

Exploring Unsheltered Homelessness, Migration, and Shelter Access in Kentucky

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Abstract

How do homeless service deserts in rural communities relate to people experiencing homelessness and migration to communities with services? This study explores this relationship using a mixed-methods case study of Kentucky and a rich dataset with county-level data. The data include information on unsheltered homelessness and typically underreported information like the number of people whose homelessness originated in each county. Combining that with data from the U.S. Department of Housing and Urban Development (HUD) on shelters and services shows that people experiencing homelessness migrate to counties with more shelters. Results show the importance of county-level data and data on originating homelessness for understanding homelessness and where to provide services to end it most effectively. Other states and homeless Continuums of Care, local jurisdictions for homeless services, where all service providers must coordinate to apply for and receive funding from HUD, can also provide public county-level data to clarify the geographic sources of homelessness and the relationship between services and migration.

Introduction

The view of homelessness as an urban problem often leaves other communities in need with few services available. Homelessness—living in a place not meant for human habitation like a car, outside, or an emergency shelter—is perceived as a purely urban issue. This misconception has left rural areas without legislative attention and needed aid, partly due to the lack of homeless visibility in rural communities (Basmajian and Rongerude, 2012; Trella and Hilton, 2014). The migration of people experiencing homelessness from regions without services to places with services may

exacerbate the discrepancy in resources and shape people's experience of homelessness (Shelton et al., 2018). Research on homelessness has yet to determine the extent of migration, primarily due to data limitations.

Each year the U.S. Department of Housing and Urban Development (HUD) conducts a Point-in-Time (PIT) count estimating homelessness in communities across the country. The PIT count is a snapshot of homelessness in communities on a single night. The location where homelessness originates is typically unknown as the PIT count only shows where people are currently homeless, not where they first became homeless. Thus, migration may not be apparent when analyzing the data as communities do not know how many people living as homeless in a community became homeless in that same community. To obtain a complete understanding of homelessness, migration, and shelter access, it is necessary to determine whether services relate to the number of people homeless in a community on the night of the count relative to the number originating as homeless. If migration exists, apportioning funds and services to areas where people leave may decrease the number of homeless in both the counties people migrate from and to, allowing people to stay in communities where they first experience housing instability (Cutuli and Herbers, 2014).

To address the problem of linking shelter access to the migration of people experiencing homelessness, this study examines how changes in the number of homeless shelters contribute to the variation between the number of homeless people originating in a county and the county's annual homeless PIT count as well as unsheltered homelessness. Most studies explore determinants of homelessness at the Continuum of Care level, local planning jurisdictions for homeless services funded through HUD, and where homelessness data are typically reported (Byrne et al., 2012; Kim and Sullivan, 2021; United States Government Accountability Office, 2020). All homeless service providers must coordinate services to end homelessness within their boundaries and jointly apply for federal funding annually. As such, Continuums of Care can also be viewed as a network, coordinating the multitude of stakeholders related to homelessness in addition to shelters, such as affordable housing developers, hospitals, law enforcement, and government agencies (Sullivan, Kim, and Lee, 2021). Continuums of Care define their boundaries following HUD guidelines and can be as small as a Community Development Block Grant area, downtown Atlanta for example, or a county like Seattle/King County in Washington state. They often encompass dozens of counties or even entire states, with almost every state containing a "Balance of State" Continuum of Care, which provides services for most rural areas within the state. Therefore, using Continuum of Care data combines areas with considerable economic, demographic, and service differences (Valero and Jang, 2016).

This study builds on the body of research on Continuums of Care, relying on county-level data from the K-Count, Kentucky's implementation of HUD's annual PIT count. To the authors' knowledge, states other than Kentucky do not publicly release county-level data on the unsheltered and the origination of homelessness, and no central database collects the data for all communities that do know that information. County-level data provide more information about local areas' contexts than the scarce amount of economic and demographic characteristics and shelters' locations supplied for Continuums of Care (Byrne et al., 2012). Furthermore, the K-Count provides access to an annual measurement of each county's unsheltered population and the

number of people originating as homeless, which are groups often omitted from studies due to the difficulty in obtaining a reliable count at the local level (Meehan, 2019). Kentucky annually collects these data to demonstrate the need for resources in each community and assess progress toward its Ten-Year Plan to End Homelessness (Kentucky Housing Corporation, 2009). Thus, using Kentucky's K-Count data provides a rich source of information on homelessness and allows researchers to understand variations in homelessness at the local level and study migration across county boundaries.

The analysis begins with a macro-level view, analyzing variation in shelters and homelessness across all Kentucky counties from 2013 through 2019 using regressions with two-way fixed effects. Although an increase in shelters could increase overall homelessness by offering more services, the findings show no change or decrease in unsheltered homelessness, likely through placing people into shelters. To examine the relationship between migration and service access, the analysis compares the number of people whose homelessness originates in a county to the number in the PIT count. Counties with more shelters have more people counted as homeless than originating as homeless in the county, suggesting migration, but changes in the number of shelters within a county over time do not relate to this discrepancy or originating homelessness. This does not rule out the possibility of migration, which may trend toward areas having relatively more shelter but not those with slight increases in shelters. Increasing shelters likely does not dramatically increase migration across counties because they would be unsheltered otherwise. These findings further the knowledge of what resources are valued and illuminate possible locations of rural service deserts and their effects on homelessness.

A case study supplements the statewide analysis by analyzing a cluster of contiguous South Central Kentucky counties: Allen, Barren, Butler, Edmonson, Logan, Simpson, and Warren. This cluster represents possible rural service deserts, where those entering homelessness must move to nearby counties to find services. Furthermore, Warren County has more services relative to its neighbors, leading to migration into the area (Somers, Moniruzzaman, and Rezansoff, 2015). To explore this cluster, the study examines service provider characteristics and news stories in conjunction with county-level characteristics obtained from the American Community Survey to provide a deeper picture of elements not offered by the HUD survey.

The findings contribute to existing knowledge of homelessness through studying originating homelessness, migration, and unsheltered homelessness at the county level. First, the results suggest migration from service deserts to perhaps be on a smaller scale than previously thought (Corinth, 2017). Second, by providing one of the first studies of unsheltered homelessness across dozens of rural and urban counties, the findings show counties with higher poverty rates and median income to have more unsheltered homelessness. Further, a county's increasing shelters likely relates to less unsheltered homelessness within the county. Third, the study demonstrates the importance of reporting homelessness at the county level when possible and including originating homelessness in HUD's PIT count surveys to understand the state of homelessness best. Last, as results are consistent with some migration across counties, housing policies focused on stopping homelessness, such as increasing affordable housing, would likely have a larger effect if implemented where homelessness originates, as demonstrated by the Warren cluster analysis.

Service Deserts

Service deserts are geographic areas that lack assistance for those experiencing homelessness or where services are difficult to access. Although services are typically emergency shelters, service deserts can also lack alternative support like permanent supportive housing and rapid rehousing services, which often provide physical shelter and other services including healthcare, food, or rent support. Service deserts force those requiring shelter to find alternative, informal sources of support within the community, such as doubling-up with friends or family, moving to areas with a shelter, or living unsheltered in a car, encampment, or other place not meant for habitation (Meehan, 2019; O’Flaherty, 2019). A large body of research looked at how food deserts lead to increased food insecurity along with increased rates of chronic illness, obesity, and depression (Han, Schwartz, and Elbel, 2020; Shannon, 2015). People in rural areas often live in food deserts and so turn to less-healthy foods (Bitler and Haider, 2010). Although studied less, it is reasonable for homeless service deserts to have similar adverse effects given that homelessness and housing insecurity also encompasses material insufficiency.

Service deserts are common in rural areas as housing insecurity is less concentrated than in urban areas. The lack of services causes people to leave their community, shaping their experience of homelessness. An excess of demand or limited shelter for a type of homelessness, such as households with children versus single men, also potentially leads to overcrowding of shelters, migration to communities with available shelters, or living unsheltered. There may be limits to how long someone can stay in the shelter, which limits services for people with extended periods of homelessness (Patton, 1989). The lack of available services leads some people to depend on other types of support like friends and family (Trella and Hilton, 2014). Studying how shelter availability relates to homelessness at the local level can help explain where service gaps likely exist and its effect on people’s behavior with regard to finding services.

Data and Methods

Kentucky K-Count and Estimating Homelessness

Every January since 2005, HUD requires each community in the country, as a condition of receiving federal funding for homeless services, to conduct a PIT count of the number of people experiencing homelessness on a given night. Specifically, 24 Code of Federal Regulations (CFR) 91.205(c)(1) states that Continuums of Care plans must:

“...include, for each category of homeless persons specified by HUD (including chronically homeless individuals and families, families with children, veterans and their families, and unaccompanied youth), the number of persons experiencing homelessness on a given night, the number of persons who experience homelessness each year, the number of persons who lose their housing and become homeless each year, the number of persons who exit homelessness each year, the number of days that persons experience homelessness, and other measures specified by HUD.”

The counts are annually submitted when Continuums of Care apply for funding and provide a needs assessment and progress report related to ending homelessness for HUD and local communities (HUD, 2014). Volunteers go into shelters and canvas areas where people live unsheltered to estimate how many people are homeless that night and frequently ask these people about their homelessness experience. HUD reports PIT data at the Continuum of Care level. Continuums of Care are local jurisdictions for homeless services, where all service providers must coordinate to apply for and receive funding from HUD (Kim and Sullivan, 2021). Although some are small, such as downtown Chicago and Atlanta, others cover vast rural areas or entire states. Kentucky has three Continuums of Care as of 2021: Jefferson County (Louisville), Fayette County (Lexington), and the Balance of State, which encompasses all remaining counties.

The K-Count includes data at the county level and asks people experiencing homelessness where their homelessness originated. These procedures relate to two distinct advantages over the traditional PIT count. First, Kentucky publicly releases data at the county level for each of its 120 counties, instead of only the Continuum of Care level, providing more detail on homelessness in its rural areas, which can provide the entire state with more detailed information about homelessness and potential service deserts. The aggregate data is the same, but more detailed reporting allows greater exploration of variation in homelessness at the local level. Unlike the PIT count's public reports at the Continuum of Care level, the number of people experiencing unsheltered homelessness is reported at the county level. While researchers can infer sheltered homelessness at a local level through HUD's housing inventory count shelter data, unsheltered homelessness typically is only shown at the Continuum of Care level, masking variation.

Second, the K-Count asks people experiencing homelessness what Kentucky county (or out-of-state if not in Kentucky) their homelessness originated. This question allows the estimation of where people live if homeless during the PIT count and how much homelessness originates in a county. People experiencing homelessness often migrate across county lines to access formal or informal services (Meehan, 2019). Only using the PIT count could exaggerate or downplay the prevalence of homelessness. For example, if a county has significantly more people counted as homeless than originating as homeless, policies may shift focus from their county to elsewhere. If most people experiencing homelessness in a county did not originate in a county, creating affordable housing within the county is unlikely to stop homelessness from originating. Previous studies looking at migration were limited by only using Continuum of Care level analyses and not having data on originating homelessness (Corinth, 2017; Kim and Sullivan, 2021). The K-Count does not release data on originating homelessness by household type, such as with or without children, which limits exploring heterogeneity of migration. However, Kentucky and its K-Count data provide a rich data source to study unsheltered homelessness, originating homelessness, and migration of overall homelessness at the local level.

Empirical Approach

The study first analyzes the relationship between counties' changes in shelters and (1) the number of people experiencing unsheltered homelessness, (2) the number of people who originate as homeless in a county, and (3) the discrepancy between the number of people whose homelessness originated in the county and the number homeless in the county the night of the count. To deal

with that discrepancy, the K-Count asks homeless persons surveyed,¹ “In which [Kentucky] County or Other State were you living in when you became homeless this time?” This method provides an estimate of the number of people whose homelessness began in each county and who are still homeless the night of the count. The difference is calculated by subtracting the PIT count from the number originating. A positive discrepancy means a county has more people homeless than those that originated as homeless, implying migration from elsewhere.

To estimate the relationship between shelters and the migration of people experiencing homelessness, the analysis estimates regressions in which the explanatory variable is the number of shelters per capita in a county the previous year. Data on the number of shelters come from HUD’s raw housing inventory count reports, including all homeless shelters in the country, whether they receive federal funding or not. The analysis uses the number of shelters instead of beds because it represents a more meaningful change in services at the local level than existing shelters, slightly increasing beds. This estimate can also represent a change in forms of homelessness, such as single men versus households with children, or sectors such as nonprofit versus government that the community provides services for or by (Valero and Jang, 2016). Shelters in this context typically take one of four forms: (1) emergency housing providing short-term shelter, (2) transitional housing providing shelter with additional services to help people achieve independent housing, (3) permanent supportive housing offering housing for an indefinite period and intended for those experiencing chronic homelessness or have disabilities, and (4) rapid rehousing, which limits the time people spend unhoused.

Shelters are lagged 1 year because homelessness counts occur in January, and it would take time for shelter changes to affect a county. Economic and demographic characteristics of counties from the Bureau of Labor Statistics and American Community Survey such as the unemployment rate, poverty rate, median income, and share of the population that is Black or African-American are also given a lag of 1 year. Homelessness and shelters are converted to per capita (per 10,000 county population) rates. Year-fixed effects are included in all models, controlling for anything common to all counties in a given year, such as Kentucky’s statewide conditions or changes in the count methodology. In some specifications, county fixed effects are added, controlling for any time-invariant characteristics of each county; statistically, this takes the form of dummy variables for each county. County fixed effects remove many sources of potential bias that could relate to both shelters and homelessness. For example, if a county has a hostile attitude toward homelessness, it may decrease shelters, which thereby increases homelessness. County fixed effects adjust for this and similar sources of bias. Models without county fixed effects can reveal what happens when a county has more shelters than another. Models with county fixed effects reveal what happens when a county increases its number of shelters regardless of its stock. The inability to include variables that do not change over the period as they are absorbed by the fixed effects, such as rurality, is one limitation of county fixed effects. The sample is all Kentucky counties from 2013-19. Exhibit 1 presents summary statistics for variables of interest.

¹ Specific survey questions are available through the Kentucky Housing Corporation at the following link: <https://www.kyhousing.org/Programs/Homeless-Programs/Pages/K-Count.aspx>

Exhibit 1

Summary Statistics

	Mean	Standard Deviation	Minimum	Maximum
Discrepancy (#)	4.86	19.36	-57	146
Homeless Originating (per 10,000 population)	3.63	5.35	0	52.28
Unsheltered Homeless (per 10,000 population)	1.99	4.59	0	39.51
Sheltered homeless (per 10,000 population)	2.72	6.27	0	46.75
Shelters (per 10,000 population)	0.42	0.77	0	5.69
Unemployment Rate (%)	6.58	2.43	3.00	19.60
Poverty Rate (%)	20.68	7.48	4.90	47.00
Median Income (\$1,000)	40.87	11.02	18.97	99.13
Share Black or African-American (%)	3.70	4.22	0	26.10

Notes: The exhibit shows summary statistics at the county level for 2013 through 2019. Data for originating homeless and discrepancies are not available for Jefferson and Fayette counties. The discrepancy is the number of people counted as homeless during the annual Point-in-Time count minus the number originating as homeless.

Sources: 2013-2019 Kentucky K-Count reports; 2013-2019 CoC Housing Inventory Count Reports; 2013-2019 Bureau of Labor Statistics Local Area Unemployment Statistics; 2013-2019 American Community Survey 1-Year Estimates

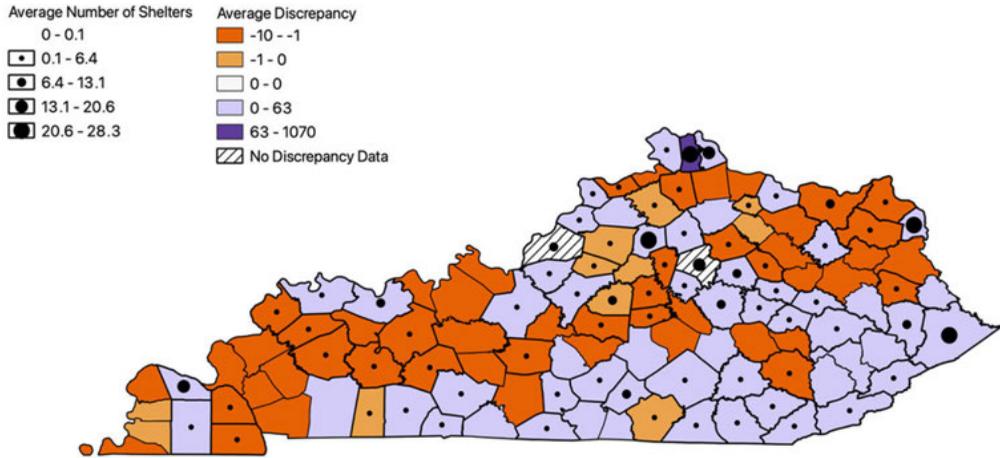
Results

Statewide Analysis

Exhibit 2 shows variation in the average number of shelters and the discrepancy across counties. Larger dots illustrate more shelters within the county relative to other counties. Orange shading represents fewer people counted as homeless during the PIT count than originating as homeless; purple illustrates the reverse. Considerable variation exists across counties, as many service deserts have no shelter and many others only have one or two, suggesting a lack of access to homeless services. Service deserts are most prominent in portions of southeastern Kentucky, typically considered Appalachia, which is known to have high unemployment rates and poverty and was recently struck by the opioid epidemic. Despite the likelihood of high rates of need, there is a lack of services for those experiencing homelessness. The lack of homeless services may be caused by having little need or few resources and funds to offer services (O’Flaherty, 2019). The majority of these counties have a positive discrepancy, meaning more people were counted as homeless during the count than originated, even though there are few services. Last, there is no clear urban-rural divide in discrepancy, although urban areas tend to have more shelters.

Exhibit 2

Average Number of Shelters and Discrepancy



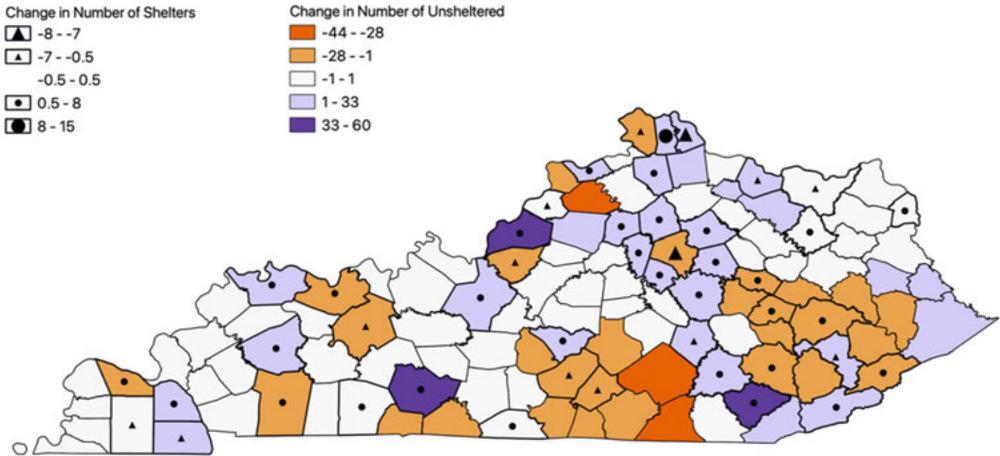
Notes: Map shows average levels of shelters and discrepancy by county from 2015 through 2020. Orange shading corresponds to a negative discrepancy, meaning fewer people were counted as homeless during the Point-in-Time count than originating as homeless, whereas purple is the reverse. Bigger dots mean more shelters in the county. Data are not available on originating homeless for Jefferson (Louisville) and Fayette (Lexington) counties for those counted as homeless within those counties.

Sources: 2015-2020 Kentucky K-Count reports; 2015-2020 CoC Housing Inventory Count Reports

Exhibit 3 shows changes in unsheltered homelessness and services from 2015 through 2020. Triangles or an orange field illustrate a decrease in shelters and unsheltered homelessness, respectively, while circles or a purple field represent an increase. The darker shades of orange and purple correspond to more drastic changes. Many counties did not change the number of shelters, unsheltered homeless persons, or both. Numerous rural counties had no change in homelessness, but many did have significant changes in unsheltered homelessness, suggesting conditions of housing instability fluctuate despite the rurality. There may be clusters of change in shelters and homelessness. Fayette County, in the northeastern part of the state, had a decrease in shelters and homelessness, and all counties neighboring it had an increase in both. While difficult to determine the causal direction, it suggests counties react to service availability and homelessness in nearby counties.

Exhibit 3

Changes in Kentucky Shelters and Unsheltered Homelessness



Notes: Map shows changes in homelessness and shelters by county from 2015 through 2020. Triangle markers correspond to a decrease in shelters. Circular markers correspond to an increase in shelters. Orange shading of counties corresponds with a decrease in unsheltered homelessness, whereas purple corresponds with an increase.

Sources: 2013-2019 Kentucky K-Count reports; 2013-2019 CoC Housing Inventory Count Reports

Exhibit 4 provides further insight into the relationship between shelters and homelessness with results from regressions without fixed effects, meaning results compare within counties over time and across counties. First, on average, one additional shelter per 10,000 population in a county relates with about 6 more people counted in the PIT count than whose homelessness originated in the county in column 1. The positive coefficient means more shelters positively relate with more people counted as homeless than originating, which is consistent with the theory of migration to services. Additionally, whereas shelters positively relate to unsheltered and sheltered homelessness in column 3 and column 4, the magnitude is much larger for sheltered homelessness. An additional shelter per capita relates to about 5 more sheltered people experiencing homelessness but only 0.5 unsheltered. The findings also reveal counties with a higher poverty rate and median income to have more unsheltered homelessness and, although research shows poverty to be a primary driver of homelessness, a higher median income in the county can increase the cost of living, particularly rent, and push people into homelessness (Byrne et al., 2012).

Exhibit 4

Relationship Between Shelters and Homelessness, *No County Fixed Effects*

	(1) Discrepancy	(2) Originating Homeless	(3) Unsheltered Homeless	(4) Sheltered Homeless
Shelters	6.22*** (1.16)	2.58*** (0.47)	0.54* (0.21)	4.82*** (0.48)
Unemployment Rate	-0.04 (0.31)	0.16 (0.11)	-0.05 (0.10)	-0.05 (0.11)
Poverty Rate	0.15 (0.14)	0.01 (0.05)	0.22*** (0.05)	0.00 (0.04)
Median Income	-0.06 (0.11)	-0.01 (0.02)	0.05* (0.02)	0.05 (0.02)
Share Black	0.27 (0.19)	-0.00 (0.03)	-0.03 (0.03)	0.21*** (0.05)
Year Fixed Effects?	Yes	Yes	Yes	Yes
County Fixed Effects?	No	No	No	No

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Notes: Results are at the county level from 2013 through 2019. Robust standard errors are shown in parentheses. All explanatory variables are lagged 1 year. Population is also included as a control variable for column 1.

Sources: 2013-2019 Kentucky K-Count reports; 2013-2019 CoC Housing Inventory Count Reports; 2013-2019 Bureau of Labor Statistics Local Area Unemployment Statistics; 2013-2019 American Community Survey 1-Year Estimates

Exhibit 5 tells a slightly different story when looking at changes within counties over time by controlling for time-invariant county characteristics. Unlike exhibit 4, shelters do not statistically relate to the discrepancy, originating homelessness, and unsheltered homelessness. Discrepancy and originating homelessness are also much closer to zero, so a county increasing its number of shelters likely has little to do with discrepancy or how many people originate as homeless. This lack of an increase could be caused by minor changes not having a dramatic effect or the existing stock being more meaningful. The result for originating homelessness is consistent with previous studies finding shelter access likely does not drive people to become homeless, commonly referred to as “moral hazard” (O’Flaherty, 2019).

Although statistically insignificant at the 5-percent level, shelters now have a large, negative relationship with unsheltered homelessness on average; this relationship was positive in exhibit 4. Shelters still have a positive relationship with sheltered homelessness and, when considering that and the first three columns of exhibit 5, they indicate that increasing shelters would likely mean more people in shelters. Some migration can still occur given the positive discrepancy and larger increase in sheltered homelessness than the decrease in unsheltered, but the effect is likely much smaller than exhibit 4 initially suggests. While no control variables significantly related to any outcomes, this likely results from a lack of variation within counties for the study’s timespan.

Exhibit 5

Relationship Between Shelters and Homelessness, *With County Fixed Effects*

	(1) Discrepancy	(2) Originating Homeless	(3) Unsheltered Homeless	(4) Sheltered Homeless
Shelters	1.50 (1.54)	0.23 (0.60)	-1.81 (0.99)	3.98** (1.35)
Unemployment Rate	0.23 (0.71)	0.16 (0.31)	0.03 (0.34)	-0.05 (0.19)
Poverty Rate	0.13 (0.33)	-0.18 (0.12)	0.00 (0.13)	-0.09 (0.08)
Median Income	0.19 (0.22)	0.08 (0.08)	-0.12 (0.07)	0.03 (0.05)
Share Black	-0.99 (1.10)	0.44 (0.43)	-0.33 (0.45)	-0.08 (0.26)
Year Fixed Effects?	Yes	Yes	Yes	Yes
County Fixed Effects?	Yes	Yes	Yes	Yes

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Notes: Results are at the county level from 2013 through 2019. Robust standard errors are shown in parentheses. All explanatory variables are lagged 1 year. Population is also included as a control variable for column 1.

Sources: 2013-2019 Kentucky K-Count reports; 2013-2019 CoC Housing Inventory Count Reports; 2013-2019 Bureau of Labor Statistics Local Area Unemployment Statistics; 2013-2019 American Community Survey 1-Year Estimates

The analysis also re-estimates models with 2-year lags of explanatory variables to test the sensitivity of a longer term. Exhibit 6, panel A, does not include county fixed effects; panel B does. Panel A is similar in statistical significance and magnitude. In panel B, unsheltered homelessness is statistically significant. In contrast, sheltered homelessness is not, but the magnitudes are similar to exhibit 5, which provides additional evidence that an increase in shelters relates to less unsheltered homelessness and more sheltered homelessness in a county. On the other hand, the coefficient for the discrepancy is now closer to zero (0.23), which is likely driven by originating homelessness's coefficient now being negative (-0.76). Counties with more shelters have higher discrepancy rates and rates of originating homelessness, but an increase in shelters likely does not relate to changes in either.

Exhibit 6

Relationship Between Shelters and Homelessness, 2 Year Lags

	(1) Discrepancy	(2) Originating Homeless	(3) Unsheltered Homeless	(4) Sheltered Homeless
Panel A. No County Fixed Effects				
Shelters	6.12*** (1.37)	2.19*** (0.46)	0.65** (0.23)	4.60*** (0.58)
Year Fixed Effects?	Yes	Yes	Yes	Yes
County Fixed Effects?	No	No	No	No
Panel B. County Fixed Effects				
Shelters	0.23 (3.93)	-0.76 (0.42)	-1.72* (0.79)	3.36 (1.78)
Year Fixed Effects?	Yes	Yes	Yes	Yes
County Fixed Effects?	Yes	Yes	Yes	Yes

*p<0.05; **p<0.01; ***p<0.001

Notes: Results are at the county level from 2013 through 2019. Robust standard errors are shown in parentheses. All explanatory variables are lagged 2 years. Population is also included as a control variable for column 1. Data on homelessness come from the annual K-Count reports.

Sources: 2013-2019 Kentucky K-Count reports; 2013-2019 CoC Housing Inventory Count Reports; 2013-2019 Bureau of Labor Statistics Local Area Unemployment Statistics; 2013-2019 American Community Survey 1-Year Estimates

Warren Cluster Analysis

In addition to the analysis of Kentucky counties, the study conducted a case study of a smaller geographic area: a contiguous cluster containing Allen, Barren, Butler, Edmonson, Logan, Simpson, and Warren counties. Warren County has the largest city in the cluster, Bowling Green, with about 67,000 people in 2019. Focusing on a cluster of counties furthers the analysis by assessing factors that were not measured or were masked in the statewide analysis, which looked at average relationships. Specifically, the analysis investigated the availability of formal and informal services and the communities’ perceptions of homelessness. Moreover, the analysis of the cluster offers insight into the importance of identifying migration patterns by depicting a scenario where the increase in a county’s number of shelters coincides with an influx of homeless from neighboring counties. Exhibit 7 shows the average number of shelters, total, originating, and unsheltered homelessness, discrepancy, and population in each county. Warren County had twice the number of shelters than the other six counties combined. It also had about four times as many people counted as homeless in the Point-in-Time count despite its population being similar to the other counties combined. However, the number of people originating as homeless was much lower, leading to a high discrepancy of 41 more people counted in the PIT count than originated as homeless.

Exhibit 7**Average Shelters and Homelessness in Warren Cluster Counties**

County	Shelters	PIT Count Homeless	Originating Homeless	Unsheltered Homeless	Discrepancy	Population
Allen	0.1	3.4	3.6	1.3	0.3	20,724
Barren	0.1	2.8	13.1	0.3	-10.0	43,654
Butler	0.1	2.0	5.7	1.9	-3.4	12,885
Edmonson	0.0	0.0	1.0	0.0	-1	12,099
Logan	2.5	10.0	8.3	0.0	1.6	26,907
Simpson	0.1	11.6	9.6	8.9	2.7	18,097
Warren	6.8	122.8	76.1	23.8	40.6	125,346

PIT = Point-in-Time.

Notes: The exhibit shows an average of variables for each county in the Warren cluster for the years 2013 through 2020. All values are rounded to the nearest tenth. Data on homelessness come from the annual K-Count reports.

Sources: 2013-2020 Kentucky K-Count reports; 2013-2020 CoC Housing Inventory Count Reports; 2013-2019 American Community Survey 1-Year Estimates

Formal Service Availability

Analyzing formal services in the Warren Cluster exemplifies how service deserts shape the experience of homelessness and reveal migration across counties to access services. The analysis bases the amount of services available to each county on the Kentucky Housing Corporation Community Resource Guide provided on the Kentucky Housing Corporation website coupled with the county-specific service locations obtained from the Community Action of Southern Kentucky. This organization encompasses all the counties in this cluster.² From the list of service providers, it was determined that, although all counties had services located both in the county and in surrounding areas, Warren County had the most providers serving the county at 21 and service providers located in the county at 18. Allen, Simpson, and Edmonson counties only had eight service providers servicing each county, with three located in each county. Warren County also has unique services not present in any of the neighboring counties. For instance, people experiencing homelessness can obtain medical services through Street Medicine, a program that offers medical aid to homeless people three times a week in Bowling Green (Eggers, 2019). Street Medicine services range from tending to wounds to education on securing medication. However, Street Medicine programs are not common in small cities, so those seeking these services need to travel to Bowling Green.

In addition to having the largest number of service providers, Warren County has the most positive discrepancy with an average discrepancy of 40, meaning 40 more homeless people were counted in the PIT counts than originating within the county. Meanwhile, neighboring counties had far fewer services and typically had a negative discrepancy. This is especially clear in the instance of Barren County. Despite having the second-highest number of service providers total at 11, it had the most negative discrepancy in the cluster, and 10 fewer people counted as homeless in the PIT count than originating. This supports the statewide findings that more services relate to a more positive discrepancy, with those migrating most likely coming from nearby service deserts.

² <https://www.kyhousing.org/Programs/Pages/Kentuckians-In-Need.aspx>

Coordinated Informal Services and Community Care

Along with formal services, Warren County has extensive informal services and community care. Informal services refer to coordinated actions in a community independent from organizations, such as nonprofits; community care includes individual actions, like giving food to a homeless person. Unlike shelters, informal services and community care consist of aid not provided through members of the Continuum of Care or government grants. Informal services provided by community members increase the amount of aid available in an area and consequently influence the experience of homelessness. To detail the extent of these services, local news articles about homelessness in the cluster were gathered through a Google search of key phrases like “Barren River Area homeless” and “Southern Kentucky homeless opinion.” The search was expanded by combining each county’s name with terms like “homeless,” “homeless news,” “homeless clearing,” “homeless opinion,” and “homeless policies” to get a sense of the stigma and opinion in each county.

Of the articles resulting from the search, all informal services were in Warren County. Many informal services stemmed from citizens realizing the extent of homelessness present in their community and the gaps in services provided. The resulting informal services found reports ranging from the weekly serving of home-cooked meals to the collection and distribution of clothing, blankets, and hygiene products (Brooks, 2021; Fox News, 2011; Harvey, 2017).

The annual memorial service held in Bowling Green to honor people who died in the community while homeless further illustrates that people in the Warren County community care about the homelessness issue (Mason, 2015). Bowling Green does have a policy against “aggressive panhandling,” but it is rarely enforced, and the police department even provides permits for legal panhandling (McCauley, 2019). Many in the community actively speak out against those blaming homelessness for the harassment of citizens by panhandlers by advocating for compassion toward those in need (Bowling Green Daily News, 2015; Line, 2015; Minor, 2015; Weaver, 2015). These cases illustrate the community’s care for those experiencing homelessness, a characteristic that can influence local policies and government action (Fenley, 2020). For example, many cities often clear homeless encampments when citizens complain (Cohen, Yetvin, and Khadduri, 2019; Herring, 2014; National Law Center on Homelessness and Poverty, 2014). Stronger community care may decrease instances of these anti-homelessness policies and acts. Although some in Warren County still hold a stigma against those experiencing homelessness (Bowling Green Daily News, 2015; McCauley, 2019; Reecer, 2021), the county overall seems to have a generous attitude toward those experiencing homelessness. This level of care in Warren County could lead to an increase in the discrepancy between the number of homeless counted versus originating, as those experiencing homelessness are leaving counties with few resources for a chance to obtain needed aid without consequences such as judgment due to prevalent stigma, arrest for panhandling, and forcible relocation through the shutting down of tent cities (O’Flaherty, 2019).

Effect of Migration

The analysis of this cluster provides a deeper understanding of why homeless people migrate and gives further insight into its importance for policymaking and service provision. Due to the lack of shelter change in multiple counties within the cluster, the analysis can identify fluctuations in

homelessness, mainly unsheltered, that are not a result of the supply of aid in a county. By focusing on the unsheltered population, it can also be determined if increasing shelters will be sufficient for the need present.

An increase in shelters could relate to a decrease in unsheltered homelessness due to the rise in available beds, which was on average found to be the case across Kentucky, but this was not the case for Warren County. Between 2015 and 2020, Warren County gained three shelters, and its unsheltered population over this period grew by 40 people, from 11 to 51. Even without increasing the unsheltered population in neighboring Logan County, which gained a shelter, the theorized decrease did not occur. On the other hand, the other five counties, which did not change their number of shelters, had no change or a decline in unsheltered homelessness. This decline, paired with Warren County's increase in unsheltered homelessness, may indicate migration from these areas into Warren County. By specifically looking at the unsheltered population, the study shows that an increase in shelters and the supply of services may not match the resulting increased demand for services by homeless people who cannot obtain these services in neighboring counties.

This excess demand can cause a rise in the PIT count used to inform local governments, service providers, and HUD on the extent of need in an area and the efficacy of current programs, which influences federal funding through HUD (California Homeless Coordinating and Financing Council, n.d.; Kentucky Housing Corporation, n.d.; SAMSA, 2020; HUD, 2014). Service providers and officials may interpret the growth in the PIT count as a community in more need and consequently create more services, despite the growth resulting partly from the migration of many people experiencing homelessness from service deserts (SAMSA, 2020). If the previous trend persists, the increase in services could result in more migration from neighboring counties, continuing the cycle of increasing services and higher visibility of homelessness. This feedback loop demonstrates the importance of exploring other possible recipients for services and funding. For example, if aid targets counties where many homeless people originate, there may be a decrease in the homeless population of the county where many homeless originate. A decrease in the homeless population of the county where people migrate to is also likely. Although the effect of targeting aid to counties where homelessness originates is not known (Somers, Moniruzzaman, and Rezansoff, 2015), further exploration on the topic may reveal more beneficial targets for aid provision.

Conclusion

This study presents evidence on the relationship between the number of homeless shelters in a county and unsheltered and originating homelessness using county-level data provided through Kentucky's K-Count, which asks homeless persons surveyed where they were living when they became homeless. Finding that counties with more shelters have more people counted as homeless during HUD's PIT count than originated in the county highlights the importance of considering service deserts and migration when providing services to people experiencing homelessness. The analysis further highlights this point by demonstrating that an increase in shelters within a county relates to more sheltered homelessness and a likely decrease in unsheltered homelessness. This suggests shelters take in people who would have been unsheltered

otherwise. The study also shows that an increase in shelters does not relate to the number of people originating as homeless in a county.

The first policy implication relates to improved data collection and reporting on homelessness for HUD's PIT count. First, all but two of Kentucky's counties are in the same Continuum of Care. Although this may provide coordination across service providers, it limits inferences that can be drawn when data are reported at the Continuum of Care level as counties vary significantly in their services and conditions of homelessness. This is particularly the case for unsheltered homelessness, as it may hide specific service deserts. Second, asking where a person's homelessness originated can reveal migration patterns and where the problem begins. Shelters help people already homeless, but many programs like the low-income housing tax credit and housing vouchers attempt to stop homelessness from occurring in the first place (Kim and Sullivan, 2021). Programs such as these are likely to have more impact in communities where homelessness originates instead of where homeless people live on a given night. Taken together, HUD and Continuums of Care disaggregating data for research use and publishing data on originating homelessness can help service providers and researchers better design solutions to homelessness.

A second policy implication is that service providers and policymakers must consider how shelter access shapes the experience of homelessness and how service deserts will lead to migration across counties or living unsheltered. This implication is particularly demonstrated by the qualitative analysis of the Warren County cluster that showed people experiencing homelessness frequently move to nearby areas to access both formal and informal services. The migration and lack of services in counties from which people move creates excess demand in counties that increased services do not fulfill. Instead, service providers, particularly through Continuums of Care, should further eliminate service deserts within their boundaries, which may reduce homelessness across a wide area.

Despite the contributions of this study, several limitations exist. First, the analysis cannot observe migration explicitly. To do this, additional data such as a dyad between each county and the movement of homeless people would be necessary. However, the analysis still observes when people migrated to a county, although it is not known from which county they came. Second, a limitation of the Warren County case study lies in the diversity of news articles, with most of the articles published through Bowling Green Daily News. This may account for why all articles pertained to the informal aid provided in Warren County. The lack of news coverage in the surrounding counties may be due to the size of their cities compared with Bowling Green, the third-largest city in Kentucky. Without county-specific articles, the analysis is not able to determine the sentiment of the communities on homelessness. Last, states seeking to follow in the steps of the K-Count by including data on originating homelessness would benefit from also disaggregating it by household type to see more variation. It would be beneficial to explore this further to determine the role stigma plays in the migration of those experiencing homelessness.

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