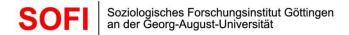
## The German statutory pension for reduced earning capacity:

# Different employment pathways and their association with education and medical diagnoses

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### Research questions

- What kind of long-term employment patterns can we identify among persons receiving public disability pensions, i.e. a pension due to reduced earning capacity (*Erwerbsminderungsrenten*) in Germany?
  - → length and sequencing of activities like employment (above/below-average wage), unemployment, sickness leave, child care etc.? Average age at retirement?
- What is the average amount of pension associated with those patterns?
- To what extent do factors like level of education and medical diagnosis explain why some pensioners are more likely to exhibit one kind of such employment patterns than the other ones?

### **Data**

- "random sample of completed insurance biographies" (Vollendete Versichertenleben [VVL]) of the German statutory pension insurance (DRV), nationally representative
- 4 pension-entrance cohorts of 2004, '07, '10, & '13
- N = 12.000: pooled random sample of disabilitypension recipients drawn from 4 entrance cohorts
- Info on main medical diagnosis & pension from datafile on the annual retirement entries
- On-site analysis at the research data centre of the German statutory pension insurance (FDZ-RV)

### Variables and methods

longitudinal administrative data from individual pension accounts: 11 (recoded) statuses/activities per month, age 20 to max. 60

### explorative-descriptive statistical method:

sequence analysis & hierarchical cluster analysis

← grouping of employment careers similar with regard to duration and sequencing of statuses

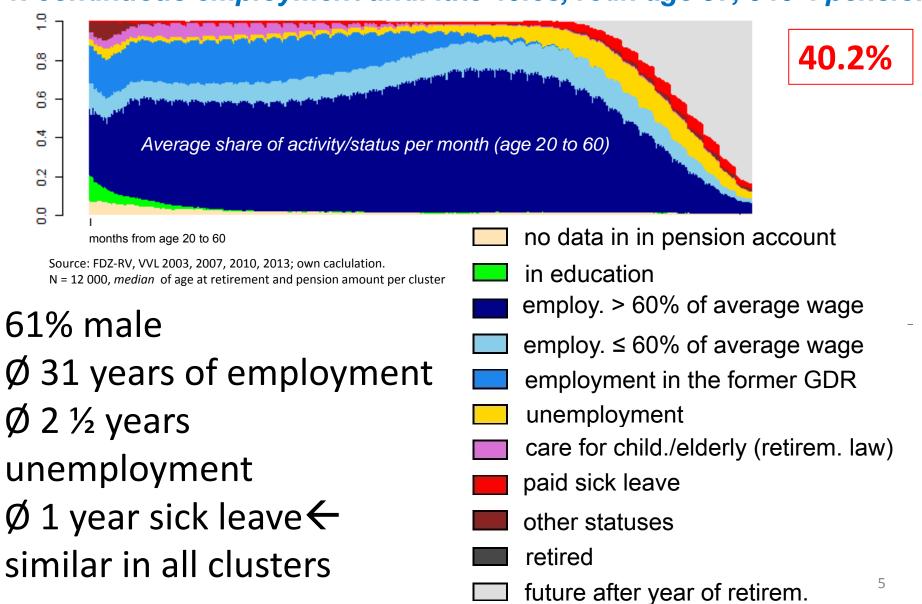
→ here: 6 cluster solution

### multivariate approach:

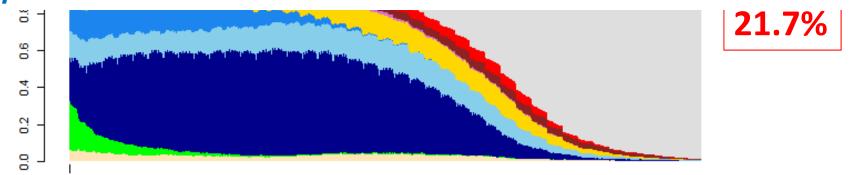
The 6 clusters become the dependent variable in a multinomial logistic regression.

### Sequence analysis: disability pensioners' employment patterns

### 1. continuous employment until late 40ies, retir. age 57, 946 € pension

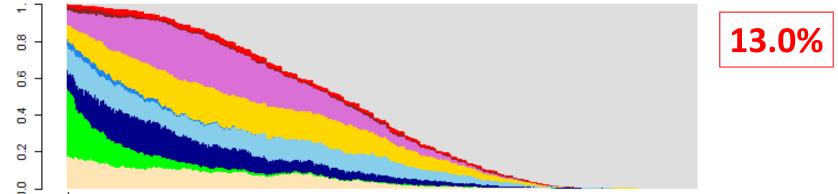


### 2. Shorter "continuous employment career", retir. age 47, 862 € pension



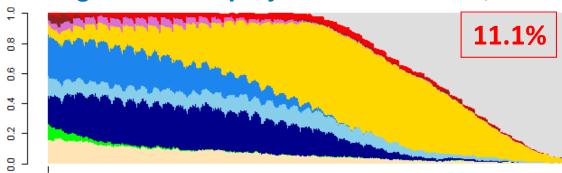
48 % female; Ø 19 ys employment; increase of below-average wage from mid 30ies onwards

### 3. precarious employ. career since 20ies, retir. age 38, 689 € pension



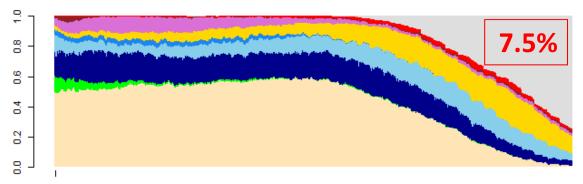
65% female,  $\frac{3}{4}$  thereof mothers; formal edu. well into the 20ies; unemploy. during 24% of time til retirement (almost  $\emptyset$  4 ys); below-average wage during 3/5 of time in employ.

#### 4. long-term unemployment since 30ies, retir. age 51, 624 € pension



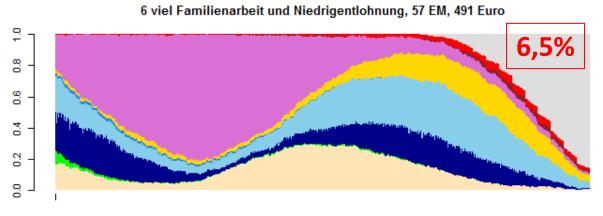
65% male; 36% East-German; Ø 13 ys unemploy.; increasing share in 2010/13-cohort

### 5. many years no information and unemploy., retir. age 51, 624 € pension



6% East-Germans; 25% foreigners; Ø 17 ys no soc.-security contribution; Ø 4 ys unemploy.

### 6. informal care-work and below-average wage, retir. age 57, 491 € pension



99% female; 7% East-Germans; 25% foreigners; Ø 14 ys care work; 62% of employ. belowaverage wage

### Multivar. prediction of 6 clusters & conclusion (1)

There are different pathways of disability pensioners' employment careers diverging from the "normal" kind of employment history, and different risk factors are associated with those patterns:

- Specific psychological illnesses like schizophrenia correlate with very early retirement and with precarious employment histories preceding it.
- Addiction and substance abuse are associated with retirement after long periods of unemployment (cluster 4) and after periods with many gaps in social insurance contributions (former means-tested welfare; self-employ; time abroad) (cluster 5).

### Multivar. prediction of 6 clusters & conclusion (2)

- Higher education: only a slightly higher chance of having had an advantageous employment history (e.g. less long-term unemploy.) ≈ negative selection into statutory disability pension (young age at retir.)
- Employment careers with long periods of unemployment, contribution gaps or informal care work
  result in very low amount of disability pension
- Longer precarious employment careers (cluster 4 & 5): just "lucky" to fulfill the conditions for receiving (below-average) disability pension instead of being solely referred to means-tested welfare for those with reduced earning capacity (*Grundsicherung wegen Erwerbsminderung*)

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