

Economic Opportunity and Spatial Variation in Self-Reported Disability and Receipt of SSI & SSDI

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Introduction & Motivation

There is substantial variation in both self-reported disability and receipt of Federal disability assistance (SSI and SSDI) across U.S. localities. Existing research has largely attributed this spatial variation to geographic differences in socio-demographic composition, population health, and labor demand (see, e.g., Gettens, Lei & Henry 2018; Autor 2015). Of these, the association between labor demand and disability is particularly well established (see Autor & Duggan 2003; Autor, Duggan & Gruber 2014); disability rates track with business cycle dynamics, i.e., when unemployment increases, so too, does self-reported disability and demand for disability assistance (see also O'Brien 2013). At the same time, variation in unemployment does not fully account for observed spatial variation in self-reported disability or receipt on Federal disability assistance programs across counties or within counties over time. This suggests that other social and structural characteristics of place may play a role in shaping disability and, further, may moderate the relationship between labor demand and disability over time.

This project examines whether and to what extent spatial variation in economic opportunity can help us 1. Account for observed variation in self-reported disability and demand for disability assistance across U.S. localities net of unemployment and sociodemographic composition, and 2. Account for why the correlation between unemployment and disability within counties is stronger in some places compared to others. Building on recent work in sociology and public health (see O'Brien, Venkataramani & Tsai 2017; Venkataramani et al 2016), we operationalize “economic opportunity” using newly available local area estimates of intergenerational economic mobility. Research consistently demonstrates that the likelihood a child born to low-

income parents is able ascend the economic ladder in adulthood is strongly conditioned by where he or she grows up (Chetty et al 2014a). This variation in economic mobility outcomes across U.S. localities is due to a mix of factors including labor market dynamics, education quality, government spending, demographic composition and even crime levels (Chetty et al 2014a; O'Brien & Robertson 2018; Sharkey & Torrats-Espinosa 2018). We argue this novel and holistic measure of local economic context can augment standard analyses of spatial and temporal variation in disability that focus on labor demand.

Key Research Questions

1. Across counties, are rates of self-reported disability and SSI/SSDI receipt higher in areas characterized by low economic opportunity? Does this association hold net of local area sociodemographic and economic characteristics?
2. Does economic opportunity moderate the relationship between unemployment and disability within counties through time? Specifically, do disability rates increase more in low opportunity areas compared to high opportunity areas in response to an increase in unemployment?

Data & Methods

Data

Estimates of intergenerational economic mobility were generated by Chetty et al (2014), as part of the Equality of Opportunity Project (hereafter "EOP"). Local area estimates of self-reported disability status (for workers aged 35-64) as well as a suite of sociodemographic and economic covariates are taken from the American Community Survey (5-year and 1-year estimates). Rates of SSI and SSDI receipt are estimated using

county-level enrollment data made publicly available by the Social Security Administration.

Methods

To explore research question 1 we estimate a series of cross-sectional models to examine the relationship between local area economic opportunity and disability across U.S. counties. To explore research question 2 we estimate a two-way fixed effects model where we interact a time-varying measure of county unemployment with our measure of county area economic opportunity.

Key Findings

Research Question 1: In 2015, rates of self-reported disability were higher in counties characterized by lower economic opportunity. This inverse association holds true for both men (see, e.g., Fig 1) and women and is robust to inclusion of a suite of sociodemographic and economic characteristics including unemployment, race, education, poverty, and age. Rates of SSDI receipt follow a similar pattern: where opportunity is higher, SSDI receipt is lower (both before and after inclusion of covariates). Notably, the association between local area opportunity and SSI receipt is not robust to inclusion of covariates.

Research Question 2: Between 2007 and 2017, we find the relationship between unemployment and disability within counties over time is indeed moderated by the level of local area economic opportunity. Specifically, we find that rates of self-reported disability and receipt of SSDI increase more in response to an increase in unemployment in counties characterized by low-economic opportunity relative to counties characterized by high-economic opportunity. This suggests that other structural features of place serve as an important moderator of the relationship between labor demand and disability.

Figure 1. Economic Opportunity and Self-Reported Disability Across U.S. Counties, Males Aged 35-64 in 2015



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