Comments on
“Characterizing Trajectories of Work, Disability and Health in work and retirement: A multi-state analysis”
AMAL HARRATI AND MARK R. CULLEN

Richard V. Burkhauser
Cornell University/University of Texas-Austin
October 6, 2016
Is this the holy grail?
There are three types of U.S. health-based earnings replacement programs

- **State Workers’ Compensation:** Partial/Total, Short-Term/Long-Term, covers accidents, injuries, health conditions related to the job (most workers covered)

- **Employer Provided Disability Insurance:** Partial/Total, Short-Term/Long-Term, covers disabilities regardless of source (about 30% covered)

- **Social Security Disability Insurance (SSDI):** Total, Long-Term, covers disabilities regardless of source (most workers covered)
SSDI caseloads are rising
Disability recipiency in the United States has grown even as it has fallen in Europe
It is difficult to determine SSDI eligibility

• 23 percent of initial applicants are marginal entrants
• SSDI acceptance causes a 21 percentage point reduction in their employment relative to an SSDI rejected control group
• Marginal treatment effects vary:
  • least severely impaired (60 percentage point reduction)
  • most severely impaired (10 percentage point reduction)

Maestes, Mullen, and Strand (2013) *American Economic Review*
Previous publications have suggested major reforms


Harrati and Cullen look at a potentially information-rich new data set

- Alcoa administrative records from January 1996 to December 2013
- 42,146 employees in 26 largest plants in 15 states
- Five possible employment states: employed, absent due to short-term disability, absent due to long-term disability, on-leave (family leave, union based leave, etc.), left Alcoa
- Information on Workers Compensation
- Information on age, race, gender, marriage, number of dependents, tenure with firm, W2 forms, hourly wage rate
- Medical records: risk scores, outpatient hospitalizations, chronic diseases, exposures
They use a cluster analysis and multinominal logic model to analyze the data

- Use cluster analysis to characterize employees’ trajectories of work and disability and place them into clusters
- Key Table 4 provides results of a multinominal logic model to show correlation between various characteristics and probability of being in three clusters Short Term Disability, Disruptive Work, and Long Term Disability relative to Work
They look at critical transition states for workers at Alcoa, and find that over 30% experience a disability

1. 68.8%: Work to Termination (no disability state)
2. 16.8%: Short-Term Disability (STD): one or two separate STD events
3. 10.9%: Disruptive Work: more than two STD or movement containing a STD to LTD sequence
4. 3.6%: Long-Term Disability (LTD): movement directly to LTD

Can the lifetime risk of experiencing a single STD/LTD event be this high?
Gender disparity across results makes us wonder if these effects are real or an artifact of the data

Women at Alcoa were:

• 60% more likely to be associated with Short Term Disabilities than men
• 180% percent more likely to be associated with Disruptive Work than men
• Only about one-third as likely to be associate with Long-Term Disabilities as men
Is Pregnancy a STD in the data?

- Family Leave Programs vs. STD with respect to pregnancy
- Family Medical Leave Act of 1993 requires all firms of 15 or more to provide unpaid medical leave for pregnant women.
- Pregnancy Discrimination Act of 1978 effectively require public and private STD programs to include pregnancy as a disability
- Five states have mandatory STD programs: California, New York, New Jersey, Roade Island and Hawaii
Next Steps

Shift your focus to a more event history mode to pin down the onset of health based events and then show the risk of moving through the WC/Private Disability/SSDI system over time.

California and Texas appear to be the two states that Alcoa has the most production facilities. California is a mandatory STD state. Texas is not. I suspect these two states also have different WC rules. I don’t know if Alcoa treats workers the same or differently across these two states and if it makes a difference. Your data might be able to tell us.