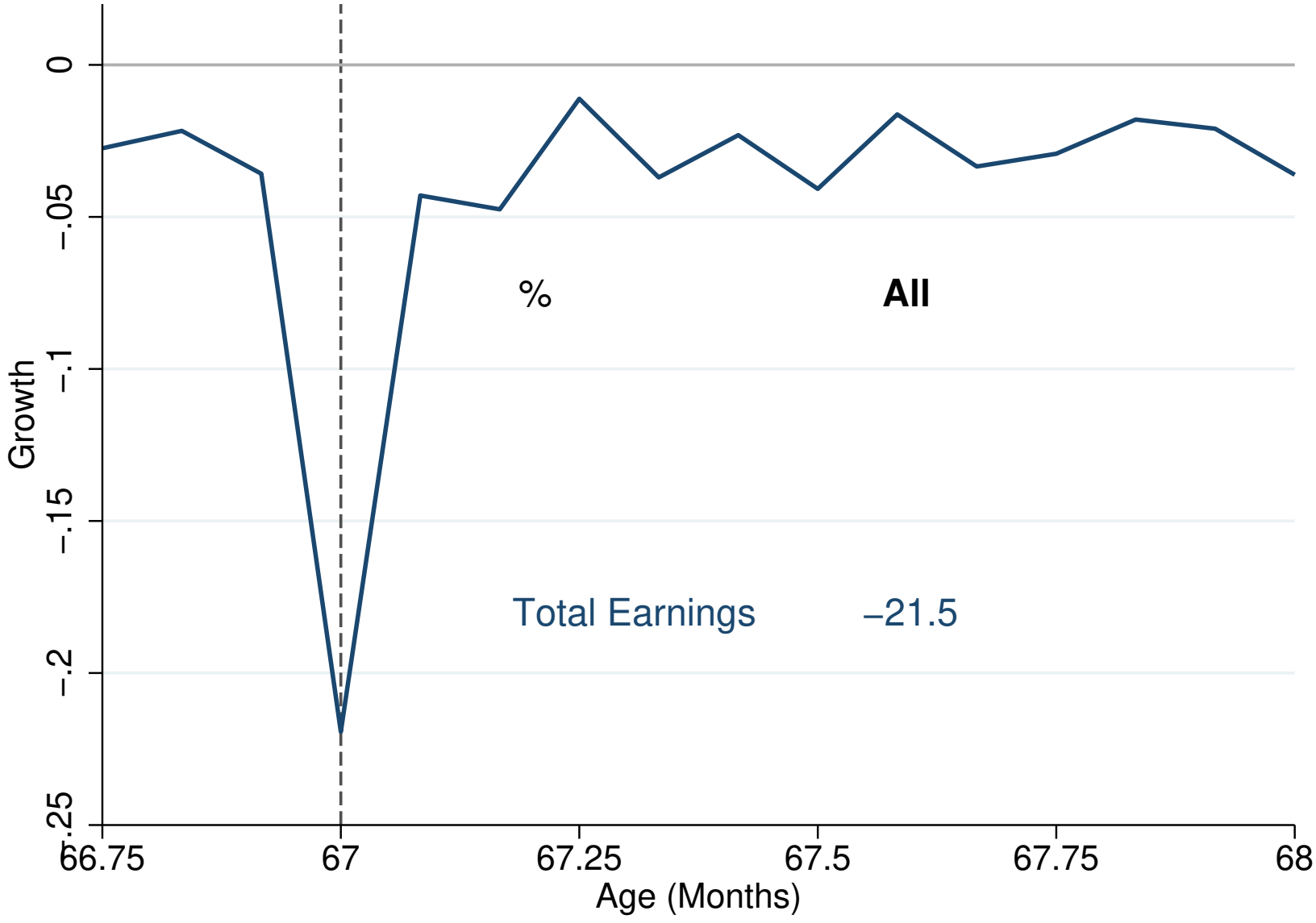


Earnings p.c.: Int + Ext Margins

$$\frac{\Delta(\bar{y}E)}{\bar{y}E} \approx \frac{\Delta\bar{y}}{\bar{y}} + \frac{\Delta E}{E}$$



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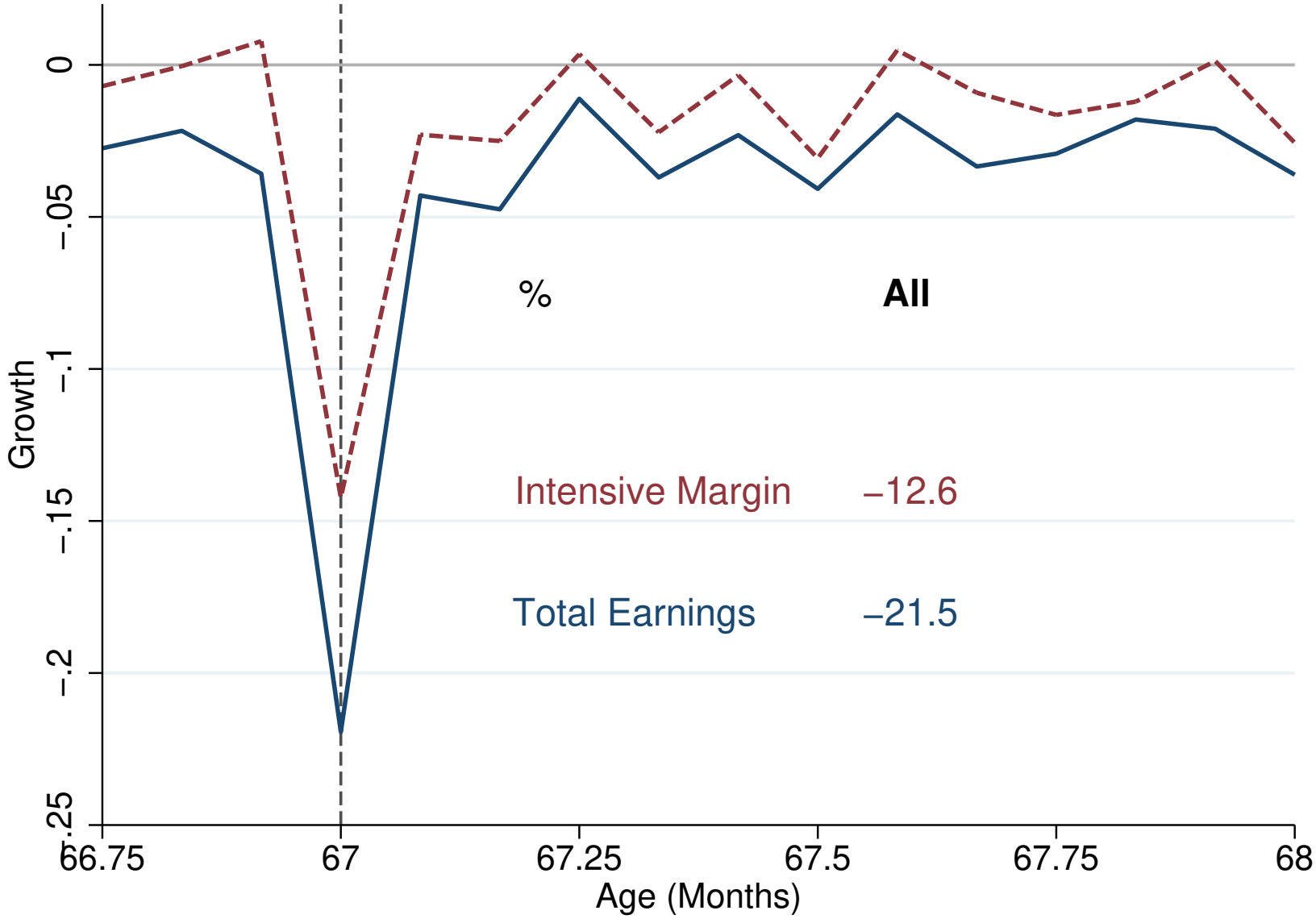

Earnings p.c.: Int + Ext Margins

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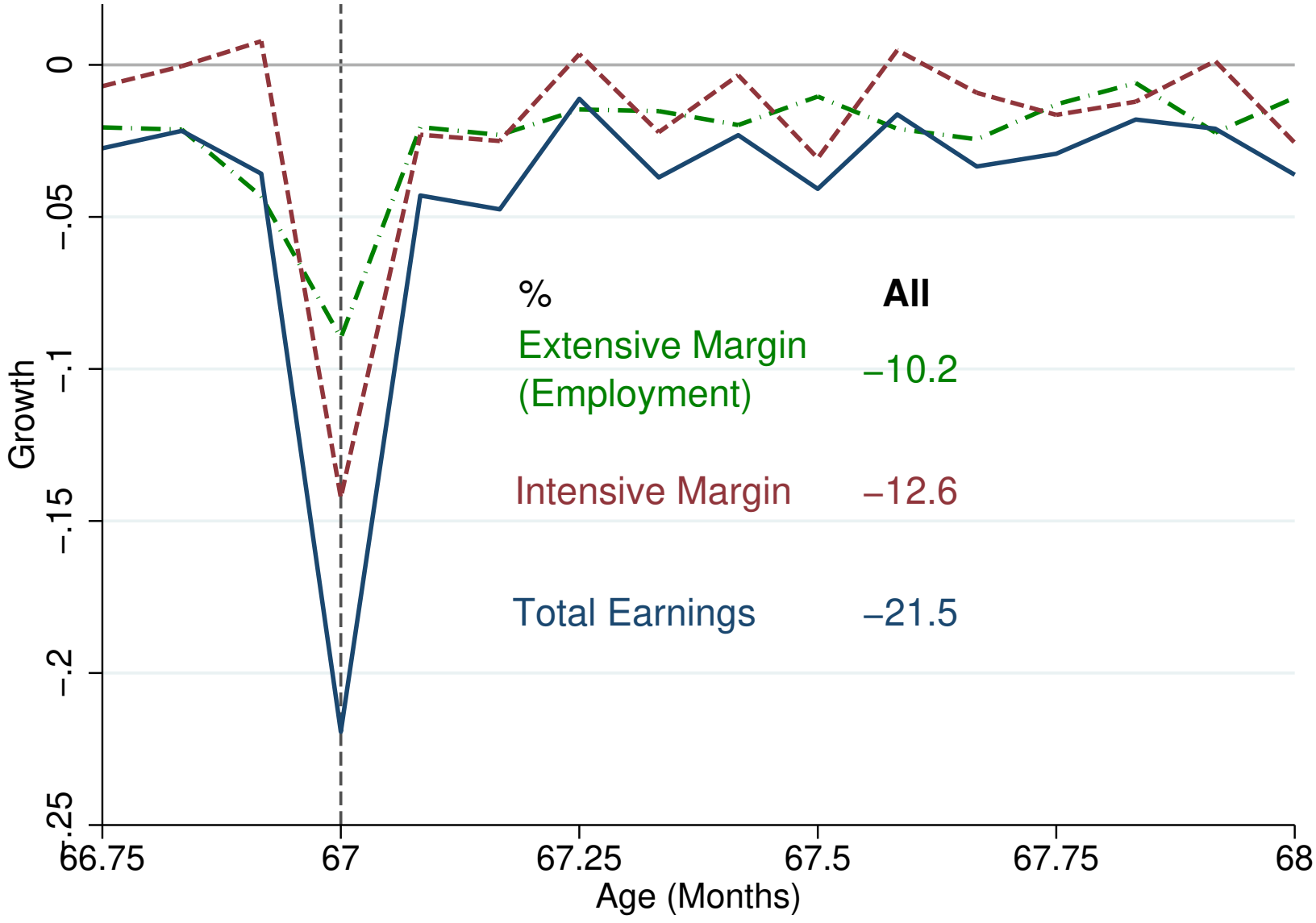
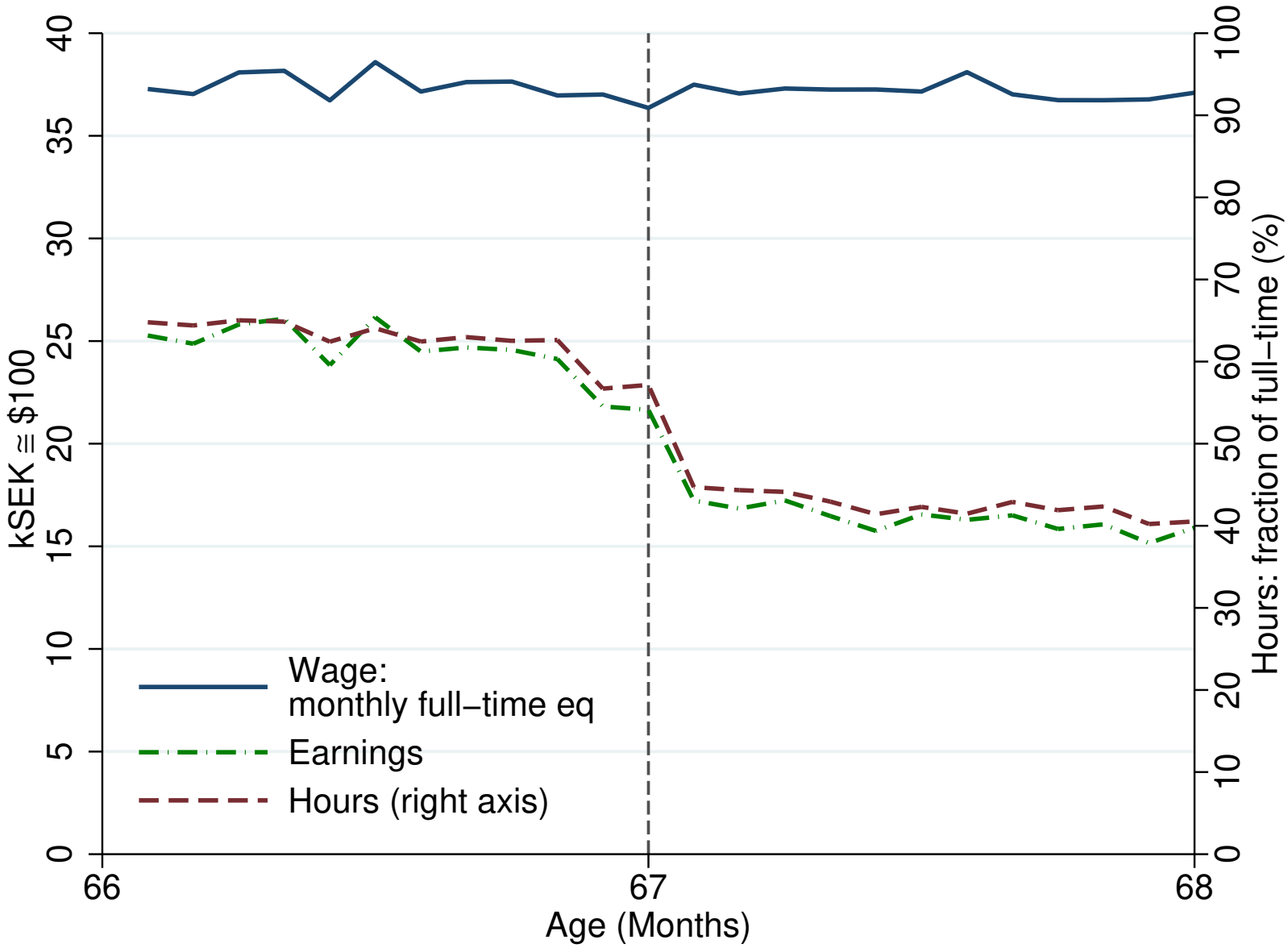


Panel Analysis of Stayers: Hours, Wage, Earnings

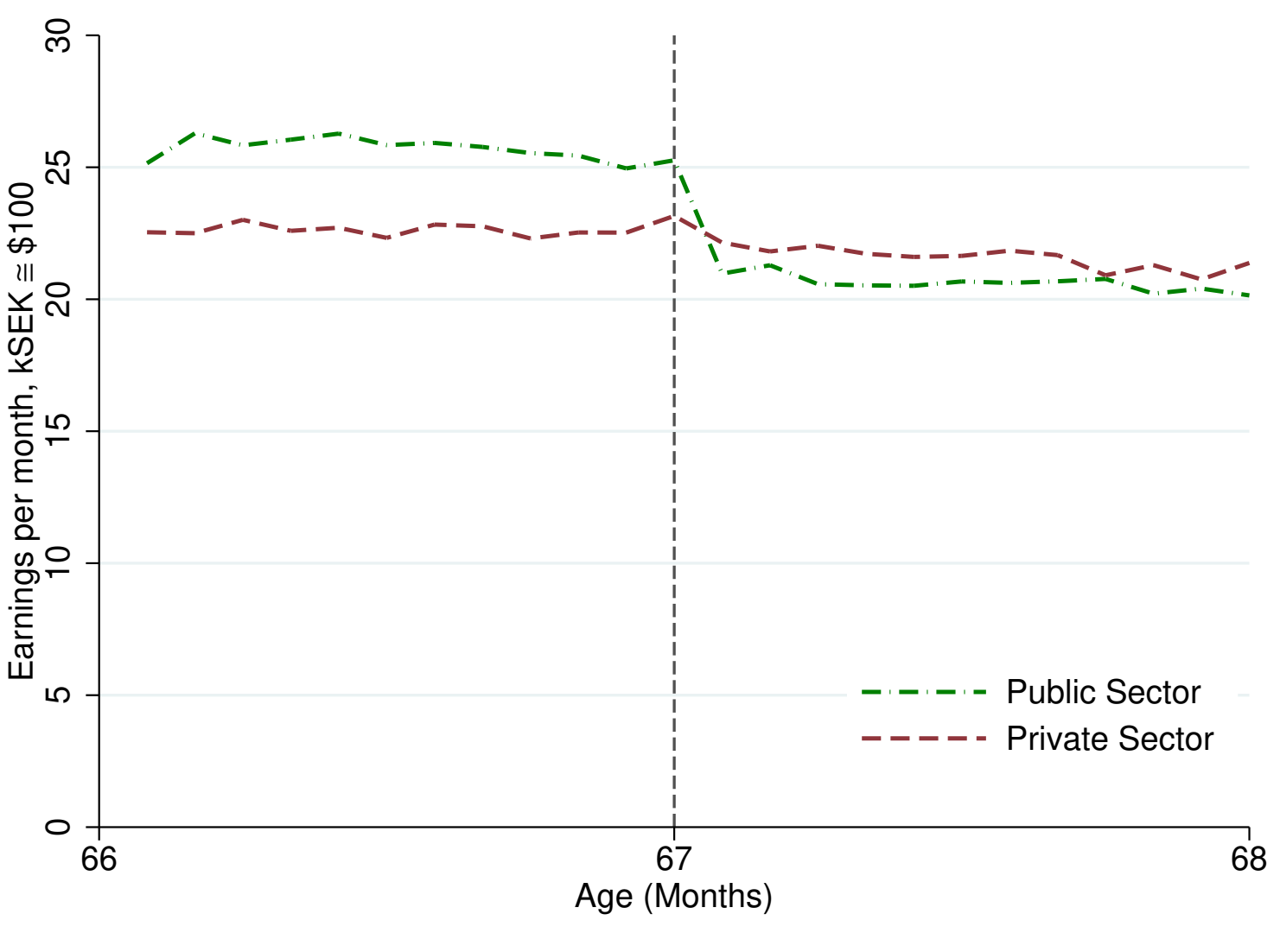
Structure Earnings Survey, Public Sector



Panel Analysis of Stayers:

Earnings

Now Back to Admin Data, incl Private

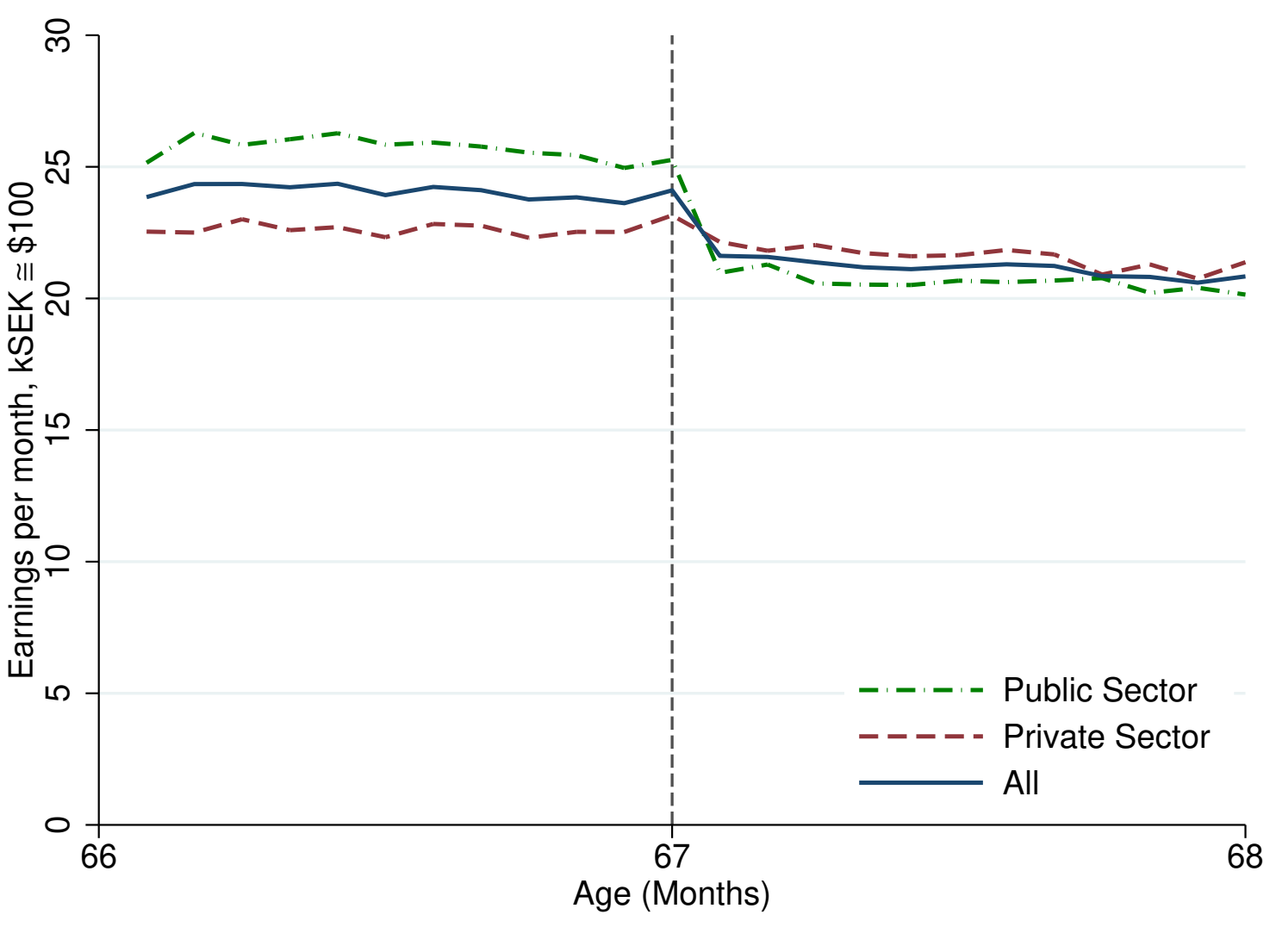


Stayers continuously employed with same employer between age 66 and 67 and 4 months; starting 67.5, only stayers' outcomes.

Panel Analysis of Stayers:

Earnings

Now Back to Admin Data, incl Private

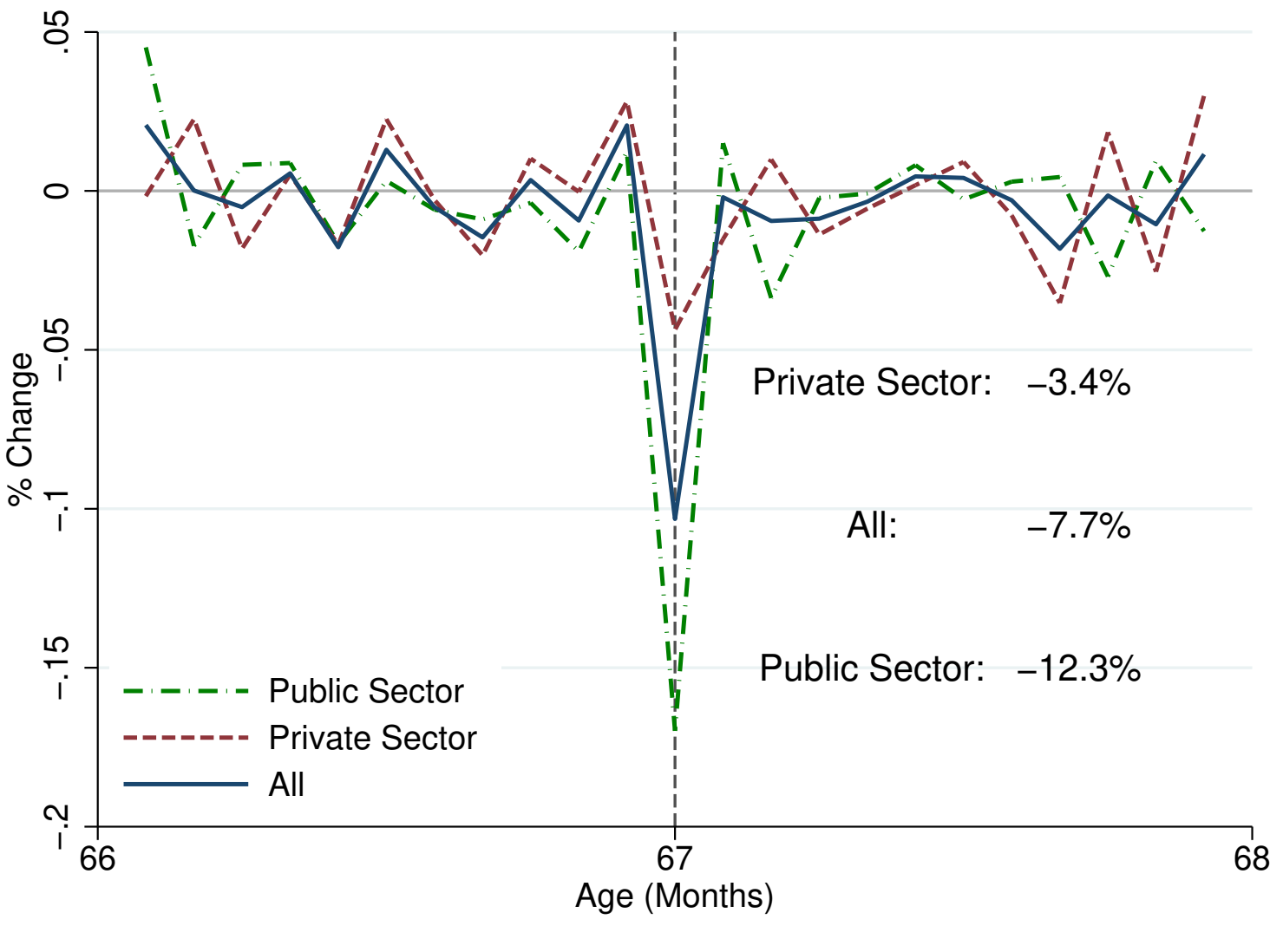


Stayers continuously employed with same employer between age 66 and 67 and 4 months; starting 67.5, only stayers' outcomes.

Panel Analysis of Stayers:

Earnings Growth

Now Back to Admin Data, incl Private

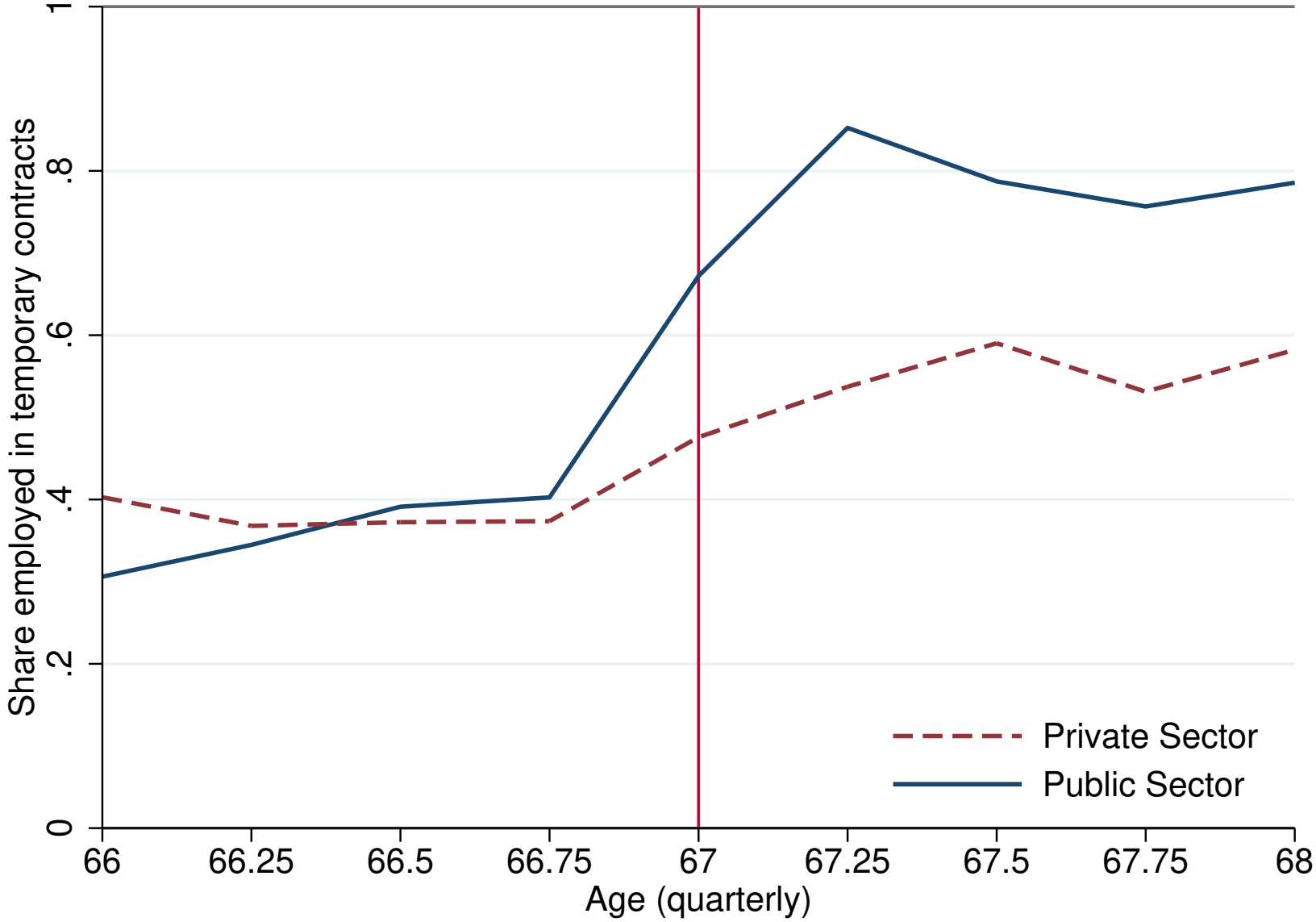


Stayers continuously employed with same employer between age 66 and 67 and 4 months; starting 67.5, only stayers' outcomes.

Panel Analysis of Stayers:

Temp Contracts

Labor Force Survey

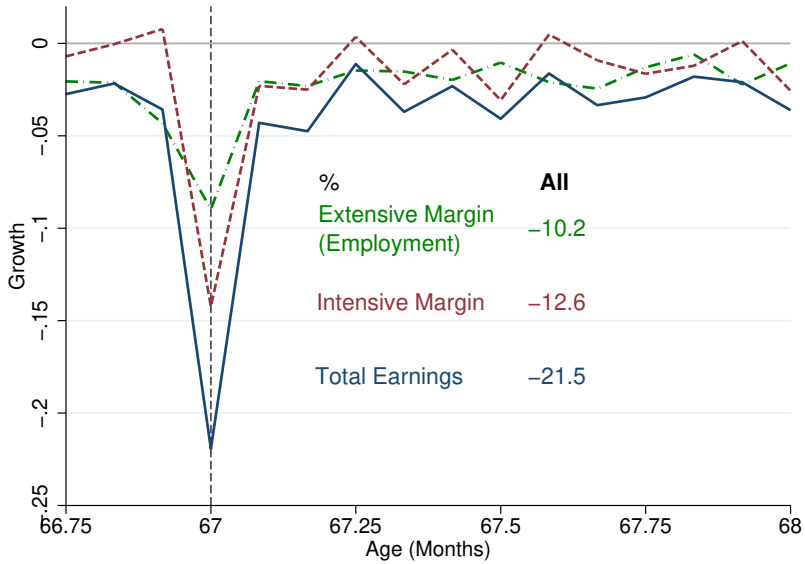


Earnings p.c. Decomp: **Professors Are Special!**

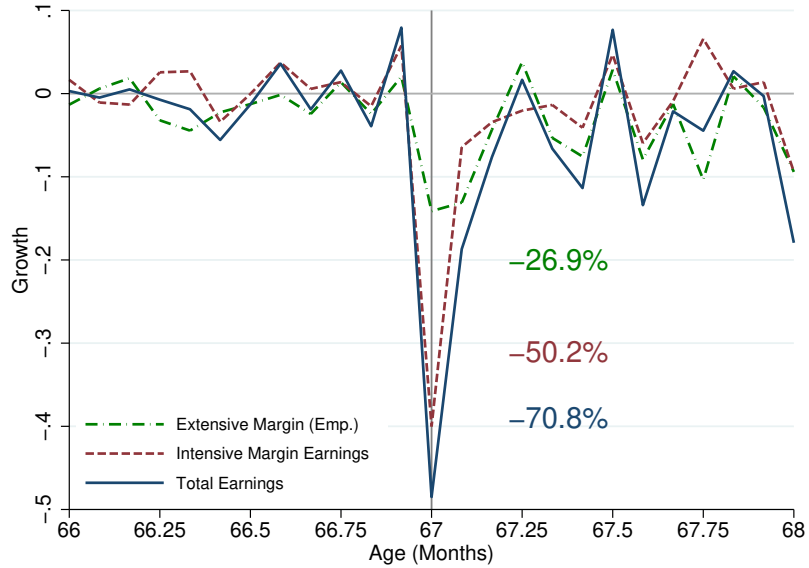
See: Ashenfelter and Card (2002)

Ashenfelter Card 2002

RECAP POPULATION:



PROFESSORS:



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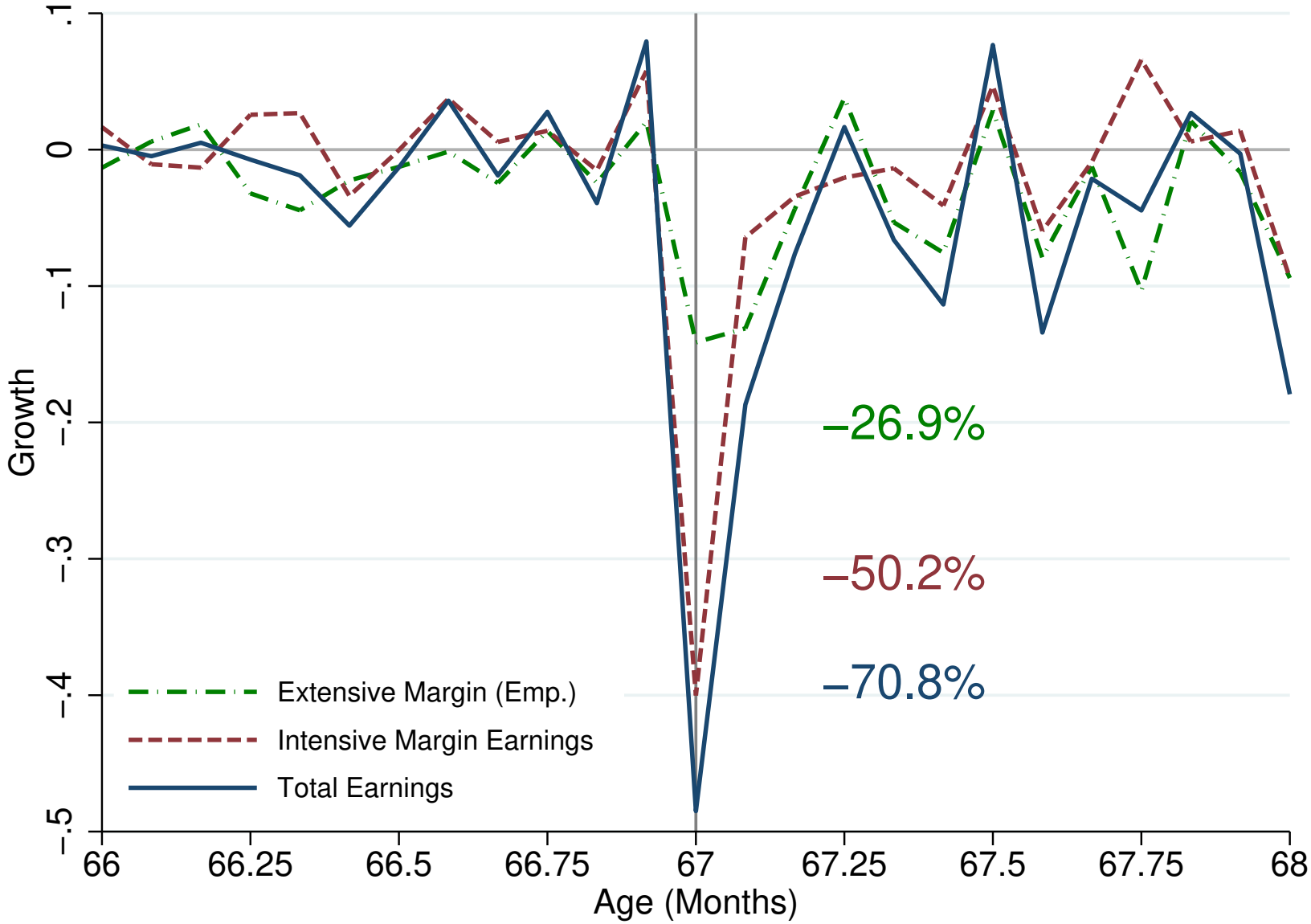
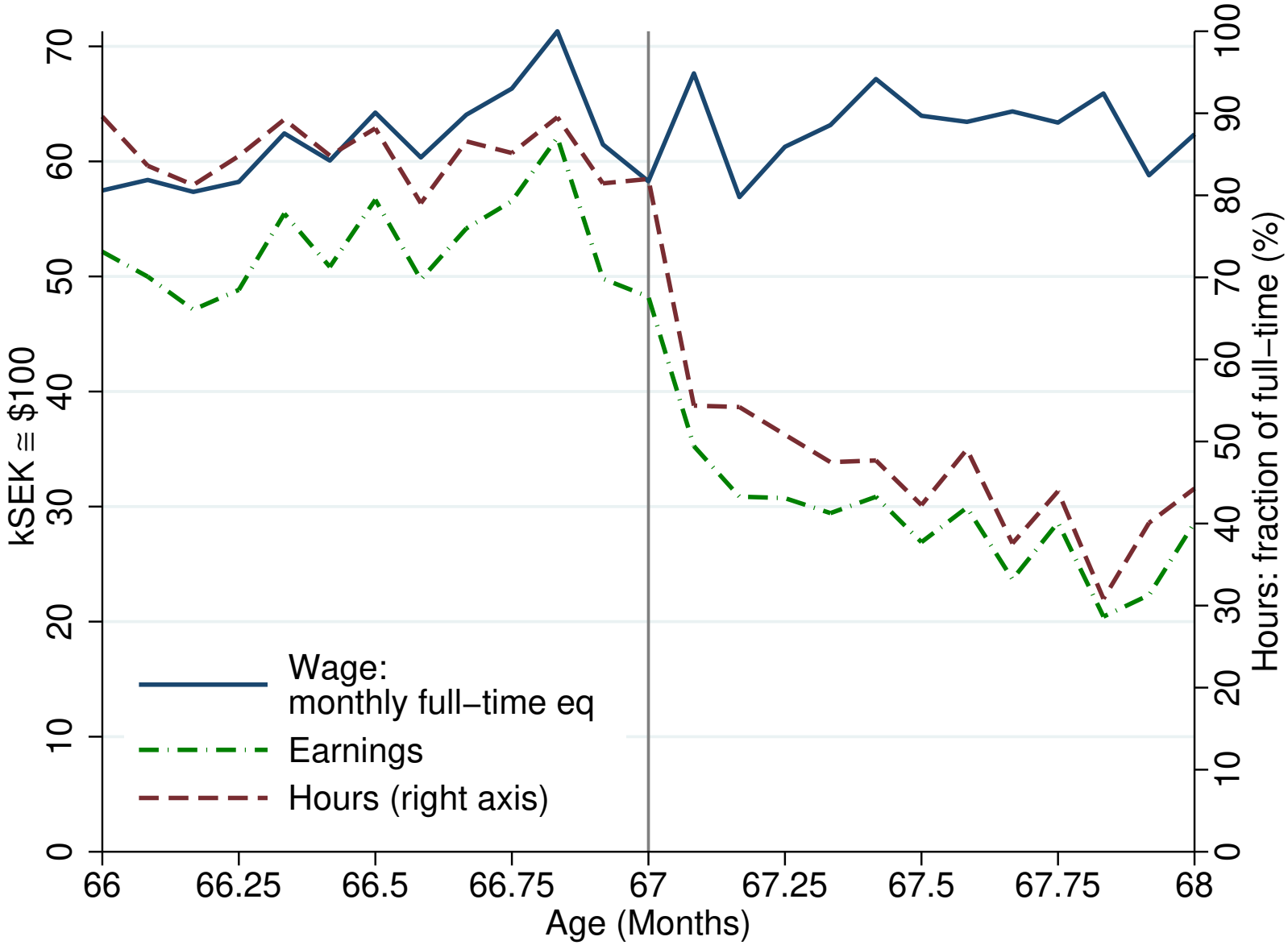


Professors: Hours/Wages/Earnings Among Stayers

Ashenfelter Card 2002



Conclusion

Have studied sharp age disc. eliminating strong EPL for older Swedes

$\Leftrightarrow$ **Clean identification**: effects of "mandatory retirement" policies

Find clear effect on quantities—zero wage effect

- 8-**10%** separation and employment effects; no hiring effects
- 22% earnings p.c. effect

$\Rightarrow$ Novel intensive margin effects double standard separations effect

- Compliers: public sector, large firms, sick, high earners, high tenure

10%—as a small number:

- Swedish older workers' high e-pop not driven by strong EPL
- Few Swedish older workers are "deadwood"—firms happy to keep them employed w/ or w/o EPL

10%—as a large number:

- Extending EPL as a powerful policy (compared to tax incentives)
  - Caveat: redistribution (from firms to workers) (at least ex post)
  - Caveat: untested potential equilibrium effects (e.g., younger workers)

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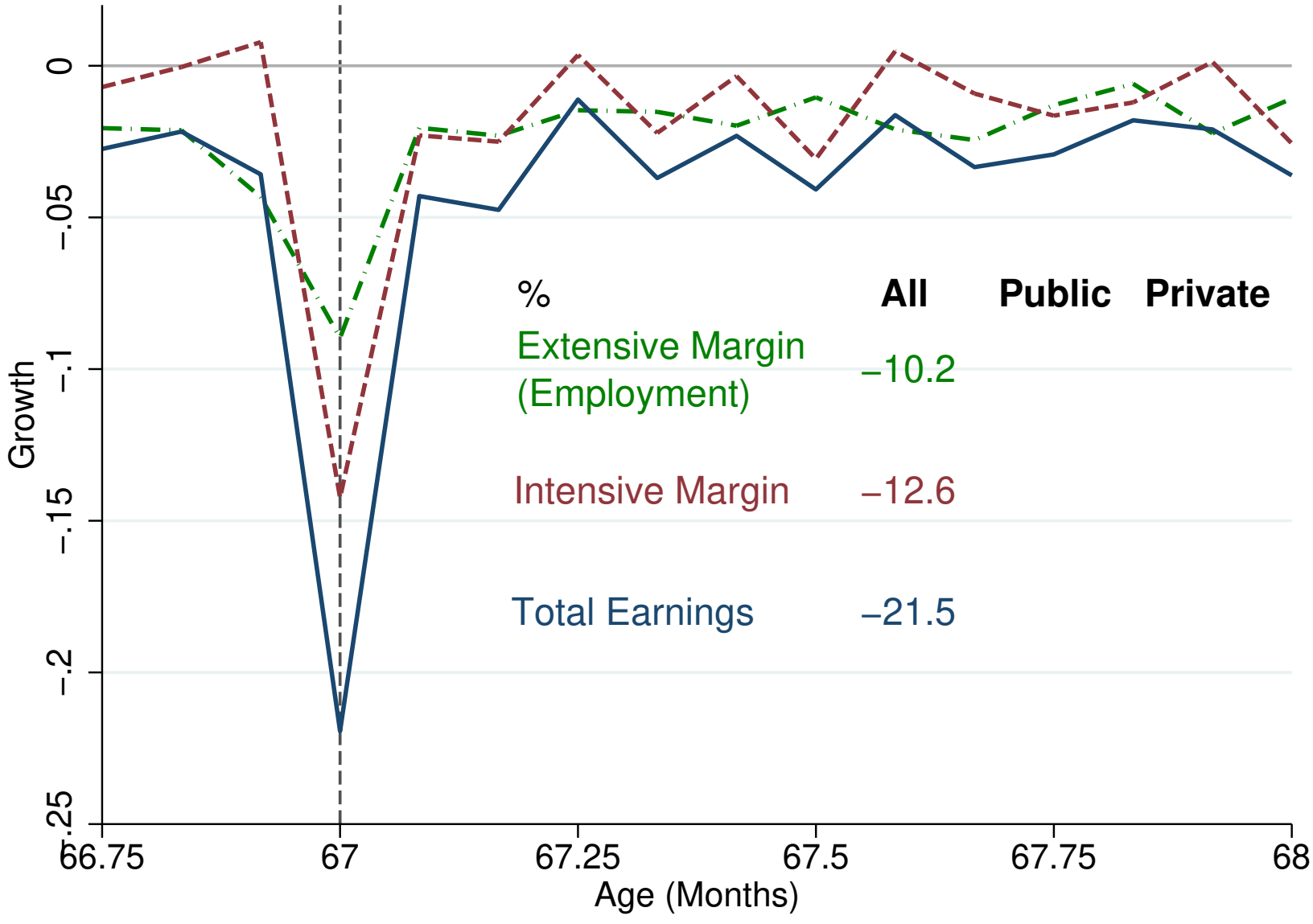
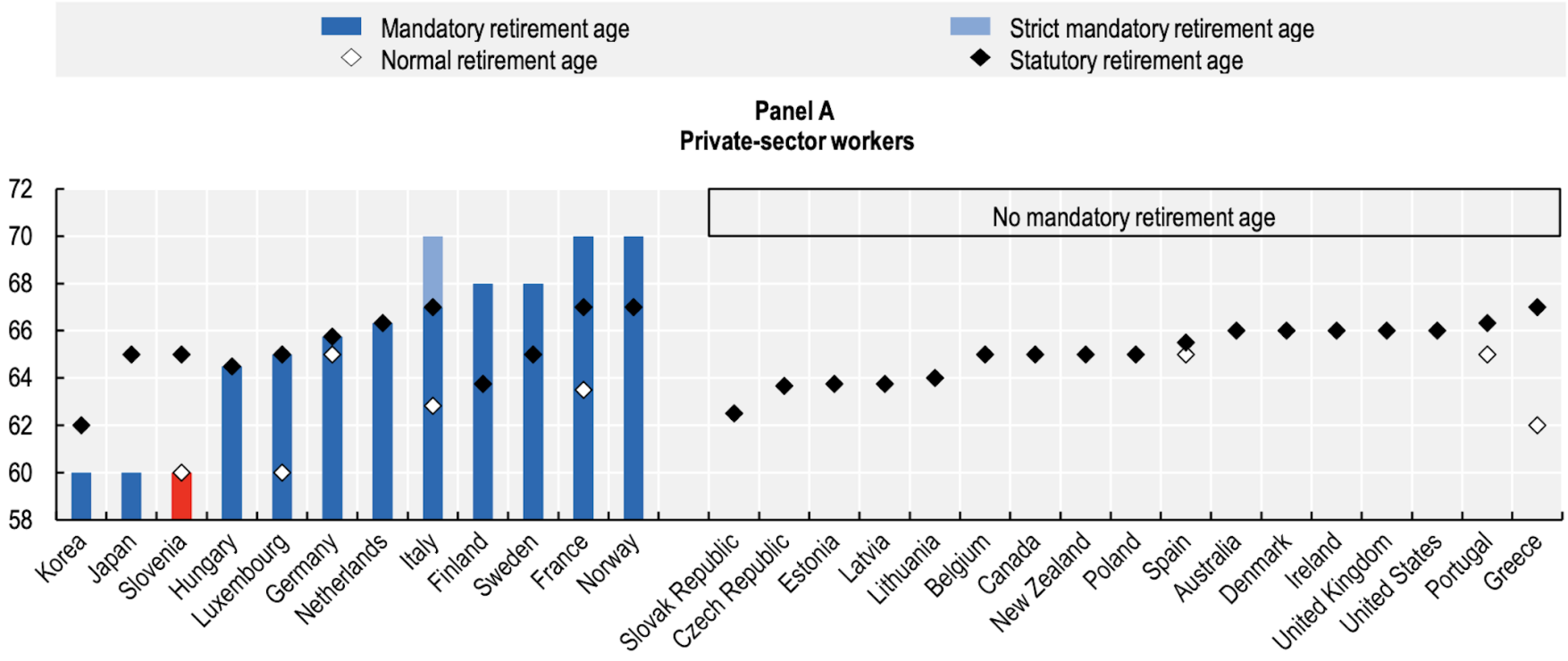
APPENDIX SLIDES

Earnings p.c. Decomp: Public vs. Private



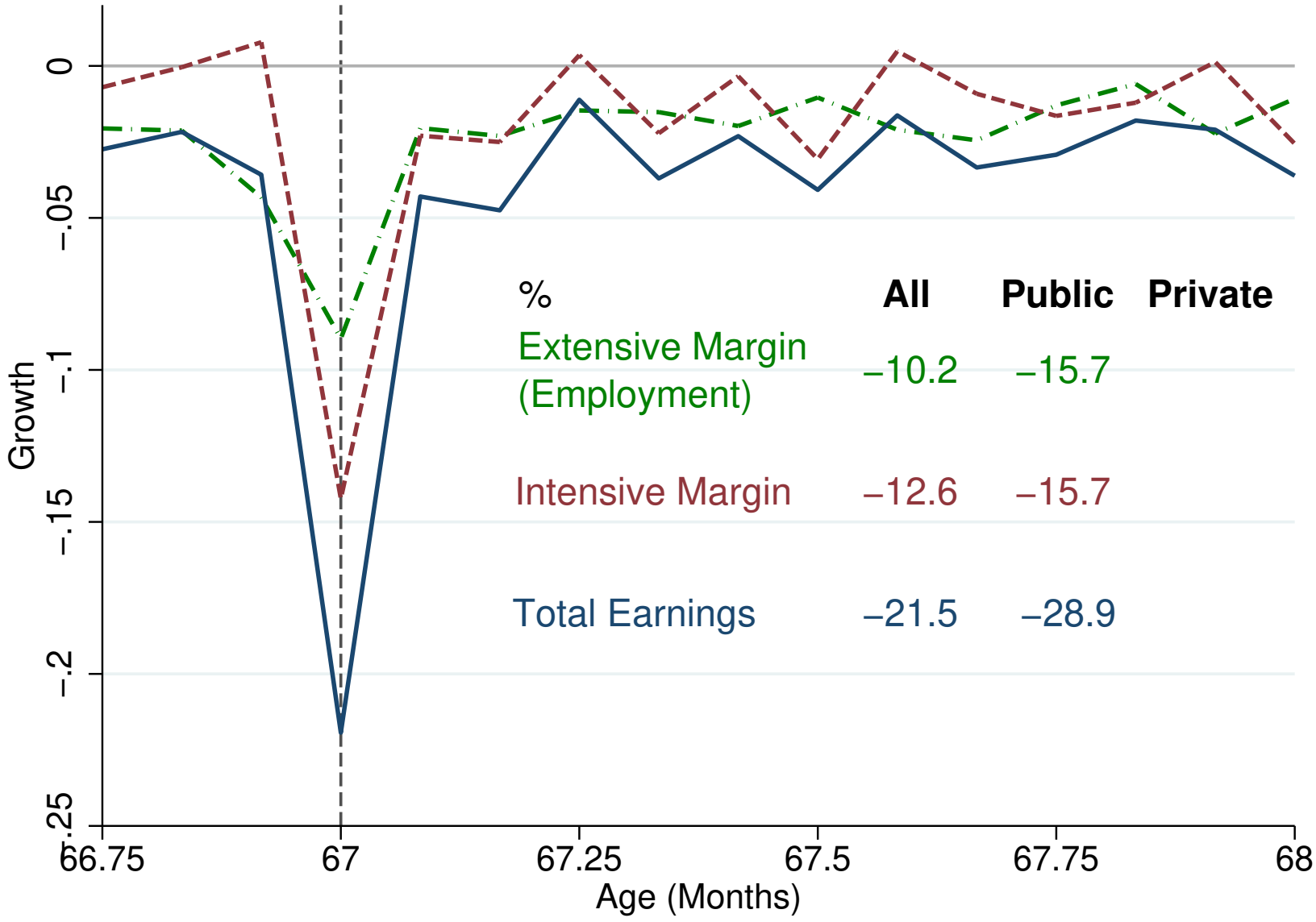
"Mandatory Retirement" Around the World (in progress)

Annex Figure 1.B.1. Mandatory retirement ages in OECD countries

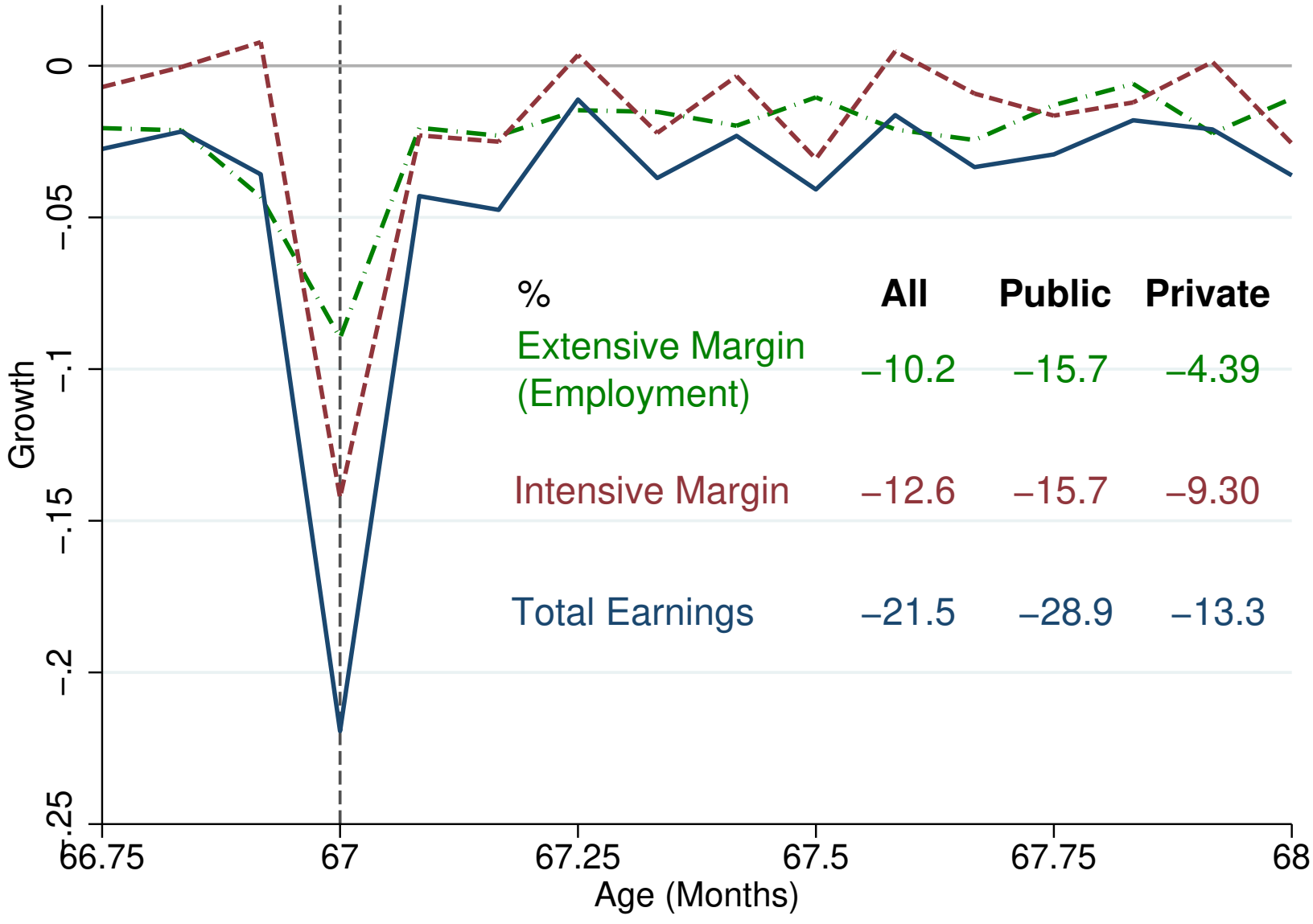


OECD 2022 – hidden gem! (our review and expansion in progress)

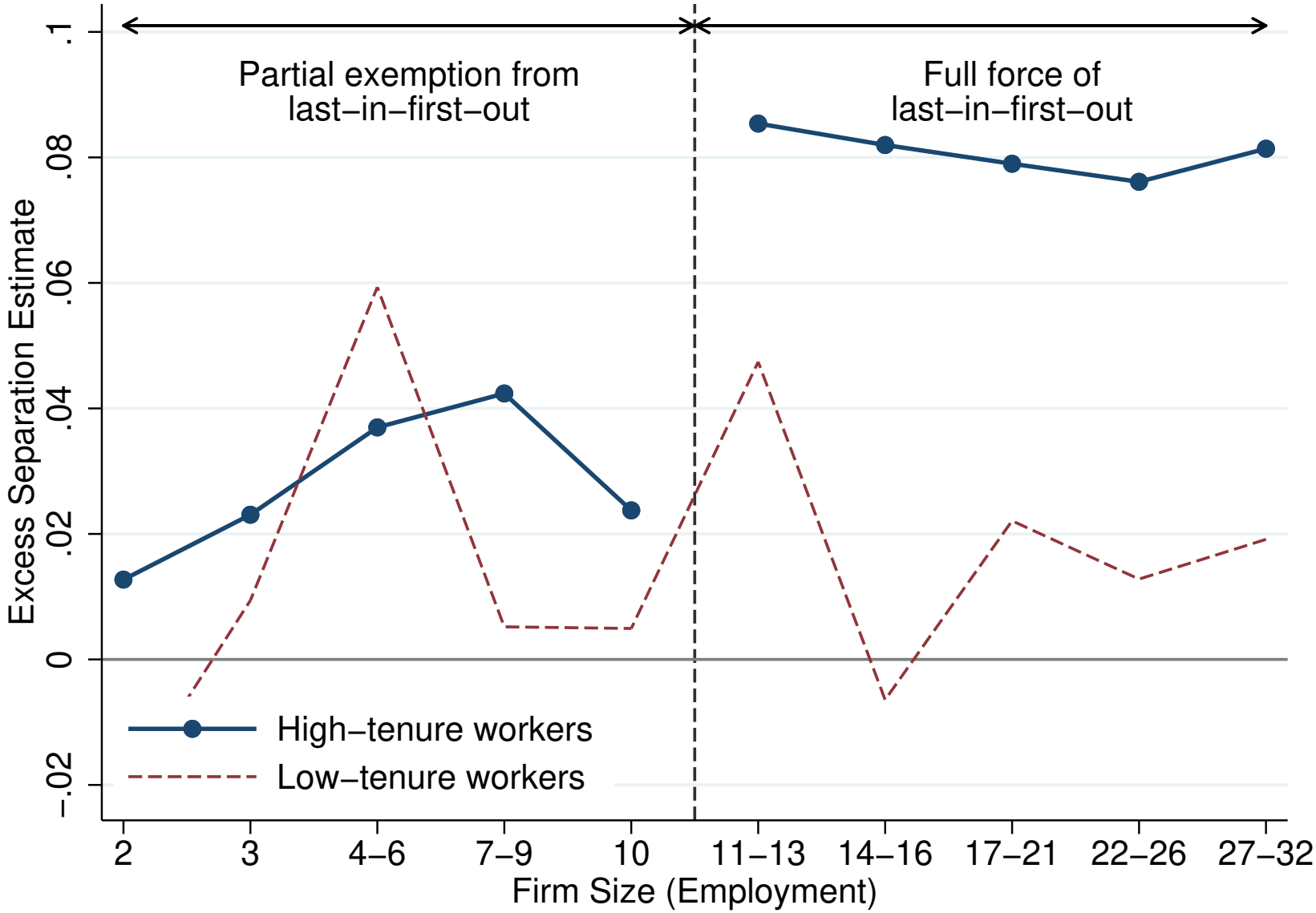
Earnings p.c. Decomp: Again, Large Public Effect



Earnings p.c. Decomp: Again, Small in Private

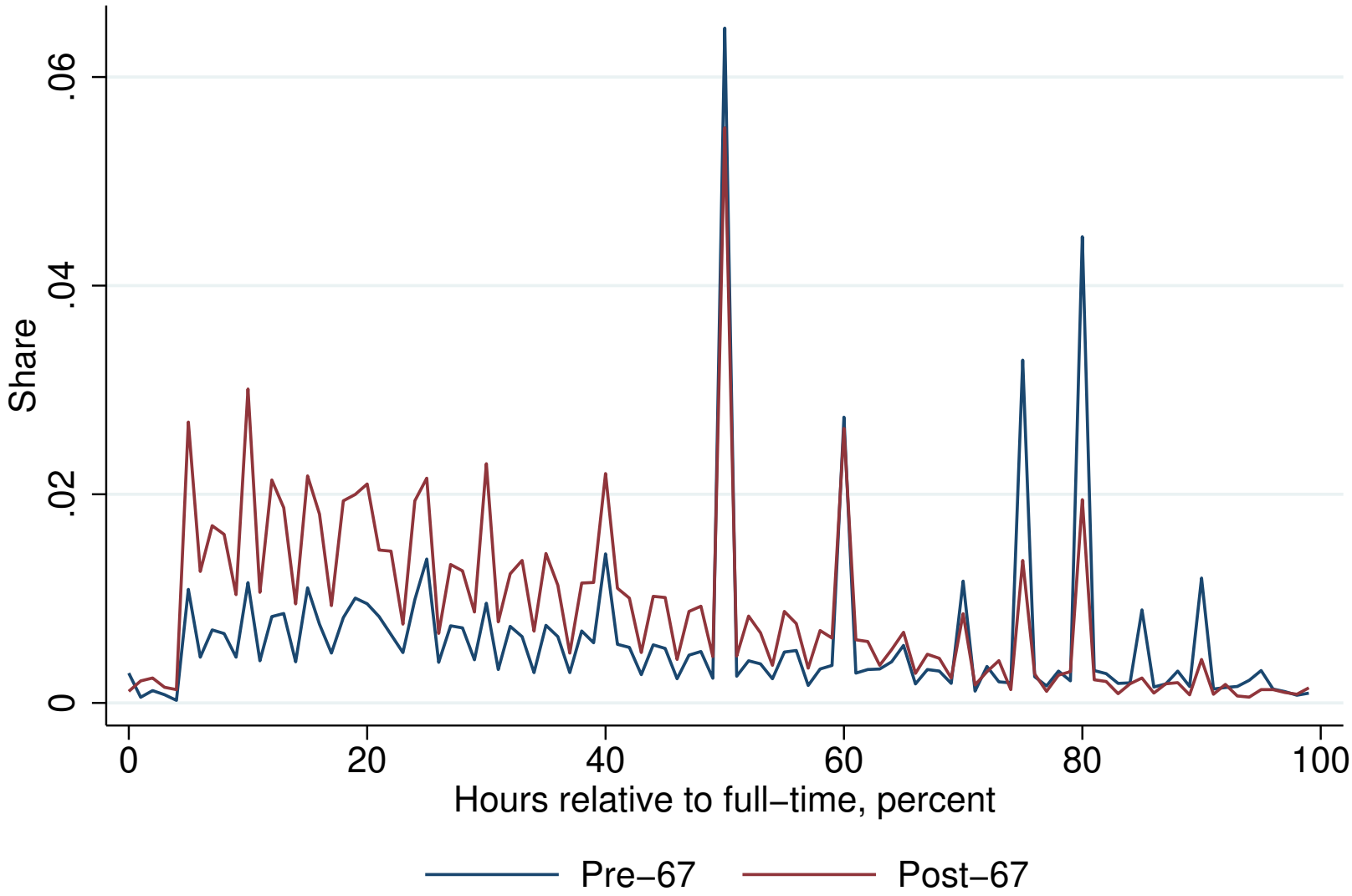


RD Spirit: Firm Size Cutoff for Life



Back

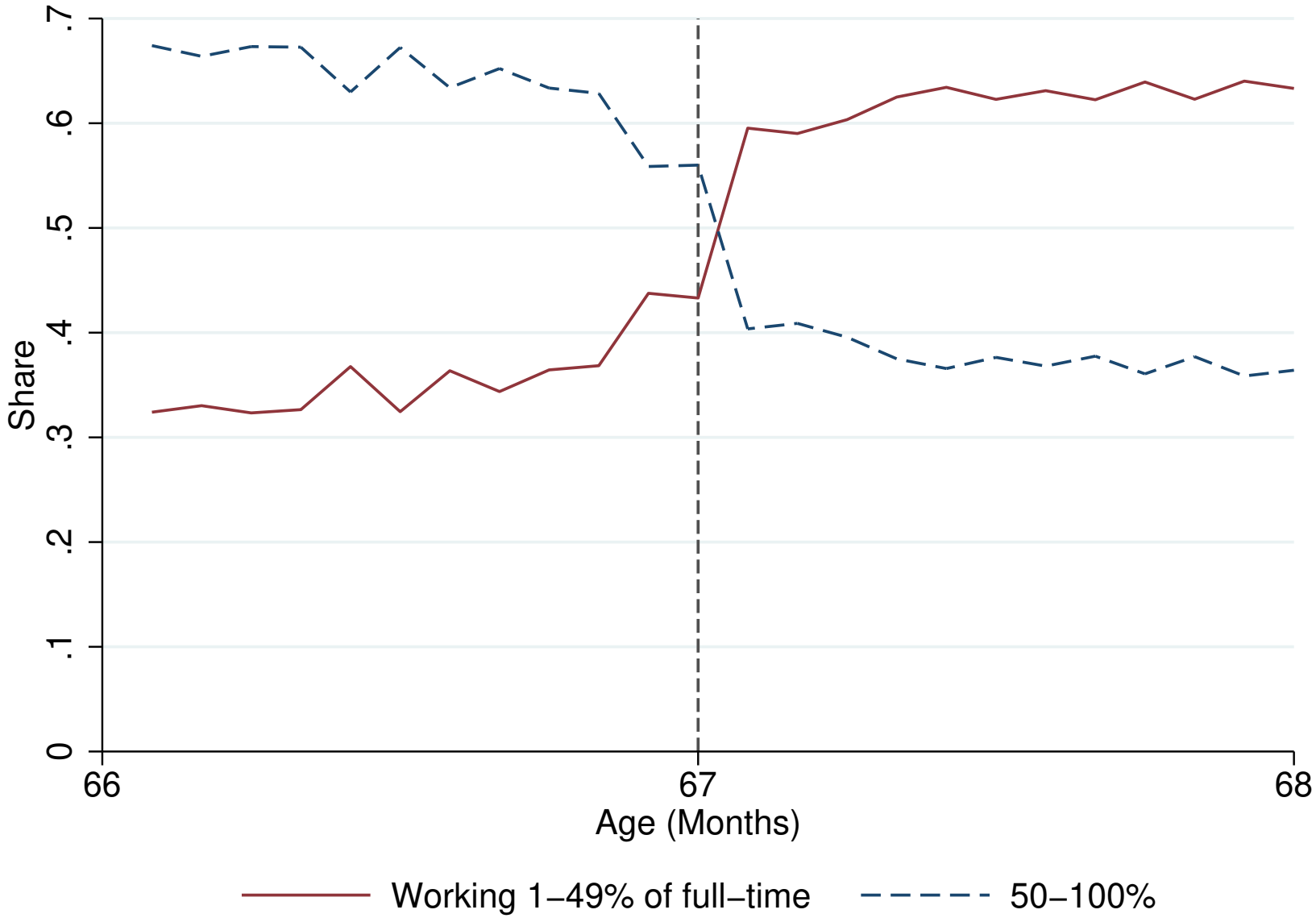
Contract Adjustment: Full-time to (< 50%) Part-time



Excluding full time

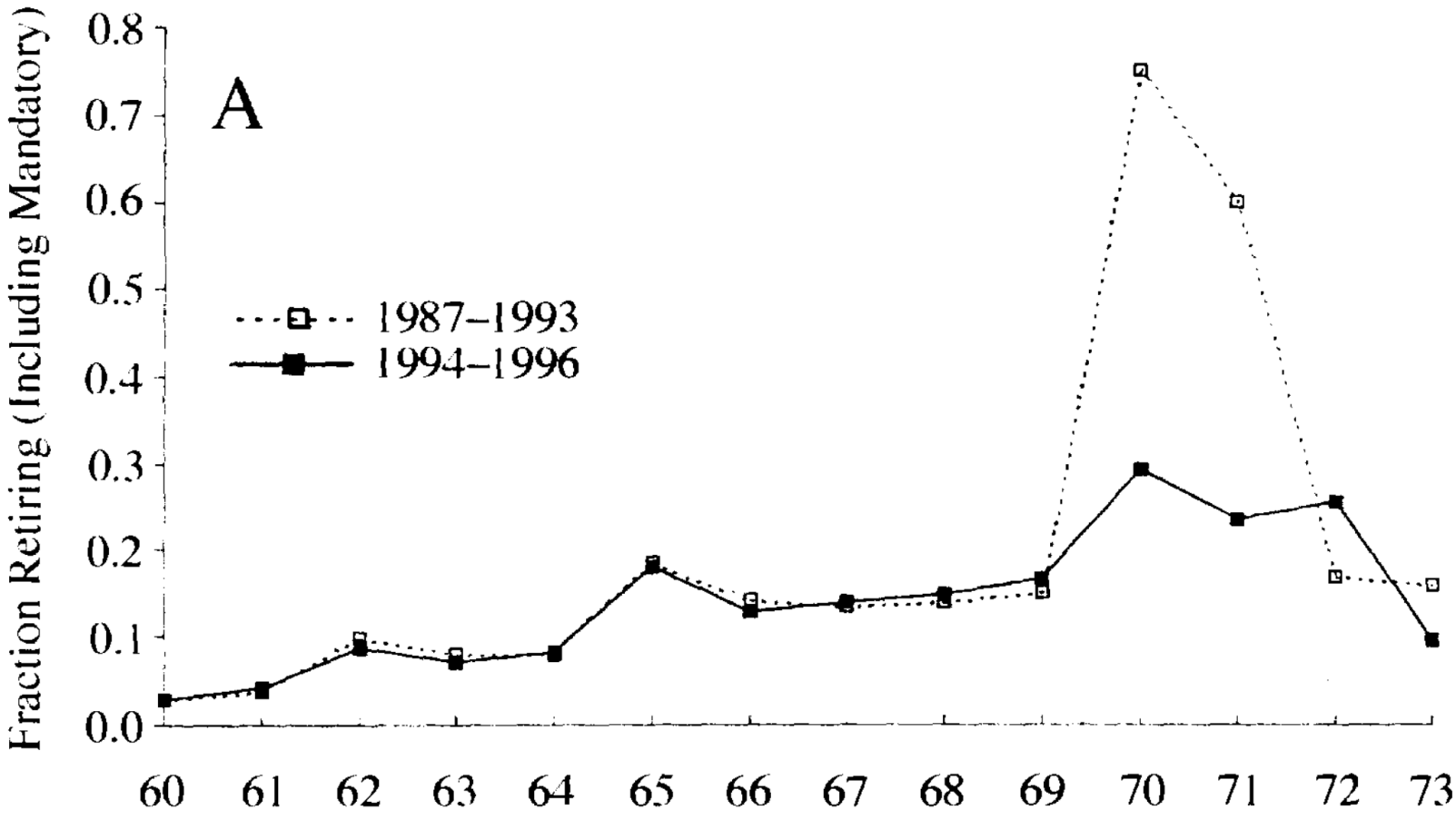
Histogram

Contract Adjustment: Hours Adjustment



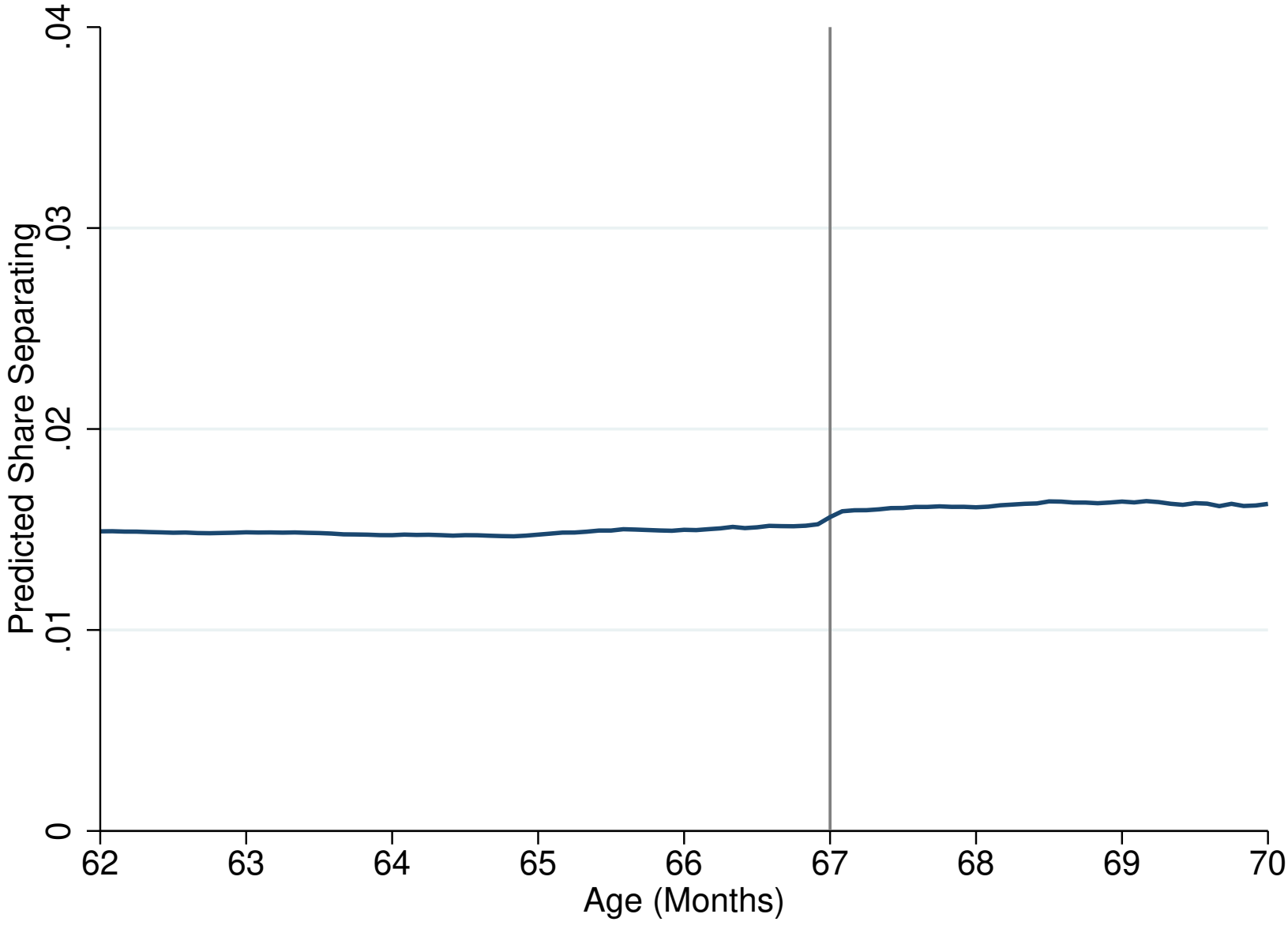
Back

US Prof's Losing Tenure at 70
Ashenfelter and Card (2002)

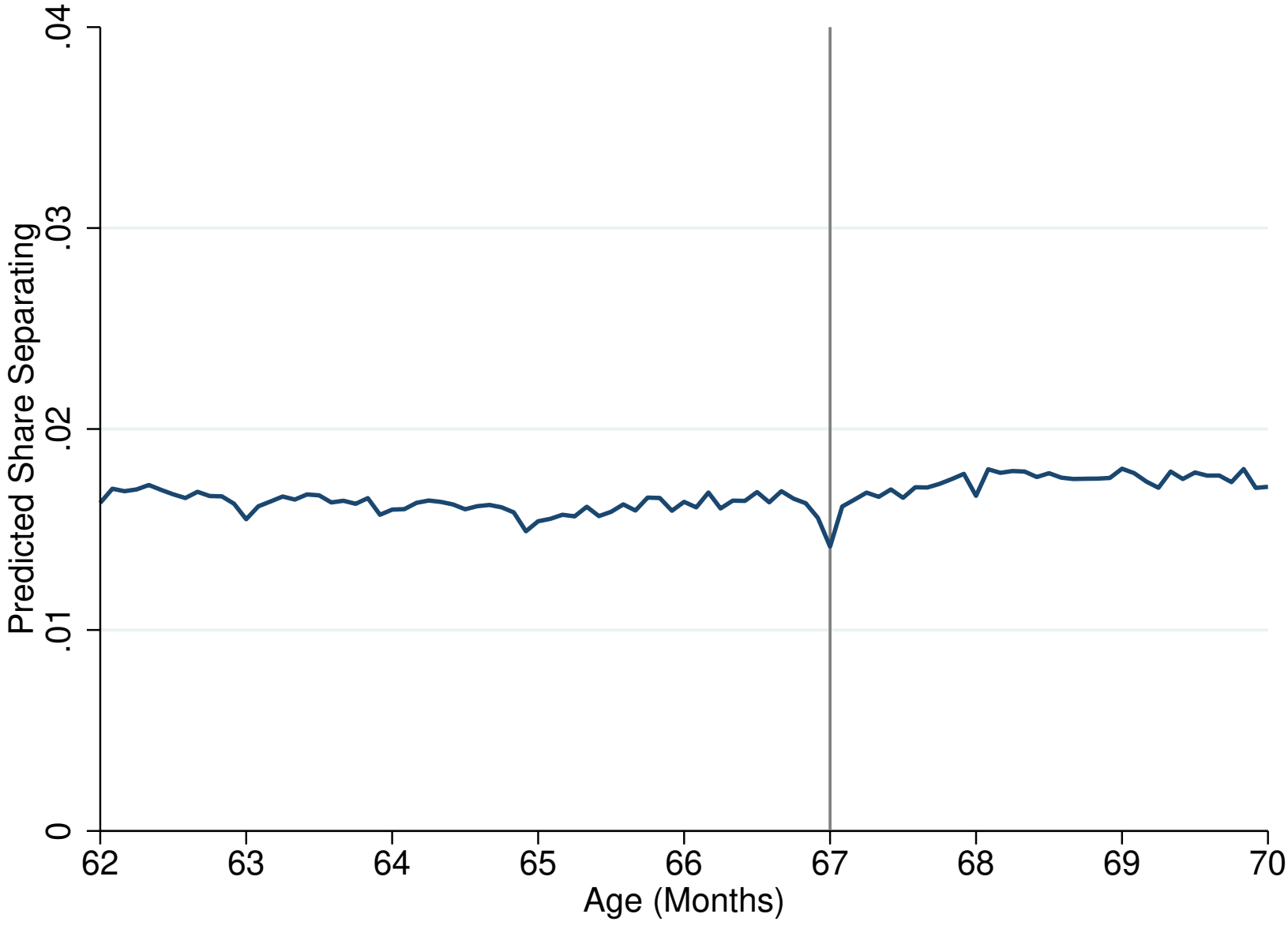


Back

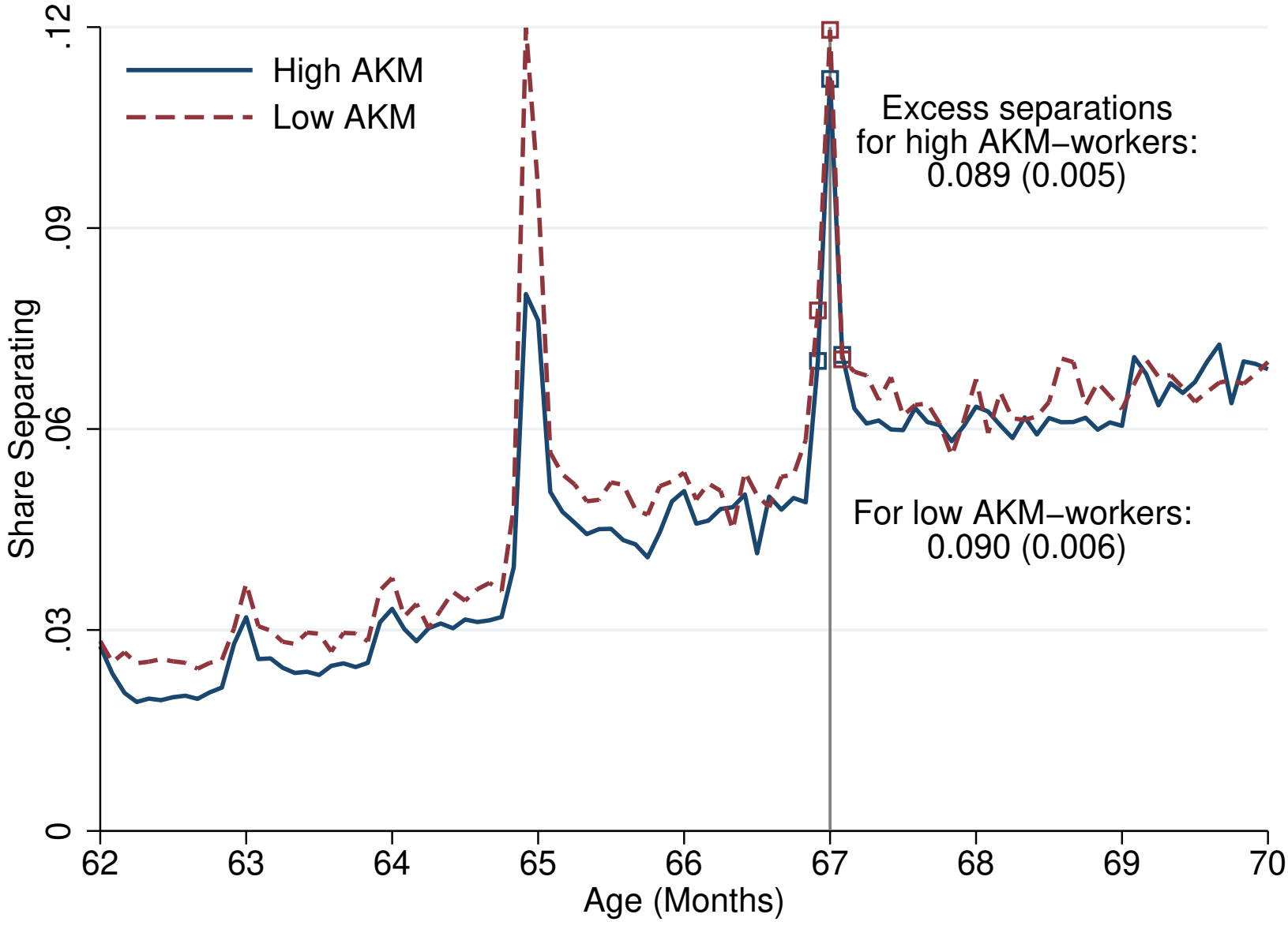
Comp. Effects: Pred Sep Rate of Stayers



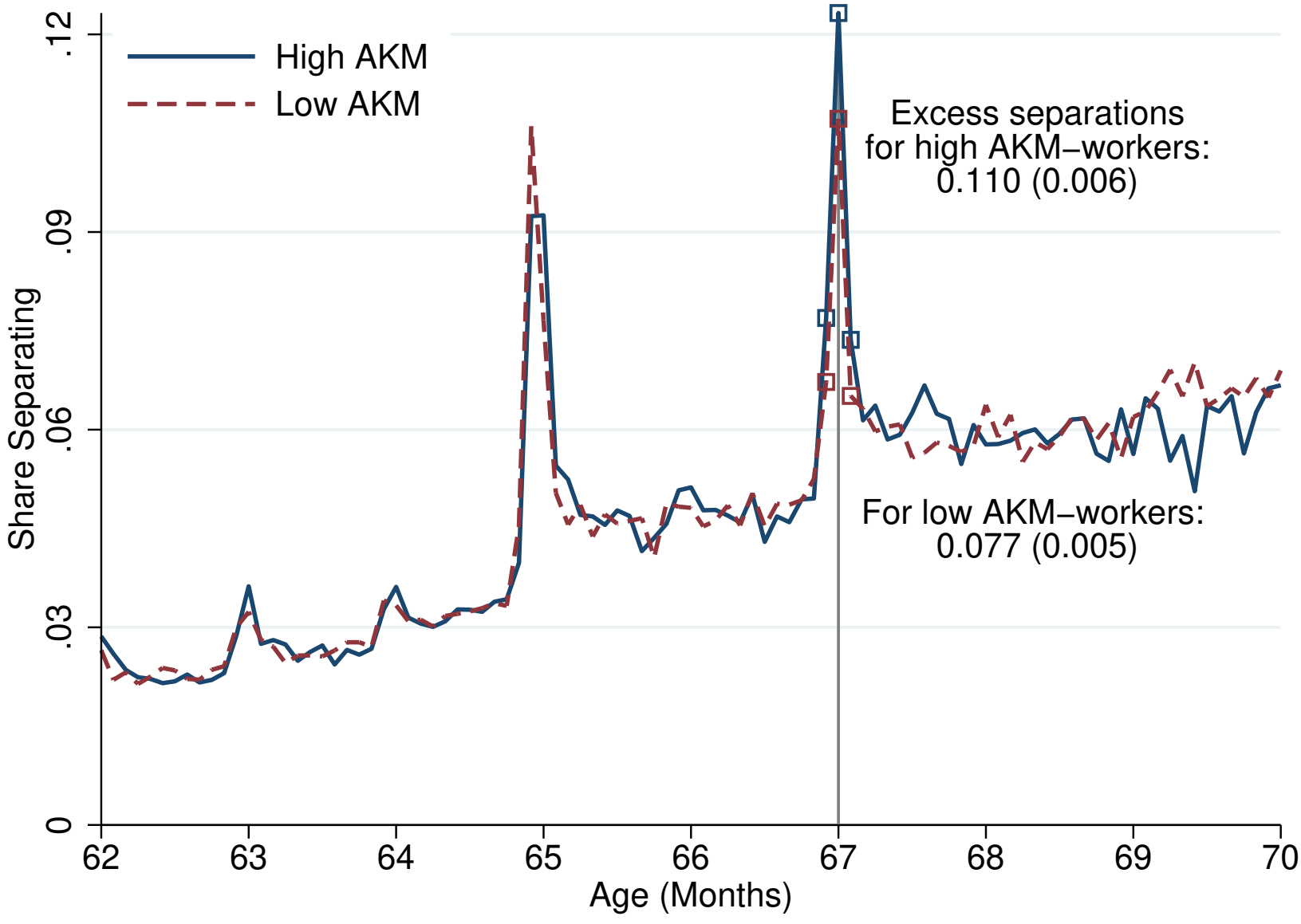
Comp. Effects: Pred Sep Rate of Separators



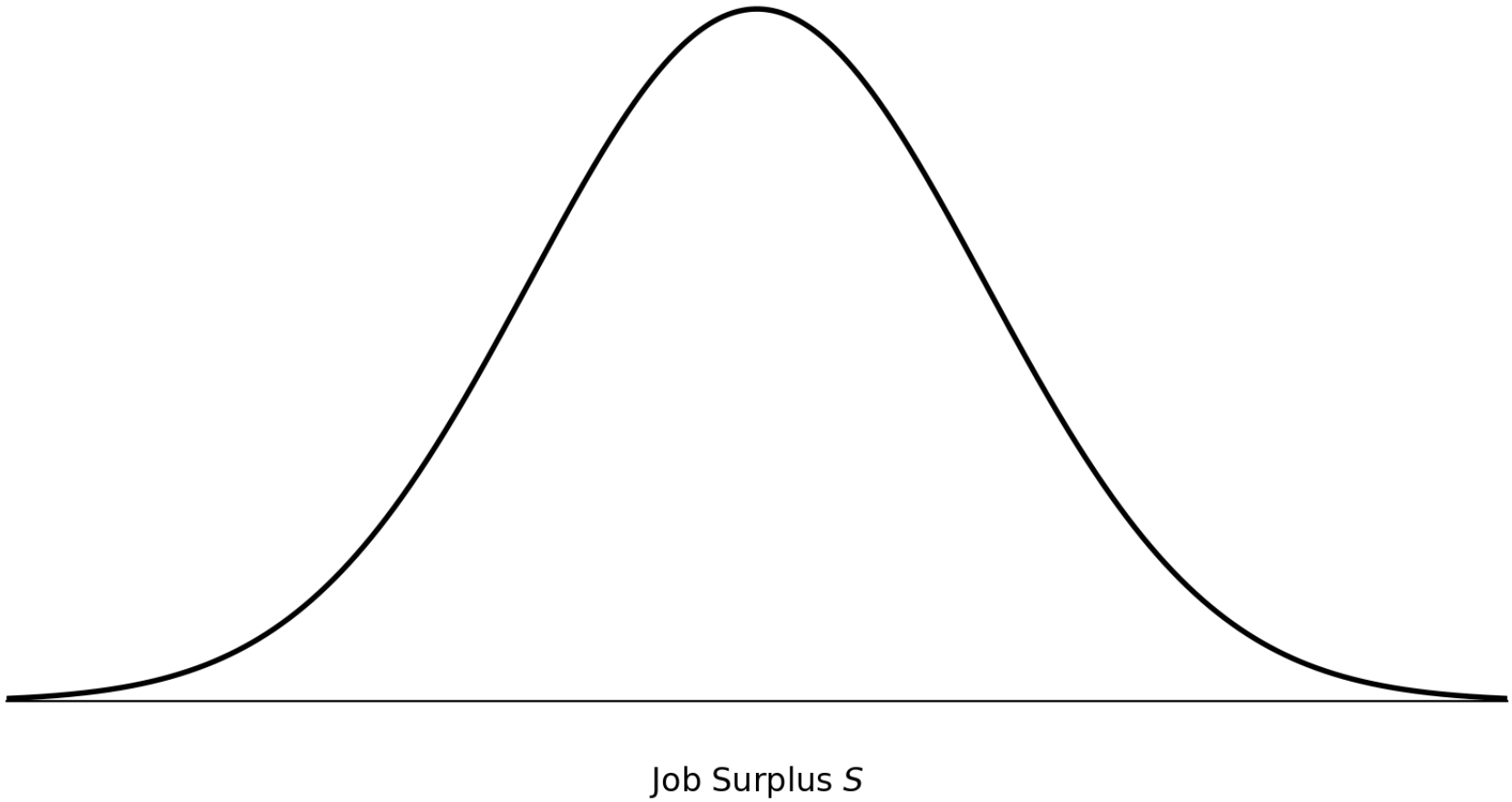
Compositional Effects: Worker AKM



Compositional Effects: Firm AKM



Simplest Possible Model: "Deadwood" Labor



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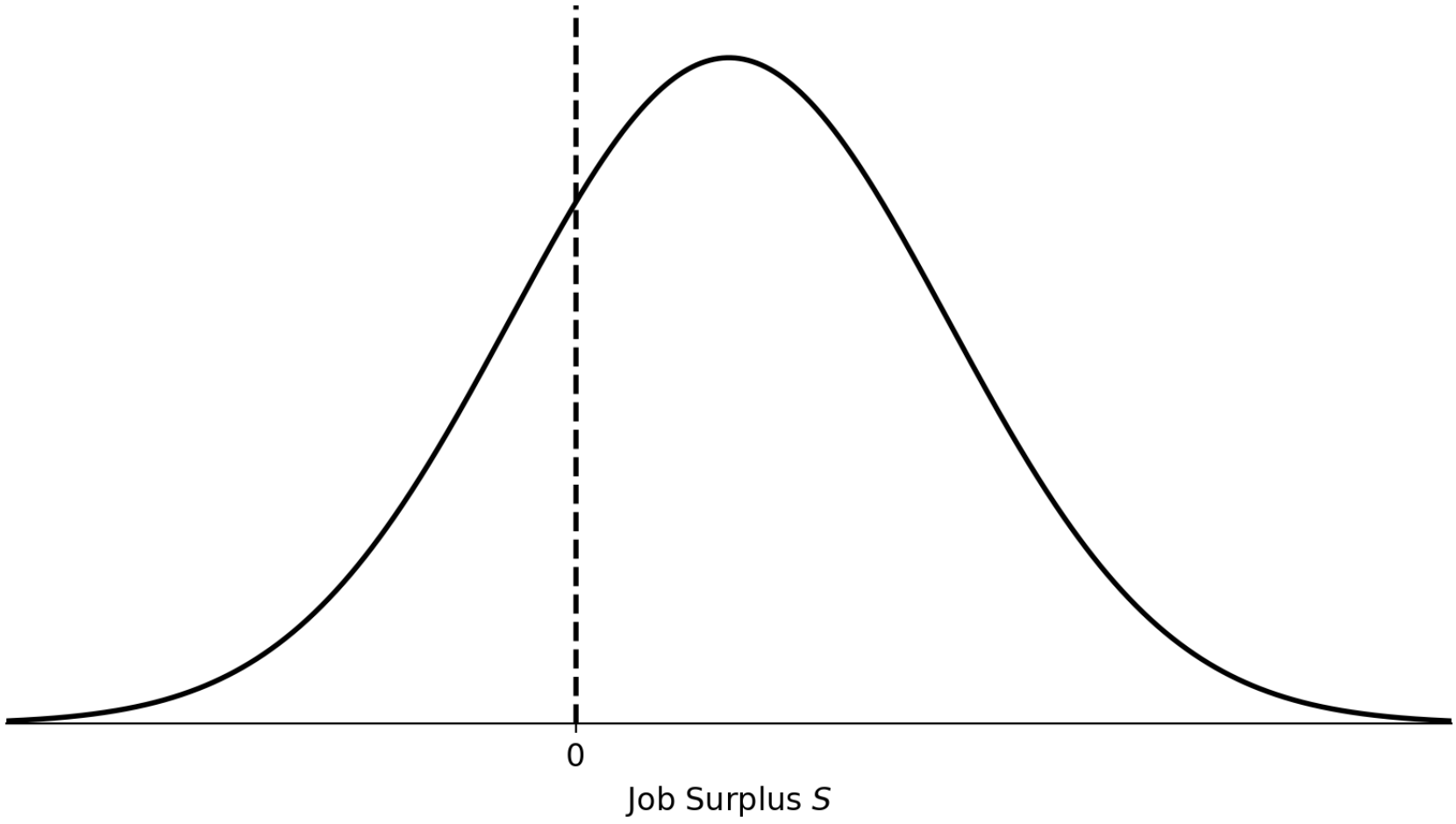

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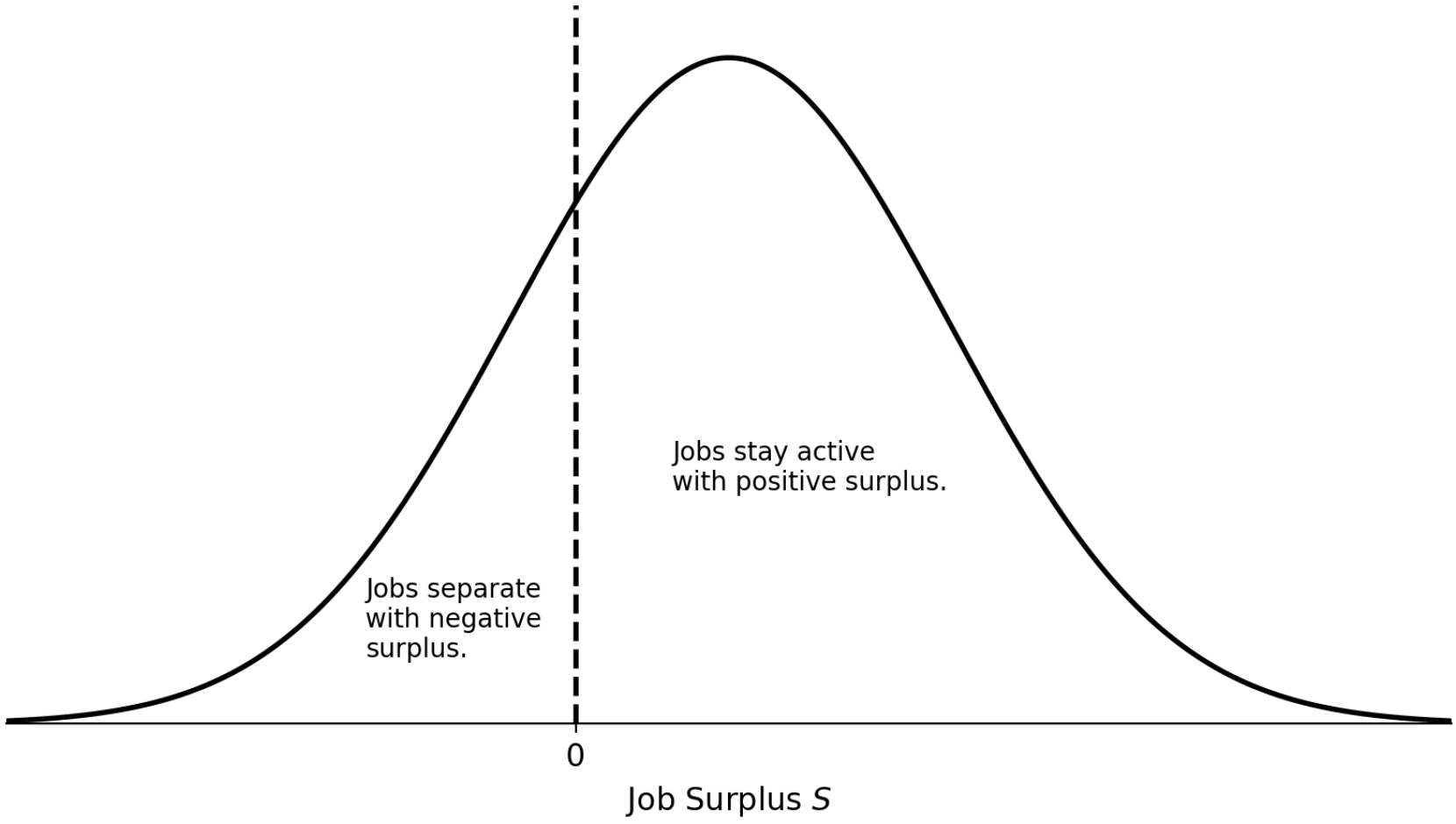

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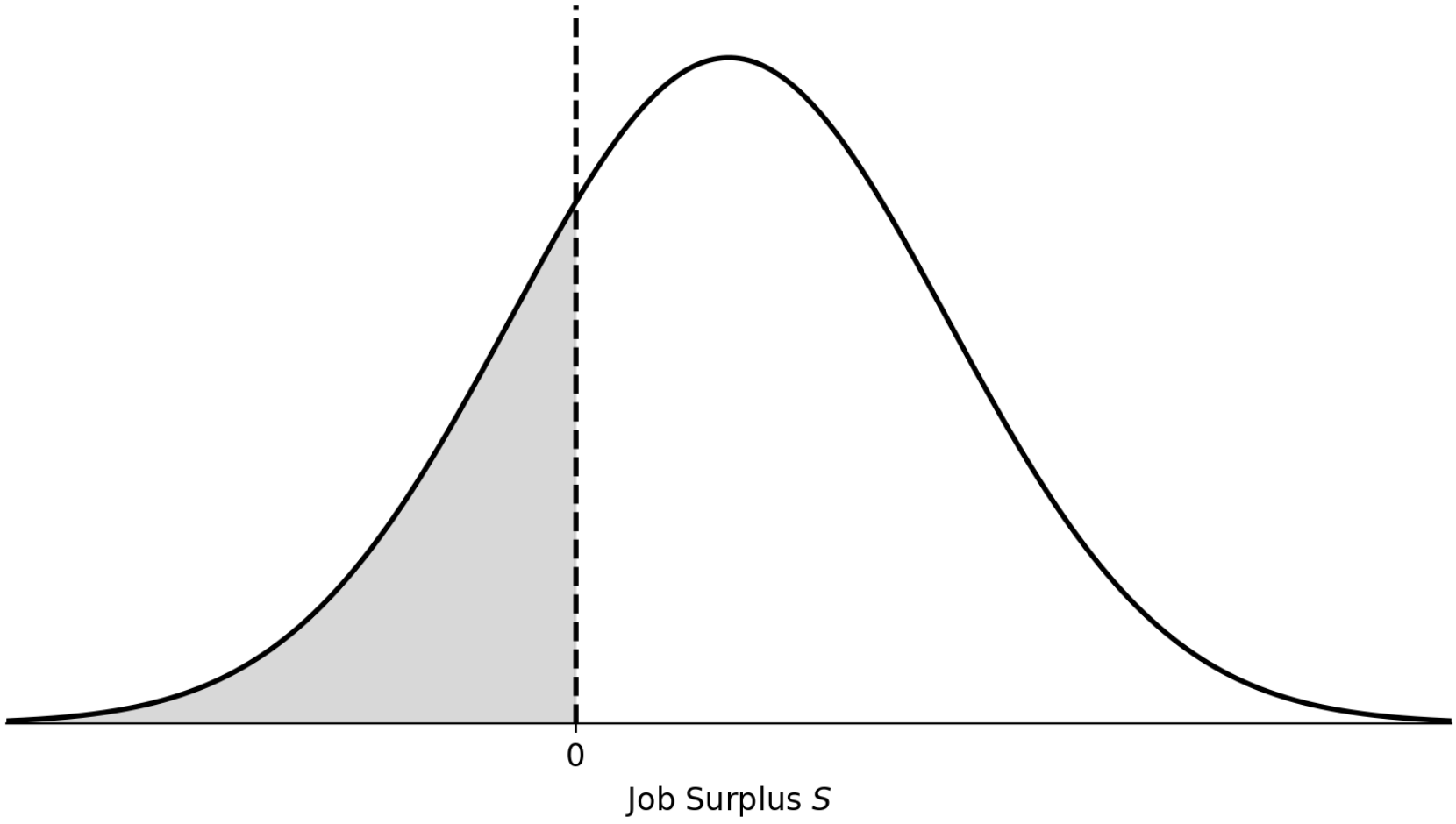

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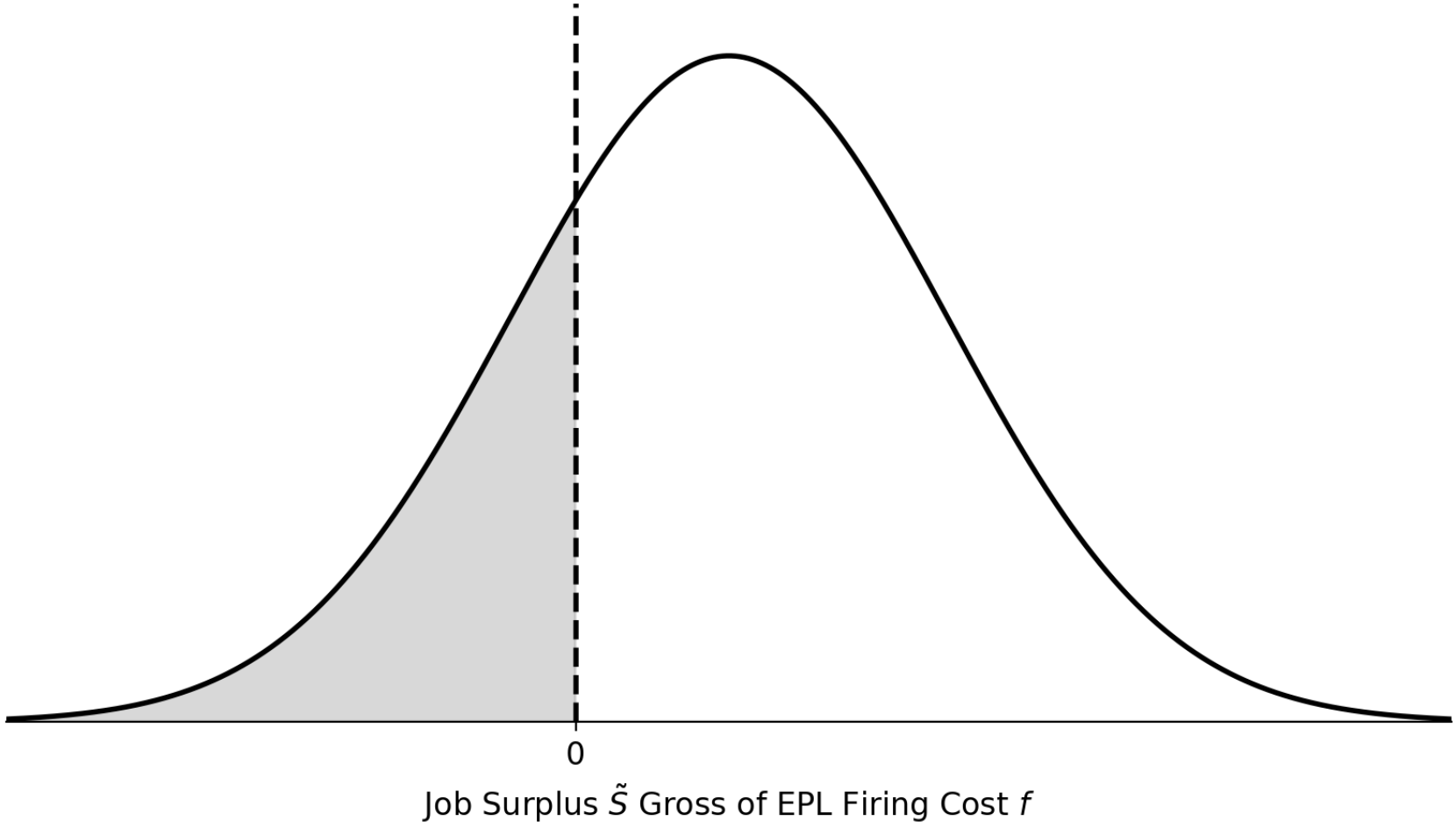

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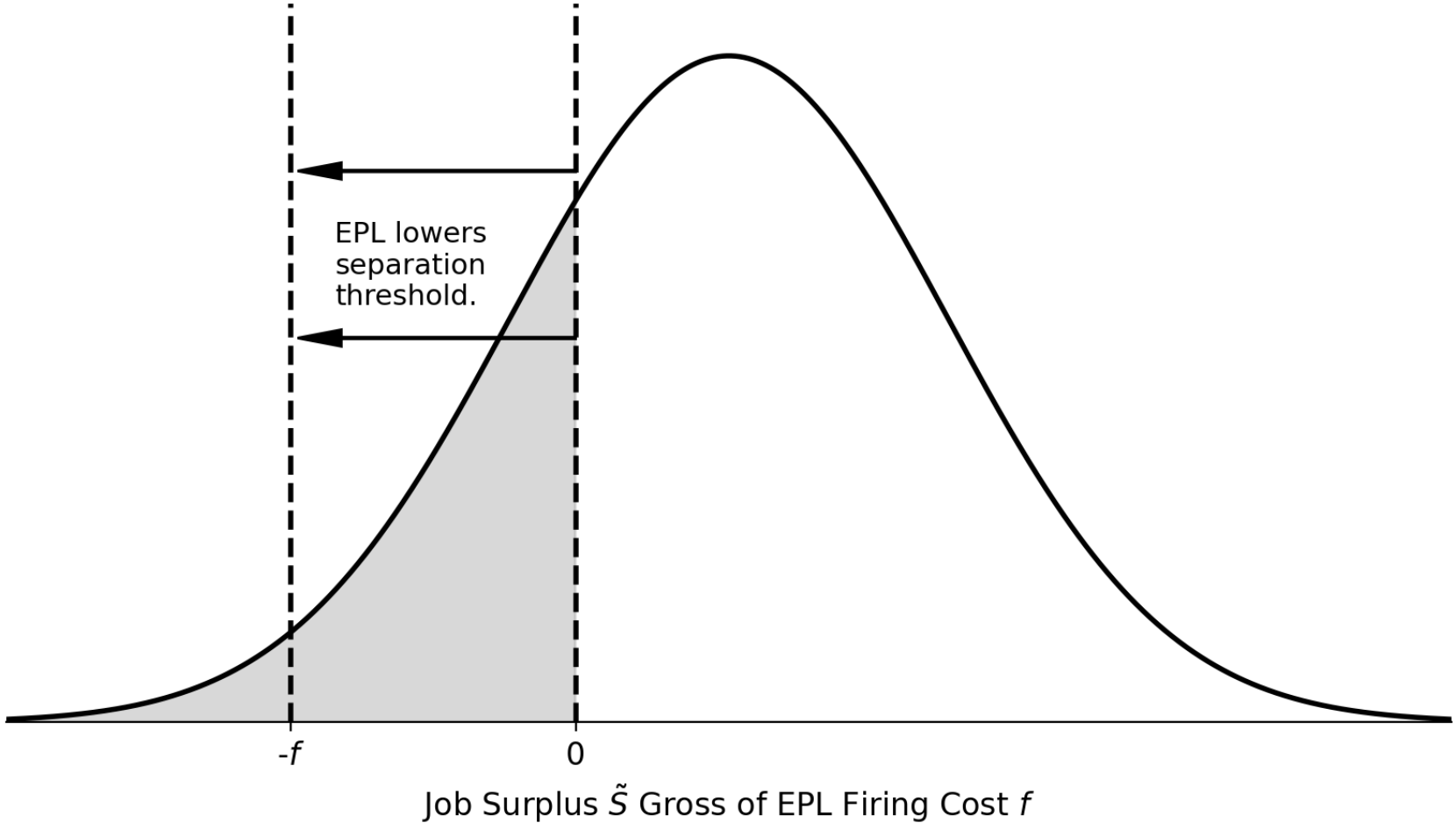

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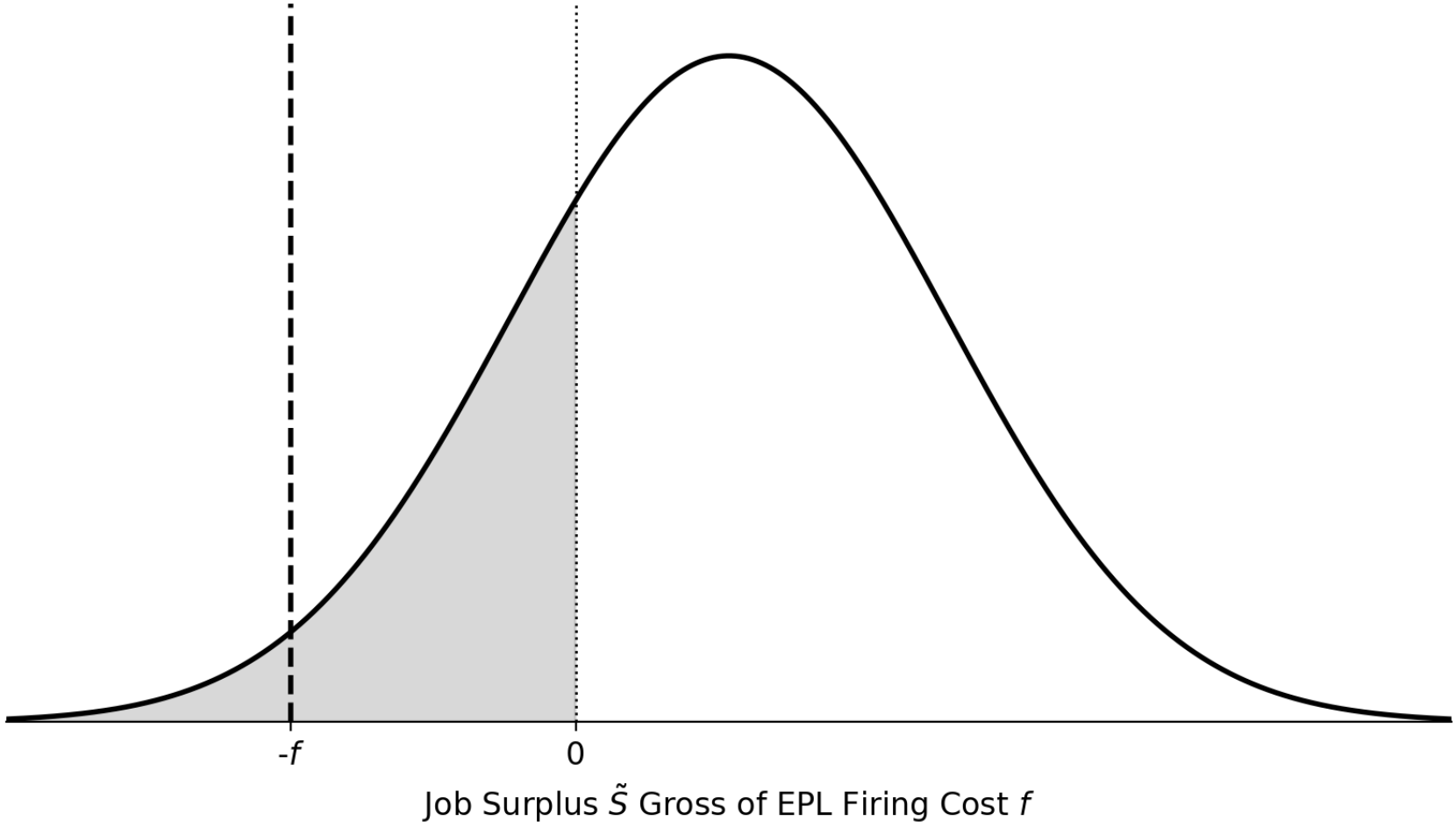

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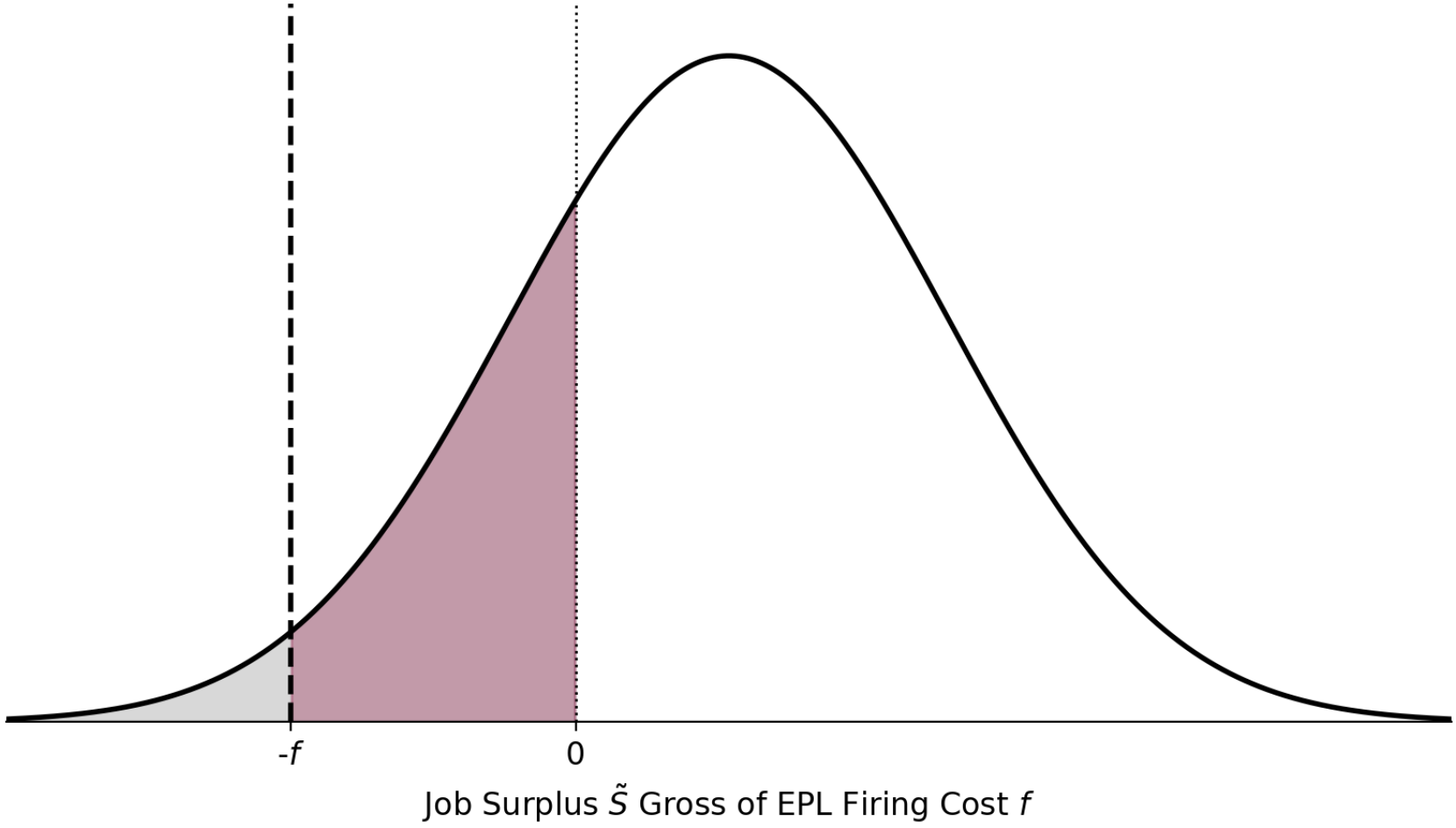

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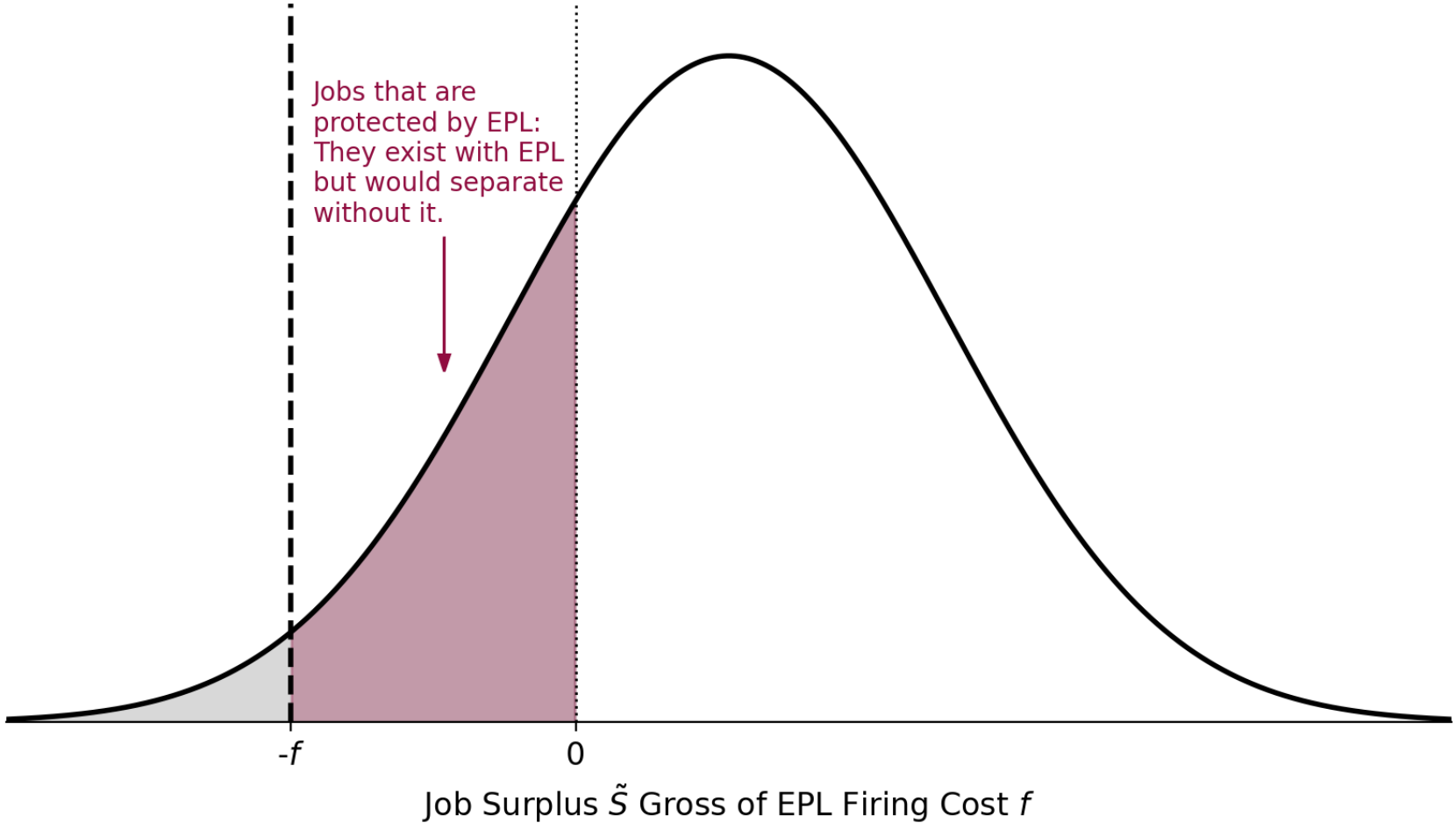

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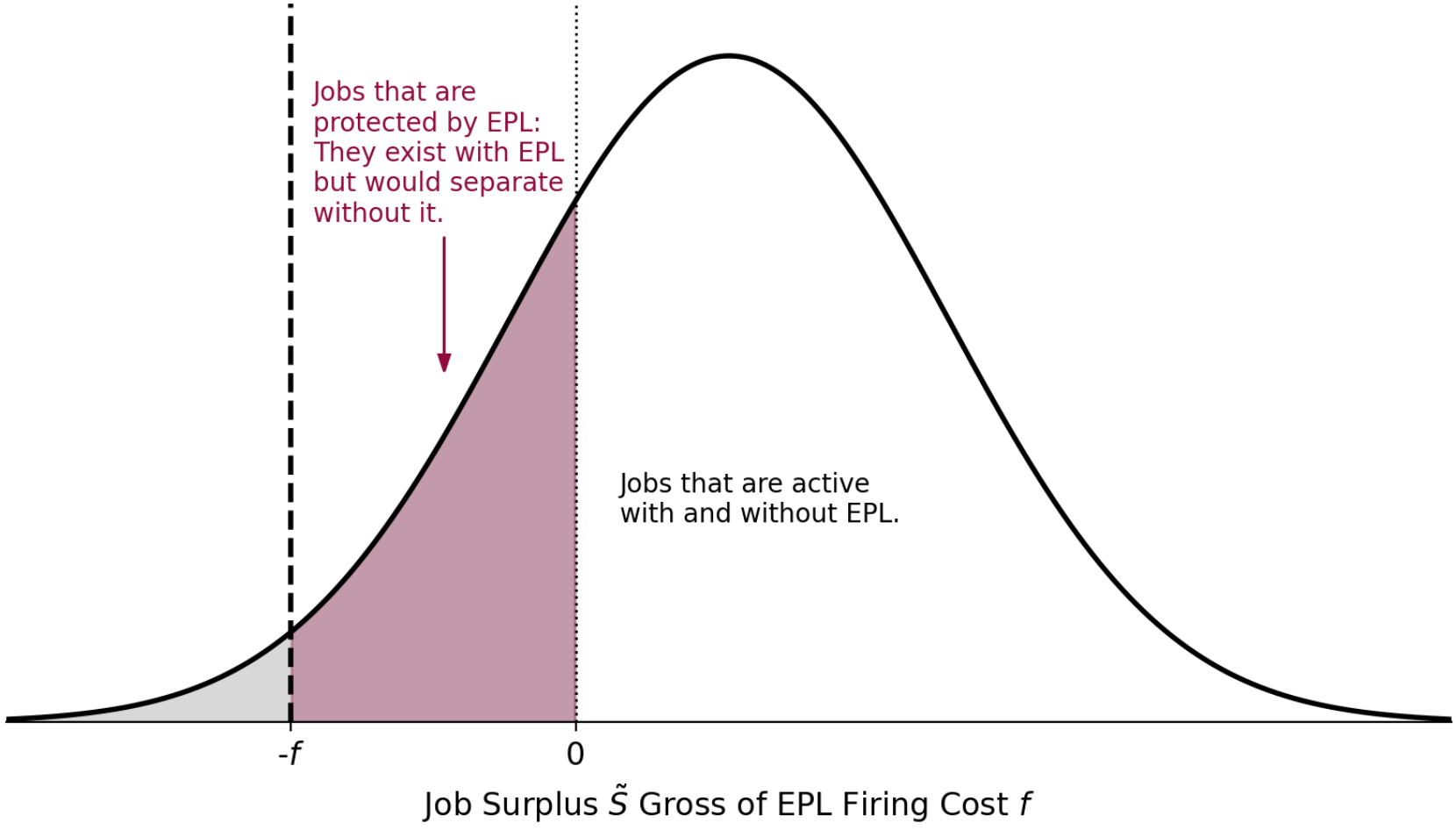
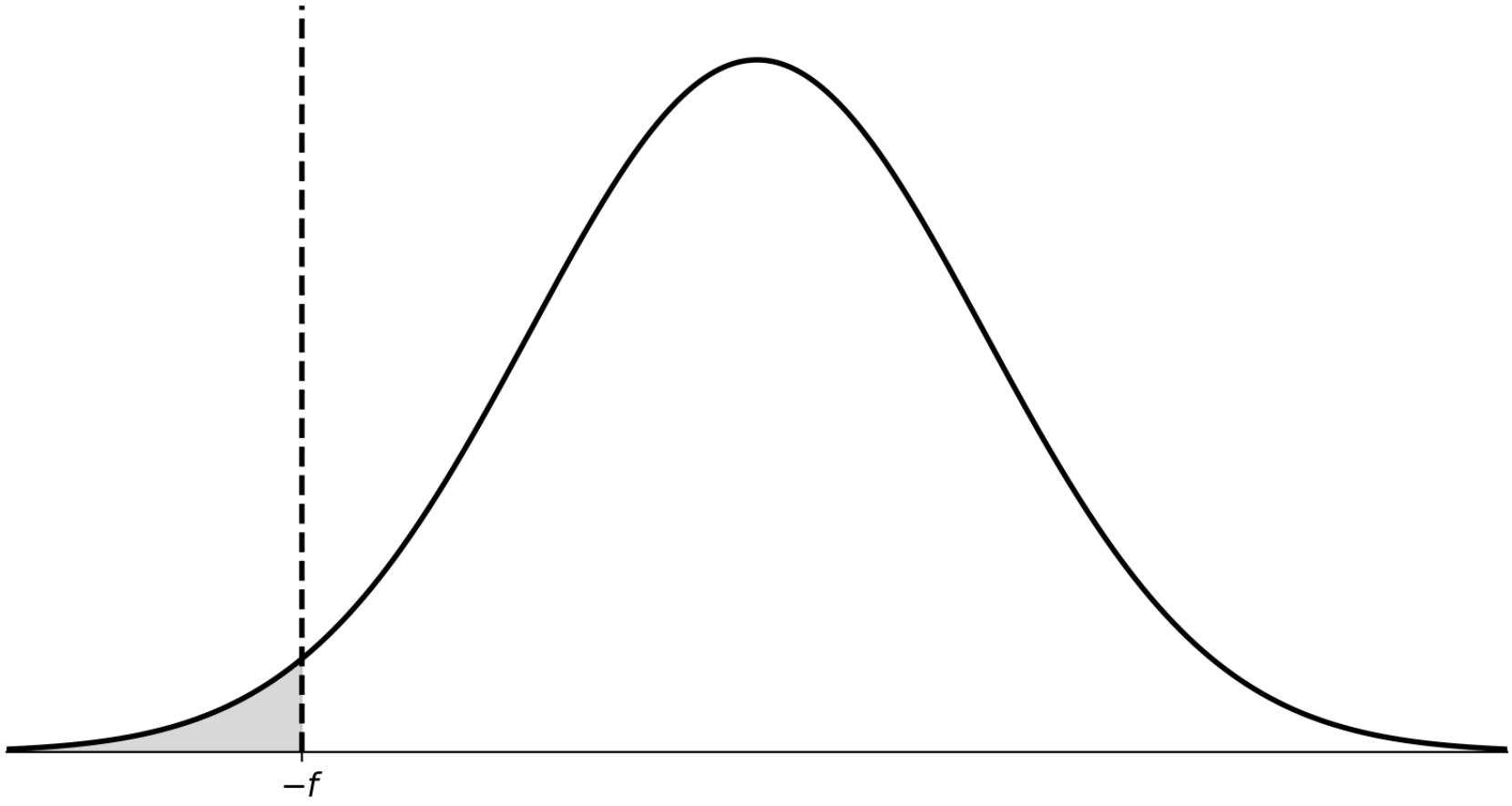


Career Perspective



Job Surplus $\tilde{S}$ Gross of EPL Firing Cost f

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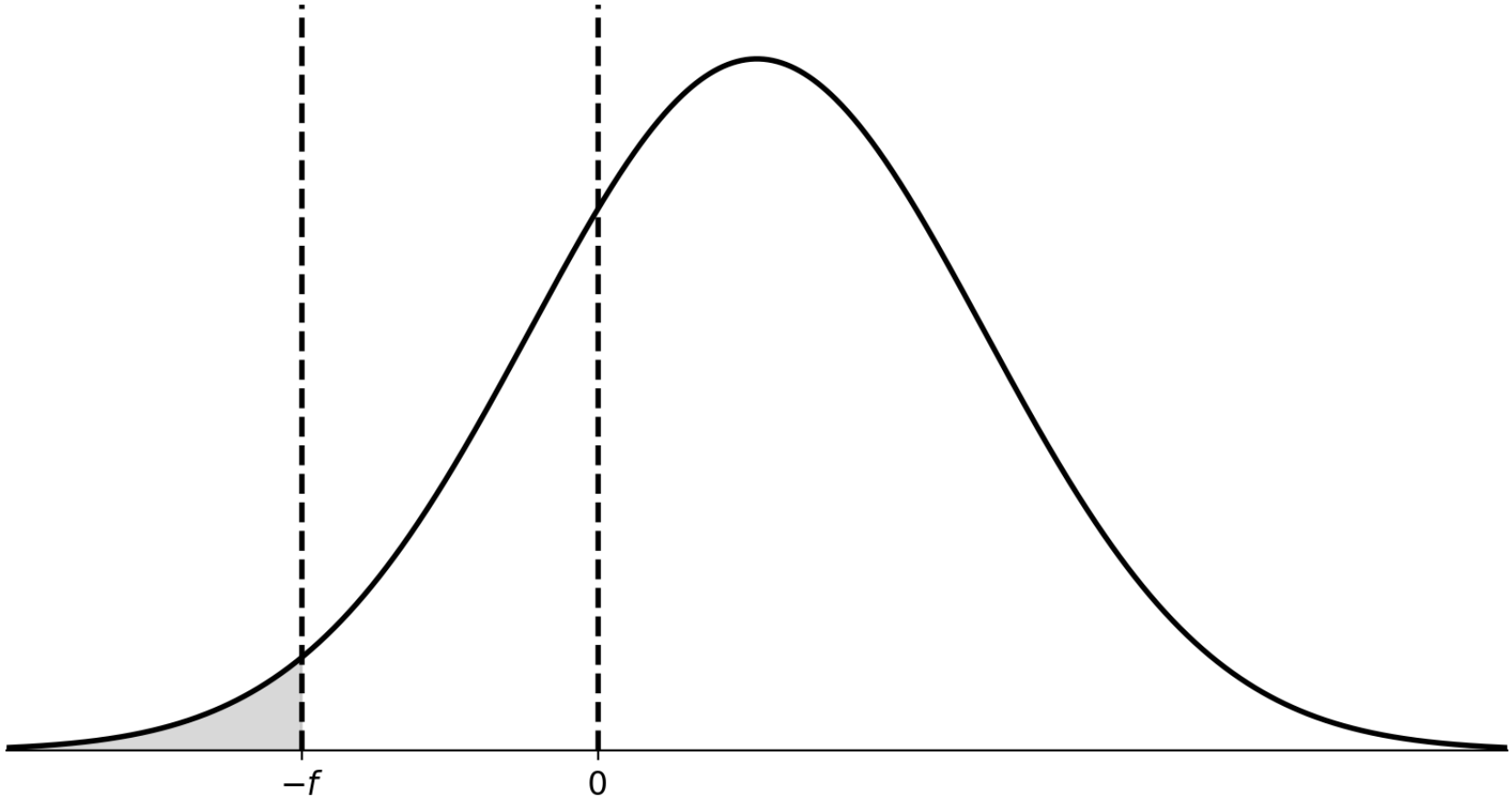

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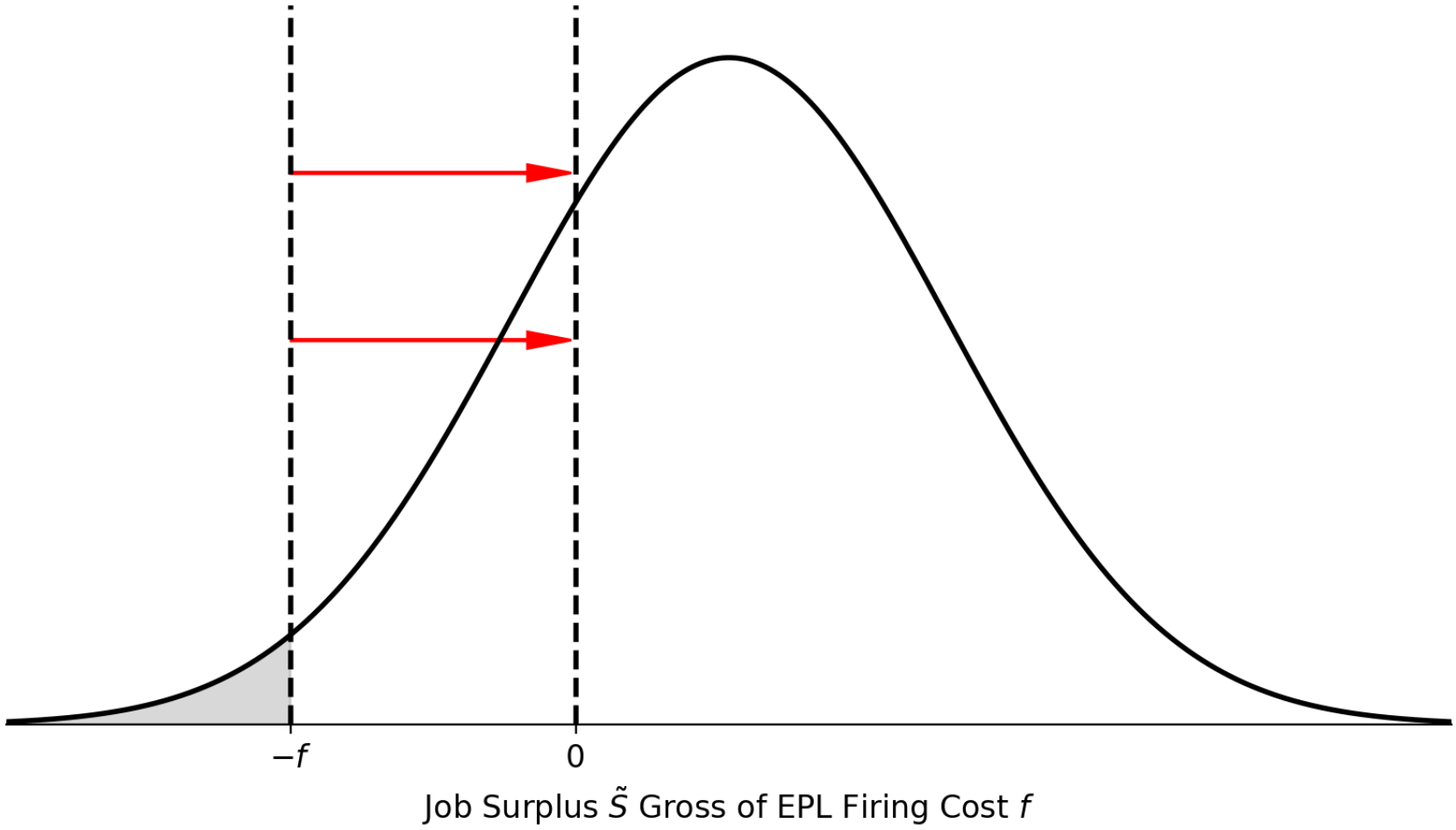
Career Perspective



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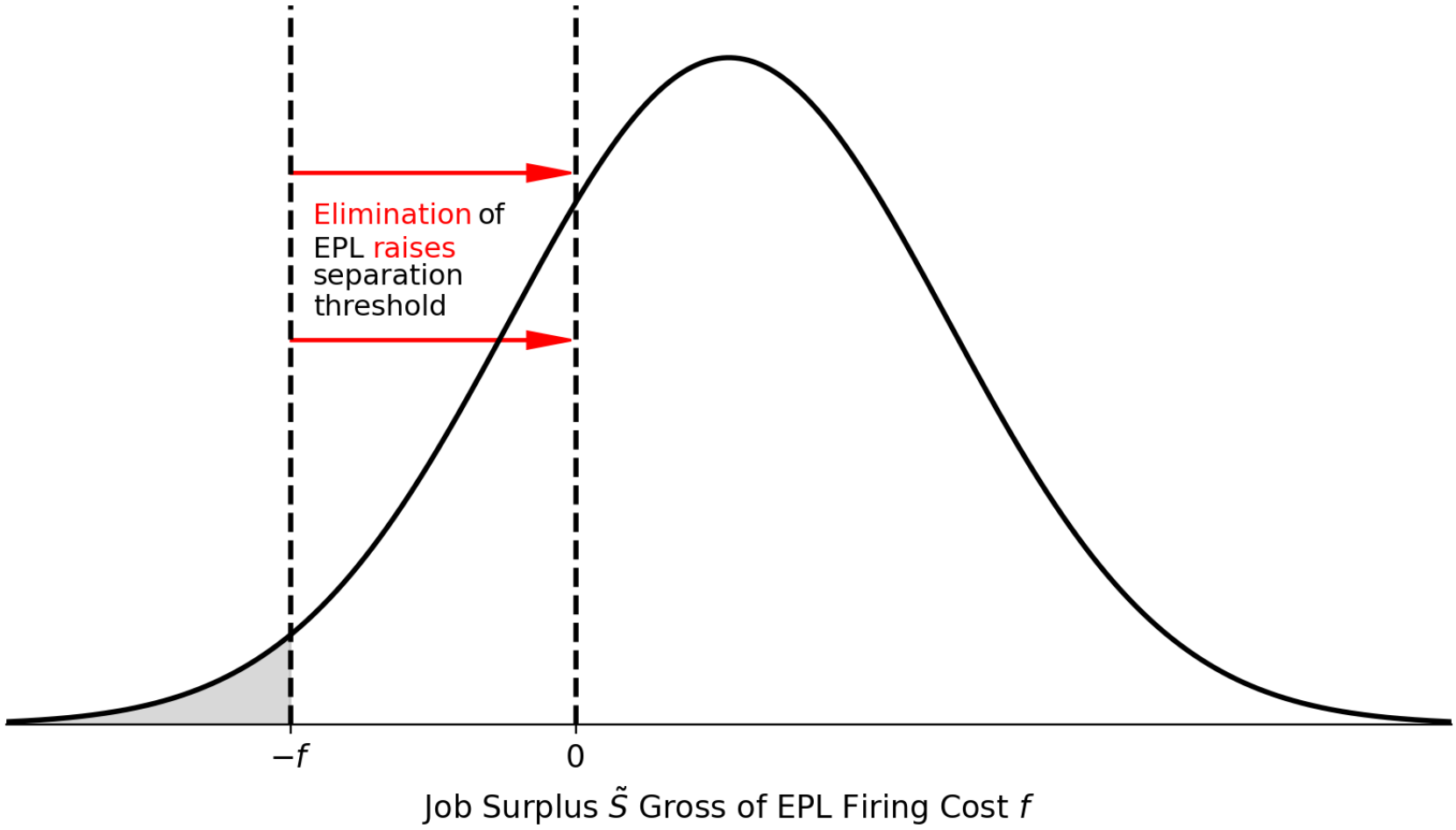
Career Perspective



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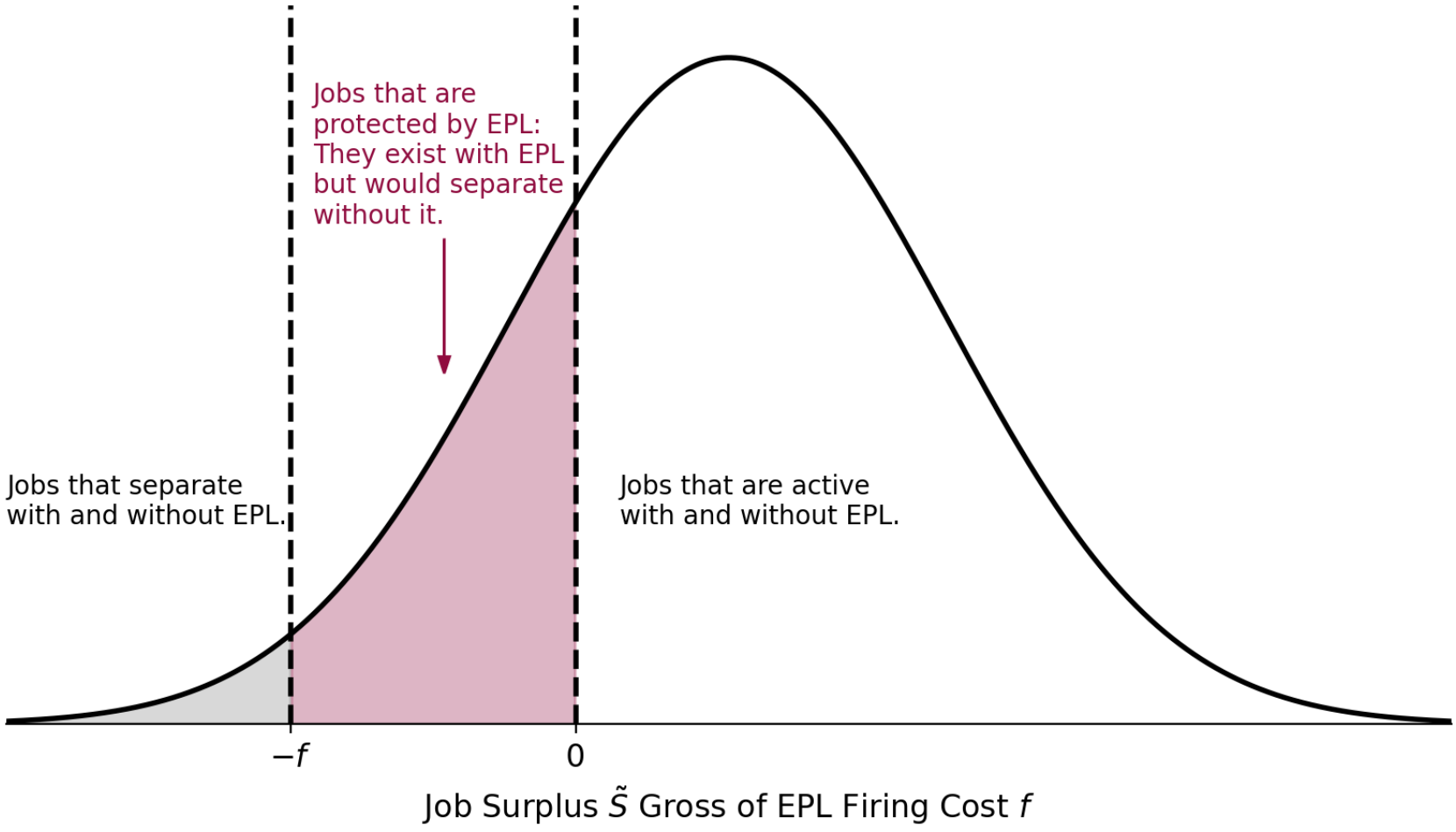

Revealed-preference logic as in Jäger Schoefer Zweimüllller (forthcoming) (but on UI & efficiency of separations)

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