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# Manufactured Housing Communities in Delaware: The Basics

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COMMUNITY DEVELOPMENT AND REGIONAL OUTREACH



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## Introduction

Land-lease manufactured housing communities (MHCs) are a housing arrangement in which groups of manufactured homes — often owner-occupied — are placed on separately owned land.<sup>1</sup> Typically, the homeowners pay a monthly lot rent to the landowner to occupy a specific homesite. This *split-tenure* arrangement combines features of renting and homeownership, resulting in a unique mix of risks and advantages. Residents of MHCs are among the lowest-income segments of households, and these communities are considered an important contributor to the unsubsidized low-cost housing stock (Durst and Sullivan 2019). However, in part because these communities are not well-captured in commonly used public data sets, they are often overlooked by housing researchers (Lamb, Shi, and Spicer 2023; Sullivan, Makarewicz, and Rumbach 2022).

Using a custom data set consisting of 243 MHCs, home to an estimated 12,700–18,500 households, this report updates and builds on prior research and resources related to MHCs in Delaware to enhance policymakers’ and community development practitioners’ understanding of this distinctive housing segment.<sup>2</sup> Findings indicate that recent MHC homebuyers are disproportionately lower-income and that the relative affordability of MHC homeownership is heavily contingent on lot rents, and, to a lesser extent, financing costs. Notably, the vast majority (71.2 percent) of MHCs in Delaware are in census-designated urban areas, which include midsize cities as well as smaller towns. Compared with their rural counterparts, these urban MHCs are less likely to have a high percentage of vacant homesites (or “lots”), suggesting stronger demand for this housing arrangement in these areas, where there may be fewer affordable homeownership alternatives. In aggregate, Delaware MHCs tend to be located in areas with higher shares of older adults and lower household incomes, compared with the state overall, although rates of employment in these areas are

comparable with statewide figures. However, there is wide variation across Delaware MHCs in the types of households and markets served.

## Manufactured Housing Communities in Delaware

The following sections provide a brief background on MHCs in Delaware, followed by an examination of the affordability, spatial distribution, and neighborhood contexts of these communities. These sections summarize findings from previous literature and conversations with practitioners and present new analysis. This analysis draws on public data sets, such as the U.S. Census Bureau American Community Survey (ACS) and Home Mortgage Disclosure Act (HMDA) data, as well as a custom data set of MHC locations. I assembled this custom data set from a combination of tax assessment data from CoreLogic Solutions (CoreLogic), Homeland Infrastructure Foundation-Level Data from the Department of Homeland Security, published records from the Delaware Manufactured Home Relocation Authority, and the membership directory of the First State Manufactured Housing Association. This data set is intended to provide a comprehensive, geocoded inventory of MHCs in the state. Leveraging this geocoding, I performed a spatial join of MHC locations to census geographies using geographic information system (GIS) software, enabling the data set to be merged with local socioeconomic and demographic indicators.<sup>3</sup>

## Definitions

Manufactured homes are factory-built housing units designed to be transported by truck for installation on a site, such as land that is owned or leased by the homebuyer. Although manufactured homes are technically distinct from mobile homes, the term “manufactured home” is used throughout this report as an umbrella term

<sup>1</sup> This style of housing is referred to in policy documents, news media, and academic literature by a wide variety of names, including manufactured housing communities, mobile home parks, trailer parks, mobile home courts, and various permutations of those words. This report uses manufactured housing communities (MHCs) as a generic term for this type of land-lease community.

<sup>2</sup> This is part of a collection of reports examining MHCs in Third District states (Delaware, New Jersey, and Pennsylvania). To see all the reports in this series, visit [www.philadelphiafed.org/community-development/housing-and-neighborhoods/manufactured-housing-communities-in-pennsylvania-the-basics](http://www.philadelphiafed.org/community-development/housing-and-neighborhoods/manufactured-housing-communities-in-pennsylvania-the-basics).

<sup>3</sup> See Appendix A for details.

for this style of housing.<sup>4</sup> New manufactured homes are typically smaller than new site-built homes and, on a per square foot basis, cost roughly half as much to build (\$87.79 versus \$168.35, respectively in 2022, excluding land costs),<sup>5</sup> making them a practical option for many moderate-income homebuyers (U.S. Census Bureau, 2023). Used manufactured homes are often deeply affordable; according to the AHS, the median value of owner-occupied manufactured homes was less than \$50,000 in 2021. However, low-cost units, particularly those built before the enactment of the 1976 HUD code, may be in poor condition, leaving low-income buyers at risk of burdensome utility costs and repair needs (Furman, 2014).

Formal definitions of MHCs vary across states and may differ from how organizations of MHC residents and owners define their constituencies. In Delaware, the Manufactured Homes and Manufactured Home Communities Act of 2003 defines an MHC as having two or more lots leased or for lease for manufactured home placements (25 Del. C. § 7003), although some state regulations only apply to significantly larger communities. For consistency with the other reports in this series (Divringi, 2023; Divringi, 2024), the analysis presented in this report defines MHCs as three or more manufactured homes placed on a parcel or adjacent parcels with the same landowner.

## Size and Characteristics of the Manufactured Housing Stock

Roughly one in 16 households in Delaware (over 24,000 total) live in a manufactured home, including units on both owned and leased land. These homes are heavily

concentrated in Sussex County, which accounts for just over one-quarter of the state's households but more than half of those living in manufactured homes. Additionally, over 8,500 manufactured homes are recorded as vacant, two-thirds of which are for seasonal or recreational use.<sup>6</sup> After increasing as a share of the state's growing housing stock through the latter half of the 20th century (Ratlidge, 1998), the number of manufactured homes declined 15.9 percent from 2011 to 2021, with Sussex County accounting for 80.4 percent of lost units.<sup>7</sup> The flow of new manufactured homes into the state has also slowed dramatically; from 2018 to 2022, an average of 371 manufactured homes were shipped to Delaware annually, compared with an average of 1,403 units from 1994 to 1998 (U.S. Census Bureau, 2023). Still, Delaware's manufactured housing stock continues to play an outsized role in homeownership opportunities for modest-income households; the median household income of a manufactured homeowner in the state is just under \$54,500, compared with nearly \$105,500 for the median site-built, single-family homeowner.<sup>8</sup>

Although approximately two in five manufactured homes are in MHCs nationally (Durst and Sullivan, 2019), a 2008 study by the Delaware State Housing Authority (DSHA) estimated that a majority (56.7 percent) of manufactured homes in the state were located in these communities (DSHA, 2008). Still, given the decline in the manufactured stock in the years since the DSHA report and the increasing share of new units placed outside land-lease communities,<sup>9</sup> it is possible that the balance has shifted. Using the national share as a lower bound and the 2008 DSHA share as an upper bound, I estimate that the total number of units in Delaware MHCs is between 12,700 and 18,500.<sup>10</sup>

<sup>4</sup> Manufactured homes are subject to the Manufactured Home Construction and Safety Standards (HUD Code) enacted in 1976, whereas mobile homes are factory-built homes constructed before the HUD Code's implementation. For more information, see [www.hud.gov/program\\_offices/housing/rmra/mhs/faqs](http://www.hud.gov/program_offices/housing/rmra/mhs/faqs).

<sup>5</sup> Transportation and installation costs reduce, but do not eliminate, relative savings associated with manufactured units (Zahalak, 2020; Herbert, Reed, and Shen, 2023).

<sup>6</sup> Author's calculations based on U.S. Census Bureau 2017–2021 ACS. Vacancy figures are tabulated from the ACS Public Use Microdata Statistics (PUMS).

<sup>7</sup> Author's calculations based on U.S. Census Bureau 2007–2011 and 2017–2021 ACS. Units can exit the stock through demolition or relocation outside of the reference state or county.

<sup>8</sup> Author's calculations based on U.S. Census Bureau 2017–2021 ACS PUMS.

<sup>9</sup> From 2018 to 2022, just 29.9 percent of new manufactured homes were placed in land-lease communities nationwide (U.S. Census Bureau, 2023).

<sup>10</sup> The lower bound is 39 percent of units (Durst and Sullivan, 2019); the upper bound is 56.7 percent of units (DSHA, 2008). According to the 2017–2021 ACS, there were a total of 32,655 manufactured homes (occupied and vacant) in Delaware.

A notable feature of Delaware’s MHC landscape is the large and growing segment of vacation and retirement communities, particularly in Sussex County, many of which cater to higher-income residents (DSHA, 2014). In recent years, some new operators have sought to reposition existing coastal MHCs as vacation-oriented communities. This has resulted in a considerable socioeconomic heterogeneity within certain communities, where (typically older) units occupied by moderate-income, year-round residents exist alongside high-end vacation homes. While many of these communities offer enhanced onsite amenities, cost pressures from increasing lot rents can heighten the risk of displacement for lower-income households.<sup>11</sup>

Households priced out of Sussex County’s coastal areas may find lower-cost options in MHCs further inland, often in rural or unincorporated areas (DSHA, 2008). However, in many of these communities, the manufactured housing stock is older and deteriorating, and community infrastructure, particularly water and sewer facilities, may be undermaintained.<sup>12</sup> Many rural MHCs in northern Sussex County serve as housing for the local agricultural workforce, including those employed in the poultry processing industry. Similarly, MHCs in Dover and New Castle counties are thought to primarily serve lower-income families and retirees.<sup>13</sup>

## Challenges Facing Manufactured Housing Community Residents

The disconnect between ownership of the home and ownership of the underlying land results in a stark tradeoff for MHC households: lower purchase costs may offer a more attainable homeownership opportunity, but at the expense of many benefits traditionally associated with homeownership. Like most states, Delaware requires manufactured homes to be titled by default as personal property, in a similar manner to a vehicle, and only allows for conversion to real property if the home is permanently affixed to real property (e.g., land owned by the homeowner)

(Fannie Mae, 2023). Processes and requirements vary by county (DSHA, 2008), but manufactured homes placed in land-lease MHCs are generally ineligible for conversion. A major ramification of this is that MHC homebuyers cannot access traditional mortgages and instead rely on less regulated, higher-cost alternatives such as personal property (“chattel”) loans or seller financing (CFPB, 2021; Zahalak, 2020; Liang, Siegel, and Staveski, 2022).

The split-tenure arrangement also exposes MHC homeowners to the risk of unaffordable increases in lot rents and displacement in the event of community closure. Despite the colloquial term “mobile home,” manufactured homes largely function as permanent housing options for residents, including those placed in MHCs, and manufactured homeowners are no more likely to be transitory than site-built homeowners (Boehm and Schlottmann, 2004). Moving and reinstalling a manufactured home is prohibitively expensive for many low-income households, and many older units would not survive a move intact (Sullivan, 2018; Ehrenfeucht, 2016). Lack of landownership also diminishes the wealth-building potential of MHC homeownership, since stable or rising land values cannot be relied on to offset unit depreciation from standard wear-and-tear (Boehm and Schlottmann, 2004).<sup>14</sup> Still, in the face of widespread affordable housing shortages and a dearth of entry-level homeownership opportunities (JCHS, 2023; Freddie Mac, 2021), the relatively low barriers to entry for MHC homeownership remain appealing to many households.

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<sup>11</sup> Habitat for Humanity of Sussex County staff, personal communication, July 19, 2023.

<sup>12</sup> For discussion of these issues in Delaware, see Environmental Protection Agency (2016) and Kiefer (2023).

<sup>13</sup> Javier Horstmann (chief policy advisor, DSHA), personal communication, August 18, 2023.

<sup>14</sup> Some homes in MHCs do appreciate, although appreciation is less likely and tends to be smaller, relative to site-built homes and manufactured homes on owned land (Jewell, 2003).

## Policy Context

Delaware has considerable state legislation regarding MHCs, and this continues to be active area of policymaking. Much of this legislation is intended to address the unique risks faced by MHC homeowners discussed previously. For example, the Delaware Manufactured Home Relocation Authority (DEMHRA) maintains a trust fund, which is funded by a small fee split between community owners and lot lessees, to provide relocation assistance to MHC homeowners at risk of displacement (\$12,000 for a single-wide unit and \$16,000 for a double-wide unit) because of community closure.<sup>15</sup>

Compared with other states, Delaware has a relatively robust set of tenancy protections in place for residents of land-lease communities.<sup>16</sup> Additionally, in 2008, the state enacted legislation that requires property owners to provide residents and DEMHRA advance notice of MHC sales and offers a right of first refusal<sup>17</sup> for MHC homeowners seeking to cooperatively purchase their communities (25 Del. C. § 7027). These provisions are considered important for facilitating the creation of resident-owned communities (ROCs), which have the potential to ameliorate many of the wealth-building and residential stability concerns associated with this style of homeownership (NCLC, 2021).

Recently, Delaware significantly expanded its MHC lot rent regulations. Beginning in July 2022, maximum allowable lot rent increases are now indexed to inflation, although community owners may seek higher increases with justification, such as bringing rents to market rate or financing repairs or improvements (25 Del. C. §§ 7052A and 7052B). For communities with more than 25 homesites,

the state requires additional income-based discounts for eligible MHC homeowners. For those making less than 40 percent of their respective county median income, lot rents are capped at 30 percent of household income (25 Del. C. § 7052A and 7022A). For those making 40 to 55 percent of county median income, rent increases are reduced using an income-based formula (25 Del. C. § 7022A).

## Affordability

Table 1 compares the characteristics of home purchase loan applicants in Delaware across three categories from 2019 to 2022: those purchasing a manufactured home to be placed on leased land (likely MHC homebuyers),<sup>18</sup> those purchasing a manufactured home with the underlying land, and those purchasing conventional site-built homes. To facilitate comparison, monthly loan payments<sup>19</sup> are estimated based on the typical loan characteristics for borrowers in each group. An important caveat to these comparisons is that manufactured homebuyers are disproportionately likely to purchase their homes with cash rather than financing. This is driven in part by exceptionally high denial rates for manufactured home loans, particularly chattel loans (Riley, Freeman, and Dorrance, 2021). As a result, the borrowers captured in the HMDA data represent the subset of manufactured homebuyers who obtained chattel loans.

Table 1 illustrates that manufactured homebuyers in Delaware have significantly lower incomes than buyers of site-built homes, while median incomes were identical for likely MHC homebuyers and those financing both unit and land with a manufactured home mortgage. However, despite lower loan-to-value (LTV) ratios and shorter loan terms, the median interest rate for likely MHC homebuyers was more than double that of borrowers who

<sup>15</sup> The DEMHRA relocation assistance amounts are significantly higher than those available to displaced MHC homeowners in Pennsylvania (\$5,155 and \$7,733, respectively). New Jersey does not have a statewide relocation assistance program. For more information, see [demhra.delaware.gov/wp-content/uploads/sites/78/2023/07/TENANT-APPLICATION.pdf](https://demhra.delaware.gov/wp-content/uploads/sites/78/2023/07/TENANT-APPLICATION.pdf).

<sup>16</sup> Delaware is one of three states to have existing laws that meet or exceed at least six of the eight land tenancy protections (e.g., 30-day notice of rent increases, a five-day grace period for late payments, etc.) now mandated for MHC investors using loans backed by Fannie Mae or Freddie Mac (Freddie Mac, 2018)

<sup>17</sup> In a real estate context, the “right of first refusal” provides a party with the contractual right to make the first offer when a property is listed for sale. For MHC residents, this can provide an opportunity to organize support and line up financing for a cooperative purchase before competing offers are considered.

<sup>18</sup> Includes borrowers who lease land outside of MHCs.

<sup>19</sup> These estimates refer only to the interest and principal portions of monthly payments and exclude other owner costs such as homeowner’s insurance and property taxes.

TABLE 1

## Comparison of Originated Loan Characteristics by Land Ownership and Build Type, Delaware, 2019–2022

	Manufactured: Chattel Loan, Leased Land	Manufactured: Mortgage Loan, Direct Land Ownership	Site-Built: Mortgage Loan
Number	619	967	56,446
Median Applicant Income	\$55,000	\$55,000	\$80,000
Median Interest Rate	8.55%	4.25%	3.60%
Median Loan Amount	\$55,000	\$195,000	\$265,000
Median Loan Term (Months)	240	360	360
Median Loan-to-Value Ratio	80.0%	96.5%	95.0%
Est. Monthly Loan Payment	\$479	\$959	\$1,205

### Sources

Author's calculations using 2019–2022 Home Mortgage Disclosure Act data.

### Notes

Calculations include only originated, first-lien purchase loans for owner occupancy. Chattel loans to manufactured homebuyers with direct land ownership, indirect land ownership, and unpaid leaseholds are excluded to focus on loan outcomes for likely MHC homebuyers. Estimated monthly loan payments are based on median loan amounts, median terms, and median interest rates reported in the table.

obtained manufactured home mortgages. Default risks are significantly higher for homes placed in land-lease communities,<sup>20</sup> which likely accounts for a large portion of this disparity. Additionally, the chattel loan market lacks many of the regulatory and policy supports that facilitate access and affordability in the traditional mortgage market (Park, 2022; CFPB, 2021; Kaul, Goodman, and Tozer, 2022).<sup>21</sup>

In addition to loan payments, lot rents are a significant contributor to the housing costs of MHC homeowners. Unfortunately, publicly available survey data do not provide Delaware-specific estimates of lot rents. According to the 2021 American Housing Survey, the median monthly

lot rent for the South Atlantic census division, which includes Delaware as well as seven southeastern states and Washington D.C., was \$400.<sup>22</sup> This would place a typical MHC homebuyer's monthly lot rent plus loan costs in the range of \$879. This back-of-the-envelope calculation illustrates how lot rents in combination with high financing costs can diminish the relative affordability of this housing arrangement.<sup>23</sup> This aligns with the finding by Durst and Sullivan (2019) that, even after controlling for location and property characteristics, manufactured homeownership tends to be most affordable when residents own both the home and the land.

<sup>20</sup> Comparing loans covered by the Federal Housing Finance Authority's insurance programs for manufactured homes, Park (2022) finds that chattel loans for homes in land lease MHCs had roughly twice the default risk of manufactured home mortgages.

<sup>21</sup> For example, Fannie Mae and Freddie Mac generally do not purchase chattel loans, resulting in a weak secondary market (CFPB, 2021). Additionally, the federal loan insurance program for chattel loans is considered outdated and has low rates of participation among lenders (Kaul, Goodman, and Tozer, 2022; Park, 2022).

<sup>22</sup> This is likely to be an underestimate for lot rents in Delaware alone. In August 2023, I reviewed for-sale listings posted to Zillow and Craigslist for homes in Delaware MHCs. At total of 53 listings reported lot rents, with a median of \$650 overall and a median of \$600 among the 22 properties with asking prices of \$100,000 or less. However, since this is a small and likely nonrepresentative sample, these estimates should be interpreted with caution.

<sup>23</sup> In Delaware, homes in MHCs are subject to real property taxes, which are not factored into these figures, although property taxes applied to the underlying land are likely passed through in lot rent. Site-built homebuyers and manufactured homebuyers with direct land ownership would be assessed taxes on both their home and land, neither of which is included in this comparison.

## Geographic Distribution

Figure 1 depicts the location and size of MHCs in Delaware. There is a clear clustering of large communities along the southern Sussex County shoreline, where the demand for vacation and retirement communities is strong, as well as a smaller grouping further inland near Seaford. Unsurprisingly, a majority (133) of the state’s MHCs are located in Sussex County. Another sizeable cluster of mostly medium-sized MHCs can be found around Dover in Kent County, which is home to the second-largest number of MHCs (77). New Castle County has the fewest communities (33), which may reflect a combination of older, denser development patterns and greater local and municipal opposition to permitting MHCs (Ratledge, 1998).<sup>24</sup>

As presented in Table 2, a substantial majority (71.2 percent) of Delaware MHCs are located in census-designated urban areas. The census defines urban areas based on density and land use criteria rather than municipal delineations.<sup>25</sup> As a result, this list of urban MHCs includes a handful of communities within the boundaries of small and midsize cities, such as Dover and Newark, but primarily consists of MHCs in built-out suburbs and shore towns.

**TABLE 2** MHCs by Urban/Rural Location and Size

	Count	Row % in Size Category		
		Small (3–10 homesites)	Medium (11–99 homesites)	Large (≥100 homesites)
Rural	70	30.0	64.3	5.7
Urban	173	13.9	51.4	34.7
Total	243	18.5	55.1	26.3

### Sources

Author’s calculation using the Philadelphia FRB Manufactured Housing Community Dataset and Census TIGER/Line Shapefiles.

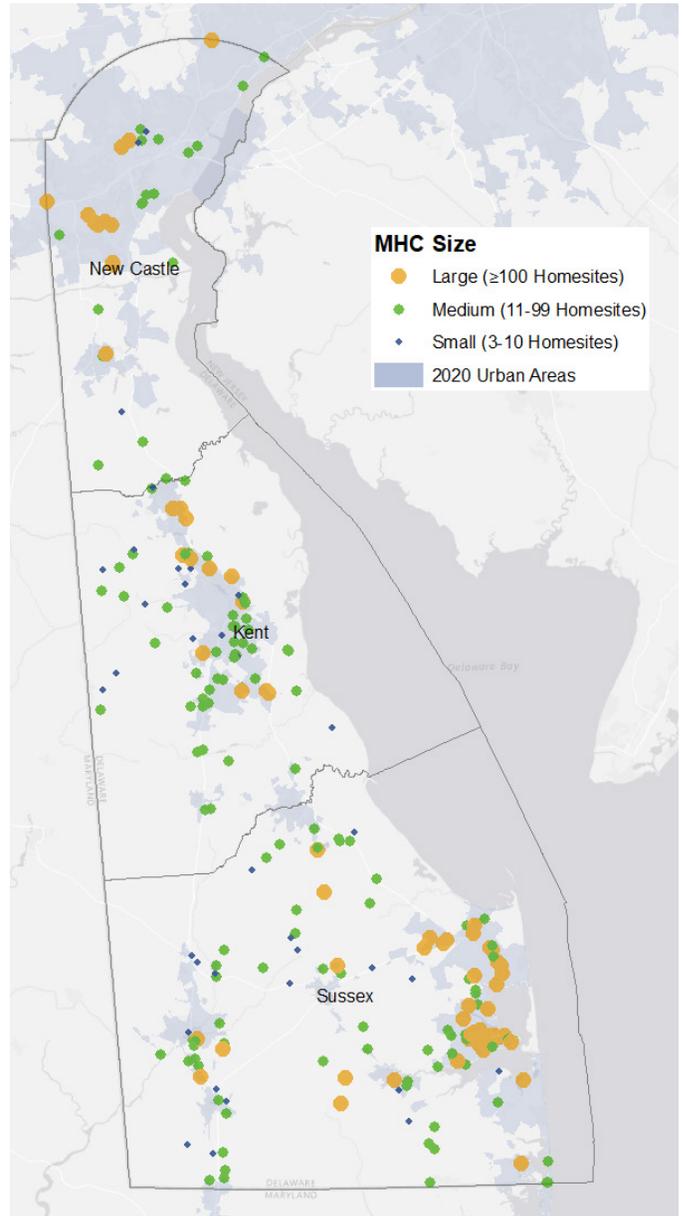
### Notes

Urban/rural classifications are based on the 2020 census. Figures are tabulated at the MHC level and are not unit-weighted.

<sup>24</sup> See Appendix B for counts of MHCs by size in each county.

<sup>25</sup> Urban areas are built from agglomerations of census blocks meeting density, land use, and proximity criteria. Areas outside urban areas are considered rural. For details, see [www.federalregister.gov/documents/2022/03/24/2022-06180/urban-area-criteria-for-the-2020-census-final-criteria](https://www.federalregister.gov/documents/2022/03/24/2022-06180/urban-area-criteria-for-the-2020-census-final-criteria).

**FIGURE 1** Location of MHCs in Delaware



### Sources

Philadelphia FRB Manufactured Housing Community Dataset and Census TIGER/Line Shapefiles.

### Notes

Urban/rural classifications are based on the 2020 census.

Most Delaware MHCs (55.1 percent) fall into the medium-size category (11 to 99 homesites). Over one-quarter are categorized as large MHCs, with 100 or more homesites. This share of large MHCs was greater than in the neighboring state of Pennsylvania (11.3 percent),<sup>26</sup> but lower than that in New Jersey (34.7 percent). Although the majority of MHCs in both urban and rural areas were medium-sized, large MHCs were heavily concentrated in urban areas.

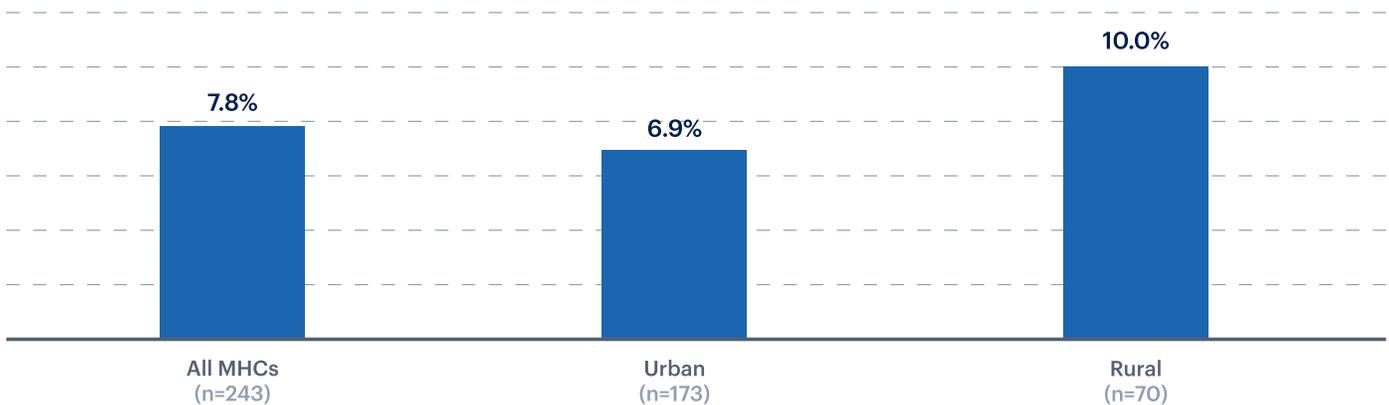
## Lot Vacancy

Figure 2 compares the share of MHCs categorized as having a high rate of lot vacancy by urban/rural status. An MHC was determined to have a high rate of lot vacancy if 30 percent or more of homesites did not have a manufactured home placement based on the most recent available aerial image.<sup>27</sup> It is important to note that this measure captures a binary categorization (i.e., above versus below the threshold for high lot vacancy), rather than a homesite-weighted vacancy rate, and that homesites with existing manufactured home placements are not

necessarily occupied because some homes may be for sale, for rent, or only used seasonally.

Roughly one in 13 (7.8 percent) MHCs in Delaware met the definition for high lot vacancy. For comparison, the equivalent rates for the neighboring states of Pennsylvania and New Jersey were 11.5 percent and 3.0 percent, respectively (Divringi, 2023; Divringi, 2024).<sup>28</sup> MHCs located in urban areas were less likely to have high lot vacancy than their rural counterparts, potentially reflecting tighter urban housing markets and elevated demand in vacation destinations. Although small MHCs require only a few empty lots to meet this vacancy threshold, the vast majority of MHCs with high lot vacancy (17 of 19) were medium-size or large communities. Given the greater prevalence of high lot vacancy among rural MHCs, it may be easier for MHC homeowners that have been priced out of higher-cost urban communities to find a new homesite in these areas. However, communities with high lot vacancy may also be at elevated risk for repair and maintenance challenges, since each unfilled lot represents forgone revenue for the property owner.

**FIGURE 2** Share of MHCs with High Lot Vacancy (≥30 Percent) by Urban/Rural Status



### Sources

Author's calculations using the Philadelphia FRB Manufactured Housing Community data set and Census TIGER/Line Shapefiles.

### Notes

Urban/rural classifications are based on the 2020 census. Percentages were calculated at the MHC level and are not unit-weighted.

<sup>26</sup> This reflects updates to the Pennsylvania data set since the June 2023 report.

<sup>27</sup> A homesite was considered vacant only if there was evidence of a prior manufactured home placement (i.e., an earlier aerial image showing a home in that location or visible remnants of foundation piers).

<sup>28</sup> This reflects updates to the Pennsylvania data set since the June 2023 report.

## Demographic and Socioeconomic Context

Tables 3 and 4 compare demographic and socioeconomic characteristics of the census block groups<sup>29</sup> containing MHCs with those of the state, both overall and broken out by urban/rural status. It is important to note that these are not necessarily the characteristics of MHC residents, although some larger communities may comprise most or all households in a given block group. Instead, these tabulations can be understood as reflecting the community contexts in which MHCs are located.

As Table 3 illustrates, the areas surrounding Delaware MHCs have higher proportions of non-Hispanic White and Hispanic or Latino residents and lower shares of Black and other/multiracial residents. Rural communities with

MHCs are very disproportionately non-Hispanic White, while urban MHC block groups more closely resemble the demographic makeup of the state. Although MHC block groups overall had slightly higher shares of residents who were 65 years old or older, this was true only for MHCs in urban areas; the block groups surrounding rural MHCs had slightly lower shares of retirement-age residents, relative to the state overall. This pattern is likely driven by the concentration of age-restricted communities in Sussex County shore towns, where older adults make up a majority of the population in some block groups.

Table 4 outlines some notable variation between the socioeconomic characteristics of communities surrounding urban and rural MHCs. Across the board, block groups containing MHCs have lower levels of educational attainment, lower incomes, higher poverty

**TABLE 3** Demographic Characteristics of Census Block Groups Containing MHCs Relative to Delaware

	DE	DE Block Groups Containing MHCs		
		All MHCs	Urban	Rural
<b>RACE/ETHNICITY</b>				
Share Black	21.5%	16.5%	17.9%	13.2%
Share Hispanic/Latino	9.7%	12.3%	12.7%	11.4%
Share White	60.8%	65.0%	62.6%	70.7%
Share Other/Multiracial	8.0%	6.2%	6.8%	4.8%
<b>AGE</b>				
Share 65 Years or Older	19.0%	20.6%	21.8%	17.6%

### Sources

Author's calculations using the Philadelphia FRB Manufactured Housing Community data set and U.S. Census Bureau American Community Survey 2017–2021 estimates.

### Notes

Estimates for block groups containing MHCs are weighted by the number of MHCs present in a block group. Race/ethnicity categories are mutually exclusive. The Black, White, and other/multiracial categories are non-Hispanic; Hispanic/Latino can be of any race.

<sup>29</sup> Block groups are geographic units defined by the U.S. Census Bureau that comprise clusters of blocks within a census tract. Although the size of block groups varies, they typically encompass populations of 600 to 3,000. See [www.census.gov/programs-surveys/geography/about/glossary.html](http://www.census.gov/programs-surveys/geography/about/glossary.html).

rates, and lower home values when compared with Delaware overall. However, despite having significantly lower rates of education attainment, rural MHC block groups have comparable rates of labor force participation and slightly lower rates of unemployment, relative to both urban MHC block groups and the state overall. The share of households with burdensome

housing costs is also relatively low in the communities surrounding rural MHCs. This is consistent with the perception that these MHCs are often an affordable housing source for lower-wage workers. The block groups surrounding urban MHCs appear, on average, more economically distressed, but with high rates of homeownership compared with the state overall.

**TABLE 4** Socioeconomic Characteristics of Census Block Groups Containing MHCs Relative to Delaware

	DE	DE Block Groups Containing MHCs		
		All MHCs	Urban	Rural
<b>EDUCATIONAL ATTAINMENT</b>				
High School or Lower	39.3%	47.4%	46.2%	50.6%
Bachelor's Degree or Higher	33.6%	24.1%	25.9%	19.7%
<b>EMPLOYMENT</b>				
Labor Force Participation Rate	61.6%	59.0%	57.9%	61.6%
Unemployment Rate	5.7%	5.4%	5.7%	4.6%
<b>INCOME</b>				
Family Poverty Rate	7.7%	10.5%	11.1%	8.8%
Median Household Income	\$77,464	\$66,469	\$65,832	\$68,115
<b>HOUSING</b>				
Homeownership Rate	71.5%	79.6%	79.0%	81.3%
Median Home Value	\$287,478	\$231,569	\$225,930	\$245,717
Share Housing Cost Burdened	28.8%	28.5%	29.6%	25.8%

**Sources**

Author's calculations using the Philadelphia FRB Manufactured Housing Community data set and U.S. Census Bureau American Community Survey 2017-2021 estimates.

**Notes**

Estimates for block groups containing MHCs are weighted by the number of MHCs present in a block group. Educational attainment measures are calculated for the population 25 years old and over; those who have completed some college but less than a bachelor's degree are not included in either category. Employment measures are calculated for the population 16 years old and over. Median household income is calculated as a household-weighted averages of block group medians and median home value is calculated as an owner-occupied unit-weighted average of block group median. A household is housing cost-burdened if total housing costs equal or exceed 30 percent of household income.

## Takeaways for Policy and Practice

Although Delaware MHCs serve a wide range of households, the analysis in this report indicates that this housing style is still disproportionately relied on by lower-income homebuyers. While these communities have received considerable attention from state policymakers in recent years, there continue to be opportunities for a broad range of community development actors to help respond to the multifaceted challenges facing MHC residents. For example, innovations in community development finance can yield more consumer-friendly alternatives to chattel loans (Thomas, 2019). Additionally, many MHC homeowners in Delaware, particularly those in older units, face stark housing quality challenges (Millard and Metraux, 2023). Housing agencies and utilities can build their capacity to provide home repair and energy efficiency interventions tailored to this housing segment to improve unit affordability and livability (Bell-Pasht, 2023).

Beyond interventions aimed at individual homeowners, facilitating cooperative land ownership may help improve the security and wealth building potential of MHC homeownership (Ward, French, and Giraud, 2006). Although Delaware enacted legislation supportive of ROC conversions over a decade ago, only two such communities currently exist in the state (Lamb, Shi, Silva, and Spicer, 2023). Future work could explore ongoing barriers to and potential incentives for ROC conversion. In circumstances in which establishing a ROC may not be viable, other preservation models adapted from the rental housing sector, such as acquisition by a public or nonprofit agency or a social-purpose real estate investment trust, may offer some benefits in terms of affordability and protection from community closure. Municipalities exploring uses for developable publicly owned land could consider purpose-built ROCs or MHCs with deed-restricted affordability as a means of promoting affordable homeownership. Preserving and even responsibly expanding access to affordable MHC living could be a valuable component of a broader equitable housing strategy.



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# Appendix A. Data and Methods

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## Philadelphia FRB Manufactured Housing Community (MHC) Data Set

This Philadelphia FRB Manufactured Housing Community data set is intended to provide a comprehensive inventory of land-lease MHCs in the three states of the Third Federal Reserve District: Delaware, New Jersey, and Pennsylvania.<sup>30</sup>

This data set provides the latitude and longitude for all identified MHCs and categorizes entries as small (three to 10 homesites), medium (11 to 99 homesites), or large (100 or more homesites). MHCs in which 30 percent or more of the homesites are not in use are categorized as having high lot vacancy.

I used aerial imagery to visually assign MHCs into size and lot vacancy categories. I determined these categories during the initial phase of data set construction for Pennsylvania and decided to hold them consistent across all three states. An individual lot was considered vacant if it appeared to previously be the site of a manufactured home that had since been moved or demolished, based on the most recent available aerial image.<sup>31</sup> Existing units that may have been unoccupied did not count toward this vacancy measure. Vacant lots were included in size category determinations.

Communities with manufactured homes in which residents individually own their underlying parcel are not included this data set, as they are not subject to the split-tenure arrangement that characterizes land-lease MHCs. Campsites that cater primarily to nightly or seasonal recreational vehicle (RV) campers are also excluded, since these are not intended for long-term residential use. In the construction of this data set, I made inclusion determinations based on available information from public

records, community/campsite websites, and other online sources. I take responsibility for any errors or omissions.

The contributing data sources vary somewhat for each state in the Philadelphia FRB MHC data set. I used the following sources to construct the data set for Delaware:

- **CoreLogic Solutions Property Records Data:**<sup>32</sup> This data set consists of public property assessment records, including information on land use, address, and geographic coordinates. A custom query designed to capture keywords associated with MHCs was used to generate a list of potential locations. Records were queried from the 2021 tax year.
- **Department of Homeland Security (DHS) Homeland Infrastructure Foundation Level Data (HIFLD):**<sup>33</sup> The Mobile Home Parks feature class/shapefile contains mobile home, residential trailer, and RV parks in the continental United States and Alaska. The final data set includes the relevant features from the Delaware subset of this file.
- **Delaware Manufactured Home Relocation Authority (DEMhra) registered communities list:**<sup>34</sup> The DEMhra maintains a list of MHCs in the state for administrative purposes. Community owners are required to submit registrations annually. The published list includes a business address, which may or may not correspond to the MHC location. Addresses for the MHC locations were determined via internet search.
- **First State Manufactured Housing Association (FSMHA) community directory:**<sup>35</sup> FSMHA is a member-based organization that advocates on behalf

<sup>30</sup> Although the Federal Reserve's Third District includes only portions of Pennsylvania and New Jersey, the full states are included in this data set.

<sup>31</sup> I reviewed the aerial imagery that was available on Google Earth in May and June 2023.

<sup>32</sup> For more information, see [www.corelogic.com/wp-content/uploads/sites/4/downloadable-docs/capital-markets-data-sources.pdf](http://www.corelogic.com/wp-content/uploads/sites/4/downloadable-docs/capital-markets-data-sources.pdf).

<sup>33</sup> The full data set is available at [hifld-geoplatform.opendata.arcgis.com/datasets/geoplatform::mobile-home-parks/about](https://hifld-geoplatform.opendata.arcgis.com/datasets/geoplatform::mobile-home-parks/about).

<sup>34</sup> The list is available at [demhra.delaware.gov/demhra-registered-communities/](https://demhra.delaware.gov/demhra-registered-communities/). I used the list dated September 8, 2022, which was the most recent available at time of analysis.

<sup>35</sup> Available at [www.firststatemha.org/communities/alphaindex/a.html](https://www.firststatemha.org/communities/alphaindex/a.html). Accessed in May 2023.

of the factory-built housing industry in Delaware. The FSMHA website includes a directory of communities and businesses, including addresses that correspond to MHC locations.

- **Google Earth:** Google Earth is a desktop-based mapping application that combines recent and historic aerial imagery with GIS data, making it possible to search and review aerial imagery for both addresses and geographic coordinates. Each MHC record was verified and coded into size and vacancy categories using Google Earth aerial imagery. Depending on the location, the most recent available imagery ranged from less than a year old to more than five years old.
- **Regrid:**<sup>36</sup> Regrid is a property data company that maintains a nationwide parcel boundary mapping application with information from public records data. Cross-referencing the mapped parcel boundaries with satellite imagery helped identify and distinguish between multiparcel and adjacent MHCs and to differentiate MHCs from manufactured housing subdivisions where residents owned both the home and underlying land.

Data set construction was an iterative process. The preliminary data set was developed using the CoreLogic query output, which was initially deduplicated by removing records with identical geographic coordinates. I mapped the remaining records and used Google Earth and Regrid to determine if locations within overlapping 500-foot buffers were duplicates. Following this initial data cleaning, I examined aerial imagery of all retained records to confirm their use as MHCs. To integrate the geocoded DHS HIFLD data set, I mapped these records alongside the list of confirmed MHCs from CoreLogic, removed records within 500-foot buffers of CoreLogic MHCs, and again confirmed the remaining records as MHCs using aerial imagery.

To integrate records from the nonspatial DEMHRA and FSMHA data sets, these lists were first cross-referenced by community name and compiled into a single, deduplicated list. I geocoded the associated addresses using Regrid and mapped these records against the list of confirmed MHCs from the CoreLogic and DHS HIFLD data sets. I then deduplicated and confirmed the records using the same method described previously. For a final deduplication

check, I truncated the geographic coordinates of every confirmed MHC to two decimal places and verified duplicate values using Google Earth and Regrid.

## Spatial Joins

To integrate data on the community contexts of MHCs, I used GIS software to spatially join the final MHC data set to two sets of geographies:

- To classify MHCs as urban or rural, I joined the MHC locations to the U.S. Census Bureau TIGER/Line Shapefile for Urban Areas based on the 2020 census. To account for situations in which an MHC parcel may be partially included in an urban area while its associated geographic coordinate falls outside that area, I added a 500-foot buffer around the urban area shapefile before conducting the join. MHC coordinates that fell within this buffer were classified as urban. All MHCs that were not spatially joined to an urban area were classified as rural.
- I joined the MHC data set to the TIGER/Line Shapefile for 2020 census block groups. I used the 12-digit Federal Information Processing System (FIPS) codes from this join to merge in block group-level estimates of demographic and socioeconomic characteristics from the 2017–2021 American Community Survey. Each MHC was retained as a record for the analysis, even if multiple MHCs were located in the same census block group.

Owing to differences in the inputs used to construct the MHC data set, there are some variations across records in the location of geographic coordinates relative to the MHC parcel. Most records were derived from the CoreLogic data set (211 of the total 243), which provided the coordinates of the parcel centroid. Nonduplicate records from the DEMHRA (12) and the FSMHA (1) that were geocoded using Regrid also used centroid coordinates. However, the DHS HIFLD spatial layer, which accounted for an additional 19 nonduplicate MHC records, provided coordinates corresponding to street addresses. Future enhancements to the data set will standardize these coordinate locations. Since the majority of MHCs were wholly contained within a single census block group, this variation in coordinate locations is expected to have minimal impact on the analyses presented in this report.

<sup>36</sup> Available at [app.regrid.com](https://app.regrid.com).

# Appendix B. Manufactured Housing Communities by County, Size, and Lot Vacancy Status

County	MHCs	Size Category			Share High Lot Vacancy
		Small	Medium	Large	
Kent	77	19	46	12	12%
New Castle	33	3	18	12	9%
Sussex	133	23	70	40	5%

**Sources**

Author’s calculation using the Philadelphia FRB Manufactured Housing Community data set and Census TIGER/Line Shapefiles.

**Notes**

An MHC was classified as high lot vacancy if 30 percent or more of its homesites were vacant in the most recent available aerial image. Percentages were calculated at the MHC level and are not unit weighted.



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