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The Health Effects of Retirement

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Retirement leads to changes in daily life that may affect health positively or negatively. Existing empirical evidence is inconclusive: While a few studies identify negative health effects, the majority of studies find no or positive effects of retirement on health. The mechanisms behind these effects remain unclear, as is the question of which parts of the population benefit most from retirement. Recent studies indicate that retirees use their increased leisure time for healthier behavior.

The idea of "death by retirement" is well-established. For example, in Quentin Tarantino's "Kill Bill Vol.2," one of the characters states that "retirement is the number one killer of old people." (for another example, see the Dilbert comic strip from 11 November 2014, thanks to Adam Lederer for pointing it out!). Moreover, most people have heard about coworkers or acquaintances who either died or fell ill shortly after retirement. Accordingly, empirical studies typically report a negative relationship between retirement and health. Does this imply that retirement is bad for people's health and that delaying retirement would improve their health?

Answering this question is less straight-forward than assumed, since evidence-based analyses must overcome a number of challenges. Firstly, a majority of the working population retires in a rather narrow time window. In Germany, the transition into retirement usually happens between the 60th and 66th birthday. Simply comparing retirees and workers will not yield valid results, since the group of retirees is, as expected, much older than the group of workers. Empirical analyses need to disentangle the effect of age on health from the health effect that can be causally attributed to retirement. Estimating the long-term effects of retirement is even more difficult (at least for Germany), since very few persons work beyond the statutory retirement age of 65.

In addition, retirement changes several aspects of everyday life. Typically, income decreases: In Germany, the nominal pension level (defined as the ratio of average pension to annual wage) was 45% gross in 2013 (Deutsche Rentenversicherung, 2014). In the United States, the health insurance status changes, since individuals become eligible for Medicare at age 65. These changes, as well as their potential health consequences, are part of the health effect of retirement. However, most empirical researchers are more interested in the effect of discontinuing work than, e.g., in the income loss associated with retirement.

The causal effect of health on retirement poses the greatest challenge for empirical analyses. Previous studies show that deteriorating health is a major determinant of retirement (cf. Bound et al., 1999; Hagan et al., 2008). Negative health effects are even more important than financial incentives for the timing of retirement decisions (cf. McGarry, 2004). If, therefore, empirical studies find that health status has deteriorated between two points in time, and the transition into retirement also

happened within this time frame, it is extremely difficult to determine whether (a) health status decreased, leading into retirement, or (b) retirement resulted in a worse health status.

Several solutions to this problem are proposed in the health economics literature. For example, one approach relies on identifying factors that influence the retirement decision but have no direct effect on health (e.g. reforms that increase the statutory retirement age). Nevertheless, the findings in the literature remain inconclusive. For example, Behncke (2012) and Dave et al. (2008) find that retirement has strong negative effects on health, e.g. an increased risk for cardiovascular diseases and several types of cancer. On the other hand, Neuman (2008), Johnston and Lee (2009), Coe and Zamarro (2011) and Insler (2014) find that retirement increases subjective health measures, and has no effect on objective health measures.

A number of studies rely on mortality as a health measure. In their unpublished working paper, Kuhn et al. (2010) conclude that retirement increases the risk of dying by age 67. However, their study is admittedly limited to Austrian blue-collar workers retiring early due to unemployment. This effect could not be replicated by Hernaes et al. (2013) in a sample of Norwegian employees. They conclude that retirement does not affect mortality. Several recent working papers even conclude that retirement decreases mortality within the next five years (Blake und Garrouste, 2013; Bloemen et al. ,2013).

While there are a number of (partly contradictory) studies on the health effect of retirement, little is known about the reasons for this effect. Economic theory suggests several mechanisms. The seminal health capital model by Grossmann (1972) implies that the loss of income could result in lower health investments (e.g. medical care, sports, healthy food etc.). The identity theory by Akerlof and Kranton (2000) proposes that retirement can exert stress and decrease well-being of individuals who identify very strongly with their job. On the other hand, employees in physically straining or stressful occupations might benefit from the relief associated with retirement. This can also be the case for the transition from unemployment into retirement (Hetschko et al. 2014), since unemployment is regarded as a deviation from the societal norm and this deviation negatively affects well-being of the unemployed. Moreover, the model by Grossman suggests that retirement can also result in increased health investments. These health investments require not only a monetary input but also time. In particular, investments requiring a lot of time and only little money (e.g. sports) may increase as a consequence of retirement.

In reality it is highly unlikely that a single explanation can explain the health effects of retirement to the full extent. However, the empirical literature on this topic is surprisingly sparse. Of the studies mentioned above, only Insler (2014) investigates possible explanations for the health effects. His results indicate that retirees are more likely to quit smoking and exercise more. These results are replicated and extended in my own study (Eibich, 2014), e.g. retirement increases the average sleep duration by about 45 minutes. Moreover, it can be shown empirically that employees in physically straining occupations benefit more from retirement than the average employee (Eibich, 2014; Mazzonna und Peracchi, 2014).

Which conclusions can we draw from these results? The myth of “death by retirement” does not hold up to an empirical investigation. Rather, retirement can be beneficial for health, if retirees put their additional leisure time to good use. For the majority of the population this seems to be the case.

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