ACADEMIA | Letters

Homelessness and Property Tax Freedom: An Empirical Note

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Introduction

Persistent homelessness is present across a variety of nations. These include such politically and economically diverse nations as the UK (Bramley and Fitzpatrick, 2018), US (Early, 2005; Fargo et al, 2013; Corinth and Lucas, 2018; Glynn and Fox, 2019), Spain (Cabrera and Garcia-Perez, 2020), and Australia (Cobb and Zhu, 2017). Not surprisingly, in response, there has appeared an impressive body of research literature seeking to identify factors that systematically influence this phenomenon. Such studies, especially for the US, focus on a variety of explanatory variables. Among these variables, educational attainment, income, warmer climate, the cost of housing/rent levels (Grimes and Chressanthis, 1997; Quigley et al, 2001) and the overall cost of living (Cebula and Alexander, 2020), have been found to contribute the most consistently to the degree of homelessness.

In an effort to extend the above literature, this exploratory study provides evidence regarding the potential impact of higher property taxation on homelessness. It is argued here that the higher the average effective property tax in a state relative to income in that state, the greater the overall property tax burden to actual or would-be homeowners, to actual or would-be owners of rental property, and, ultimately, to actual or would-be renters. In the lattermost case, higher property taxes are passed along to renters in the form of higher rent, with the degree of that pass-along depending upon rental market tightness.

In other words, potentially, one's ability to purchase/rent housing or continue to own/rent housing could be adversely impacted by higher property taxation. Furthermore, according

to Stansel et al. (2018), the higher the property tax burden in a state, the greater the degree of restrictions on private choice and the greater the degree to which economic freedom declines. Moreover, higher property tax burdens lead to lower levels of property tax freedom, i.e., lower property tax freedom reflects an increased property tax burden (Hall and Lawson, 2014). Accordingly, it is hypothesized here that the greater the *freedom from property taxation* (*PRTXFREE*) in a state, the lower the property tax burden in that state and hence the lower the risk of homelessness in that state, *ceteris paribus*.

2. Model and Estimation Results

Using state-level panel data for the largely post-Great Recession period for 2009 through 2016, the rate of homelessness in each state is expressed as the natural log of the percent of that state's total population that is classified as homeless (*PCTHLESS*). To provide an exploratory test of the above hypothesis, the following parallel semi-log equations to be estimated by panel period fixed effects:

$$Log\ PCTHLESS_{jt} = f(PRTXFREE_{jt}, COL_{jt}, Log\ PCI_{jt}, PCTHS_{jt}, PCTBACH_{jt}, JANTEMP_{jt})\ (1)$$

$$Log\ PCTHLESS_{jt} = g(PRTXFREE_{jt-1}, COL_{jt-1}, Log\ PCI_{jt-1}, PCTHS_{jt-1}, PCTBACH_{jt-1}, JANTEMP_{jt-1})\ (2)$$

In these equations, *j* refers to state *j*, *t* refers to year *t*, and *t-1* refers to year *t-1*, and *PRTXFREE* is the index of property tax freedom in each state. In addition, *COL* is the overall average cost of living for the average four-person family in each state; *Log PCI* is the natural log of per capita personal income in each state; *PCTHS* is the percent of the adult population age 25 and over with a high school degree *only* in each state; *PCBACHt* is the percent of the adult population age 25 and over with a bachelors degree in each state; and *JANTEMP* is the average high January temperature in degrees Fahrenheit in each state. Based on the aforementioned studies, *COL*, *log PCI*, *PCTHS*, *PCTBACH*, and *JANTEMP* are the control variables. The lagging of the explanatory variables in equation (2) seeks to provide both a modest robustness test and a rudimentary effort to address potential endogeneity.

For the interested reader, the basic descriptive statistics for *PRTXFREE* over the study period are, as follows: mean = 7.854; standard deviation = 1.056; maximum = 9.672; and minimum = 5.003. The data sources were, as follows: Bueno, A., McMahon, F., and Ashby, N. (2011; 2012); Stansel and McMahon (2013); Stansel et al. (2015): Stansel et al. ((2014; 2016; 2017; 2018); U.S. Department of Housing and Urban Development (2012; 2013; 2014;

2015; 2016; 2017); Council for Community and Economic Research. (2017); U.S. Census Bureau (2012; 2013; 2014; 2015; 2016A; 2016B; 2017); United Health Foundation (2017); and Cebula and Alexander, (2020).

Results of the period fixed effects estimates of equations (1) and (2) are provided in Tables 1 and 2, respectively.

Dependent Variable: $PCTHLESS_{jt}$

Explanatory Variables	Coefficient	t-value	Prob.
Constant	-2.1834	-1.37	0.1726
$PRTXFREE_{jt}$,	-0.0809	-4.43	0.0000
COL_{jt}	0.0178	11.33	0.0000
Log PCI_{jt}	-0.3954	-3.06	0.0023
$PCTHS_{jt}$	0.0403	6.77	0.0000
$PCTBACH_{ji}$	-0.0171	-6.45	0.0000
$JANTEMP_{jt}$	0.0061	2.54	0.0115

Effects Specification:	Period Fixed (dummy variables)	
$R2$	0.33	
Adj. $R2$	0.30	
F-statistic	14.42	0.0000

Table 1

Dependent Variable: $PCTHLESS_{jt}$			
Explanatory Variables	Coefficient	*t*-value	Prob.
Constant	-0.7058	-0.48	0.6335
$PRTXFREE_{jt-1}$	-0.1132	-8.93	0.0000
COL_{jt-1}	0.0188	14.53	0.0000
Log PCI_{jt-1}	-0.4878	-4.63	0.0000
$PCTHS_{jt-1}$	0.0371	5.21	0.0000
$PCTBACH_{ji-1}$	-0.0177	-4.54	0.0000
$JANTEMP_{jt-1}$	0.0052	2.30	0.0221
Effects Specification:	Period Fixed (dummy variables)		
$R2$	0.33		
Adj. $R2$	0.31		
F-statistic	14.77		0.0000

Table 2.

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As shown in both Tables 1 and 2, regarding the control variables, the rate of homelessness is found to be an increasing function of the cost of living, the percent of the adult population with a high school degree only, and warmer weather conditions, while being a decreasing function of the log of per capita personal income and the percent of the adult population with a bachelors degree. More importantly, however, from the perspective of this study, homelessness is found to be a decreasing function of property tax freedom, i.e., the greater the degree of property tax freedom, the lower the rate of homelessness. More specifically, at the 1% statistical significance level, a one unit *increase* in the *property tax freedom* index, say, from 6.00 to 7.00, may lead to a *decline* in homelessness in the range of 8.1% to 11.3%. Thus, it appears that this heretofore overlooked potential contributing factor to homelessness may be of some considerable significance to both policymakers and researchers. Accordingly, there is a rationale for more research into this issue. Arguably, such future research should, among other things, include a more elaborately specified model and a longer study period, as well as more sophisticated econometric modeling.

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