The Effects of Graduating in a Recession on Intergenerational Mobility

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*University of Helsinki **Aalto University ***USC Marshall A large literature shows that individuals who graduate into a recession suffer substantial earnings losses that persist up to 10 years after graduation

 Oreopoulus et.al. (2012), Liu et.al. (2012), Cockx & Ghirelli (2016)

Furthermore, we know that labor market shocks can have important effects on intergenerational mobility

• Kaila et al.(2021), Nybom & Stuhler (2021)

In this paper, we combine these

We ask two main research questions:

- 1. How do the effects of graduating in a recession vary by socioeconomic status?
- 2. What happens to those without university degrees?

Institutional Context

The early 1990s depression in Finland was one of the worst economic crises in Finland's history, even worse there[sic] than the 1930's Great Depression.¹

¹ The English language Wikipedia page on the Finnish 1990's depression

The 90's Recession: Figures



Education in Finland: Terminal Degrees



Administrative Division

- Finland is divided into 68 subregions²(NUTS4), which we use for identification
- An alternative would be to use the 19 regions (NUTS3).



²Seutukunta / Ekonomisk Region

We use a common approach

Results in Previous Literature

Paper	Country	Earnings Loss yrs. 1-2
Oreopoulus et al.	Canada	-2%
Liu et al.	Norway	-4%
Kahn	USA	-9%
De Bono & Morando	England	-5%
Päällysaho	Finland	-2%

Empirical Strategy

 $Y_{trb} = \alpha + \beta_1 * UR_{tr} + \beta_2 * FEP + \beta_3 * (UR_tr * FEP) + \theta_r + \phi_t + \xi_b + \epsilon$

- $Y_{trb} = Labor \ Earnings$
- $UR_{tr} = Unemployment Rate in subregion r at graduation year t$
- FEP = Family Earnings Percentile
- $\theta_r = Graduation \ subregion \ FE's$
- $\phi_t = Year FE's$
- $\xi_b = Birth \ year \ dummies$

Critical assumption: The unemployment rate at graduation is exogenous to the graduate

• Endogenous graduation timing

- Use the predicted age of graduation
- Differential selection into regions in good/bad times
 - Perhaps the most productive people move to Helsinki when times are bad, but not when times are good?
- Systematic commuting over borders
 - Use regions/commuter zones
 - Calculate what the largest labor market is for each subregion

Results

Results: Earnings

Master's Graduates



Results: Earnings

Vocational Tertiary Graduates



Results: Earnings

Vocational Secondary Graduates



Mechanisms

Master's Graduates



Results: Moved

Vocational Tertiary Graduates



Results: Moved

Vocational Secondary Graduates



- 1. Previous recession literature have focused on college (master's) graduates. We show that these results might overstate the overall impact of graduating in recessions.
- 2. Recessions seem to hit people from low SES families harder
- 3. One part of the explanation why vocational secondary and tertiary graduates don't do as bad, is that they relocate to a higher degree in response to recessions.

Thank you!

Appendix

Descriptive Figures

Earnings: Master's Graduates



Earnings: Vocational Tertiary Graduates



Earnings: Vocational Secondary Graduates



Results: Cumulative Earnings

Master's Graduates



Results: Cumulative Earnings

Vocational Tertiary Graduates



Results: Cumulative Earnings

Vocational Secondary Graduates



Results: Helsinki

Master's Graduates



Results: Helsinki

Vocational Tertiary Graduates



Results: Helsinki

Vocational Secondary Graduates



Mean Outcomes



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