





Career Arduousness and Instability. Both Matter for Health Beyond 50

EALE Prague Conference, 21-23 September 2023

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Abstract

This paper explores the long-term consequences of career arduousness and career instability for both physical and mental health in the European context. One of its strengths is to link what happens during the entire career and the health status at an older age. The paper finds a positive link between career arduousness (i.e. the sum of job demands individuals have been exposed to during their entire career) and late-life mental and physical ill health, but also evidence that career instability (i.e. career gaps, job insecurity, displacements, unemployment spells) could matter as



(4)

much as arduousness per se. And this has implications for pension policy inter alia.

Introdution

The dominant view is that work is arduous and detrimental to health. But health might also be determined by the incidence of non-work episodes (those for which arduousness is a priori minimal as they are synonymous with rest or leisure), loose job attachment or the consequences of repetitive job changes/displacements, in short: career instability.

- Several policy questions are related to such a research agenda. The first one is the way to account for career heterogeneity in pensions
- The second policy question is how best to prevent/minimize the risk of late-life ill health.

Data

• Survey on Health, Ageing and Retirement in Europe (SHARE).

• 37,035 wave-7 (2017) respondents,

• 27 countries: AUT, BEL, BGR, CHE, CYP, CZE, DEU, DNK, ESP, EST, FIN, FRA, GRC, HRV, HUN, ISR, ITA, LTU, LUX, LVA, MLT, POL, PRT, ROU, SVK, SVN, SWE.

• Variables:

- Physical and mental health, i.e. outcome variables.
- -Respondent's job history (Life History Calendar- LHC, ISCO-4 level)
- -Merge with arduousness indices (O*NET/EWCS) at ISCO-4 level
- -Average arduousness, cumulative arduousness, first/last job arduousness, arduousness <=40

Results





Figure 1: Contribution to model-predicted variance: career arduousness [s1] & instability [s2] shares

vs > 40

-Key control: initial health endowment (health status ≤ 15 , parents' death/longevity status)

Method

Key regression is

$$IHealth_{i,j}^{k} = \alpha^{k} + \beta_{1}^{k} CAR_{i,j}^{ard} + \beta_{2}^{k} CAR_{i,j}^{inst} + \gamma^{k} X_{i,j} + \delta_{j}^{k} + \sum_{a} \eta^{k,a} \mathbb{1}\{AGE_{i,j} = a\} + \epsilon_{i,j}^{k}$$

$$k = M, P; i = individual; j = country$$

$$(1)$$

Followed by the variance decomposition (eq.(3), (4)) using predicted values ((eq.(2)))

$$\begin{split} \widehat{IHealth}_{i,j}^{k,CAR^{ard}} &\equiv \widehat{\beta_1^k} CAR_{i,j}^{ard} \\ \widehat{IHealth}_{i,j}^{k,CAR^{inst}} &\equiv \widehat{\beta_2^k} CAR_{i,j}^{inst} \\ \widehat{IHealth}_{i,j}^{k,X} &\equiv \widehat{\gamma^k} X_{i,j} \\ \widehat{IHealth}_{i,j}^{k,\delta^k} &\equiv \widehat{\delta_j^k} \\ \widehat{IHealth}_{i,j}^{k,AGE} &\equiv \eta^{\widehat{k},AGE_{i,j}} \\ \widehat{IHealth}_{i,j}^{k,AGE} &\equiv \eta^{\widehat{k},AGE_{i,j}} \\ k = M, P \end{split}$$

$$\sigma^{2}\left(\widehat{IHealth}^{k}_{i,j}\right) = \sigma\left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k,CAR^{ard}}_{i,j}\right) + \left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k,CAR^{inst}}_{i,j}\right) + \left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k,CAR^{inst}}_{i,j}\right) + \left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k,CAR^{inst}}_{i,j}\right) + \left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k,CAR^{inst}}_{i,j}\right) + \left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k,CAR^{inst}}_{i,j}\right) + \left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k,CAR^{inst}}_{i,j}\right) + \left(\widehat{IHealth}^{k}_{i,j}, \widehat{IHealth}^{k}_{i,j}, \widehat{IHea$$



Figure 2: Contribution to model-predicted variance: career arduousness [s1] & instability [s2] shares. Breakdown by level of GDP

Reported contributions [s1], [s2] use regression coefficients from eq. (1), models M1 to M7. In (M1), CAR^{ard} is computed as the weighted aver. arduousness of successive ISCO-4 occupations. In (M2) CAR^{ard} is cumulative arduousness (i.e. over the entire career). In (M3, M4), we focus on the arduousness of the first and the last occupations. In (M5), we explore the role of arduousness at different ages (< 40; 40+). (M6) is about average arduousness but uses the European measure from EWCS. (M7) reproduces M1 but excludes the respondents older than 75

Conclusion

The key finding of this paper is that whilst someone's career arduousness is a significant contributor to mental or physical ill health at an older age, it appears (quantitatively) a minor determinant. Career instability (i.e. the number of jobs held, long gaps of 6 months+, the number of redundancies...) could matter as much if no more *ceteris paribus*.



with variance shares (e.g. career arduousness)

Acknowledgement

This project has received financial support from the Belgian French-speaking Community (convention ARC 18/23 - 088 on "Sustainable, adequate and safe pensions: financial architecture, social justice and governance").

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(2)

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