

Discussion of “Longevity and Occupational Choice”

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Overview

1. Association between life expectancy and occupation
2. Identify job characteristics that help explain the occupation-dependent variation in mortality
 - ▶ indoor work, sedentary tasks, social interaction, job stress, and job meaningfulness
3. Association between occupational choice and the primary and secondary causes of death

What I like about the paper

- ▶ High-quality administrative data
 - ▶ Large sample size covering four US states
 - ▶ Accurate occupation information
 - ▶ Rich demographic measures, e.g., ZIP code of residence (a very important control variable)
- ▶ The linkage between occupational choice and cause of death is novel
 - Maybe highlight more?

A more thorough review of the existing literature

- ▶ Strulik (2022, JHE) – “A health economic theory of occupational choice, aging, and longevity”
- ▶ The linkage between occupation choice and occupation characteristics and broader health outcomes: e.g. Marmot et al. (1991); Marmot et al. (1997); Marmot (2005); Fletcher et al. (2011) – US based
- ▶ Blue-white collar differences in health outcomes, e.g. Case and Deaton (2005), Morefield et al. (2012)
- ▶ Other works address the selection in correlation and examine job characteristics and health outcomes: e.g. Ravesteijn et al. (2018)

Empirical Strategy

$$AgeAtDeath_i = \alpha + \beta' Occ_i + \gamma' X_i + \varepsilon_i \quad (1)$$

- ▶ X_i includes sex, race, ethnicity, and six-digit SOC group-level income profiles (mean, p10, p25, and p50). Additionally, ZIP code FE.
- ▶ To account for time trends in the relative frequencies of occupations – Weighted Least Squares estimation: assigns a larger weight to observations when the occupation class is “underrepresented” for a given birth year relative to the same birth cohort in the full-sample distribution, and vice versa when it is “overrepresented.”
 - ▶ How about include birth cohort FE?

Alternative measures

- ▶ The 22 occupation categories are crude → A graph illustrates the relationship between more granular occupation and longevity?
- ▶ The five job traits are important → Justify why these five (sedentary, indoor, stress, meaning, social) but not others?
 - ▶ Possible to examine job-related characteristics outside of workplace? e.g., health behavior, recreational behavior, etc.

Interpretation of results

- ▶ Figure 6. Underlying Cause of Death (Heart Attack) and Occupation
 - ▶ Except for the reference group, the other occupation categories have very similar estimates and CIs
- ▶ Figure 7. Underlying Cause of Death (Cancer) and Occupation
 - ▶ Why focus on construction jobs? How about the top group – Arts, Entertain, & Media (Work long hours and overnight? job-related health behavior?)
 - ▶ “possibly due to stress-induced behaviors like smoking and poor diet, and the resulting hormonal imbalances and inflammation conducive to cancer growth” – possible to provide evidence on this (related to my question about job-related characteristics outside of workplace) or cite existing studies, e.g. Kelly et al. (2012)?

Extension: Decomposition analysis?

- ▶ How much of the occupational difference in longevity can be explained by the five chosen job characteristics?
- ▶ Quantify the relative importance of different job characteristics in explaining the observed differences in longevity between occupations?

Extension: Any possibility of building a causality?

Adding ZIP code FE is very helpful, but

- ▶ Any exogenous shock shift people's occupational choice? (e.g. place-cohort shocks)
- ▶ Any technology shock unexpectedly changes characteristics of a occupation?