

Critique and Analysis of Mandatory Access Laws and Broadband Use in Residential Multi-Tenant Environments, August 2019

Background

Mandatory access laws (MALs) have been enacted in many jurisdictions across the United States. The goal of these laws is to make certain communications services more available to occupants of multi-tenant environments (MTEs) by requiring property owners and managers to allow certain service providers to install the wiring and equipment needed to provide their services. Multifamily units, more specifically apartments, are included in the Federal Communications Commission (FCC)'s definition of MTEs. To date, mandatory access laws have been enacted in 16 states and the District of Columbia.

There is currently limited research regarding the effectiveness of these mandatory access laws in expanding broadband deployment to MTEs, however. The main reason for this is a lack of data. There is very little publicly available data regarding broadband availability and/or usage for commercial properties such as retail and office properties; for apartments, the American Community Survey provides data on whether a household has a broadband internet subscription. A recent study conducted by Steven Kauffman and Octavian Carare of the FCC attempted to examine the impact of these laws on broadband availability and usage in residential MTEs (apartments).

Kauffman and Carare's analysis found that the presence of a state mandatory access law was associated with an increase of approximately 1.8 percentage points in the proportion of households living in MTEs that had a broadband subscription, after running a regression model that took into account other factors such as income, age and race that also tend to be related to subscription rates. The study similarly found that mandatory access laws were associated with an increase of 1.5 percentage points in the fraction of households living in non-MTEs (single-family units) that had a broadband subscription. They argue that this finding indicates mandatory access laws result in higher broadband usage by residents of MTEs.

The main problem with this finding is that mandatory access laws do not apply to non-MTE households, so non-MTE households should not have been included. Once included, no statistically significant relationship should have been detected between mandatory access laws and non-MTE households. Thus, the relationship found between mandatory access laws and non-MTE households must stem from other compositional differences between states with and without mandatory access laws that were not explicitly controlled for in their model. Kauffman and Carare provide no follow-up rationale for why non-MTEs might be affected.

NMHC Analysis

For our analysis, we began with the assumption that mandatory access laws should have no effect on broadband subscription rates among non-MTE units. Any statistical association found between mandatory access laws and subscription rates in non-MTE units could therefore be attributed to other compositional differences between states. The relevant question then became whether any *additional* association could be found between mandatory access laws and broadband subscription rates in MTEs *beyond* that which was observed among non-MTE units. To address this question, we used Kauffman and Carare’s first logit model as a starting point (Model 1 in Table 4 of the paper) and added in an interaction term between MAL (the presence of a state mandatory access law) and MTE (a household in a multi-tenant environment). The results from our model are compared to the FCC model in the following table.

Table 1

	FCC Model 1¹		Revised Model 1	
MAL	0.1661***	0.000	0.1641***	0.000
MAL * MTE			0.0101	0.350
log(Household Income)	0.2575***	0.000	0.2578***	0.000
Number of Household Members	0.0268***	0.000	0.0270***	0.000
Age	-0.0105***	0.000	-0.0104***	0.000
Age*Age	0.0001***	0.000	0.0001***	0.000
No Children Present	-0.0421***	0.000	-0.0423***	0.000
Married	0.1033***	0.000	0.1038***	0.000
Completed High School	0.4253***	0.000	0.4255***	0.000
Completed High School	1.3176***	0.000	1.3171***	0.000
Asian	0.4067***	0.000	0.4063***	0.000
Black	-0.0770***	0.000	-0.0774***	0.000
Hispanic	-0.1610***	0.000	-0.1617***	0.000
White	0.1874***	0.000	0.1878***	0.000
Completed College * Age	-0.0136***	0.000	-0.0136***	0.000
Constant	-1.5349***	0.000	-1.5424***	0.000
Census Division Fixed Effects	Yes		Yes	
Number of Observations	916,374		916,374	
Pseudo R2	0.0549		0.0549	

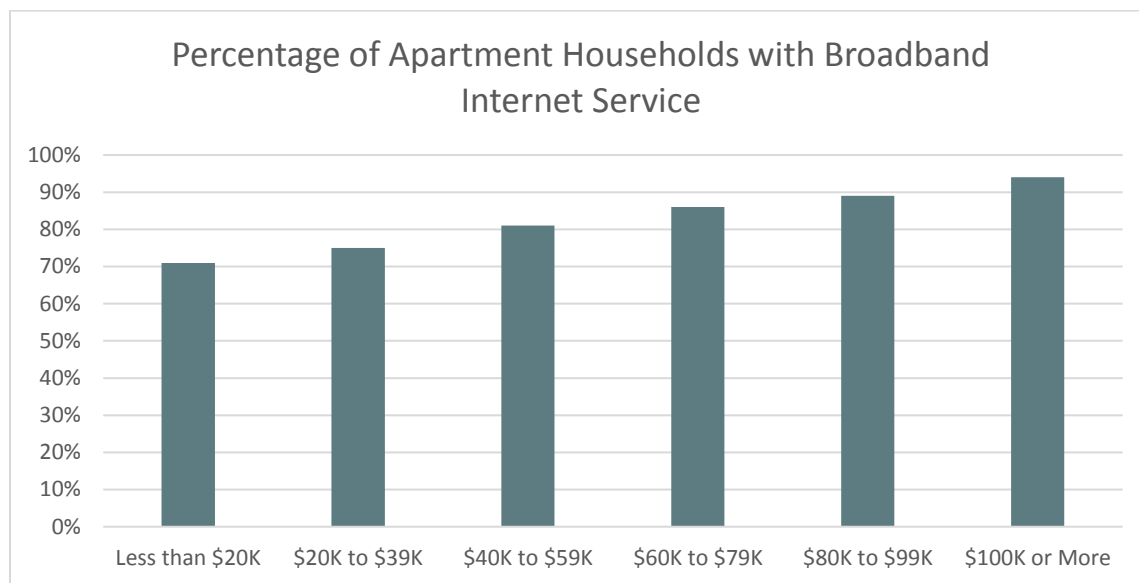
***denotes a significance at the $p < 0.5$ confidence interval.

¹ Despite our best efforts in replicating their model, our regression generated slightly different estimates. Nevertheless, the direction, magnitude and significance of our coefficients were not meaningfully changed.

NMHC Findings

Our revised model showed no significant additional association between mandatory access laws and broadband subscription rates for MTEs (relative to non-MTEs). Thus, there is no evidence that mandatory access laws have any effect on broadband subscription.

It is important to note that there are many other variables that were found to be significant in both the original model as well as our model, including educational attainment, age, race/ethnicity, household type, and household income. This is unsurprising, given that the survey question is not whether the household has access to broadband, it is whether the household has a broadband subscription. Given the cost associated with internet subscriptions, it is especially unsurprising that household income is also correlated with broadband use. The following table reinforces the results of both FCC Model 1 and our Revised Model 1 that show the higher the household income, the more likely to report having a broadband internet subscription.



Source: NMHC tabulations of 2017 American Community Survey microdata.

Suggestions for Additional Research

The ideal way to determine whether a mandatory access law truly has an effect would be to look at time-series data. Examining broadband access before and after the enactment of such a law would be the ideal way to determine effectiveness. While the same issue regarding usage/subscription vs. access would still exist, any effects from the mandatory access law would likely be observed in that type of dataset.

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