Measuring the Burden of Housing Regulation in Hawaii

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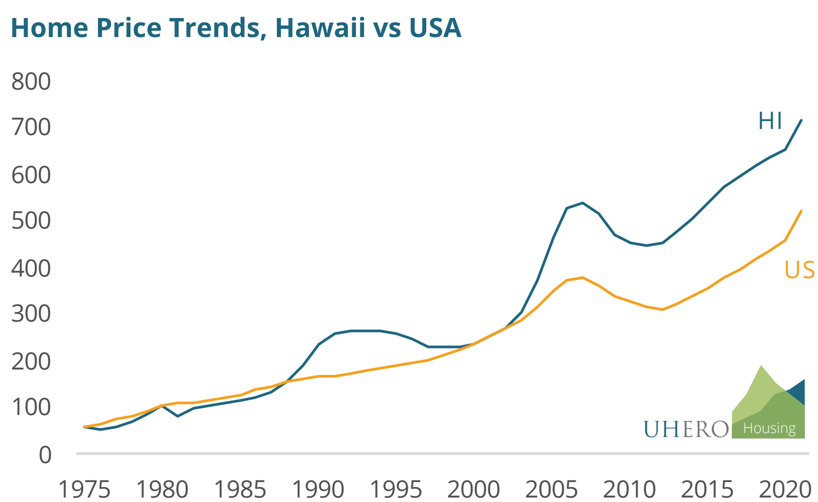
Home prices in Hawaii are among the highest in the nation. Data from 2021 shows that median home resale prices across the state are about two and a half times the national median.[1] One of many factors that may explain the incredibly high home prices in Hawaii is that government regulation has severely limited the ability of the housing market to create the units necessary to meet demand. While clearly important to the production of new housing, regulatory barriers are difficult to measure. To study the impact of regulation on housing markets across the country, researchers have often relied on the Wharton Residential Land Use Regulatory Index (Wharton Index). The methodology relies on surveying public officials to quantify the stringency of local regulation surrounding new housing production. When the Wharton Index was first released in 2006, Honolulu was the only Hawaii county included. When the index was updated in 2018, Hawaii was omitted entirely. Failure to survey officials in Hawaii means that the state's housing market is excluded from many national studies on the burden of housing regulation. To fill this gap, UHERO administered the Wharton Index survey across Hawaii counties in 2021. This brief presents the first results from the survey findings.

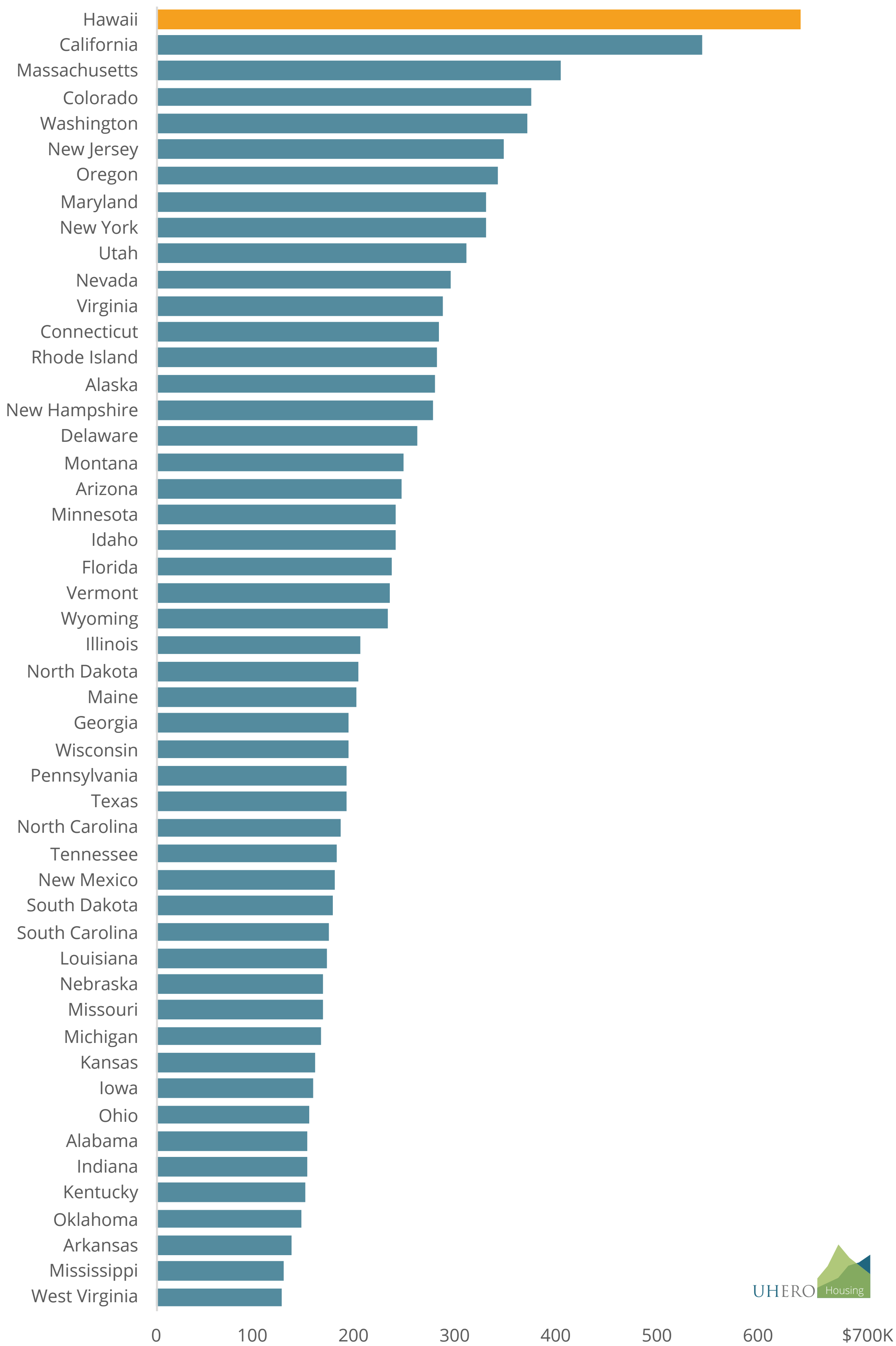


Source: U.S. Federal Housing Finance Agency. All-Transactions House Price Index for Hawaii and the US (Index, 1980 = 100).

While high home prices in Hawaii arise from a number of factors, regulation plays a key role in setting the supply of housing. Setting rules for residential development can often be in the public interest. Limits on construction can serve many purposes such as ensuring development does not exceed the capacity of local infrastructure, helping to support ecological preservation, promoting energy efficient construction, ensuring a safe housing stock and encouraging the preferred mix of housing types. However, such rules come with lengthy permitting processes and other financial obstacles that create a disincentive for developers to build new homes. Furthermore, development limits are designed to outlaw large multifamily development in virtually every neighborhood, forcing developers to

1 The median home price — the home price for which there are an equal number of properties below that price as there are properties above that price.

Median Home Value Across States



Source: 2020 American Community Survey 5-year estimates. Data includes all owner-occupied housing units, including those in both single-family and multi-family buildings.

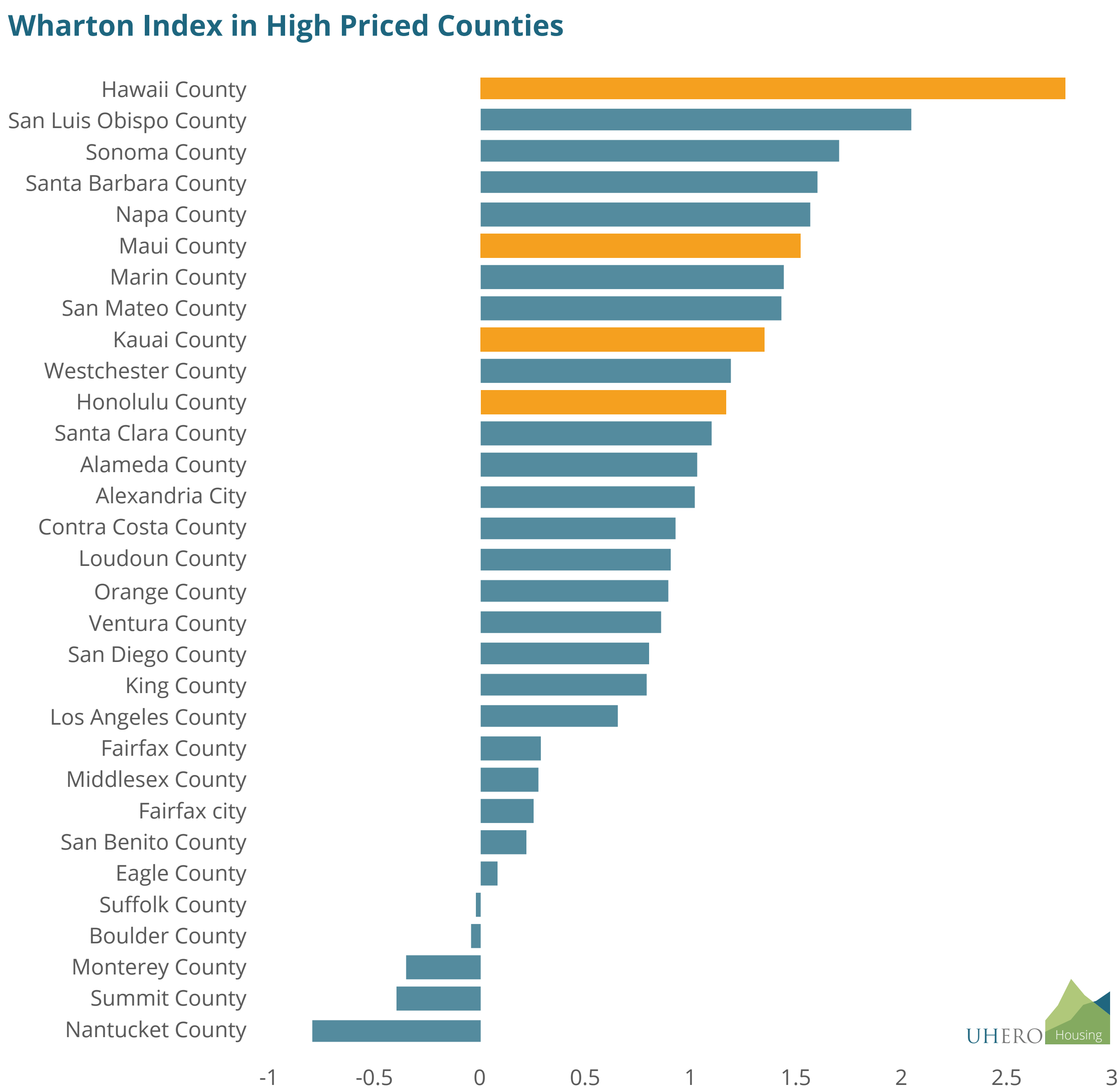
seek special permission if they want to provide new multifamily housing. The processes to secure multifamily permits can be extremely complicated, requiring coordination between many levels of government, the local community and the legal system. By raising the cost of housing production, regulation reduces the supply of new homes, and leads to higher prices. Regulation can be counterproductive if it places a large burden on developers. While we might prefer developers to provide large units with generous amenities at low prices, requiring developers to meet overly rigid guidelines will result in many projects failing to go forward at all.

The Wharton Index provides a standardized measure of local regulatory restrictiveness, allowing comparisons across locations. To construct the Wharton Index, Joseph Gyourko and a team of economists at the University of Pennsylvania collected survey responses from local planning officials covering 2,600 communities across the US in 2006 and over 2,400 communities in 2018[2]. In 2021, we asked each of Hawaii's county planning departments to complete the survey used in Gyourko et al. (2021). To capture the regulatory environment, the survey asks questions that fall into one of three categories. The first covers questions regarding who and to what extent various parties (i.e., local government, state government, the community, etc.) are involved in the regulatory process. The second category asks about the rules used to regulate the housing market. These include items such as density restrictions, minimum lot size requirements, affordable housing requirements, development fees and the time it takes a project to gain approval. The final category of questions looks at outcomes of restrictions, such as changes in the costs of lot development and the number of re-zoning permits applied for by developers. From the survey responses, twelve sub-indices are created and then combined into a single index using a statistical method called principal component analysis,[3] which is designed to identify the components that are driving variation across locations.

The Wharton Index is standardized with a mean of zero. Communities with positive values have more regulatory barriers than average. Our survey results show that all four of Hawaii's counties have index values that are above the average surveyed community, indicating that Hawaii has relatively high levels of housing market regulation. Honolulu and Kauai county are ranked within the top 10% of the sample with index values of 1.17 and 1.35 respectively. Maui county ranks slightly higher, in the top 5% of the sample, with an index value of 1.52. Hawaii county has the highest index value at 2.78, placing it within the top 1% of the sample. Because each county response relies on the results of a single respondent, we are cautious in interpreting the index differences across counties. However, as a state, Hawaii appears to maintain high regulatory barriers compared to the rest of the nation.

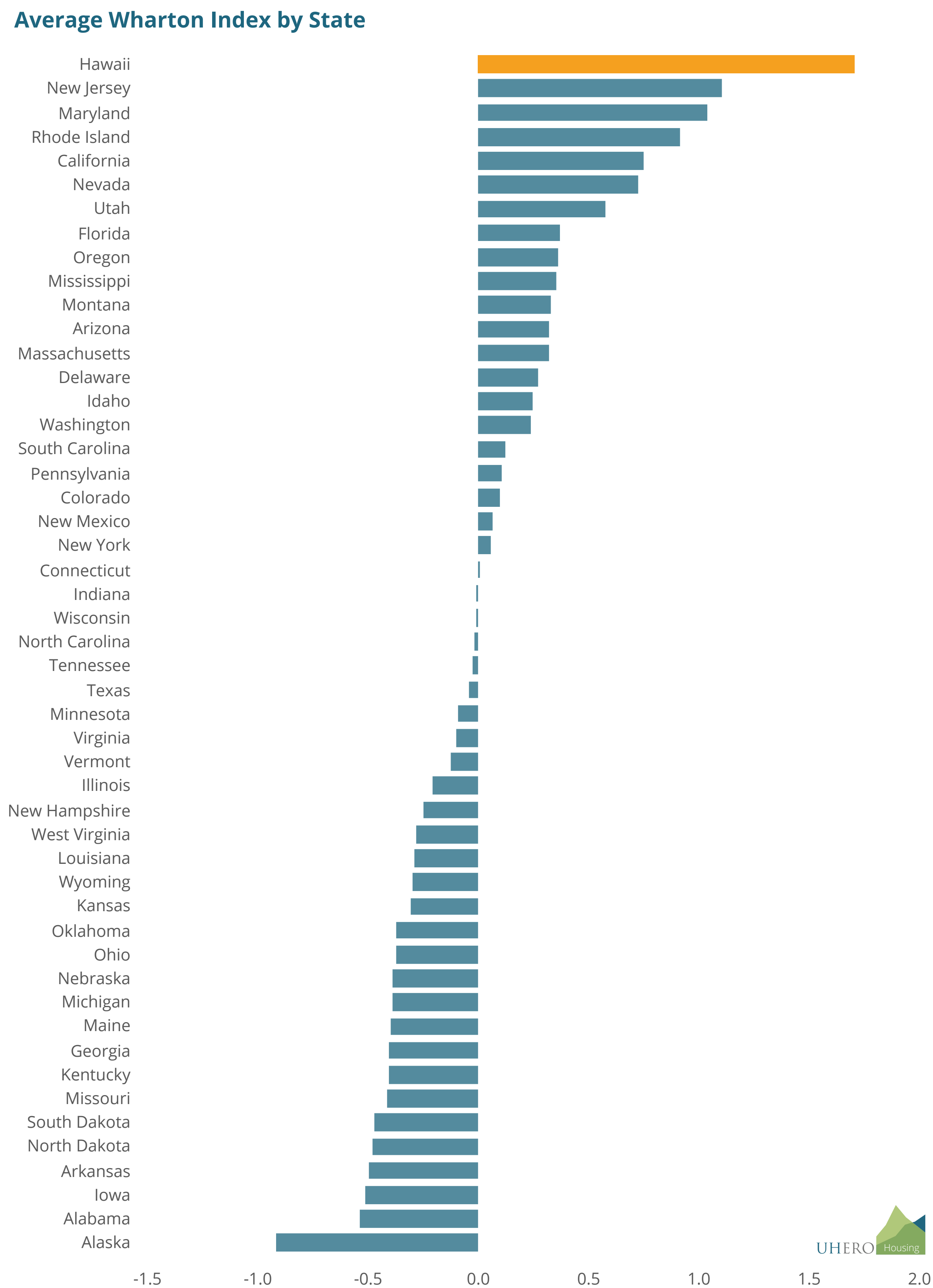
To gauge where Hawaii ranks in comparison to similar areas across the US, we compare the state's counties to the nation's top 30 counties with the highest median home prices.[4] Because many counties across the country have multiple planning agencies that were surveyed, we take the mean of the regulatory indices across all communities within each county. Compared to the 30 most expensive counties in the country, Hawaii county has the highest index value. Maui, Kauai and Honolulu counties are also ranked relatively high with index values in the top third. Even among the nation's most expensive counties, Hawaii's counties have some of the highest regulatory burdens as measured by the Wharton Index.[5]

2 See Gyourko et al. (2008) and Gyourko et al. (2021) to learn more about how this index is created.
3 Principal component analysis (PCA) is a method of reducing a large number of interrelated measures as much as possible while retaining the key variation and information in the underlying series. In this case, PCA is used to reduce more than 70 responses to 12 sub-indices and a single Wharton Index.
4 Honolulu, Kauai and Maui Counties all rank in the top 30 counties nationally in terms of home prices. Hawaii County does not rank in the top 30, but we include Hawaii County in the figure for comparison.
5 Relying on survey responses means that the data will be affected by the specific experiences and interpretations of the official completing the survey, potentially introducing bias into the sample. For example, the first set of questions asks the respondents to rank the level of involvement of various parties in the residential development process on a scale of 1 to 5. A 5 indicates that the party is very involved in the process while a 1 indicates that they are not involved. Responses to such questions clearly are affected by the respondent's own perceptions and experiences.



The figure includes the 30 counties in the US with the highest median home prices, as well as Hawaii County.

We also compare the average index value across states. To arrive at state level estimates we simply take the average index value across all communities surveyed within each state. We find that average regulatory burdens in Hawaii are significantly higher than those found in any other state.



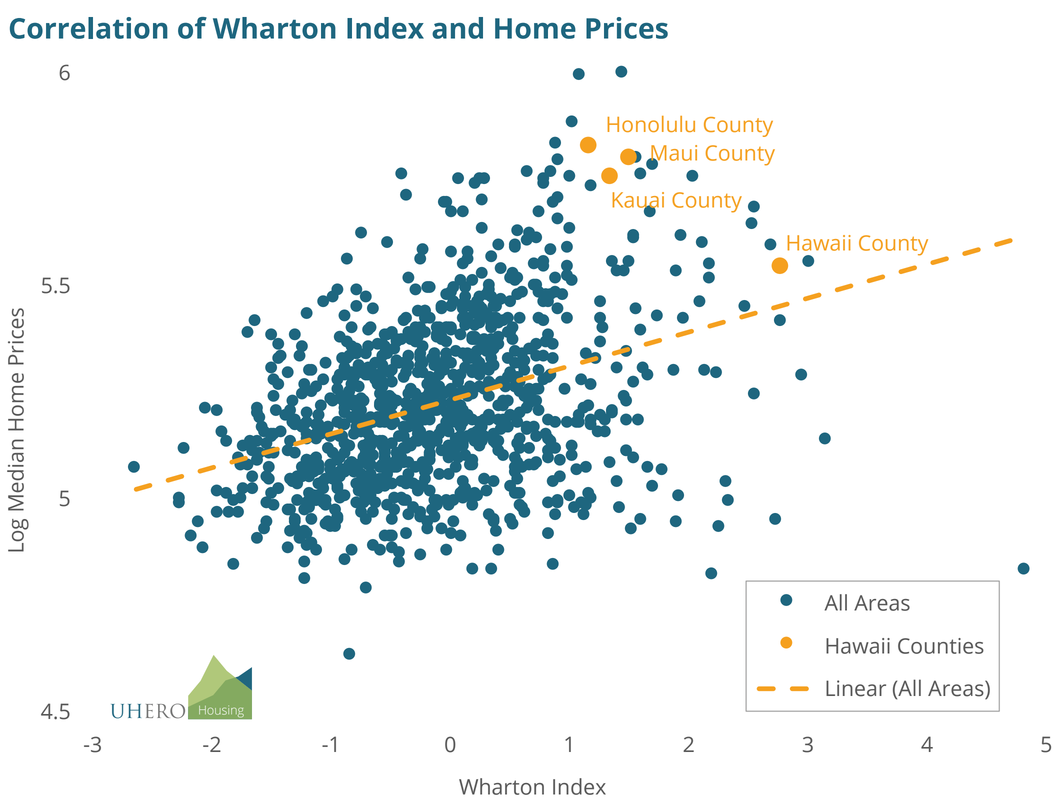
The figure shows the Wharton Index of each state, calculated by taking the average of all reporting jurisdictions within that state.

To see why Hawaii ranks relatively high in terms of regulatory restrictiveness, we look at the breakdown of the Wharton Index by sub-indices across the entire sample. For nine of twelve sub-indices, we find the average level of regulation in Hawaii is more onerous than in the average community. According to the Wharton Index methodology, the three categories that are statistically most important to the index are court involvement, state political involvement and local political pressure. We find Hawaii has stricter regulation across all three of these categories. The court involvement sub-index is the degree to which state and local courts affect residential building activities and growth management. State political involvement measures the involvement of the state legislature in regulating building while local political pressure takes into account influence wielded by local councils and community lobbying, as well as local ballot initiatives. Because developments often require county council approval and may involve pressure from various stakeholders, projects can be rejected because of a perceived lack of community support, even if the project could hold significant benefits for future residents of the community or for the larger housing market. Local political pressure in Hawaii is particularly high, ranking in the top 5% of the sample. Court and state political involvement rank in the top 25% and 50% of the sample respectively.

Ratios are calculated by dividing the Hawaii sub-index by the average national sub-index. For example a value of three means Hawaii's sub-index is triple the national level.

The sub-index capturing affordable housing requirements for new construction is nearly seven times higher in Hawaii, compared to the national average. Developers in Hawaii are much more likely to face affordable housing requirements as compared to other locations. Many jurisdictions in the US have no affordable housing regulations at all, but even compared to highly regulated markets, Hawaii counties stand out for pervasiveness of affordable housing requirements. Affordable housing requirements reduce the revenue generated by new projects, reducing the incentive to produce new housing. The approval delay sub-index is also high in Hawaii. The approval delays are calculated by taking the average review time for permit approval in months for residential development projects, rezoning requests and subdivision requests. The average length of delay in Hawaii is more than three times the sample mean. Approval delays across the counties in the state range from about 14 months in Hawaii county to 18 months in Kauai county. Extreme delays in permitting will generate significant costs and uncertainty for developers, creating a disincentive for new projects. The Supply Restrictions sub-index takes a value of zero in Hawaii, reflecting the fact that local planning offices do not rely on explicit caps on the quantity of new housing that can be built.

If regulation is reducing new housing supply, we would expect higher home prices in markets that are more regulated. Using our county level data, we plot the Wharton Index against the log of median home prices to evaluate the relationship between regulatory restrictiveness and housing costs. The figure below suggests that home prices tend to increase with greater regulation. Every one point increase in the Wharton Index correlates with an 8% increase in home prices. While there is a clear correlation between the regulatory index and local prices, it is less clear if the relationship is causal.[6] Areas with high home prices to begin with might be more likely to enact strict regulations to ensure high prices are sustained for incumbent homeowners. While we only establish a correlation between regulatory restrictiveness and home prices, evidence from a number of studies using national data suggests that regulation does cause higher prices.[7] Future UHERO research will combine the results of this survey with other data sources to explore the relative importance of regulation to high home prices in Hawaii.



The figure shows the 1,043 counties where survey data is available. Home price data is from the 2020 American Community Survey 5-year estimates.

Easing the regulatory burden of housing construction could lower housing costs by removing a barrier to new supply. It is within the power of local officials to take steps towards reducing regulatory barriers. For example, local officials could expand the locations and instances where denser housing can be built *as-of-right*, meaning without having to navigate a rezoning process. The current system for obtaining a variance to existing zoning rules can often stymie attempts by developers to provide desperately needed new housing. Analysis of the Wharton Index finds that

6 It is also important to note that even for a given level of the Wharton Index, there exist a wide range of home prices. Clearly regulation is only one of the many determinants of home prices across the country.
7 See Gyourko and Krimmel (2021) and Molloy (2020).

local and state political pressure as well as judicial processes are particularly important barriers to housing production. We find these same barriers to housing are particularly onerous in Hawaii. Allowing some construction to go forward without rezoning applications and accompanying procedures could circumvent these barriers to new housing. A recent UHERO report concerning affordable housing policy in Maui also found that allowing more as-of-right development would be an effective way to increase housing production.

Reducing barriers to housing development is sometimes viewed as a handout for housing developers. It is important to recognize that large property development firms are able to extract profits because of onerous regulation, not in spite of it. Because navigating Hawaii's regulatory bureaucracy requires teams of public liaisons, lawyers and lobbyists, only large, established firms can afford to attempt multifamily development. The reduction or elimination of regulatory barriers would increase competitiveness in the market for housing development, allowing smaller firms to provide more housing through as-of-right development. Reforming or removing regulatory barriers to new housing production could significantly contribute to new housing production and ultimately reduce the burden that high housing costs place on local households and improve affordability in the state.

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