

The Effects of Expanding Access to Mental Health Services on SS(D)I Applications and Awards

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Mental Illness in the U.S.

High prevalence of mental health illness more generally in the U.S.

- Over 46 million adults suffer some form of mental illness
- 5.2% of all adults have a Serious Mental Illness (SMI)
- Burdens are concentrated among those experiencing disability due to SMI
 - Many with SMI rely on government disability benefits to survive

Source: National Institute of Mental Health

Outstanding question:

Does increased access to mental health services affect federal disability program participation?

Contributions: mental health, work, and program participation

Mental health has far-reaching labor market implications

- Mental illness is the leading cause of sickness absence and incapacity in most high-income countries (Harvey et al., 2009)
- Effective treatments exist, but treatment rates remain low (Layard, 2013)
- In the context of reliance on SS(D)I, limited evidence that mental health interventions can reduce dependence (Miller and Livermore, 2019)

Our work: Putting some numbers on the causal link between mental health services and disability program participation

Background: Mental Health Service Delivery

Despite expansions, treatment rates remain low and a commonly cited barrier is the inability to locate a provider (CBHSQ, 2019)

- Wait-times at outpatient clinics often span weeks to months (Blech et al., 2017; Steinman et al., 2015)
- Longer wait-times lead to less favorable outcomes (Steinert et al., 2017)

Outstanding question:

What happens to program participation when these barriers are reduced?

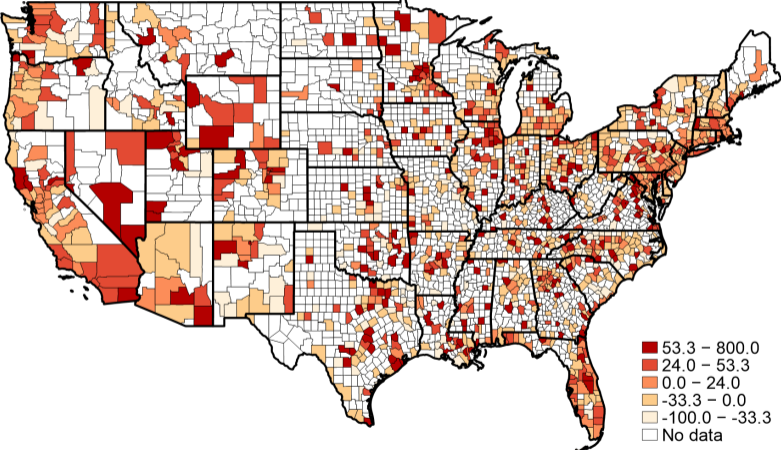
Data: County Business Patterns (CBP)

Number of establishments (single physical location), employment by county, year and NAICS code

Define “office-based mental healthcare providers” using NAICS codes following Deza et al., 2019

- *621112*: offices of physicians, mental health specialists
- *621330*: offices of mental health practitioners except physicians
- Similar variation leveraged in previous work (Swensen, 2015; Bondurant et al, 2018; Borgschulte et al., 2018)

Percentage Change in OBMH from 2010–2016



Data: SS(D)I

Applications and awards for SS(D)I obtained from the SSA

- County-year applications and awards (still waiting on SSDI awards)
- Limited to prime-age (ages 18-65)
- Years: 2010-2016

Data Restrictions / Limitations

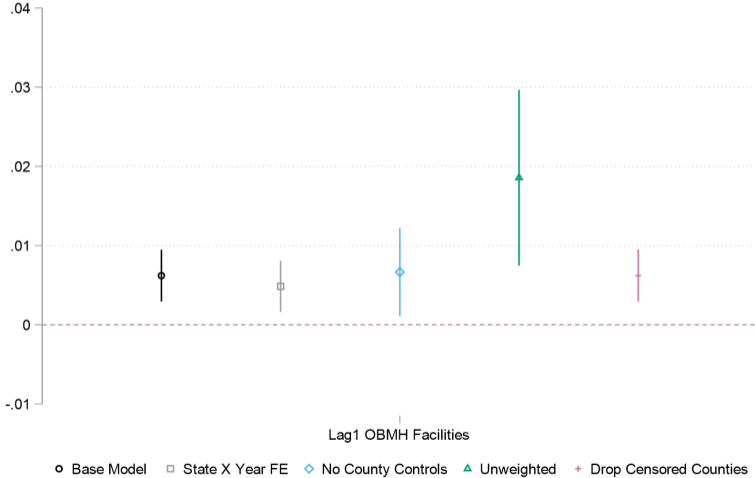
- SSA censors all county-year observations with <10 apps/awards
- We keep counties that have a CBSA code (i.e. the county will a micropolitan area or larger)
- We replace any additional censored cells in the panel = 5

Estimating the effect of access to OBMH services:

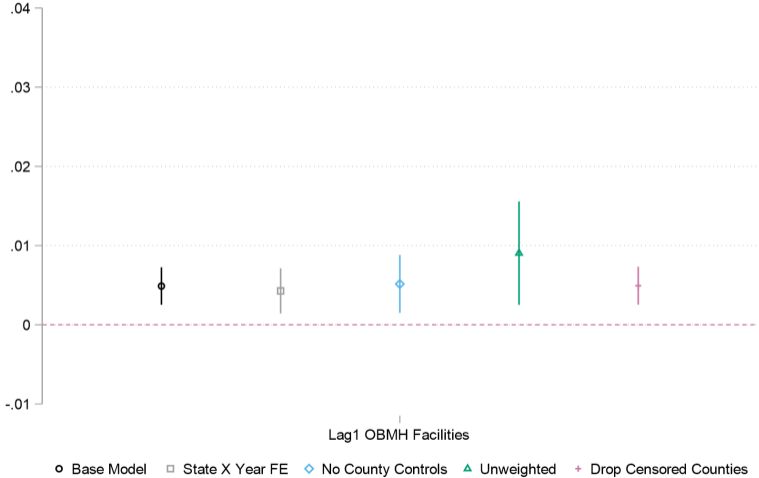
We leverage the number of physical establishments providing OBMH services within counties over time

- Expansions in the number of establishments may increase the take up of Mental Health Services by relaxing existing capacity constraints
- Expansions may increase services by introducing new options and/or lower cost options to the community

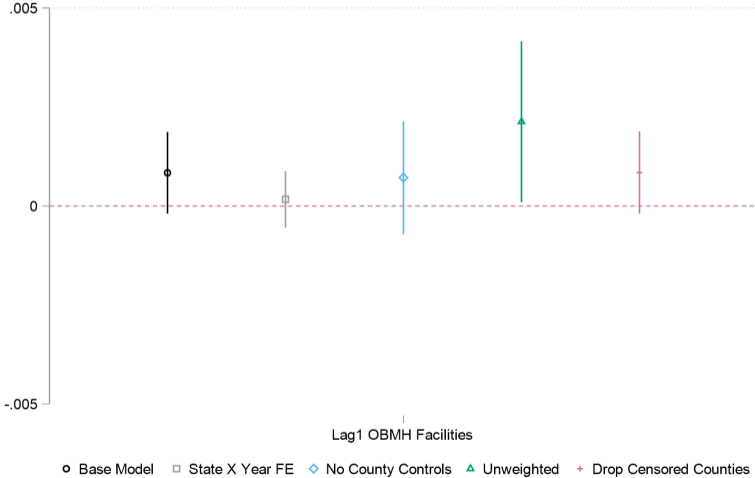
Results: SSI Applications



Results: SSDI Applications



Results: SSI Awards



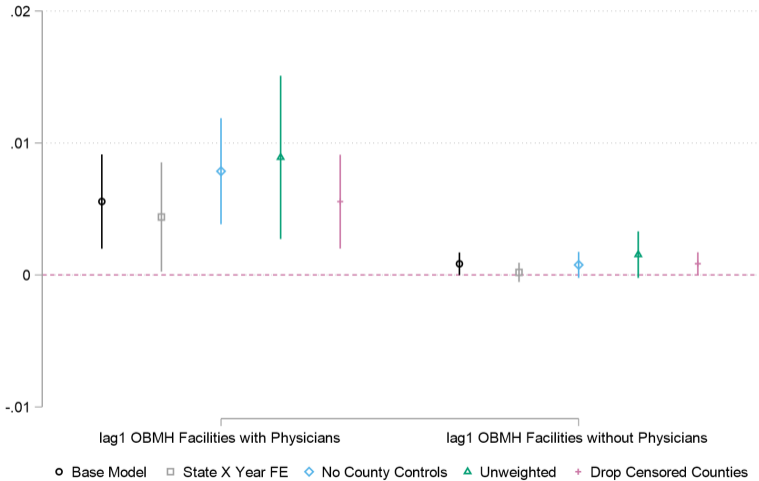
Main Results

	SSI Apps	SSDI Apps	SSI Awards
Lag1 OBMH Facilities	0.00621*** (0.00167)	0.00488*** (0.00121)	0.00084 (0.00053)
DV Mean	8.06	10.95	2.57
Unique Counties	1,811	1,801	1,811
N	12,677	12,677	12,677

A 10% increase in the number of facilities

- Increases SSI application rate by .097 or by 1.2%
- Increases SSDI application rate by .076 or by .7%
- (imprecise) increase in in SSI awards rate by .013 or by .5%

Results: SSI Awards by Facility Type



Results by Poverty, Per-Capita Income, and Education

	High Poverty	Low Poverty	High Education	Low Education
SSI Apps				
Lag1 OBMH Facilities	0.01007*** (0.00185)	0.00590 (0.00378)	0.00115 (0.00513)	0.01022*** (0.00238)
SSDI Apps				
Lag1 OBMH Facilities	0.00797*** (0.00140)	0.00379 (0.00322)	-0.00340 (0.00380)	0.00825*** (0.00184)
SSI Awards				
Lag1 OBMH Facilities	0.00191*** (0.00068)	0.00001 (0.00123)	-0.00218* (0.00119)	0.00196** (0.00078)
N	6,377	6,300	6,279	6,279

Recap

Preliminary evidence that expanded access to mental health services leads to increases participation in SS(D)I programs.

- A 10% increase in establishments leads to 76 SSI applications, 60 SSDI applications, and 10 SSI awards **in the average county**
- Larger effects in counties with higher rates of poverty and lower educational attainment