

Appendix E: Affordability Analysis

This appendix describes the available data sources flagged in the Task 3: Affordability Analysis of the Contextualized Housing Need (Chapter 3 of the Goal 10-Housing Guidebook) to support this work, along with guidance on how to use them, and discussion of their limitations.

Rental Housing Costs

The typical data sources available for assessing rental housing costs include:

Census data from the American Community Survey

The ACS collects rent data through two related measures. Contract rent is the monthly rent agreed to without adjustments for utilities or other payments. Gross rent is the sum of contract rent and the estimated average monthly cost of utilities (electricity, gas, water and sewer) and fuels if those costs are paid by the renter.

- **Pros of this data:** ACS rent data is available for jurisdictions of all sizes, covers a long and consistent time period, and is free to access. Median gross rent by number of bedrooms allows for comparison of rental costs across unit sizes, and median gross rent by the year the structure was built allows for a rough comparison of costs in older versus newer rental housing, which is relevant for understanding the price gap between existing and newly constructed units.
- **Cons of this data:** Since ACS rent estimates represent what residents are *paying*, it encompasses long-term and informal tenancies (e.g. handshake deals, someone renting at a reduced rate from a family member, etc.), and therefore is not accurately capturing what the market is currently charging for new leases. Because ACS data is a survey, individuals self report their rental data. In addition, this data mixes rent data for market-rate rental housing, as well as income-restricted rental housing. It is also less up to date than other market data.

CoStar data about multiunit rents

CoStar is a commercial real estate data company that provides a proprietary dataset of detailed information on multiunit rental markets (along with other investment real estate market categories).

- **Pros of this data:** CoStar includes data for newer multiunit housing. It provides useful rental characteristic information such as the number of bedrooms, number of units in structure, square footage, structure type, average asking rent and average effective rent (after accounting for discounts or incentives), vacancy rates and absorption rates. CoStar data comes from administrative records, therefore having greater precision and better reflecting current market conditions than self-reported sources. CoStar allows for differentiating between market-rate

rents and income-restricted affordable rents. It also allows for differentiating between standard market-rate rental housing and housing that is available to specific populations, such as college students or older adults. (*Note that filters must be set appropriately to isolate the categories of interest.*)

- **Cons of this data:** CoStar is proprietary data and requires a paid subscription to access. It is better in larger markets than in smaller markets because rental listing information in smaller markets tends to be limited and CoStar uses a compilation of information from a variety of sources, including its subsidiary rental listing service Apartments.com, investment in Commercial Mortgage-Backed Securities (CMBS) pools, and interviews with property managers. Smaller property managers can be harder to reach, or have less established data available to provide CoStar. Because CoStar measures asking rents on listings rather than in-place rents across the occupied stock, it tends to overstate what renters in a jurisdiction are actually paying, though it more accurately reflects what they would pay if newly searching for an apartment.

Zillow rental data

Zillow is an online real estate marketplace that aggregates listing data from Multiple Listing Services (MLS), brokerages, and property managers to provide home sale listings, rental listings, and estimated property values. Its research division publishes a range of free housing market indices and datasets derived from this platform activity. Zillow's main rent estimate product is its Zillow Observed Rent Index (ZORI), a repeat-rent index that tracks changes in asking rents over time by following the same properties across listing periods, analogous in concept to a repeat-sales index for home prices. ZORI is smoothed and seasonally adjusted, making it well-suited for trend analysis, though it reflects contract rents on listed units rather than the full occupied stock. Zillow also publishes raw median contract rent by bedroom count, which is simpler and more intuitive but can be noisier month to month as the mix of listed units shifts. Together these products offer a timely, publicly accessible window into market-rate rental pricing trends that the ACS cannot match on currency.

- **Pros of this data:** Zillow rent data is free, published monthly with only a few weeks of lag, and available at geographies as fine as ZIP code, making it far more current than the ACS for tracking rental market shifts. The data is easy to access in flat-file format, requires no special software or licensing, and covers most mid-size to large markets across the country. It may have greater coverage for individual homes offered for rent than CoStar.
- **Cons of this data:** Coverage is limited to units listed on Zillow's platform and its syndication partners, which skews toward market-rate, professionally managed, and digitally marketed units while underrepresenting subsidized housing, informally marketed rentals, and small-scale landlord properties. Zillow does not publish sample sizes, confidence intervals, or methodological documentation sufficient to assess reliability in low-volume geographies, so those working in

smaller cities or rural areas should treat the data with caution. Because ZORI measures asking rents on listings rather than in-place rents across the occupied stock, it tends to overstate what renters in a jurisdiction are actually paying, particularly in markets with high tenant retention and rent-stabilized or naturally affordable units.

Ownership Housing Costs

The typical data sources available for assessing housing values or sales prices include:

Census data from the American Community Survey

The ACS collects housing value data by asking owner-occupants a single question about how much they think their property would sell for if it were on the market. Value is the respondent's estimate of how much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were for sale. If the house is owned but the land is not, respondents estimate the combined value of both. For vacant units, value is the price asked for the property.

- **Pros of this data:** Like all Census data, ACS housing value data is free. The data is available for jurisdictions of all sizes, and has been collected consistently since 2005, making it the only source that supports long-run trend comparisons of home values across all geographies including small cities. Because the question is asked of the full owner-occupied stock rather than only recently transacted properties, the data captures value perceptions for homes that have not sold in years, which can be helpful for understanding the broader distribution of wealth tied up in housing.
- **Cons of this data:** The primary downsides of this data is that housing values may not be reflective of the current housing market and Census data is not timely. People responding to the Census may have an incorrect opinion of the value of their housing, either too high or too low, in comparison to the sales prices achieved by the housing market.

County or regional sales records

In some counties or regions, sales records are accessible via county or regional assessor databases. In the Metro region, this data is available from RLIS and in Lane County it is available from RLID. These databases can provide information about sales prices by year and by housing type.

- **Pros of this data:** This data is available free of cost and for all areas within Metro and it is available for Lane County cities as well. In Lane County, the city will need to help the consultant gain access to this data. This data is generally geocoded and can be used to map the location of housing sales.

-
- **Cons of this data:** This kind of data is not available for many of Oregon's cities. It may be several months out of date, depending on the frequency of the database update.

Multiple Listing Service (MLS) reports

The MLS is a private database used by real estate professionals to track and share information about housing sales. It can be used to provide information about housing sales for a city, often distinguishing between sales of new and existing housing. This data is proprietary and not generally available to cities or consultants. However, in some MLS regions, the local realtors group may publish reports about housing sales trends, often on a quarterly basis.

- **Pros of this data:** This data is considered the best available data about housing sales. It can provide information about housing sales in a region, a specific city, and sometimes in subareas for cities. It can be used to analyze historical price trends, as well as things like number of days on the market, number of units sold over time, and other statistics.
- **Cons of this data:** This data is proprietary and not generally available to cities or consultants. The MLS does not provide detail about sales prices by housing type, such as distinguishing between single-unit detached, townhouses, cottage housing, or other types of attached housing.

PropertyRadar

PropertyRadar is a commercial data vendor that aggregates property-level information from county assessor offices, recorder offices, county courts, GIS layers, and proprietary databases. PropertyRadar combines multiple vendor sources, runs comparisons between them, backtests against county records, and manually backfills missing information based on their internally developed methods.

- **Pros of this data:** Unlike MLS data, PropertyRadar data is a commercial product intended for a variety of use-cases, so it is available to anyone who can afford it. Like MLS, it can provide information about housing sales in a region, a specific city, and sometimes in subareas for cities. Like MLS, it can be used to analyze historical price trends, as well as things like number of days on the market, number of units sold over time, and other statistics.
- **Cons of this data:** Since the data is a commercial product, it requires both a subscription to PropertyRadar (up to several hundred dollars per month), and an additional charge is incurred when exporting data from its database. Since this cost is charged per record (i.e. per individual property sale), costs could prove substantial for jurisdictions that have seen a large volume of property transactions.

Zillow

Zillow's ownership-side data products center on the Zillow Home Value Index (ZHVI), a smoothed, seasonally adjusted measure of typical home values calculated from Zillow's proprietary model. This market-level time series represents the value of a typical home in a given geography. ZHVI is available at metro, county, city, and ZIP code levels on a monthly basis, and can be filtered by housing type (single-family, condo, etc.) and bedroom count, making it useful for tracking price trends across submarkets. Zillow also publishes sale price data, inventory counts, days on market, list-to-sale price ratios, and other transaction-derived metrics that help characterize market conditions.

- **Pros of this data:** Like the rent products, ZHVI is free, monthly, and available at fine geographies with minimal lag, giving planners a far more current read on price trends than the ACS or even the Census Bureau's annual Housing Vacancies and Homeownership Survey. The index methodology smooths out noise from compositional shifts in what happens to sell in a given month, providing a more stable trend line than raw median sale prices. The breadth of supplementary metrics — inventory, days on market, price cuts — allows planners to characterize not just price levels but market tightness and momentum.
- **Cons of this data:** ZHVI is a modeled estimate of typical values across the full housing stock, not a direct measure of transaction prices, and the accuracy of the underlying Zestimate varies meaningfully by market, data availability, and housing type — Zillow itself reports a national median error rate of roughly 2–3%, but this can be substantially higher in rural areas, markets with heterogeneous housing stock, or areas with limited transaction history. The methodology is proprietary and not fully transparent, so planners cannot independently assess or replicate the assumptions behind the valuations. As with the rent data, geographic coverage thins out in smaller and rural markets, and Zillow does not publish confidence intervals or sample sizes that would allow users to evaluate the reliability of estimates in low-volume areas

Redfin

Redfin is a national real estate brokerage that operates as both a licensed broker and a data aggregator, drawing transaction and listing data from MLS feeds across most major U.S. markets and publishing a range of free housing market metrics through its Redfin Data Center. Redfin publishes monthly and weekly metrics including median sale price, median price per square foot, homes sold, new listings, inventory, days on market, sale-to-list price ratio, and share of homes sold above list price. These are available at metro, county, city, ZIP code, and neighborhood geographies, though not all geographies in the US are guaranteed to be represented. Redfin also allows users to download recent sales transactions or current listings after applying nuanced search criteria, though there is a limit on the number of transactions that can be downloaded at

a time. The listings and transactions can be filtered by housing type to some extent (though townhomes are frequently mis-coded), lot size, number of bedrooms, year built, and other factors.

- **Pros of this data:** Redfin data is free, updated weekly for key metrics, and based on actual transactions recorded through MLS feeds rather than modeled estimates (like Zillow), giving it greater interpretability. The ability to download specific transactions or listings based on certain criteria allows users to perform custom analysis on variables of interest.
- **Cons of this data:** Geographic coverage depends on Redfin's brokerage footprint, so data availability can be uneven across markets, with stronger coverage in large metros and thinner data in smaller, often rural areas. In large markets with many transactions, downloading specific records may be infeasible given the number of transactions and download limits.

Existing Housing Stock

The typical data sources available for assessing housing stock by type include:

Census data from the American Community Survey

The ACS collects housing type data through its units-in-structure question, which asks respondents how many housing units are in their building. The question is asked at both occupied and vacant housing units, and the data are presented as the number of housing units in structures of a specified type and size. The resulting categories are: 1 unit detached; 1 unit attached; 2 units; 3 or 4 units; 5 to 9 units; 10 to 19 units; 20 to 49 units; 50 or more units; mobile home; and boat, RV, van, or other. This data can be analyzed in pre-cross-tabulated tables of tenure and which year the structure was built to understand the age of the building and type of ownership.

- **Pros of this data:** The units-in-structure data are available for jurisdictions of all sizes, and have been collected consistently since 2005. The stable category definitions allow for direct comparisons across jurisdictions and over time. Cross-tabulation with tenure allows analysts to see, for example, how many 2-to-4 unit structures are owner-occupied versus renter-occupied, which is relevant for understanding the character of the small-scale rental market.
- **Cons of this data:** The categories do not map cleanly onto the housing typologies used in Oregon planning. Fully detached, semi-detached, row houses, duplexes, quadruplexes, and townhouses may all be classified as single-family structures if they meet the Census definition, which requires a ground-to-roof wall separating them, a separate heating system, individual utility meters, and no units above or below. The data does not isolate market-rate housing but reflects the overall housing stock.

County or regional parcel databases

In some counties or regions, information about housing stock is accessible via county or regional parcel databases. For example, in the Metro region, this data is available from RLIS and in Lane County it is available from RLID. In other counties, the county assessor maintains parcel databases that can provide information about existing housing, including its year built and housing type, though the detail and reliability can vary from county to county. This data might be useful in creating a map that shows the distribution of different types of housing across the city.

- **Pros of this data:** This data is typically free for jurisdictions to use, assuming a data sharing agreement is in place between the city and county. The data is usually updated annually, and is therefore more up-to-date than ACS data. Since it is administrative data, as opposed to a survey like ACS, it has a higher degree of accuracy.
- **Cons of this data:** This kind of data is not guaranteed to be available for any given city, and it can have complex structures that makes analysis more difficult. Information about housing type may be limited for some types of housing, such as middle housing or apartments. Obtaining historic parcel databases can often prove challenging or impossible, making trends over time more difficult to analyze.

Comprehensive Housing Affordability Strategy (CHAS) Data

CHAS (Comprehensive Housing Affordability Strategy) data is a specialized housing dataset produced through a partnership between HUD and the U.S. Census Bureau. Each year, HUD receives custom tabulations of ACS data from the Census Bureau, re-engineered around the income thresholds and household characteristics that federal housing programs actually use. Rather than categorizing households by national poverty guidelines as standard ACS tables do, CHAS organizes households by their income relative to the HUD Area Median Family Income (HAMFI) at 30%, 50%, 80%, and 100% of the local median, making it directly compatible with eligibility determinations for HUD housing assistance and grant programs. CHAS also enables cross-tabulations that the Census Bureau does not publish in standard ACS products, such as cost burden by income tier, tenure, race and ethnicity, disability status, elderly status, and household type, as well as unit-level affordability estimates independent of current occupant income.

CHAS data are available at the state, county, place, and census tract level and are the standard data source for HUD Consolidated Plans, fair housing assessments, and

competitive grant applications. Because CHAS is built on 5-year ACS estimates, it carries the same timeliness limitations as that product: data reflect a rolling five-year window and are released with a multi-year lag, making them less suited for tracking rapidly changing market conditions. The data also require careful handling, as CHAS provides household counts rather than rates, requiring analysts to calculate percentages manually, and HUD-mandated rounding can produce apparent inconsistencies when summing sub-geographies.

Public Use Microdata Sample (PUMS)

U.S. Census PUMS files are individual household- and person-level survey records drawn from the American Community Survey, released annually by the Census Bureau with identifying information removed to protect confidentiality. Unlike pre-tabulated ACS summary tables, PUMS gives analysts access to the underlying response records, enabling custom cross-tabulations that no published table provides (e.g. tabulating rent burden by household size, income, and race simultaneously). However, PUMS statistical analyses require applying replicate weights to properly analyze the survey data and can be a challenging undertaking when first starting. As such, this data is not covered in this analysis as it comes with a higher level of rigor and attention to detail.

Longitudinal Employment and Household Dynamics (LEHD)

The LEHD program, particularly the LODES (LEHD Origin-Destination Employment Statistics (LODES)) dataset, is administratively derived rather than survey-based. It integrates state unemployment insurance earnings records and the Quarterly Census of Employment and Wages (QCEW) with Census Bureau data to produce information on where workers live, where they work, and the flows between those locations, at the census block level.¹

LODES is the primary source for commute flow analysis, jobs-housing balance assessments, and employment counts in sub-county geography. Its administrative origins mean it covers most wage and salary workers, but it systematically excludes independent contractors, the unincorporated self-employed, certain farm workers, students working for universities under specific conditions, and military personnel.²

¹ U.S. Census Bureau. n.d. "LEHD Data." Center for Economic Studies, U.S. Census Bureau. Accessed April 10, 2026. <https://lehd.ces.census.gov/data/>.

² Graham, Matthew, Erika McEntarfer, Kevin McKinney, Stephen Tibbets, and Lee Tucker. 2022. "LEHD Snapshot Documentation." Working Paper 22-51. Center for Economic Studies, U.S. Census Bureau. <https://lehd.ces.census.gov/data/lehd-snapshot-doc/latest/sections/introduction.html>.