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## Economic Opportunity and Spatial Variation in Labor Force Participation, Self-Reported Disability, and Receipt of SSI & SSDI

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## Abstract

Both self-reported disability and receipt of federal disability assistance (SSI and SSDI) vary substantially across U.S. counties. This project examines whether and to what extent spatial variation in economic opportunity—operationalized using place-based estimates of intergenerational economic mobility for a recent cohort—can help us account for variation in disability across counties and within counties over time. Specifically, this project examines three key research questions: 1. Is there an association between local area economic opportunity and labor force participation? 2. Is there an association between local area economic opportunity, self-reported disability status, and receipt of federal disability assistance (SSI and SSDI)? 3. Does local area economic opportunity moderate the relationship between labor demand, self-reported disability status, and receipt of SSI/SSDI? We find that areas characterized by low economic opportunity have higher rates of self-reported disability and disability assistance receipt, net of local area sociodemographic and economic characteristics. We also find evidence that economic opportunity moderates the relationship between business cycle dynamics and disability; following an increase in unemployment, self-reported disability rates and receipt of SSDI increase more in low-opportunity areas than in high-opportunity areas. These findings have implications for projecting future demand for disability assistance across counties in response to business cycle dynamics and may be instructive for efforts to detail the pathways linking labor demand, labor force participation, and demand for disability assistance.

## 1. Introduction

Self-reported disability and receipt of federal disability assistance (SSI and SSDI) vary substantially across U.S. localities. Existing research has largely attributed this spatial variation to geographic differences in sociodemographic composition, population health, and labor demand (see, e.g., Autor 2015; Gettens, Lei, and Henry 2018). The association between labor demand and disability is particularly well established (Autor and Duggan 2003; Autor, Duggan, and Gruber 2014).<sup>1</sup> Rates of disability track with business cycle dynamics; when unemployment increases, so does self-reported disability and demand for disability assistance (see O’Brien 2013). At the same time, variation in labor demand does not fully account for observed spatial variation in self-reported disability or receipt of federal disability assistance programs across counties or within counties over time. In a recent briefing paper on trends in disability insurance, researchers at the Social Security Administration (SSA) note that while “external studies have found that the disability incidence rate is tied to economic trends . . . our own, still preliminary, research finds that fluctuations in the disability incidence rate are only partly explainable by economic cycles” (SSA 2019). 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.

The aim of this project is to examine whether and to what extent local area economic opportunity can help account for variation in disability levels and trends across U.S. localities. Following recent literature on economic opportunity and health outcomes, we operationalize local economic opportunity using a new county-level measure of the level of upward economic mobility achieved in adulthood by children from low-income families born in the early 1980s. Specifically, our measure of economic opportunity is the mean expected income rank in adulthood of children born to parents at the 25th percentile of the national income distribution, as calculated by Chetty, Hendren, Kline, and Saez (2014). Conditional on being born to families at the same point in the income distribution, differences in the mean income percentile ranking achieved in adulthood serve to capture relative variation in levels of economic opportunity across

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<sup>1</sup> See SSA 2019 for a discussion.

U.S. counties. Research consistently demonstrates that the likelihood a child born to low-income parents can ascend the economic ladder in adulthood is strongly conditioned by where he or she grows up (Chetty, Hendren, Kline, and Saez 2014). This variation in economic mobility outcomes across U.S. localities is correlated with a range of factors, including labor market dynamics, education quality, government spending, demographic composition, and even crime levels (Chetty, Hendren, Kline, and Saez 2014; Sharkey and Torrats-Espinosa 2017).

Quantifying differences in mobility outcomes across counties therefore yields a new and potentially useful measure of the economic and social structures in place. Thus, the extent to which children from low-income families are able to climb the income ladder in adulthood, we argue, is a useful holistic measure of the degree of economic opportunity in a local area.

Researchers have recently employed these local area estimates of intergenerational mobility to examine the relationship between economic opportunity and population health. One study, by Venkatarmani, Brigell et al. (2016), found that, conditioning on a range of individual-level covariates, individuals raised in low-opportunity settings are more likely to exhibit risky health behaviors in adolescence. A separate study finds that even after adjusting for unemployment and changes in sociodemographic composition, areas characterized by low economic opportunity experienced greater increases in white, middle-aged all-cause mortality since 1990 relative to areas characterized by high economic opportunity (O'Brien et al. 2017; see also Venkataramani, Chatterjee et al. 2016). Local area economic opportunity is associated with both individual health behaviors and population-level health outcomes; therefore, we may expect this measure to be associated with both self-reported disability and demand for disability assistance programs.

At the same time, to the extent this measure captures real differences in the opportunity structure of localities, it may prove particularly useful for analyzing the relationship between business cycle dynamics and disability. We might hypothesize, for example, that disability rates will be more responsive to shocks to labor demand in low-opportunity areas relative to high-opportunity areas. Finding that economic opportunity moderates the relationship between labor demand (measured as unemployment) and disability would have important implications for both theory and practice. For one example, such a finding may prove useful to the large and growing literature that seeks to detail the mechanisms by which business cycle dynamics shape disability

incidence and prevalence. At the same time, such information may have utility in efforts to forecast future demand for disability assistance across localities in the face of both acute shocks to labor demand resulting from short-term unemployment and long-run, sector-specific declines in employment.

### **1.1 Specific Aims and Key Research Questions**

This project aims to examine whether and to what extent spatial variation in local area economic opportunity can account for 1) local variation in rates of labor force participation, 2) observed variation in self-reported disability and receipt of disability assistance across U.S. localities net of economic characteristics and sociodemographic composition, and 3) why the correlation between unemployment and disability within counties is stronger in some places than in others. Specifically, the analyses that follow aim to explore three research questions:

1. Is there an association between local area economic opportunity and labor force participation?
2. Is there an association between local area economic opportunity, self-reported disability status, and receipt of federal disability assistance (SSI and SSDI)? Does this association hold net of local area sociodemographic and economic characteristics?
3. Does local area economic opportunity moderate the relationship between labor demand, self-reported disability status, and receipt of SSI/SSDI?

## **2. Data & Methods**

### **2.1 Data**

*Economic Opportunity.* Estimates of intergenerational economic mobility were generated by Chetty, Hendren, Kline, and Saez (2014) from linked parent-child IRS administrative tax records. For each child in a given birth cohort, an income percentile ranking was assigned based on the income level achieved by the child in early adulthood. Parents were also assigned an income percentile ranking according to their income when the child was in early adolescence.

From these linked data, Chetty, Hendren, Kline, and Saez (2014) generate county-level estimates of the mean expected income percentile ranking of children born to parents at the 25th percentile in the national income distribution; for a detailed description, see Chetty, Hendren, Kline, and Saez (2014).

*Unemployment, Labor Force Participation, and Self-Reported Disability.* County-level estimates of unemployment and labor force participation for the working-age population are taken from the Bureau of Labor Statistics local area unemployment statistics program. Rates of self-reported disability for workers aged 35–64 are calculated from the American Community Survey (ACS); rates correspond to percentage of persons reporting any disability. Cross-sectional models employ ACS 5-year estimates for the years 2013–2017; ACS 1-year estimates are used in longitudinal models.

*SSI & SSDI Receipt.* Rates of SSI and SSDI receipt are estimated using county-level enrollment data made publicly available by the SSA; rates are calculated by dividing the number of program beneficiaries by the total size of the working-age population (and separately for children under 18 for SSI).

*Covariates.* County-level covariates, including median household income, percent with a high school degree, poverty rate, total population, age distribution, household composition, racial composition, homeownership rate, and income inequality, are taken from the ACS 5-year (2013–2017 and 1-year data sets. Data on local area spending are taken from the U.S. Census of Governments.

## **2.2 Methods**

To explore research questions 1 and 2, we estimate a series of OLS cross-sectional models to examine the relationship between local area economic opportunity, labor force participation, and disability across U.S. counties before and after conditioning on a vector of sociodemographic and economic covariates. We also present results from specifications that include state fixed effects. The unit of analysis is the county, and the analytic sample ranges from 2,610 to 2,765 counties—sample size varies slightly due to differential availability of data on dependent and independent variables across models and specifications.

To explore research question 3, we estimate a two-way fixed effects—county and year—model, including an interaction between annual county-level unemployment (time-varying) with economic opportunity. This interaction tests for whether opportunity moderates the relationship between unemployment and disability within counties over time. Our analytic sample in the longitudinal analysis is comprised of 816 counties for which we have annual data on our key measures.

### **3. Key Findings**

#### **Research Question 1: Is there an association between local area economic opportunity and labor force participation?**

Table 1 presents results from OLS regression models estimating the relationship between our measure of economic opportunity—the average mobility outcomes for children born to families at the 25th income percentile—and labor force participation rates across U.S. counties. Model 1 presents the bivariate relationship; the positive and statistically significant coefficient indicates that counties characterized by higher levels of economic opportunity also have higher levels of labor force participation. This association disappears after we include our vector of county-level covariates from the ACS (Model 2) and remains statistically and substantively insignificant after inclusion of state fixed effects (Model 3). Taken together, these results suggest that there is no meaningful relationship between our measure of local area economic opportunity and labor force participation across U.S. counties.

Table 1. Labor Force Participation and Economic Opportunity Across U.S. Counties

Outcome: Labor Force Participation Rate, Ages 16–64	M1	M2	M3
	Bivariate	+ Covariates	+ State FE
Opportunity (25th percentile)	0.004*** (0.001)	0.001 (0.001)	–0.000 (0.001)
Unemployment Rate		–0.671*** (0.122)	–0.542*** (0.101)
Median Household Income (in \$1000s)		–0.000 (0.000)	–0.000 (0.000)
% High School Degree		–0.116* (0.049)	–0.206*** (0.043)
Poverty Rate		–0.652*** (0.067)	–0.572*** (0.053)
State Fixed Effects	No	No	Yes
N	2765	2756	2756
R-Squared	0.093	0.605	0.722

*Notes:* Robust standard errors in parentheses; \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ; Model 2 also adjusts for total population, age distribution, racial composition, and income inequality (Gini coefficient). Results substantively unaffected by including county-area government spending.

**Research Question 2: Is there an association between local area economic opportunity, self-reported disability status, and receipt of federal disability assistance (SSI and SSDI)? Does this association hold net of local area sociodemographic and economic characteristics?**

**Self-Reported Disability.**

We next examine the relationship between local area economic opportunity and self-reported disability. Here we use a broad indicator for self-reported disability status, specifically the percentage of males and females (separately) reporting any disability in the ACS. Figures 1 and 2 present the bivariate relationship between economic opportunity (X-axis) and percent reporting a disability (Y-axis) across U.S. counties for males and females aged 35–64. In both figures we see a negative correlation: where economic opportunity is higher, self-reported disability among those aged 35–64 is lower. This negative association holds for both males (Figure 1) and females (Figure 2).



Figure 1. Self-Reported Disability (Males 35–64) and Economic Opportunity (ACS 5-Year Estimates 2013–2017)

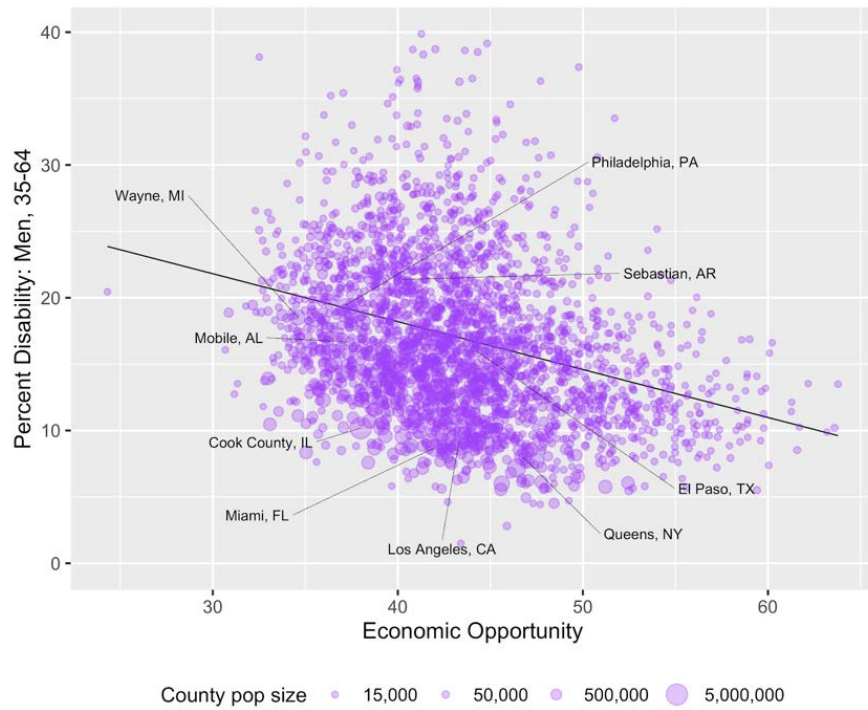
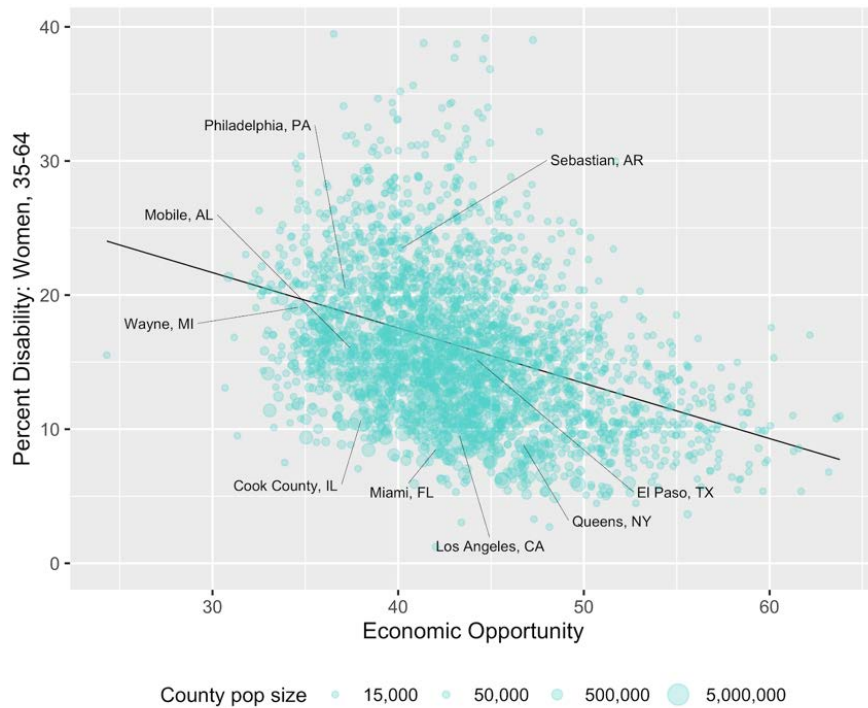


Figure 2. Self-Reported Disability (Females 35–64) and Economic Opportunity (ACS 5-Year Estimates 2013–2017)



We next examine this relationship using a multivariable regression framework. Table 2 presents estimates from three OLS regression models examining the relationship between local area economic opportunity and self-reported disability separately for women and men. Model 1 presents the bivariate relationship, with the negative coefficient corresponding to the slope of the lines in Figures 1 and 2. Model 2 adds our vector of county-level economic and sociodemographic covariates, including unemployment, labor force participation, education, age and racial composition, and poverty and inequality. After including these covariates, the coefficient on economic opportunity remains statistically significant and substantively large in models predicting self-reported disability for both women and men. Model 3 adds state fixed effects. Here again we see that the coefficient on economic opportunity remains negative, large, and statistically significant. This result suggests that county-level economic opportunity is associated with self-reported disability even after accounting for a range of economic and sociodemographic characteristics—including labor demand—and when restricting analyses to counties within the same state.

Table 2. Economic Opportunity and Self-reported Disability for Men and Women, Age 35–64

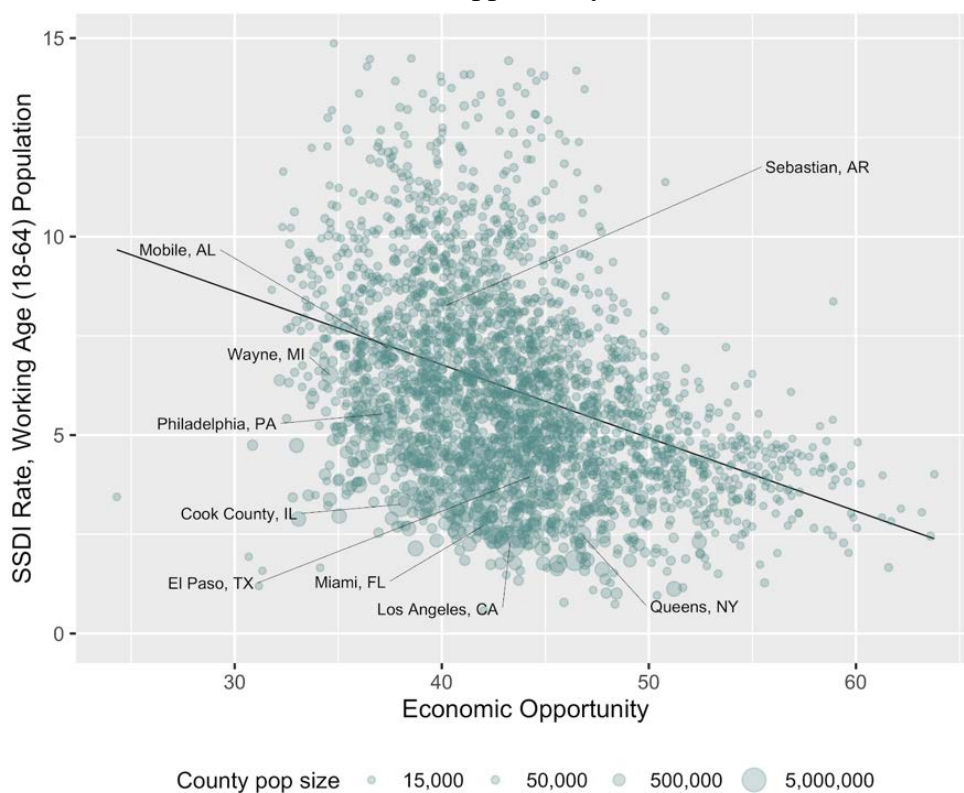
Outcome: Self-Reported Disability (Ages 35–64)	Women			Men		
	M1 Bivariate	M2 + Covariates	M3 + State FE	M1 Bivariate	M2 + Covariates	M3 + State FE
Opportunity (25th percentile)	-0.471*** (0.060)	-0.181*** (0.044)	-0.236*** (0.039)	-0.419*** (0.062)	-0.124* (0.056)	-0.158** (0.048)
Unemployment Rate		0.329*** (0.058)	0.476*** (0.061)		0.418*** (0.071)	0.628*** (0.075)
Median Household Income (in \$1000s)		-0.053** (0.020)	-0.069** (0.023)		-0.071*** (0.019)	-0.065** (0.024)
Labor Force Participation Rate (16–64)		-0.133*** (0.024)	-0.128*** (0.026)		-0.233*** (0.028)	-0.234*** (0.034)
% High School Degree		0.089** (0.026)	0.077*** (0.022)		0.044 (0.027)	0.055* (0.023)
Poverty Rate		23.047** (7.321)	14.143* (6.397)		13.479* (6.347)	8.043 (6.808)
State Fixed Effects	No	No	Yes	No	No	Yes
N	2765	2765	2765	2765	2765	2765
R-Squared	0.192	0.763	0.815	0.129	0.780	0.821

Notes: Robust standard errors in parentheses; \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ; Model 2 also adjusts for total population, age distribution, racial composition, and income inequality (Gini coefficient). Results substantively unaffected by including county-area government spending.

SSDI Receipt.

Having established a correlation between economic opportunity and self-reported disability across U.S. counties net of a host of sociodemographic and economic covariates, we next turn to examine the relationship between economic opportunity and SSDI receipt. We calculated SSDI rates for each county by dividing the total number of current SSDI beneficiaries aged 18–64 by the total size of the working-age population in the county. We first present the bivariate association in Figure 3. Here again we see a negative correlation: where economic opportunity is higher, rates of SSDI receipt are lower.

Figure 3. Adult SSDI Rate and Economic Opportunity (ACS 5-Year Estimates 2013–2017)



Of course, this observed association may be explained by county-level differences in sociodemographic and economic characteristics that are correlated with economic opportunity. To examine this possibility, we turn to output from our multivariable regression models, presented in Table 3. The negative coefficient in Model 1 corresponds to the bivariate association depicted in Figure 3. Model 2 adds our vector of county-level covariates and Model 3 includes state fixed effects. Across all three model specifications, the coefficient on our measure of economic opportunity remains large, negative, and statistically significant. This result suggests that

economic opportunity can help us account for observed spatial variation in SSDI receipt over and above standard predictors such as unemployment, labor force participation, and sociodemographic composition. This finding indicates economic opportunity is capturing a distinct feature of place, at least in terms of predicting levels of SSDI receipt.

Table 3. Economic Opportunity and SSDI Rate for Working Age (18–64) Population

Outcome: SSDI, Ages 18–64	M1	M2	M3
	Bivariate	+ Covariates	+ State FE
Opportunity (25th percentile)	–0.155*** (0.030)	–0.060* (0.024)	–0.082*** (0.023)
Unemployment Rate		0.037 (0.027)	0.095*** (0.027)
Median Household Income (in \$1000s)		–0.023* (0.009)	–0.018 (0.013)
Labor Force Participation Rate (16–64)		–0.063*** (0.014)	–0.048*** (0.012)
% High School Degree		0.040** (0.014)	0.055*** (0.013)
Poverty Rate		10.807*** (1.801)	9.625*** (1.591)
State Fixed Effects	No	No	Yes
N	2764	2764	2764
R-Squared	0.096	0.814	0.871

*Notes:* Robust standard errors in parentheses; \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ; Model 2 also adjusts for total population, age distribution, racial composition, and income inequality (Gini coefficient). Results substantively unaffected by including county-area government spending.

### SSI Receipt.

We next turn to examine the relationship between local area economic opportunity and SSI receipt. We might expect economic opportunity to be less correlated with SSI receipt than SSDI receipt, given the differences in program eligibility and target populations. Here we examine SSI rates separately for children under age 18 and for adults of working age. Figures 4 and 5 present the bivariate association across U.S. counties between economic opportunity and SSI receipt among children and adults, respectively. Here again we see a negative correlation: across U.S. counties, areas with higher levels of economic opportunity have lower levels of SSI receipt for both children and adults.

Figure 4. SSI Rate for Children Under 18 and Economic Opportunity



Figure 5. Adult (Age 18–64) SSI Rate and Economic Opportunity



But to what extent is this association driven by differences in sociodemographic composition or economic characteristics across U.S. counties? Table 4 presents estimates from our multivariable

regression models of the association between economic opportunity and SSI for children under 18 across U.S. counties. Model 1 reproduces the negative bivariate association depicted in Figure 4. Model 2 adds our vector of county-level sociodemographic and economic covariates. Inclusion of these covariates attenuates the size of the coefficient on our opportunity measure, rendering it no longer statistically different from zero. Notably, the coefficient increases after including state fixed effects in Model 3. Taken together, these models suggest that economic opportunity provides little additional information over and above economic and sociodemographic characteristics in models predicting rates of SSI receipt among children under 18.

Table 4. Economic Opportunity and SSI Rate for Children Under 18

Outcome: SSI, Ages 0–17	M1	M2	M3
	Bivariate	+ Covariates	+ State FE
Opportunity (25th percentile)	–0.137*** (0.014)	–0.015 (0.015)	–0.054*** (0.014)
Unemployment Rate		–0.031 (0.024)	–0.009 (0.015)
Median Household Income (in \$1000s)		–0.005 (0.004)	–0.008 (0.006)
Labor Force Participation Rate (16–64)		0.003 (0.008)	–0.004 (0.006)
% High School Degree		0.044*** (0.012)	0.014 (0.009)
Poverty Rate		7.971*** (1.314)	7.637*** (1.239)
State Fixed Effects	No	No	Yes
N	2610	2610	2610
R-Squared	0.300	0.690	0.819

*Notes:* Robust standard errors in parentheses; \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ; Model 2 also adjusts for total population, age distribution, racial composition, and income inequality (Gini coefficient). Results substantively unaffected by including county-area government spending.

We next turn to our multivariable models examining the relationship between economic opportunity and county level SSDI receipt among working-age adults. Table 5 presents estimates from our OLS regression models. Model 1 reproduces the bivariate association depicted in Figure

5. Notably, the coefficient on our measure of economic opportunity attenuates to zero and is no longer significant after including our vector of county-level covariates (Model 2) or after further adding state fixed effects to our model (Model 3). This result indicates that county-level economic opportunity provides no additional information over and above standard sociodemographic and economic characteristics when modeling the determinants of spatial variation in SSI receipt.

Table 5. Economic Opportunity and SSI Rate for Adult Working Age (18–64) Population

Outcome: SSI, Ages 18–64	M1	M2	M3
	Bivariate	+ Covariates	+ State FE
Opportunity (25th percentile)	–0.146*** (0.016)	0.019 (0.016)	–0.034 (0.018)
Unemployment Rate		0.122*** (0.027)	0.093*** (0.020)
Median Household Income (in 1000s)		0.005 (0.004)	–0.012* (0.005)
Labor Force Participation Rate (16-64)		–0.028** (0.010)	–0.040** (0.012)
% High School Degree		0.023* (0.010)	0.003 (0.009)
Poverty Rate		19.953*** (2.186)	15.564*** (1.950)
State Fixed Effects	No	No	Yes
N	2752	2752	2752
R-Squared	0.185	0.749	0.826

*Notes:* Robust standard errors in parentheses; \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ; Model 2 also adjusts for total population, age distribution, racial composition, and income inequality (Gini coefficient). Results substantively unaffected by including county-area government spending.

**Research Question 3: Does local area economic opportunity moderate the relationship between labor demand, self-reported disability status, and receipt of SSI/SSDI?**



The empirical analyses above demonstrate an association between local area economic opportunity and disability—both self-reported disability and SSDI receipt—across U.S. counties, net of sociodemographic and economic characteristics and including unemployment and labor force participation. This result suggests that our measure of economic opportunity is providing new information about local areas that may prove useful in spatial analyses of the association between business cycle dynamics and disability. For instance, local area economic opportunity may serve to moderate the relationship between labor demand and disability. Specifically, we might hypothesize that rates of disability will be more responsive to increases in unemployment in counties characterized by low levels of economic mobility relative to counties characterized by high levels of economic mobility. To examine this possibility, we first plotted the relationship between county-level unemployment and disability over time separately for low- (bottom quintile), medium- (middle quintile), and high- opportunity (top quintile) counties for the years 2006–2017, covering the period of the great recession during which virtually every county experienced a substantial uptick in unemployment. Figures 6 and 7 plot this association for the Adult SSDI Rate and the Adult SSI Rate, respectively. The pattern is similar across both disability assistance programs: disability rates are more responsive to increasing unemployment in counties characterized by low opportunity than it is in counties characterized by high opportunity. This finding provides suggestive evidence that opportunity does indeed serve to moderate the relationship between labor demand and disability across U.S. counties.



Figure 6. Unemployment and Adult SSDI Rate by County, 2006–2017

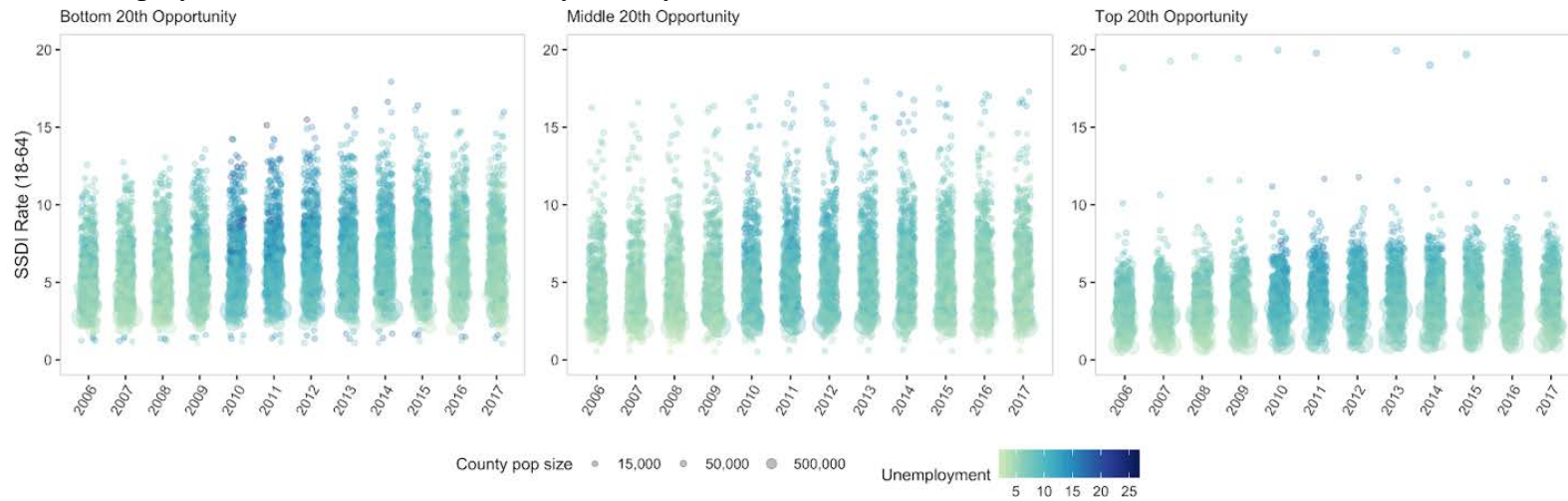
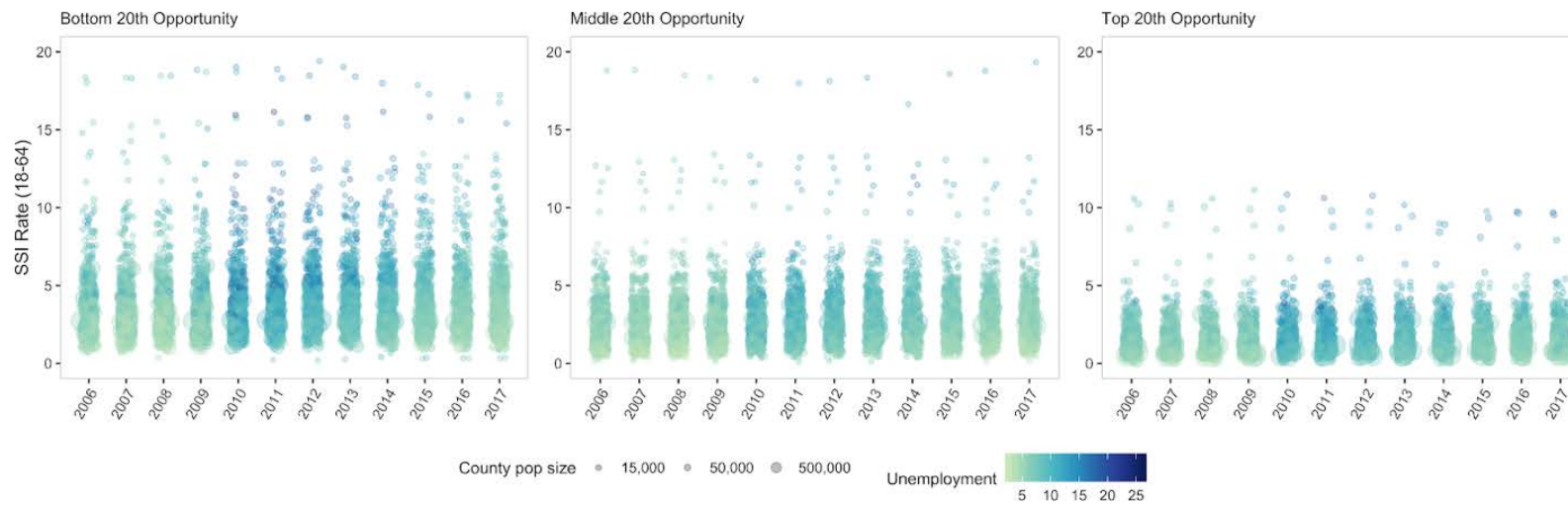


Figure 7. Unemployment and Adult SSI Rate by County, 2006–2017



We next examine the potential moderating effect of economic opportunity on the relationship between unemployment and disability in a multivariable framework. We model this relationship using a two-way (county and year) fixed effect model. For each of our three outcomes—Adult SSDI Rate, Adult SSI Rate, and Self-Reported Disability Rate—we estimate two models. Model 1 is a baseline model that includes the time-varying county-level unemployment rate as well as an interaction between that measure and our time-invariant measure of county-level economic opportunity. The negative and statistically significant coefficient on the interaction term indicates that the relationship between unemployment and disability is indeed moderated by the level of economic opportunity. Specifically, across all three disability outcomes, we find that increasing unemployment within counties over time is associated with greater increases in disability in counties characterized by higher levels of economic opportunity than in counties characterized by lower levels of economic opportunity. Notably, the coefficient on the interaction between unemployment and economic opportunity remains negative and statistically significant for all three disability outcomes even after including a vector of time-varying, county-level sociodemographic and economic characteristics in the model. Taken together, these results suggest that the relationship between labor demand and disability is strongly moderated by other features of place, as captured by differences across counties in our measure of economic opportunity.

Table 6. Economic Opportunity, Unemployment, and Disability, U.S. Counties, 2006–2017

Outcome:	SSDI		SSI, Ages 18–64		Self-Reported, Ages 35–64	
	M1	M2	M1	M2	M1	M2
		+ Covariates		+Covariates		+ Covariates
Unemployment Rate	0.115*** (0.0187)	0.1154*** (0.0187)	0.0342** (0.0118)	0.0190 (0.0128)	0.2890** (0.0927)	0.2136* (0.0939)
Unemployment Rate x Opportunity	−0.003*** (0.0005)	−0.003*** (0.0004)	−0.0011*** (0.0003)	−0.00008** (.0003)	−0.0068** (0.0022)	−0.0049* (0.0022)
County & Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of County-Years	8709	8709	8709	8709	8314	8314
Number of Counties	816	816	816	816	815	815
R-Squared	0.622	0.755	0.281	0.496	0.111	0.131

*Notes:* Robust standard errors in parentheses; \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ; Model 2 also adjusts for median income, poverty rate, total population, age distribution, racial composition, household composition, homeownership rate, and income inequality (Gini coefficient).

## 4. Discussion and Conclusion

In this project, we investigated whether and to what extent local area economic mobility—operationalized using newly available county-level estimates of intergenerational economic mobility for children born to low-income families—can help account for observed spatial variation in self-reported disability and receipt of disability assistance. In our cross-sectional analysis of more than 2,700 U.S. counties, we found a negative association between local area economic mobility and both self-reported disability and SSDI receipt; that association was robust to inclusion of standard covariates. Notably, the observed bivariate association between economic opportunity and SSI receipt (among children and among working-age adults) is not robust to inclusion of covariates, suggesting that economic opportunity may provide less useful additional information when modeling spatial variation in demand for that program.

Having established a baseline correlation between economic opportunity and disability across U.S. counties, we then examined whether opportunity moderates the relationship between labor demand and disability within counties over time. In a two-way fixed effects regression framework, we found evidence consistent with a moderation story across each of our disability

outcomes: as unemployment increases, disability rates increase more in areas characterized by low economic opportunity relative to areas characterized by high levels of economic opportunity.

Taken together, these analyses indicate that our measure of local area economic opportunity is capturing an aspect of place that is independently associated with disability and, moreover, serves to moderate the relationship between labor demand and disability over time. This information may prove useful in efforts to predict the impact of future economic downturns on demand for disability assistance across U.S. counties. Moreover, this finding may be useful for generating new insights and hypotheses as to the mechanisms underlying the relationship between labor demand and self-reported disability and demand for disability assistance.

One major limitation of this analysis is our limited understanding of what, exactly, accounts for variation in economic opportunity across U.S. localities. However, as future work yields new information on what specific aspects of place are driving differences in intergenerational economic mobility, these findings suggest that information may also yield new insights into the drivers of disability, particularly which features of place serve to structure differences in disability levels and differential responsiveness to changes in labor demand.

Future work should examine whether and to what extent the associations this study identified between economic opportunity and disability hold for particular population subgroups. For example, newly available race- and sex-specific estimates of intergenerational economic mobility across U.S. counties may prove useful in examining variation in disability and in demand for disability assistance between whites and nonwhites and between men and women within and between counties. Examining how these associations differ across subgroups may yield additional insights into the social and economic processes that shape demand for disability.

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