





AN ECONOMIC ANALYSIS
OF THE PROPOSAL TO PHASE
OUT TRANSIENT VACATION
RENTALS IN MAUI COUNTY
APARTMENT DISTRICTS

MARCH 31, 2025







An Economic Analysis of the Proposal to Phase Out Transient Vacation Rentals in Maui County Apartment Districts

©2025 University of Hawaii Economic Research Organization. All rights reserved.

Prepared for Hawai'i Community Foundation

Carl Bonham

UHERO Executive Director

Steven Bond-Smith

Assistant Professor

Peter Fuleky

Professor

Justin Tyndall

Associate Professor

Dylan Moore

Assistant Professor

Trey Gordner

Policy Researcher

Emi Kim

Senior Research Assistant

Hamza Essaidi

Graduate Research Assistant

Victoria Rhinebolt

Graphic Design and Layout

Executive Summary

This report examines the Maui County proposal to phase out transient vacation rentals (TVRs) in Apartment districts, including removing long-standing exceptions for pre-1989 properties widely known as the "Minatoya List." The policy aims to improve housing affordability, worsened by the 2023 wildfires, by converting TVRs into long-term housing units. Our analysis includes effects on tourism, employment and output, the housing market, and county tax revenues.

To estimate the economic impacts, we built the Maui County Computable General Equilibrium (M-CGE) model. This model quantifies the effects of reduced visitor spending under two scenarios: a 15% decline (baseline) and a 25% decline (low-demand). It captures both direct and indirect impacts on tourism and related sectors. A separate regression model is used to predict year-over-year condominium price changes, accounting for factors like inflation, payroll growth, and inventory of for-sale condominium units. Key findings are as follows.

Tourism Industry Impact

- Eliminating all TVRs in Apartment zones could reduce visitor accommodations by 25% and visitor days by 32%.
- Total visitor spending is projected to decline by \$900 million annually (-15%).
- The decline in spending also results in the loss of 1,900 jobs (-3% of total payroll jobs).
- Real GDP could therefore decline by 4%.

Housing Market Impact

- The policy could add up to 6,127 units to the long-term housing stock—a 13% increase, equivalent to a decade's worth of new housing development.
- Condo prices are projected to decline by 20-40%, improving affordability but also reducing household wealth and property tax revenues.
- Affected TVRs are disproportionately owned by out-of-state investors (85%), but marketwide price declines also impact owner-occupants.

Tax Revenue Impact

- Property tax revenues could fall by up to \$60 million annually by 2029 due to both changes in tax class and decreasing valuations.
- · General Excise Tax (GET) and Transient Accommodations Tax (TAT) revenues are projected to fall by 10% and 8% respectively, totaling to an additional -\$15M annually.

We briefly explore policies and adjustments that could help mitigate the economic disruptions of the TVR phase-out while still promoting long-term housing availability. Increasing property taxes on TVRs could incentivize conversions to long-term residential use and generate revenue. Alternatively, auctioning a limited number of TVR permits would allow only the most profitable units to remain while capturing economic value for the county. A more gradual phase-in of the policy could also give property owners time to adapt and policymakers the opportunity to evaluate the policy before scaling up, reducing the risk of sudden housing market disruptions.

Introduction

Maui County faces a housing affordability crisis exacerbated by the destruction of more than 3,000 housing units in the devastating 2023 wildfires. In response, Mayor Bissen has proposed to phase out transient vacation rentals (TVRs) in Apartment districts by eliminating long-standing exceptions in the County Code granted to properties built or approved prior to 1989 (also known as the "Minatoya List") (Maui County Council, 2024). Owners wishing to continue TVR use would need to apply for a discretionary permit or seek rezoning of their parcel to a Hotel district. If enacted, the ordinance could reduce the supply of TVR accommodations on the island by up to 47%, with implications for Maui's workforce, housing market, tourism industry, and tax revenues.

This study addresses the following research question: What are the expected economic impacts of implementing the proposed ordinance? We use a variety of economic datasets, models, and methods to evaluate the potential impact of the ordinance on the tourism industry, housing market, and the broader Maui economy. Results are presented in ranges based on multiple plausible scenarios to reflect the inherent uncertainty in predicting the effects of an unprecedented change of this scale. The research aims to inform policymakers and stakeholders by offering insights into the costs, benefits, and trade-offs of phasing out TVR properties in Apartment districts and considering policy alternatives and variations.

Background

As a state, Hawai'i has the highest home prices and among the highest rents in the nation. Within Hawai'i, housing in Maui County commands the highest prices, with the median single-family home price currently at \$1.3 million and the median condo selling for \$925,000. Among renters, over half of Maui residents are "rent burdened," meaning they devote more than 30% of household income to rent. Over a quarter of Maui renters spend more than half of their income on rent.

High prices and low affordability in Maui County result in part from insufficient housing supply. In 2023, Maui County authorized only 600 units of new housing. US Census Bureau data shows that growth in residential housing supply on Maui from 2018-2022 was essentially zero, as conversions to vacation use offset the small amount of new construction.

According to recent property tax records, Maui County has a total stock of 63,000 housing units. Of these units, 47,400 are long-term housing units, 13,000 are TVRs, and 2,500 operate as timeshare units¹. There are 8,834 units eligible to operate as TVRs under Minatoya List exemptions, but only 6,127 units are currently operating as TVRs in apartment zones². Theoretically, if all 6,127 units were instead used as long-term housing, the housing stock on Maui would effectively increase by 13%. Given Maui County's current construction rate of 613 new housing units per year, this transition would amount to a full decade of development, though counted in older and typically smaller units. Unlike new construction, however, this approach would not require additional water resources or infrastructure, which remain scarce in West Maui and other parts of the county.

But TVRs are also a large component of the tourism industry on Maui. The leisure and hospitality sector employed 22,600 people in 2022, roughly 26% of Maui's total labor force. Maui's visitor market currently relies on a mix of traditional and alternative accommodations, including TVRs, which appeal to different types of visitors. In 2022, Maui counted 24,685 total visitor

¹ An unknown number of the 47,400 units are vacation or "second" homes not rented as TVRs. We were unable to reliably estimate this figure from Census, property tax, or US Postal Service records.

² For simplicity, we assume here that all units with a tax class of TVR-STRH in 2022 (pre-fire) are still operating as TVRs. In fact, the number may have changed since then.

accommodation units, over half of them TVRs. The proposal therefore also represents a major reduction in visitor accommodations that would negatively impact local jobs and incomes.

The 6,127 units are a mix of small and mid-size condominium units: 7% of the units are studios, 51% are one-bedroom units, 39% are two-bedroom units, and the remainder have three or more bedrooms. The median unit is a little over 800 square feet, and almost three quarters of the units are smaller than 1,000 square feet. Nearly all of the units (99%) include a single parking stall. The median date of construction is 1977.

While the units are generally small, there is a significant range in appraised value. The median appraised value of Apartment-zoned TVRs is \$971,500, which is about 15% higher than the median condominium unit on Maui (\$845,000). About a quarter (1,593) of the properties are valued under \$750,000 and about 500 properties are valued under \$500,000.

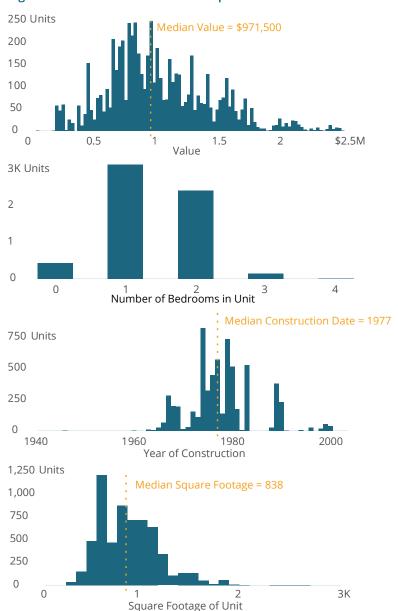


Figure 1: Characteristics of TVRs in Apartment Zones

Using property tax assessment data, we categorize owners of Apartment-zoned TVRs by residency and find that the large majority of the policy's direct costs would be borne by out-ofstate property investors3. Specifically, 85% of owners who use their units as TVRs have an out-

³ For an interactive map of TVR properties in the county color-coded by ownership, see: https://uhero. hawaii.edu/maui-short-term-rentals-the-minatoya-list-and-housing-supply/

of-state mailing address: 36% in California, 12% in Washington State, 8% in Canada, and the rest elsewhere. Among the 15% of affected TVRs that are owned by a within-state resident, only half are held by a Maui County resident. This implies that the most direct local impact of prohibiting TVR use in apartment districts will fall on the 450 Maui residents who owned and operated TVR units as of 2023.

The scale of the policy proposal is globally unprecedented. In most jurisdictions worldwide, policies to restrict TVRs affect a relatively small share of the overall housing stock. Prominent studies on vacation rental regulations have examined cities such as Los Angeles (Koster et al., 2021), Boston (Horn & Merante, 2017), Barcelona (Garcia-López et al., 2020), and London (Shabrina et al., 2021). In these studies, TVRs accounted for 0.9%, 1.1%, 2.6%, and 3.0% of the housing stock in each city, respectively. By contrast, TVRs account for 21% of all housing units in Maui County.

Table 1: Studies of TVR Impacts on Home Prices and Rents

Study	Setting	Main Finding [†]
Koster et al. (2021)	Los Angeles	Converting 1% of housing units from TVRs to long-term housing reduces prices and rents by 4%.
Horn & Merante (2017)	Boston	Converting 1% of housing units from TVRs to long-term housing reduces rents by 0.5%.
Garcia-López et al. (2020)	Barcelona	Converting 1% of housing units from TVRs to long-term housing reduces rents by 1% and prices by 2.3%.
Shabrina et al. (2021)	London	Converting 1% of housing units from TVRs to long-term housing reduces rents by 4%.
Barron et al. (2020)	US (National)	From 2008 to 2016, Airbnb increased monthly rent in urban areas by \$72 and increased the median home price by \$14,400.

 $^{^\}dagger$ We scale estimates to represent what the finding suggests would happen if 1% of housing stock were shifted from TVR to the long-term supply.

The economic literature consistently finds that TVRs significantly increase home prices and rents in the markets where they operate. However, the magnitude of effects reported in these studies may not translate well to Maui, where TVRs are 6 to 20 times more prevalent than in the jurisdictions previously studied. This outsized share would also make the proposed policy the most significant reduction in TVRs to date anywhere. To address this unique situation, the next section presents novel estimates of economic impacts based on custom built models of Maui's economy.

Analysis

We estimate the overall impact of phasing out Apartment-zoned TVRs on Maui County, including direct and indirect effects, in two steps. First, we calculate the direct impact of reduced visitor spending. Second, we use the Maui County Computable General Equilibrium (M-CGE) model to assess how this spending shock alters the overall county economy. In addition to effects on economic activity, we examine how repurposing TVR units in Apartment districts might influence home prices and affordability. Finally, we combine these findings to estimate potential impacts on Real Property Tax, Transient Accommodations Tax, and General Excise Tax revenues.

Impacts on Tourism

Assumptions

This analysis assumes that demand for Maui vacations will recover to pre-COVID and pre-fire levels. We primarily use 2022-the last 'normal' year before the wildfires—as a reference point, while historical averages from 2000 to 2019 are used for metrics with greater variability, such as occupancy rates and visitors per rental (VPR). Occupancy is expected to return to its long-term average of 74%, consistent with pre-pandemic and pre-fire performance. Similarly, VPR is set at 3.3, reflecting the average over the same period.

Accommodation spending is projected to increase by 15% relative to 2023 levels, driven by price increases due to contraction in supply from the TVR policy proposal and a return to pre-COVID occupancy rates. Non-lodging spending, such as retail and dining expenditures, is assumed to remain steady at \$136 per day, consistent with 2023 levels. These assumptions form the basis for estimating the policy's direct and indirect economic impacts.

Results

Accommodation Stock and Visitor Days

Our estimate of the total stock of visitor accommodations is based on two primary data sources: the Hawai'i Department of Business, Economic Development, and Tourism (DBEDT) Visitor Plant Inventory Report for traditional accommodations and DBEDT's Vacation Rental Performance Report for TVRs.4 In 2022, Maui County had 24,685 visitor accommodation units, including TVRs. The proposed policy would remove up to 6,127 TVRs, reducing the accommodation stock by 25% to 18,513 units⁵.

Although the 25% reduction in accommodation stock is partially offset by a return to the longterm 74% occupancy rate, the number of rented units is expected to decline by 19% compared to 2022. With an average visitors-per-rental (VPR) of 3.3, this results in a 32% decline in visitor days-from 24.25 million in 2022 to 16.43 million under the proposed policy. This steeper decline in visitor days compared to rented units reflects the normalization of unusually high VPR levels in 2022, driven by higher rental rates and a changing mix of available units, which may reduce visitor arrivals and shorten stays.

Visitor Spending

Visitor spending includes both accommodation costs and non-lodging expenditures. The decline in accommodation stock will create unmet demand and put upward pressure on accommodation prices. A similar pattern was observed during the 2021-2022 post-lockdown travel surge, when accommodation prices rose by nearly 50% compared to 2019 levels. Likewise, after the policy takes effect, a sharp reduction in available units combined with demand recovering to pre-COVID levels is expected to push accommodation prices higher.

In this analysis, per-person accommodation spending is estimated at \$174 per-day-a 15% increase over 2023 spending. For context, the average daily rate for Maui TVRs in 2023 was \$368, compared to \$591 for hotel units (27% higher). Even without an increase in rental rates, average daily lodging costs will rise due to the changing mix of available accommodations. Non-lodging spending (e.g., retail, dining) is assumed to remain constant at \$136 per day, consistent with 2023 levels. This results in an overall per-person daily spending estimate of \$310, representing an 8% increase from 2023.

⁴ Statistics for the supply of visitor accommodations, average daily rental rates and occupancy rates are UHERO calculations based on data available from DBEDT. We calculate the total supply of visitor accommodations, weighted average occupancy rates and average daily rental rates that take into account the number of traditional visitor accommodations as well as TVRs. For visitor days and spending calculations we exclude cruise ship visitors.

⁵ Our analysis throughout makes the strict assumption that no TVRs will remain in Apartment zones after the policy takes effect.

Despite the rise in per person spending, the sharp reduction in total visitor days will lead to a substantial decline in total visitor spending. Total spending is projected to decline from \$5.98 billion in 2022 to \$5.1 billion post-ban—a 15% reduction.

Table 2: Estimated Tourism Industry Impacts

Percent Change	Post-Policy	2022	
-25.0%	18,513	24,685	Visitor Units
	74%	69%	Occupancy Rate
-32.2%	16,434,074	24,250,806	Visitor Days
-14.9%	\$5,090,421	\$5,983,606	Visitor Spending (\$ thousands) excluding cruise visitors
26.8%	\$310	\$244	Spending per Person per Day <i>Maui Island</i>

Sensitivity Analysis

The estimated impacts of this policy are sensitive to the underlying assumptions about occupancy rates, visitors per rental (VPR), and spending behavior. While the analysis relies on historical averages and conservative assumptions, alternative scenarios illustrate how changes in these parameters could influence the results.

For example, if occupancy rates were to rise to 78%, as they did in 2019, the overall decline in total visitor spending would be 8%-just over half of the baseline estimate of 15%, assuming other factors remain constant. On the other hand, if visitor demand fails to fully recover, occupancy rates could stay below historical averages, and room rates may increase by less than the 15% assumed in the baseline. Under this scenario, with an occupancy rate of 69% (average during 2022), and a smaller 5% increase in rental rates, total visitor days would be 37% lower than in 2022, compared to the 32% reduction in the baseline. As a result, total visitor spending would decline by 24% relative to 2022 levels.

These scenarios illustrate the uncertainty around key drivers of the results. Predicting future demand for Maui vacations with complete certainty is not possible. Likewise, it is difficult to precisely determine how the changing mix of accommodations will affect visitor behavior—such as the number of visitors or their per-person daily spending. While the assumptions used in this analysis provide a reasonable framework for estimating the likely impacts, actual outcomes may vary depending on how visitors and the market respond to the reduced accommodation supply. Nevertheless, the sensitivity analysis demonstrates that banning TVR use in Apartment zones leads to a substantial decline in visitor spending across a wide range of plausible scenarios.

Impacts on Jobs and Incomes

Method

To assess the broader economic effects of the policy on Maui's economy, we developed the Maui County Computable General Equilibrium (M-CGE) model. This static, small open-economy framework analyzes how economic shocks, such as a decline in visitor spending, propagate through Maui's economy. Based on the Hawai'i Computable General Equilibrium (H-CGE) model structure (Coffman et al. 2022), the M-CGE uses the Maui County Input-Output (I-O) table (DBEDT, 2022) as its foundation and captures relationships among industries and the role of external trade. It aggregates local industries into key sectors and incorporates household consumption, government expenditures, and visitor expenditures as critical components of final demand. By treating external prices as fixed, the model focuses on local price and output adjustments.

A CGE approach is preferred over the alternative input-output (I-O) approach because IO models assume fixed production relationships and constant prices, meaning they cannot account for how businesses and households adjust to changing economic conditions. In contrast, the CGE model allows for price and wage adjustments, resource constraints, and behavioral responses, making it better suited for analyzing policy-induced shifts in Maui's economy.

The M-CGE model simulates expected equilibrium outcomes under two primary scenarios baseline and low-demand—each reflecting different assumptions about the shock to visitor spending. The baseline scenario assumes a 15% decline in visitor spending compared to 2022, representing the most likely outcome if current recovery trends continue. The low-demand scenario assumes a 25% decline in spending, reflecting a slower and more prolonged recovery. Outcomes for both scenarios account for both the direct declines in visitor spending and the indirect effects across the economy including changes in prices and output.

Results

In the baseline scenario, a 15% decline in visitor spending leads to adjustments throughout the economy that imply an 11% reduction in real spending. The smaller real decline occurs because the M-CGE model estimates that the fall in visitor spending also leads to a 4% drop in overall prices. Real labor earnings fall by 5%, and payroll jobs decline by 3%, resulting in 1,900 lost jobs concentrated in accommodations, food service, arts, entertainment, and retail trade. Real Gross Domestic Product (GDP) contracts by 4%, falling from \$11.8 billion in 2022 to \$11.3 billion, while current-dollar GDP shrinks by 8%.

The low-demand scenario shows a more severe contraction. Real visitor spending declines by 18%, resulting in a 10% drop in real labor earnings and a 5% reduction in payroll jobs—a loss of 3,800 positions. Real GDP falls to \$10.8 billion, 8% below 2022 levels, marking a reduction of over \$1 billion in real output.

Table 3: Economic Scenarios Reflecting Visitor Spending Decline Due to the TVR Ban

	2022	Baseline	% ∆	Low	0/ A L 0.4/
	2022	Scenario	Baseline	Scenario	% Δ Low
Visitor Expenditures (Million 2022\$)	5,983.6	5,316.1	-11%	4,880.4	-18%
Earnings (Million 2022\$)	5,352.6	5,063.9	-5%	4,814.9	-10%
Real GDP (Million 2022\$)	11,768.9	11,296.9	-4%	10,835.4	-8%
Payroll Jobs (Thousands)	74.6	72.7	-3%	70.8	-5%

These findings highlight Maui County's reliance on visitor spending. In the baseline scenario, the decline in visitor spending effectively halts the economic recovery from the August 2023 fires at current levels, particularly in terms of employment. The low-demand scenario underscores the risk of even larger losses and the uncertainty associated with assumptions about the ongoing recovery of Maui's visitor industry.

Impacts on Home Prices and Inventory

Assumptions

The proposed ordinance would withdraw permission for 6,127 TVRs in two phases. Phase 1 transitions 2,194 TVRs in West Maui, while Phase 2 transitions 3,933 in other parts of the county⁶. To assess the policy's impact on the housing market, we analyze how these units may be reallocated to other uses, using the distribution of pre-fire Apartment-zoned units not on the Minatoya List as a guide.

In 2023 property tax records for West Maui, non-Minatoya list properties in Apartment zones were 37% owner-occupied, 45% non-owner-occupied, and 18% apartments and long-term

⁶ See footnote 5.

rentals⁷. We assume the 2,194 Minatoya list properties will transition to these uses in similar proportions post-policy. A similar assumption is applied for the remainder of the county. Tables 4 and 5 summarize this estimated reallocation.

Table 4: Distribution of Housing Units in Apartment Districts in West Maui by Tax Class

Tax Class	Pre-Policy (2024)	Post-Policy	Percent Change
TVR-STRH	59%	0%	-100%
Owner-Occupied	13%	37%	185%
Non-Owner-Occupied	15%	45%	200%
Apartment, Long-Term Rental	13%	18%	38%

Table 5: Distribution of Housing Units in Apartment Districts not in W. Maui by Tax Class

Tax Class	Pre-Policy (2024)	Post-Policy	Percent Change
TVR-STRH	53%	0%	-100%
Owner-Occupied	22%	45%	51%
Non-Owner-Occupied	19%	42%	121%
Apartment, Long-Term Rental	6%	13%	116%

The impact of the TVR policy on Maui's housing market depends on how many units are listed for sale as a result. We calculate inventory increases in two scenarios: a low-frequency scenario where a transaction only occurs under specific circumstances, and a high-frequency scenario in which each transitioning unit results in a property sale.

In some cases, converting an Apartment-zoned TVR into a vacant home might not involve a salethe owner may simply retain the property for occasional personal use. Similarly, a conversion to long-term rental would not require a sale if the owner leases the property. However, many vacation rental operators may be either unwilling or financially unable to enter the long-term rental market and choose to sell the property instead. A transition to owner-occupancy would almost always involve a sale, as it is unlikely that a TVR owner would move out of their primary home to occupy their vacation rental property.

In the high-frequency scenario, we assume every transitioning property is sold once. Under this assumption, Maui County's condo inventory would increase by 6,127 units-2,194 units added in the first phase and 3,933 in the second phase. In the low-frequency scenario, we assume that units converted to long-term-rental or non-owner-occupied use do not undergo a sale, while those transitioning to owner-occupancy do. In this scenario, 2,608 units would be listed for sale-838 listings in the first phase and 1,771 in the second.

While these sales will transition properties to long-term residential uses, it is important to note that ownership and occupancy will not be restricted to current Maui residents. New owners and renters could include offshore investors, out-of-state buyers, and new residents.

Table 6: Estimated Transaction Count of Converted Units, High and Low Scenarios

Low Scenario	High Scenario	Time	
(1 sale/newly owner-occupied)	(1 sale/property)		
838	2,194	June 2025	
1,771	3,933	January 2026	
2,608	6,127	Total	

Non-owner-occupied does not necessarily mean vacant. Rather, it is the default tax class for single-family residential properties that do not claim property tax exemptions for owner-occupants or long-term rentals. See https://www.mauicounty.gov/755/Classification-for-Tax-Rate-Purposes

Method

Maui's condo market is small with only a limited number of sales occurring each month. Median prices are influenced by the mix of properties on the market and their characteristics. In the analysis, we control for these factors and explore whether condos that have operated as TVRs in Apartment zones differ significantly in price or time-on-market compared to non-TVR units. We find that median prices and days on market are similar for both groups, suggesting no meaningful differences in the quality of the median home across these two subgroups. Consequently, we treat all condo listings as a single market for modeling purposes and analyze market activity since 2005 by aggregating new listings, closed sales, inventory, days on market, and median prices (Realtors Association of Maui, Inc., 2005-2024).

We model year-over-year (yoy) growth in median condo prices as a function of overall consumer price inflation proxied using the Honolulu CPI, the year-over-year growth rate of Maui payroll jobs, and a six-month moving average of the months of inventory remaining in the market (Miller & Sklarz, 1986). The model is estimated using the pre-pandemic data from 2005 to 2019 and was selected for its accuracy in predicting price trends during the 2020-2023 period. Results indicate that condo prices tend to stabilize once inventory levels reach ten months of supply. In general, when inventory is low, competition among buyers drives prices up, whereas higher inventory levels cause prices to level off or fall as many sellers compete for fewer buyers.

To simulate the impact of the proposed policy on Maui condo prices we develop three plausible scenarios reflecting different assumptions about how many units will enter the market and how sales patterns will evolve over time. These scenarios are informed by historical patterns in the data as reported below. For example, during the rapid price decline and rising inventory seen between 2008 and 2010, new listings and closed sales averaged 210 and 78 units per month, respectively. As prices fell, the number of new listings did too, while sales gradually increased. In the second half of the decade, as sales recovered, monthly average inventory decreased. Table 7 summarizes monthly averages for new listings, closed sales, and inventory under different economic conditions, providing reference values for our scenario assumptions.

Table 7: Housing market statistics in differing economic conditions

Monthly average statistics	2008-10	2011-14	2015-19
New listings	210	156	173
Closed sales	78	103	121
Inventory	1,612	1,012	733

Results

Scenario A: High-Frequency Sales

In this scenario, more than 6000 units are added to the market between March 2025 and August 20268. Sales begin at a slow pace, causing a sharp rise in inventory as many sellers compete for relatively few buyers. The resulting downward pressure on prices discourages new listings, particularly from non-TVR owners who avoid selling into a declining market. Gradually, sales increase, surpassing 170 units per month by the end of the decade9. The combination of a large shock to the supply of condos available for sale and the gradually rising sales rate as buyers wait for prices to stabilize would lead to a more than 40% decline in median condo prices by the end of the decade, comparable to the historical trend after the Great Recession.

Scenario B: Rapid Sales Uptake

As in scenario A, over 6000 units are added to the market; however, in this scenario the extra inventory is absorbed more quickly. Sales quickly reach a peak of 200 units per month limiting

⁸ Note that this period both leads and lags the two-phased policy implementation in June 2025 and Jan. 2026. We expect that listings will increase in anticipation of the change and remain elevated afterwards.

⁹ For comparison, closed sales surpassed 200 per month in 2021 and in the early 2000s.

the decline in prices. While sales taper off once prices hit their lowest point, they remain elevated through the end of the decade. Median prices stabilize after a 25% decline, with the market recovering faster than in Scenario A.

Scenario C: Low-Frequency Sales

In this scenario, only 2600 units are added to the market. Sales remain near the post-Great Recession average of 100 units per month, preventing a substantial inventory buildup. As a result, price declines are more moderate, falling by less than 20%. This more gradual market adjustment minimizes the shock and leads to greater price stability compared to Scenarios A and B.

Figure 2: History and Predicted Trend in Housing Market Statistics, 2000-2030

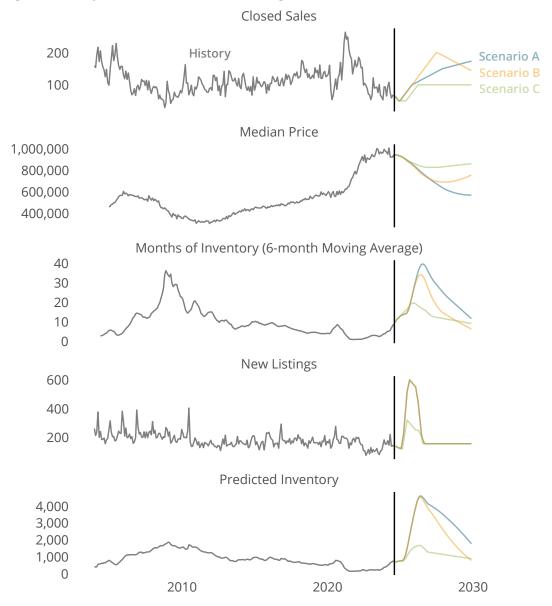


Table 8: Estimated home prices by scenario, indexed to January 2023

Scenario	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028	Jan 2029
Α	1.000	1.060	1.012	0.911	0.786	0.687	0.633
В	1.000	1.060	1.011	0.900	0.785	0.749	0.770
С	1.000	1.060	1.012	0.935	0.897	0.903	0.920

Interpretation and Risks

None of these scenarios describes a best-case or worst-case outcome. Together, they represent a plausible range of outcomes given historical trends and reasonable assumptions about market behavior. Broader national macroeconomic conditions, such as trade and monetary policies or a recession, could lead to more extreme outcomes. Locally, the pace of economic recovery and migration trends on Maui will also play a significant role in shaping actual market dynamics.

Impacts on Housing Affordability

Assumptions

The policy aims to increase the availability of housing for Maui residents, making it essential to evaluate whether local families can afford the newly available units. For owner-occupants, affordability means their income must cover all after-tax expenses related to the home, including the mortgage, maintenance, upkeep, and property taxes. Landlords might accept rent that covers less than all expenses if they anticipate the property's value will increase over time. Affordability therefore depends on four key factors: household incomes, home prices, borrowing costs, and carrying costs. In this section we estimate these components before and after the policy takes effect and combine them to produce two measures of housing affordability: (a) the ratio of home prices to incomes, and (b) the proportion of households that are able to allocate 30% or less of gross income toward monthly housing costs (Rodda & Goodman, 2005).

Household Incomes and Cost Burden

The U.S. Census Bureau's American Community Survey (ACS) provides annual estimates of median household and family income, which are widely used in housing policy decisions. According to the U.S. Census Bureau's 2023 American Community Survey 5-Year Estimates, the median family income (MFI) for Maui County was \$109,882 (U.S. Census Bureau, U.S. Department of Commerce, 2023a).

The U.S. Department of Housing and Urban Development (HUD) considers a household costburdened if it spends more than 30% of its income on housing and severely cost-burdened if spending more than 50%. According to the 2024 Hawai'i Housing Factbook, the majority of Maui County households were cost-burdened (53%) and 28% were severely cost-burdened before the fires. At that time, the typical homeowner in Maui County spent 27% of their income on housing costs, and the typical renter spent 32% (Tyndall et al., 2024).

For a family in Maui County earning the median family income, the cost burden thresholds in 2023 were \$2,747 per month (30% of income) and \$4,578 per month (50% of income), respectively. Based on the results of the M-CGE model reported above, these thresholds would decline by 9% nominally to \$2,500 and \$4,166 after the ban.

Home Prices and Borrowing Costs

As noted above, the median Apartment-zoned TVR is currently valued at \$971,500 and we project that condo prices on Maui will decrease by 25% by 2027, to a new median value of \$728,625. Therefore, affordability would improve because prices decrease more than incomes.

Consider a 30-year fixed-rate mortgage at an interest rate of 6.5% with a 20% down payment¹⁰. At current prices, the mortgage payments to cover principal and interest alone would be \$4,912 per month, or 54% of a typical family's income-unaffordable to the typical family even before factoring in carrying costs. After the projected price and income declines, the monthly payments on the same unit would be \$3,684 or 37% of the new, lower MFI. Payments on units at the lower

¹⁰ This interest rate is current and typical as of publication. Borrowing costs are also affected by individual credit scores via bank underwriting standards and interest rates as set by the Federal Reserve. Residents may also qualify for more favorable loan terms such as public down payment assistance. These factors are independent of the policy, so we treat them as constants here.

end of the distribution would be less, \$2,844 per month for a unit that depreciates from \$750,000 (roughly the 25th percentile) to \$562,500.

Carrying Costs

We define carrying costs as the predictable expenses associated with owning a unit. These include insurance premiums, maintenance fees, HOA dues, land leases, and property taxes. To estimate these, we compile a dataset of all condominium listings in Maui County from January 2021 to August 2024 (Realtors Association of Maui, Inc., 2005-2024), which include actual expenses for each of these categories. We eliminate outliers with prices of less than \$300,000 or more than \$3,000,000 and retain only the latest transaction for properties sold more than once in the period. This yields a dataset of 5,395 unique condos listed in the 3.5 year period. We then standardize payments on different schedules (quarterly, annual) to a monthly average carrying cost and segment the results into 1954 units on the Minatoya List and 3441 units not on the list for cost comparison.

The median monthly carrying cost for TVRs in Apartment zones is \$917 and the mean is \$1,143. This is not significantly different from comparable non-ML units, with a median of \$900 and a mean of \$1,21711. Therefore, based on the 2021-2024 data, the units that would be added to the housing stock as a result of this policy would be no more or less affordable with respect to carrying costs than any other condo on Maui. However, these units may still be relatively less desirable in relative terms due to their age, small unit sizes, and limited parking, as noted in Section 2. Also, because these units are, on average, 7 years older (1977 vs. 1984) than the typical unit in Maui County, their carrying costs could grow faster in the future.

Results

Table 9: Projected Change in Housing Affordability Given Estimated Policy Impacts

	Pre-Policy (2023)	Post-Policy	Percent Change (%)
Median Value of Apt-zoned TVR (\$)	971,500	728,625	-25
Median Family Income (MFI) (\$)	109,882	99,993	-9
Price-to-Income Ratio	8.8	7.3	
Monthly Mortgage Payment (\$)	4,912	3,684	-25
Total Housing Costs (\$)	5,829	4,601	-21
Min. Income, 30% on Housing (\$)	233,177	184,053	
% of Households >= that Income	14	21	+50
Min. Income, 50% on Housing (\$)	139,906	110,432	
% of Households >= that Income	35	49	+29

^{*%} of households data - (Ruggles et al., 2024)

Homes on Maui become relatively more affordable as a result of the policy, but remain unaffordable in absolute terms. The change in home values is estimated in Section 3.3 above and the change in income in Section 3.2. The baseline is 9% here (and not 5%) because this Table is presented in nominal dollars.

At current incomes, prices, and interest rates, only the top 14% of families in Maui County could afford an Apartment-zoned TVR without spending more than 30% of their income and 35% at less than 50% of their income. After the policy takes effect, these proportions rise to 21% and 49% respectively. The price-to-income ratio falls from 8.8 to 7.3, indicating that home prices will become more accessible relative to earnings; even so, any ratio above 5.0 indicates an unaffordable market (Office of Policy Development and Research, 2021).

¹¹ These figures are effectively 3-year averages and therefore may be underestimated. Condominium insurance premiums have surged across the state in the last year, and those increases may not have appeared yet in real estate listings. Even so, affordability relative to other condos will likely be consistent.

Another way to view these results is in percentage terms relative to MFI or AMI. Before the policy, a family would need to earn 212% of MFI to afford a unit while spending no more than 30% of their income. After the policy, this would decline to 182%. These findings suggest that the policy could create greater homeownership opportunities and reduce financial strain for upper- and upper-middle-income households, but any effect on lower-income households would be indirect, as discussed in the next section.

These results reflect the baseline estimates of economic effects above. If home values decline more relative to incomes, as in Scenario A of Table 8 (-37% instead of -25%), then affordability will improve further; however, outcomes will be worse if incomes decline further relative to home values, as in the Low Scenario of Section 3.2 above. The results are also based on average income decline. In practice, income losses may be concentrated in lower-income households where members are employed in disproportionately affected industries such as food service and retail trade. In that case, affordability could become worse for low earners but better for high earners, while still averaging out to the results in the chart above. These caveats underscore the uncertainty of policy outcomes and the need for continued housing support for low-income households, who would remain financially unable to purchase converted TVR units.

Additional Considerations

Rents

A 20-40% decline in condominium prices, as estimated above, would exert downward pressure on rents through both direct and indirect mechanisms. Academic research indicates that home prices and rents are closely linked over the long term, as properties are often substitutes for one another in housing markets (Lo et al., 2021). Lower condo prices could incentivize more households to transition from renting to owning, thereby reducing demand for rentals.

Adding 6,127 units to the long-term housing stock could also lower rents throughout the county through a process known as filtering (Rosenthal, 2014). Filtering occurs when additional housing supply, particularly at higher price tiers, reduces competition in the market and creates move chains. These move chains begin when households upgrade to newly available units, freeing up their existing home for other households, and so on. This cascading effect gradually improves access to housing across all price levels, as each move frees up another unit that is generally older and less costly than the one before it in the chain.

Over time, these dynamics could lead to a reduction in rents comparable to that of home prices. However, the effect would not be as large as the decrease in home prices if lower prices are accompanied by reduced home construction activity, an influx of second-home buyers, a surge in new household formation, or other factors, as discussed in the next section.

The size of the effect on rents compared with home prices also depends on the true carrying costs of current owners, plus mortgage payments, which is not modeled here. If many current owners bought at low prices and paid off their mortgage or are locked in at low mortgage rates, they may decide to lower rents instead of selling, creating a larger decline in rents relative to home prices. But if many owners bought at high prices or mortgage rates, they may pursue distressed sales, creating a larger decline in home prices relative to rents.

Mitigating Factors

Several mitigating factors may dampen the expected effects on housing affordability. One key consideration is the potential for increased demand from off-shore buyers seeking to capitalize on newly depreciated units. Lower prices may attract more demand from non-resident investors or second-home buyers than implied by the estimates in Tables 4 and 5 above, particularly because unlike prospective local buyers, off-shore buyers will not face the decline in Maui incomes estimated in Table 3. Property owners in Hotel Districts, where TVRs are still permitted, may also opt to convert units currently in long-term residential use to vacation rentals. Either of these possibilities could limit the number of units available to local residents, blunting the intended affordability benefits.

New household formation could also mitigate home price and rent declines by enabling individuals to leave shared housing arrangements. Many current households exist out of economic necessity, with multiple wage earners pooling resources to afford high housing costs. As prices fall, some may form separate households, increasing local housing demand and stabilizing prices at a higher level. In other words, instead of existing households paying significantly lower prices, the result of increasing supply could be the same population split into more households paying similar or somewhat lower prices.

Developer behavior presents another major uncertainty. Because the anticipated price declines would also affect market prices for new units, developers may choose to delay or cancel planned projects, or decline to propose new ones, resulting in a construction market slowdown that reduces the expected long-term increase in housing supply. Additionally, financial institutions may tighten lending to developers if price instability signals increased risk, further constraining new construction.

In the face of declining prices, lenders may tighten mortgage credit to manage risk, potentially making it harder for some buyers to secure financing. Existing homeowners, particularly TVR owners who relied on rental income to cover mortgage payments, may face higher default risks. Additionally, homeowners who become underwater—owing more than their home is worth could experience financial strain, increasing the likelihood of distressed sales. However, given the role of the secondary mortgage market and regulatory safeguards, a broad tightening of credit is less certain, as lenders often sell mortgages rather than hold them on their balance sheets. While increased underwriting standards could prevent some renters from transitioning to homeownership despite lower prices, the overall impact on affordability will depend on how these financial pressures interact with demand, supply, and broader macroeconomic conditions.

Property owners affected by the policy may pursue legal challenges or political action to delay or overturn the restrictions. Prolonged uncertainty over the policy's future could discourage owners from selling or renting their units at lower prices, reducing the immediate supply effects. Additionally, if enforcement is weak or inconsistent, some TVRs may continue to operate illegally, limiting the conversion of units to long-term housing and maintaining upward pressure on prices.

Finally, this policy would be a one-time downward shock. Prices would permanently remain at a lower level than they would have been without the policy; however, they would continue rising at the same rate as before if demand for housing on Maui continues to exceed supply. In 2 of the 3 scenarios presented in Table 8 and Figure 2 above, prices begin to rise again by 2029. In other words, prices could return to their current levels within a decade unless the pace of housing construction on Maui also increases.

In sum, while price declines could improve affordability under ideal conditions, market responses to these changes—particularly in terms of investment, household formation, lending practices, and policy enforcement-and county decisions related to housing development will influence the policy's practical impact on housing affordability.

Impacts on Tax Revenues

Property Taxes

We also model how changes in property tax classifications could impact county real property tax (RPT) revenue over time, including both direct and indirect effects. Direct effects are changes in estimated RPT from Apartment-zoned TVRs. Indirect effects are changes in estimated RPT from all other residential condos¹². Indirect effects arise from reductions in assessed value only, which will occur island-wide, but direct effects include reductions in both assessed value and tax rate as

¹² By "residential" condominiums, we mean the 11,177 condo units with a tax class of Owner Occupied, Non-Owner Occupied, Long-Term Rental, or Apartment. We would expect condominiums operated commercially outside of Apartment zones, such as TVRs and timeshares, to retain or even gain value.

a result of conversion from the higher TVR-STRH rate to a lower tax class (Owner-occupied, Nonowner occupied, Long-term rental, etc.).

Our model reconstructs Maui County property tax rolls for Fiscal Year 2023-2024 using official data, including TMK, assessed values, exemptions, tax classes, and tax rates. As with previous models, this year was selected for reference as the last "normal" year before the fires. As a result, this reconstructed tax roll does not consider whether units were destroyed by fire, ongoing tax waivers for affected property owners, or more recent changes in tax rates. To isolate the effects of the proposed policy change, it also holds tax class constant for all properties other than TVRs in Apartments zones, and valuations constant for all properties other than those units and residential condos. According to this reconstruction, Apartment-zoned TVRs comprised 45% of all TVRs in the County and paid 30% of all taxes assessed on the TVR-STRH tax class.

Because every unit is different and we cannot know in advance which units will convert to which use, we conducted 100 simulations where TVRs were randomly reassigned to new tax classes based on the frequency of those tax classes in comparable zones where TVR use is not allowed (Tables 4 and 5 above). Properties in West Maui were reassigned in tax year 2025, and the remainder in 2026, to align with the policy proposal. Then we multiplied the average simulated tax bill for each unit by the price indices in Table 8 to match projected changes in property values through 2029. The final results presented in Table 10 below provide a year-by-year estimate of expected tax revenue in 2023 dollars under the average of all three Table 8 scenarios, offering policymakers insight into potential fiscal impacts and helping guide decisions on tax policy and revenue planning.

Table 10: Change in Real Property Tax after TVR ban

	2023*	2025	2026	2027	2028	2029
Direct Effects (Million 2023\$)	64	48	18	16	15	15
Indirect Effects (Million 2023\$)	52	53	48	43	41	40
Tax Receipts from Affected Units	116	101	66	59	56	55
Net Loss (Million 2023\$)		-15	-50	-57	-60	-61
Net Loss as % of all 2023 RPT	22%**	-3%	-9%	-11%	-11%	-11%

^{*}Reconstructed from tax rolls

In our reconstructed FY 2023-2024, TVRs in Apartment zones generated an estimated \$64M in property tax revenue for Maui County and residential condos in all zones an additional \$52M. This combined \$116M represents roughly 22% of all RPT revenue and 11% of revenue from all sources. In tax year 2025, Apartment-zoned TVRs in West Maui convert to other tax classes, reducing tax rolls by an estimated \$15M. In tax year 2026, Apartment-zoned TVRs in the rest of the County convert to lower tax classes as condo prices begin to fall, generating a net tax gap of \$50M. As home prices continue to decline, this gap widens to \$61M by 2029. Relative to the FY 2023-2024 baseline, this represents a 76% decline in tax receipts from the former TVRs in Apartment districts and a 23% decline in receipts from residential condos.

Despite the projected decline in property tax revenue from former TVRs in Apartment districts, several factors could mitigate the overall fiscal impact. First, while condo prices are expected to fall, other segments of Maui's real estate market may continue to appreciate, including luxury homes and properties in high-demand areas. Second, some properties in designated resort districts, which are not affected by the ordinance, may convert to TVR use, shifting some of the tax base to the highly taxed TVR-STRH classification. Additionally, development projects currently under construction will add to tax rolls if and when they are completed. These factors suggest that while the ordinance would create short-term fiscal challenges, the impact on overall county finances may be partially offset in later years. Additionally, the County Council may amend tax policy at any time, such as by rebalancing rates across classifications, tiering within classifications, or reassessing exemptions to further stabilize revenue.

^{**}For reference: the % of total RPT revenues paid by affected units in 2023.

General Excise and Transient Accommodations Taxes

The M-CGE model also allows us to estimate effects on Maui County revenue from the General Excise Tax (GET) and Transient Accommodations Tax (TAT) as a function of declines in visitor spending on accommodations and overall economic activity. County tax revenues experience significant declines in our baseline scenario, with GET revenue falling by 10% and TAT revenue decreasing by 8% both measured in current dollars. Under the more severe contraction, tax revenues are similarly affected, with nominal GET revenue declining by 18% and TAT revenue dropping by 24%.

Table 11: Change in GET and TAT Revenues after TVR ban

	2022	Baseline Scenario	% Δ Baseline	Low Scenario	% Δ Low
GET Revenue (Million Current \$)	86.9	78.3	-10%	71.2	-18%
TAT Revenue (Million Current \$)	78.6	72.4	-8%	59.8	-24%
Total Tax Revenue (Million Current \$)	165.5	150.8	-9%	131.0	-21%

Follow-on Effects

Decreasing home values as a result of adding thousands of homes into Maui's housing stock would mean decreased wealth for Maui's existing homeowners. With 65% of Maui County's homes owner-occupied, a decrease in home values would result in a negative wealth shock for a significant portion of the local population. A change in property values can influence consumption, as demonstrated by Guren et al. (2020), who estimate that a \$1 decline in housing wealth would result in a 3.3-cent reduction in consumption (Guren, 2021). This "wealth effect" may be due to homeowner sentiment (feeling poorer, therefore spending less) or due to new difficulties in accessing credit (Iacoviello, 2011). Applying Guren et al.'s estimates to Maui, a household with a home valued at \$1 million would reduce their spending by \$6,600 to \$13,200 per year if their home value declined by 20% to 40%. An overall estimate of this effect is uncertain and beyond the scope of the impacts assessed in this report, but would be in addition to the wider economic effects of the decline in tourism spending estimated in subsection 3.1 above.

Discussion

The sections above estimate the economic impacts of the proposed policy to phase out TVR use in Apartment districts. Given Maui's economic dependence on tourism, a sudden reduction in visitor accommodations and spending will lead to job losses, income reductions, and lower GET and TAT revenues. Additionally, a rapid increase in condo inventory will lower home prices and RPT revenues in the short run.

At the same time, doing nothing also has economic consequences. The high cost of housing is a major factor in residents' decisions to leave the county and the state. A joint analysis by UHERO and the State of Hawai'i Department of Taxation found that the 2023 wildfires reduced Maui's population by at least 1,000 residents, leading to an estimated \$50 million annual income loss for the state (Moore & Karacaovali, 2025). Continued out-migration could further weaken Maui's economy in similar ways to the projected effects of the policy-fewer filled jobs and lower incomes and tax revenues.

Given these tradeoffs, policymakers may want to consider policy adjustments and alternatives that balance housing affordability objectives with economic stability.

Policy Alternatives

While phasing out TVRs in Apartment districts may reduce some of the persistent housing shortages on Maui, it carries risks, including losses in visitor spending, employment, income and tax revenue. This section explores alternative strategies that may achieve similar housing benefits while reducing economic disruptions. These market-based approaches allow policymakers to incentivize conversions rather than mandating them, while also generating new revenues that could be used for affordable housing programs, infrastructure, or rental assistance.

Both increasing property taxes and auctioning licenses incentivize the conversion of TVR units to residential use by imposing a cost on TVR operators. Consequently, for less profitable units where returns do not justify the expense, leasing or selling for residential use becomes the preferred option. These approaches are likely to be less disruptive than categorical bans, as they naturally encourage the conversion of units better suited to long-term residential use.

Increasing property tax rates on TVRs would discourage short-term rentals while generating additional county revenue. A tiered tax structure could also be considered, where higher-value properties or those in high-demand areas face steeper increases. Rates could be gradually increased each year until the desired number of TVRs is reached. To implement this policy effectively, the county would need robust enforcement mechanisms to ensure compliance and prevent illegal short-term rentals. Additionally, periodic reassessments of the tax rate would be necessary to account for changing market conditions.

Rather than setting a tax increase, an auction approach would set a cap on the total number of short-term rental licenses and auction them to the highest bidders. This approach would maximize county revenue from operators willing to pay for permits while maintaining tighter control over TVR numbers. Under this approach, only the most profitable units-those with sufficient revenue to cover the auction price-would continue as short-term rentals. These are more likely to be luxury properties in high demand-units that would remain unaffordable for residents even if their use as TVRs was prohibited. Meanwhile, less profitable TVRs would be withdrawn from the market and repurposed for other uses including long-term housing.

Unlike tax-based approaches, an auction system relies on market forces to determine the true value of operating a TVR. Instead of setting arbitrary tax rates and adjusting them over time to reach policy goals, competitive bidding would reveal the value of TVR use. The auction approach provides direct control over the number and location of TVRs potentially reducing their impact on housing supply more effectively than taxation alone. Like the property tax alternative, proceeds from an auction could be used to fund affordable housing initiatives, reinvesting TVR-generated revenues into programs that directly benefit local residents.

Both taxes and auctions apply a similar principle for reducing TVRs by putting a price on the privilege of operating a TVR and letting market forces determine which units actually operate. Property taxes set a price that can be adjusted until the desired number of units is achieved, while auctions set a limit on the target number of TVR units and allow prices of TVR licenses to reflect owners' willingness to pay.

Policy Complements

Banning the use of housing units as transient vacation rentals (TVRs) alone may not always result in their transition into long-term residential use. Without additional policies, some units may remain vacant or be resold as second homes rather than entering the local housing market. To maximize the availability of housing for residents, a combination of financial incentives, land use reforms, and homeownership support programs can help facilitate the transition. This section outlines three key policy complements: an empty homes tax to discourage prolonged vacancies, rezoning and permitting reforms to encourage redevelopment, and homeownership support programs to help local buyers access newly available housing.

Empty Homes Tax

An empty homes tax targets properties that remain vacant for most of the year, particularly those held as vacation homes or speculative investments. By discouraging prolonged vacancies, an empty homes tax incentivizes property owners to rent or sell underutilized housing, potentially easing housing shortages in high-demand areas.

Cities such as Vancouver and Paris have adopted such policies to reduce housing vacancies, increase the availability of long-term residences, and generate public revenue. In Vancouver a 3% property tax surcharge on homes vacant for more than six months per year coincided with a 54% reduction in vacancy rates and raised \$47 million CAD in new revenue (Tyndall, 2024). Recently, Bill 46 proposed a similar tax in Honolulu County.

Maui County's high housing vacancy rate suggests that a similar policy could be particularly impactful. An empty homes tax would complement TVR restrictions by increasing the likelihood that former vacation rentals transition into long-term housing rather than seasonal or occasional use. Additionally, such a policy could generate significant public revenue, which could be reinvested in housing initiatives, infrastructure, or other community needs.

Zoning and Permitting Reform

To further support the transition of TVR units into long-term housing, the county could update its land use and permitting policies to improve development potential and streamline approvals in affected areas. Many of the condominium complexes affected by new TVR restrictions were built decades ago and may be candidates for redevelopment in the future, particularly if their design, infrastructure, or unit layouts no longer meet modern housing needs or expectations.

Amending Apartment zoning regulations to allow for denser mixed-use developments could create new commercial opportunities, encourage reinvestment in aging properties, and facilitate additional housing development. This could include allowing greater floor area ratios (FAR), easing parking minimums, and streamlining permitting for multifamily projects in areas that previously contained large concentrations of short-term rentals.

Given Maui's constrained land supply, enabling more intensive use of already-developed properties could be more cost-effective and environmentally sustainable than greenfield construction. Developed parcels are already served by sewer, water, and transportation infrastructure, reducing the need for costly new public investments. Additionally, revitalizing older properties rather than expanding into undeveloped areas could help preserve agricultural lands, open spaces, and culturally significant sites, aligning with broader sustainability and community planning goals.

Homeownership Assistance Programs

Homeownership assistance programs could help Maui residents take advantage of the increased housing supply and accelerate the filtering process. For example, the county could expand its down payment assistance program for first-time homebuyers and prioritize newly available condo units for consideration. The county could also pursue a partnership with HHFDC to make newly available units eligible for similar state programs, creating additional opportunities for locals to purchase them at lower income levels and at lower effective prices.

Another approach is the use of deed restrictions, where the state or county purchases a permanent workforce housing restriction on a unit. This restriction lowers the unit's market price, making it more affordable for local buyers, while ensuring that it remains part of the workforce housing stock. This year, the State Legislature considered HB 739, the "Kama'āina Homes" bill, which would have provided state matching funds for such a program. Proponents of the measure envisioned that buyers willing to impose a deed restriction could use the money they receive toward their down payment, making it easier to qualify for financing (Mizuo 2025). Implementing such a program for former TVR units could help keep them accessible to Maui's workforce and provide a larger pool of buyers for condo owners trying to sell. Maui County has

already experimented with this approach with its 'ohana assistance program, which provides a grant in exchange for a 10-year deed restriction limiting occupancy to long-term residents and maximum rent to HUD affordability standards.

Finally, loan guarantees, such as those recently launched by the Office of Hawaiian Affairs, could also help homebuyers overcome financing barriers (Office of Hawaiian Affairs, 2025). Currently, most lenders require private mortgage insurance (PMI) for buyers who cannot provide a 20% down payment, increasing the monthly cost of homeownership, and making it difficult for local families to purchase units. If the county guaranteed mortgages with its deposits in local banks, lenders could waive PMI requirements, reducing overall borrowing costs and increasing the likelihood that units will be purchased by current residents for long-term residential use.

Policy Adjustments

The proposed policy to phase out TVR use in Apartment districts could also be adjusted to ease the transition for property owners, stabilize tax revenues, and prevent sudden disruptions in the housing market. Since home price effects are highly sensitive to the amount and timing of inventory entering the market, a phased implementation would allow the county to monitor and adjust the policy before applying it across all Apartment districts.

Potential adjustments include:

- Gradual Implementation: Extending the transition period and phasing out TVRs more slowly in smaller increments or geographic areas, instead of 2 large phases.
- · Lottery-based Phase-out: Randomly selecting a subset of properties each month for transition over a 12-month period, for more precise management of inventory levels.
- · Rezoning or Special Use Permits: Allowing limited TVR use to continue in designated areas where it aligns with long-term planning goals.

These approaches would offer property owners and operators more time to adapt and give the county more control over implementation and certainty about the effects. They could also stabilize condo prices at a higher level than we project above.

Conclusion

This study examines the economic implications of Maui County's proposed ordinance to phase out transient vacation rentals (TVRs) in Apartment districts, focusing on its effects on visitor spending, employment and earnings, housing affordability, and county tax revenues. Our analysis finds that the policy would have far-reaching economic effects, with both intended benefits and unintended consequences. On the one hand, the potential conversion of up to 6,127 TVRs into long-term housing represents an increase in available housing stock equivalent to a decade's worth of new development. This increased supply would improve housing affordability by lowering condo prices by 20-40% and by putting downward pressure on market rents. On the other hand, the reduction in visitor accommodations is projected to decrease total visitor spending by \$900 million annually, resulting in job losses and a contraction in household income and GDP. Additionally, a decline in property values and economic activity would shrink county tax revenues, contributing to an estimated \$75 million annual gap by 2029.

While expanding Maui's housing supply is a critical policy objective, the proposed intervention is unprecedented in scale worldwide. Without reliable comparisons, predictions of exact economic outcomes are more uncertain. The magnitude of economic disruption depends on

how quickly former TVRs transition into new uses, the extent to which displaced visitor demand is absorbed by remaining accommodations, and whether external economic conditions amplify or mitigate declines in home prices. Moreover, the benefits of lower home prices may not be evenly distributed. Higher-income households may benefit from lower purchase prices, while lower-income renters may see only indirect benefits through the process of filtering—when new housing supply enables higher-income households to move into newly available units, thereby freeing up more affordable housing options for others further down the housing ladder.

Given these complexities, policymakers may wish to prepare a range of strategies to balance housing affordability with economic stability. Policy alternatives such as higher property taxes on TVRs or an auction-based permit system could reduce short-term rental activity while generating revenue for affordable housing initiatives. If a full phase-out is pursued, phased implementation—such as sub-regional rollout or lottery-based selection—could smooth out economic disruptions.

Additionally, complementary policies could help to ensure that former TVRs transition into long-term housing rather than for speculation or occasional use. An empty homes tax could incentivize year-round occupancy, while rezoning and permitting reforms could support the redevelopment of aging properties and surrounding areas into higher-density mixed-use communities. Homeownership assistance programs, such as down payment support, deed restrictions, and loan guarantees, could expand opportunities for current residents to purchase newly available units.

The proposed policy represents a bold attempt to rebalance Maui's housing market. However, given the scale of the potential economic disruption, careful implementation, monitoring, and flexibility will be essential to maximize benefits while minimizing unintended harm.

References

- Barron, K., Kung, E., & Proserpio, D. (2020). The Effect of Home-Sharing on House Prices and Rents: Evidence from Airbnb. Marketing Science, 40(1). https://doi.org/10.1287/mksc.2020.1227
- Coffman, M., Bernstein, P., Schjervheim, M., Croix, S. L., & Hayashida, S. (2022). Economic and GHG impacts of a US state-level carbon tax: the case of Hawai'i. Climate Policy, 22(7), 1-15. https://doi.org/10.1080/14693062.2022.2061405
- DBEDT. (2022). 2017 Hawai'i Inter-County Input-Output Study. Hawai'i.gov. https://files.hawaii. gov/dbedt/economic/reports/IO/2017-County-I-O.pdf
- Garcia-López, M.-À., Jofre-Monseny, J., Martínez-Mazza, R., & Segú, M. (2020). Do short-term rental platforms affect housing markets? Evidence from Airbnb in Barcelona. Journal of Urban Economics, 119, 103278. https://doi.org/10.1016/j.jue.2020.103278
- Guren, A. M. (2021). Housing Wealth Effects: The Long View. The Review of Economic Studies, 88(2), 669-707. https://eml.berkeley.edu/~enakamura/papers/longview.pdf
- Horn, K., & Merante, M. (2017). Is home sharing driving up rents? Evidence from Airbnb in Boston. Journal of Housing Economics, 38, 14–24. https://doi.org/10.1016/j.jhe.2017.08.002
- Iacoviello, M. (2011). Board of Governors of the Federal Reserve System International Finance Discussion Papers Housing Wealth and Consumption. https://www.federalreserve.gov/pubs/ ifdp/2011/1027/ifdp1027.pdf
- Koster, H. R. A., van Ommeren, J., & Volkhausen, N. (2021). Short-term rentals and the housing market: Quasi-experimental evidence from Airbnb in Los Angeles. Journal of Urban Economics, 124, 103356. https://doi.org/10.1016/j.jue.2021.103356
- Lo, D., McCord, M. J., McCord, J., Davis, P. T., & Haran, M. (2021). Rent or buy, what are the odds? Analysing the price-to-rent ratio for housing types within the Northern Ireland housing market. International Journal of Housing Markets and Analysis [ahead-of-print]. https://doi.org/10.1108/ ijhma-08-2020-0103
- Maui County Council. (2024). A bill for an ordinance amending Chapters 19.12, 19.32, and 19.37 relating to transient vacation rentals in apartment districts [Bill]. Retrieved from https://www. mauicounty.gov/DocumentCenter/View/147620/062524 Agenda-Item-C1_Ordinance
- Miller, N. G., & Sklarz, M. A. (1986). A Note on Lending Indicators of Housing Market Price Trends. Journal of Real Estate Research, 1(1), 99–109. https://ideas.repec.org/a/jre/issued/ v1n11986p99-109.html
- Mizuo, A. (2025, February 20). Hawai'i homeowners could be paid to carve out workforce housing. Hawai'i Public Radio. https://www.hawaiipublicradio.org/local-news/2025-02-20/Hawai'ihomeowners-could-be-paid-to-carve-out-workforce-housing
- Moore, D., & Karacaovali, B. (2025, January 14). Migration Effects of the Maui Wildfires: Early Indicators from State Tax Filings - UHERO. UHERO. https://uhero.hawaii.edu/migrationeffects-of-the-maui-wildfires-early-indicators-from-state-tax-filings/
- Office of Hawaiian Affairs. (2025, March 5). Office of Hawaiian Affairs unveils new mortgage-backed program to assist Native Hawaiians with home ownership [Press release]. https://www.oha.org/ news/oha-unveils-mortgage-program-assist-home-ownership/

- Office of Policy Development and Research. (2021). New Housing in High-Productivity Metropolitan Areas: Encouraging Production. U.S. Department of Housing and Urban Development. https://www.huduser.gov/portal/sites/default/files/pdf/New-Housing-Production-Report.pdf
- Realtors Association of Maui, Inc. (2005–2024). *Multiple Listing Service*. [Database]. https://www.ramaui.com/
- Rodda, D. T., & Goodman, J. (2005). Recent House Price Trends and Homeownership Affordability. https://www.huduser.gov/Publications/pdf/RecentHousePrice_P1.pdf
- Rosenthal, S. S. (2014). Are Private Markets and Filtering a Viable Source of Low-Income Housing? Estimates from a "Repeat Income" Model. American Economic Review, 104(2), 687–706. https://doi.org/10.1257/aer.104.2.687
- Ruggles, S., Flood, S., Sobek, M., Backman, D., Chen, A., Cooper, G., Richards, S., Rogers, R., & Schouweiler, M. (2024). IPUMS USA: Version 15.0 [Dataset]. IPUMS. https://doi.org/10.18128/D010.V15.0
- Shabrina, Z., Arcaute, E., & Batty, M. (2021). Airbnb and its potential impact on the London housing market. *Urban Studies*, 59(1), 197–221. https://doi.org/10.1177/0042098020970865
- Tyndall, J. (2024). A Honolulu Empty Homes Tax: Impacts on Housing Supply and County Revenue. UHERO. https://uhero.hawaii.edu/a-honolulu-empty-homes-tax-impacts-on-housing-supply-and-county-revenue/
- Tyndall, J., Bond-Smith, D., & Inafuku, R. (2024). The Hawai'i Housing Factbook The Hawai'i Housing Factbook 2024. https://uhero.hawaii.edu/wp-content/uploads/2024/05/Hawai'iHousingFactbook2024.pdf
- U.S. Census Bureau, U.S. Department of Commerce. (2023a). *Income in the past 12 months (in 2023 inflation-adjusted dollars*) [Dataset]. American Community Survey, ACS 5-Year Estimates Subject Tables, Table S1901. Retrieved February 19, 2025, from https://data.census.gov/table/ACSST5Y2023.S1901?q=S1901&g=050XX00US15009.



UHERO THANKS THE FOLLOWING SUPPORTERS:

KA WĒKIU - THE TOPMOST SUMMIT

Bank of Hawaii DGM Group

First Hawaiian Bank

Hawaii Business Roundtable

Hawaii Community Foundation

HMSA

Kaiser Permanente Hawai'i

Kamehameha Schools

Queen's Health Systems

KILOHANA - A LOOKOUT, HIGH POINT

American Savings Bank

Benjamin Godsey

Castle Foundation

Central Pacific Bank Foundation

DR Horton

First Insurance Company of Hawaii, Ltd.

Hawaii Pacific Health

Hawaiian Airlines

Hawaiian Electric Industries

Matson

Title Guaranty

Tradewind Group

KUAHIWI - A HIGH HILL, MOUNTAIN

Alexander & Baldwin

Better Homes and Gardens Real Estate Advantage Realty

Castle & Cooke Hawaii

Chamber of Commerce

Halekulani Corporation

Hawaii Gas

Hawaii Hotel Alliance

Hawaii State AFL-CIO

Hawaiian Dredging Construction Company

HGEA

Honolulu Board of Realtors

Honolulu Board of Water Supply

The Howard Hughes Corporation

HPM Building Supply

James Campbell Company

Kyo-ya Hotels & Resots, LP

Nordic PCL Construction

Servco Pacific, Inc.

Stanford Carr Development

ADDITIONAL SUPPORTERS

Architects Hawaii, Ltd.

Charles Wathen Company (Pier Investments)

Chartwell Financial Advisory

Finance Factors

Hau'oli Mau Loa Foundation

The Hawaii Laborers & Employers Cooperation

and Education Trust Fund

Hawaii Tourism Authority

HC&D, LLC

The Natural Energy Laboratory of Hawaii Authority

Pacific Cost Engineering

The Pacific Resource Partnership

Trinity Investments

Kūlia i Ka Nu'u (literally "Strive for the summit") is the value of achievement, those who pursue personal excellence. This was the motto of Hawaii's Queen Kapiolani. Supporters help UHERO to continually reach for excellence as the premier organization dedicated to rigorous, independent economic and policy research on issues that are both central to Hawai'i and globally relevant.

Over its more than twenty year history, UHERO research has informed decision making on some of the most important issues facing our community, including the ever-changing economic outlook, challenges to our environment, and policies affecting water, housing, energy, and many other areas.

Contributions from generous supporters like you make it possible for UHERO to fulfill this mission. Your financial commitment also allows us to distribute UHERO forecast reports to all Hawaii stakeholders.