

Characterizing work, disability and health in work-life:  
A multi-state approach

**Abstract**

Opportunities to track individuals through their working life in order to assess the relationship between work and health are rare. Using a unique database of over 10,000 employees that tracks work, disability, and health information across the entire working history, this paper seeks to characterize trajectories of periods of work, disability and transitions to retirement for a working cohort as they vary by demographic characteristics, working conditions and health conditions. To do so, I employ two techniques. First, I calculate transition rates between states for all workers using multi-state models. Secondly, I use sequence analysis to group workers across common trajectories of work and disability and describe demographic and job-specific characteristics associated with these trajectories. Results show that while the majority of workers experience little to no disruption in their working life, nearly one third experience more than one episode of disability, with many experiences a number of disability episodes. I also find suggestive evidence of selection out of difficult manual jobs early in a worker's employment.