Inclusionary Zoning: Implications for Oahu’s Housing Market

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INCLUSIONARY ZONING: IMPLICATIONS FOR OAHU’S HOUSING MARKET

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EXECUTIVE SUMMARY

This report describes Oahu’s housing market and summarizes results from an analysis of the effect of inclusionary zoning (“IZ”) on this market. Below we discuss our key findings.

Inclusionary Zoning policies have failed in other jurisdictions, and are failing on Oahu. IZ reduces the number of “affordable” housing units and raises prices and reduces the quantity of “market-priced” housing units.

Inclusionary zoning acts as a tax on developers that subsidizes housing for “gap” income households, earning between 80 and 140 percent of median income. Requiring developers to sell housing units at below-market rates reduces their revenues. Lowering the incentives for developers to produce housing will deter them from starting new projects, all else equal.

A comprehensive literature review of IZ policy studies from around the U.S. overwhelmingly indicates IZ policies have undesirable long-term effects. Approximately 90% of the policy studies found that IZ increases the market price of housing and decreases housing units available in the market. Specifically, 18 of the studies reviewed were able to assess the effect of an inclusionary zoning policy on housing market outcomes. Thirteen (13) of these studies found IZ policies both increased the market price of housing and decreased housing units available in the market, and three more studies found evidence of at least one of those effects. Of the 18 studies analyzing IZ effects, only two reported results that contradicted the theoretical prediction of increased price and/or decreased quantity of market priced homes.

Inclusionary zoning policies on Oahu have been no more successful than those in the rest of the country.

A five year State program authorized by SLH 1988 Act 15 resulted in agreements to build 16,000 housing units, a percentage of which would be affordable. To date less than 600 total units of any kind have actually been built under those agreements.

Rules governing development in Kakaako dating from the 1980s were intended to increase affordable housing availability. More than 20 years later, only 1,451 affordable (predominantly rental) units have been built in Kakaako, most of which were provided by the public housing authority. The recent prohibition of most in-lieu fees further limits the options available to HCDA to work with developers to meet the affordable housing goal and will likely reduce production of units going forward.

Affordable units under an IZ policy begun by the City and County of Honolulu in 1994 were originally intended for “gap” income group buyers. Buyer restrictions on the affordable units kept participation in the program very low. To encourage participation, the City lifted buyer income and resale restrictions in 1999. According to a review by the City, from 2001 to 2005 more than 66% of the designated affordable homes were sold to buyers earning more than the gap income group range. Since the restrictions were put back in place in 2005, no new projects have been submitted for affordable housing review under the City and County.

It appears that neither the HCDA nor Honolulu inclusionary zoning policies have delivered substantial numbers of affordable housing units (by their own programmatic definitions) to households the programs were designed to help.
There is no affordable housing crisis in the “gap” income groups earning between 80 and 140 percent of household median income.

The UHERO affordable mortgage indicates that condominiums have been affordable for households with the nominal Honolulu median income since 1993. Figure 1A graphs the UHERO affordable mortgage against the median price of both single-family homes and condos. The affordable mortgage computed by UHERO is the maximum mortgage a household with the actual median Honolulu income could afford after a 20% down payment, assuming the household spends no more than 30% of its monthly income on the mortgage. While single-family homes have not been affordable since 2003, condominiums have been well within the means of the median Honolulu household since 1993, assuming the household has sufficient wealth for a down payment and is able to qualify for a mortgage.

The affordability problem in the state is cyclical. Figure 2A below shows maximum affordable mortgages for four Honolulu income groups from 1990 to 2008 and median prices of single-family homes and condominiums. From 1990 to 1995, at the end of the last Oahu housing cycle, single-family homes remained out of reach of households earning 140% of HUD income. Yet from 1996 to 2003, households in the 120-140% bracket could afford the median priced home, and all gap income households could afford a median priced condo from 1996 through 2005. From 1992 to 2008, all income groups except the 80% group could afford the median priced condo.

In a move similar to what the City did in 1999, HHFDC removed restrictions in January 2010 on a project’s 138 unsold units reserved for gap income buyers. “The HHFDC said that declines in property values have narrowed the gap...
between market prices and Plantation Town unit prices to the point where the income limits and resale restrictions turned away buyers.” Qualifying gap income households will not be interested in reserved affordable housing units that come with major restrictions when market units with no restrictions are already affordable to them.

Kakaako IZ policies endanger project viability by squeezing profit margins, especially under proposed HB 2846 and HB 2849.

The economic implications of IZ policy can be illustrated using revenue and cost data from an actual condominium project in Kakaako that began construction in late 2006. The scenarios were computed using “best case” assumptions. This is, all units are sold at the listed price, the maximum allowable price is used for the reserved housing, and costs are assumed on the low side of what is typical in the industry.

The results of the exercise confirm our findings from the literature and are in line with what housing markets in other jurisdictions have experienced under IZ policies. With no reserved housing, the 33.1% expected profit margin for a Honolulu developer in 2007 would have been very near the 35-40% rule of thumb level of profitability expected by financial backers of such developments. However, when the reserved housing requirement is added, one eighth of the pre-financing profit margin goes to cover the IZ tax. If we could estimate the costs associated with the risks such as the holding of an inventory of unsold units, buyer default, and price changes, the expected profit margin is likely much lower. Even with most cost and revenue factors deliberately chosen to maximize expected profitability at the height of the housing market boom in 2007, what appears to be a modest reserved housing requirement leaves the project teetering on the edge of viability.

To examine what happens outside of a booming economy, we repeat the exercise using 2009 prices and costs. Costs increased from 2007 to 2009, and the cooling of the housing market reduced revenue from market rate units. The combination of higher costs and lower revenues drops the profit-
ability of even a best-case scenario, with no reserved housing, below 20%. When we add the existing affordable housing requirement, one eighth of the profit disappears again, driving the project further from viability. Again, these calculations are based on very optimistic assumptions, and do not take into account higher financing costs due to a tighter 2009-2010 credit market.

Finally, we repeat the exercise using the proposed rules in two pending pieces of legislation, HB 2846 and HB 2849. The first thing to note is that both bills would dramatically increase the number of reserved housing units required. Under both of the proposed bills, our best-case scenario profit margins fall below 15%. The increased affordable housing requirement, along with more realistic assumptions about inventory costs and pricing, might drive actual pre-financing profit margins below 10%. In short, a new condominium project similar to this would never be able to obtain financing and be built under either proposed bill.

Comparing the “best case” scenarios from 2007 and 2009 for Honolulu show the net effect of the IZ policy on the project depends on the overall state of the economy and housing cycle. Increasing IZ affordable housing requirements during poor economic times has the unfortunate cyclical effect of discouraging construction the most when the economy needs it the most. Provisions in IZ policies that restrict sales to only qualified buyers make it more difficult to find buyers for every unit. This is particularly true if the rules prevent selling to buyers with relatively higher incomes, place restrictions on down payments, or have requirements to sell reserved units only to first time homebuyers.

Reducing or eliminating overly burdensome regulation on development, including inclusionary zoning, will increase affordability of housing for two reasons. First, it will encourage building, increasing the overall stock of housing, which will help hold down the market price of housing. Second, removing IZ will allow for the natural “filtering” process to occur unheeded, with newer units going to higher income households and older units being increasingly occupied by lower income households as their values depreciate.

The effect of burdensome development regulation has been verified in Honolulu as well as cities across the country. For example, research by Stephen Malpezzi (1996) rated seven aspects of local government regulation, such as the change in approval time, for single-family projects between 1983 and 1988. Honolulu tied with San Francisco for the highest city-specific regulatory index value among 56 large metropolitan areas. Using this regulatory index, Malpezzi found that metro areas with the highest regulatory rankings have higher housing costs. After controlling for factors other than regulation, he found that increasing the regulatory burden from the lowest levels such as those of Dallas or Chicago to the highest rankings found in Honolulu would raise rents by 17 percent, reduce the number of housing units constructed by 42 percent, increase home prices by 51 percent, and reduce homeownership rates by about 10 percent.
Inclusionary zoning limits development, resulting in fewer market-rate units than otherwise. This is a particularly worrisome result because it prevents the natural “filtering” process, where the existing stock of housing depreciates and declines in quality relative to new amenity-rich units. For example, new housing often includes central air-conditioning and energy saving appliances, whereas twenty years ago few housing units would have such amenities. The construction of new housing units also increases the overall supply of housing, which increases the supply of lesser quality units to those with lower incomes.

It is important to note that other forms of regulation may hinder the filtering process. The number of new housing units developed in Hawai‘i dropped markedly in the mid 1970s after the Land Use Commission was created. Somerville and Mayer (2003) find that “restrictions on the supply of new units lower the supply of affordable units.” As the demand for higher quality units increases in the face of building restrictions, rising prices increase the incentive for owners to maintain, repair and upgrade their existing housing units, resulting in less filtering.

In summary, inclusionary zoning has not worked in a number of jurisdictions around the U.S., and is not currently working on Oahu. Overall, inclusionary zoning policies reduce the number of “affordable” housing units, while raising prices and reducing the number of “market-priced” housing units. We found no evidence of an affordable housing problem for Oahu’s “gap” income group earning between 80 and 140 percent of household median income. Eliminating inclusionary zoning and easing development regulations will result in more housing units and lower housing prices.
1. INTRODUCTION

Placing median and gap-income families in housing they can afford is a challenge for municipalities across the United States. To address this challenge, cities and counties throughout the country have implemented a wide range of policies and programs including vouchers, rental assistance, inclusionary zoning, development impact fees, mortgage credit, and tax assistance. In Hawai‘i, inclusionary zoning was introduced to assure that affordable homes are included in all new development plans. Inclusionary zoning is a policy that attempts to link construction of affordable housing to construction of market priced housing.

The purpose of this research is to evaluate the effectiveness of inclusionary zoning policy on Oahu. We proceed by first characterizing the affordable housing situation for the island of Oahu. We summarize the State’s population, provide data on households, and examine trends in housing prices and housing stock. Using data on HUD median income, median single family home and condo prices, the UHERO affordable mortgage,1 and housing stock, we evaluate the affordable housing situation for “gap” households earning 80% to 140% of HUD median household income. We then review current and proposed legislation relevant to Oahu, including City and County ordinances and rules pertaining to Kakaako and discuss these in light of Oahu’s affordable housing needs.

Having described the state of gap housing and policy for Oahu, we turn to an evaluation of the effectiveness of IZ policy. Rather than focus only on the history of IZ in Hawai‘i, we review the academic literature which has evaluated the effects of inclusionary zoning policies nationwide. We highlight key results from the literature and summarize overall findings. We report on the repercussions of inclusionary zoning on housing prices, construction, and development for 29 case studies from across the U.S. Based on these case studies, we draw implications for Oahu’s inclusionary zoning policies.

This report is organized as follows. We characterize the housing market on Oahu in Section 2, documenting the demand for housing services over the past decade and providing a comparison to the supply of housing over the same time period. We use this comparison to portray how well housing needs are being met on Oahu. We follow with a discussion of inclusionary zoning policy as a means of addressing Oahu’s affordable housing needs in Section 3. We include a simple economic analysis of inclusionary zoning in Section 3 and summarize the literature on the effectiveness of IZ policies in Section 4. In Section 5 we focus on Oahu’s inclusionary zoning policies with particular attention to the Kakaako Reserved Housing Requirement Rule. Using publically available data, we document the number of affordable housing units the rule has produced to date in Section 6. Alternatives to inclusionary zoning that have been successfully implemented in other parts of the country are reviewed in Section 7. We conclude with lessons from the literature and our prognosis for Oahu in Section 8.
2. THE HOUSING SITUATION ON OAHU

A. POPULATION TRENDS

The City and County of Honolulu is by far the most populated county in the State of Hawai‘i, and has the greatest amount of resident movement among the four counties. As can be seen in Table 1, Honolulu has more than twice the combined resident population of the other three counties and makes up over 70 percent of the resident population statewide.²

73% of all movers in the state are on Oahu, 71% of immigrants from other parts of the United States move to Oahu, and 83% of all immigrants to Hawai‘i from outside the country move to Oahu.

In addition to being the most developed county economically, Honolulu is home to most of the military population in Hawai‘i, whose personnel and dependent families rotate in and out regularly with duty station assignments. According to a 2005 U.S. Department of Housing and Urban Development report, “[t]he U.S. military is the single largest employer in the [Honolulu Metropolitan Area], accounting for 50,800 military and civilian jobs, with 12,300 at Schofield Barracks and 11,295 at Pearl Harbor.” The study goes on to say that approximately 35% of these military households reside in private sector housing (U.S. HUD, 2005, p.5).³ This steady inflow of new residents and presence of movers suggests relatively strong demand side conditions for housing markets in Honolulu as many of these people must procure housing when they move to a new location on Oahu.

While the rate of population increase on Oahu has been and will continue to be somewhat lower than on the neighbor islands, the City and County of Honolulu is still projected by the Census Bureau to remain nearly twice as populous as the rest of the state combined through 2035.

---

Table 1: Resident Population and Migration Summary Data (1995-2000)

<table>
<thead>
<tr>
<th></th>
<th>State total</th>
<th>Honolulu County</th>
<th>Hawaii County</th>
<th>Kauai County</th>
<th>Maui County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident population:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 1, 2000 (Census estimate)</td>
<td>1,211,538</td>
<td>876,158</td>
<td>148,676</td>
<td>58,463</td>
<td>128,241</td>
</tr>
<tr>
<td>Percent of Statewide Resident Population</td>
<td>72.3%</td>
<td>12.3%</td>
<td>4.8%</td>
<td>10.6%</td>
<td></td>
</tr>
<tr>
<td>Total movers³</td>
<td>490,545</td>
<td>358,022</td>
<td>59,139</td>
<td>20,420</td>
<td>52,964</td>
</tr>
<tr>
<td>Total domestic immigrants⁴</td>
<td>149,176</td>
<td>105,760</td>
<td>18,610</td>
<td>6,788</td>
<td>18,018</td>
</tr>
<tr>
<td>Total international immigrants</td>
<td>46,751</td>
<td>38,619</td>
<td>3,510</td>
<td>1,028</td>
<td>3,594</td>
</tr>
</tbody>
</table>

Table 2: Population Projections through 2035

<table>
<thead>
<tr>
<th>Year</th>
<th>State total</th>
<th>City and County of Honolulu</th>
<th>Annual Growth Rate</th>
<th>All other counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,264,468</td>
<td>899,673</td>
<td>0.531%</td>
<td>364,795</td>
</tr>
<tr>
<td>2010</td>
<td>1,299,567</td>
<td>911,833</td>
<td>0.269%</td>
<td>387,733</td>
</tr>
<tr>
<td>2015</td>
<td>1,367,795</td>
<td>941,824</td>
<td>0.649%</td>
<td>425,971</td>
</tr>
<tr>
<td>2020</td>
<td>1,432,538</td>
<td>969,462</td>
<td>0.580%</td>
<td>463,076</td>
</tr>
<tr>
<td>2025</td>
<td>1,492,253</td>
<td>994,610</td>
<td>0.514%</td>
<td>497,644</td>
</tr>
<tr>
<td>2030</td>
<td>1,547,460</td>
<td>1,017,565</td>
<td>0.457%</td>
<td>529,894</td>
</tr>
<tr>
<td>2035</td>
<td>1,598,675</td>
<td>1,038,316</td>
<td>0.405%</td>
<td>560,359</td>
</tr>
</tbody>
</table>

SOURCE: 2008 STATE OF HAWAII DATA BOOK, TABLE 1.28, HTTP://HAWAII.GOV/DBEDT/INFO/ECONOMIC/DATABOOK/

Yet the slowing of overall population growth on Oahu may not accurately characterize demand for housing. While the growth in counts of people is slowing, growth in number of households remains steady. This reflects, in part, the large expansion in the number of small households.

Despite the much faster increase in the number of households relative to the number of people in households, the average household size on Oahu has remained fairly constant at around 2.9 since 2000. Thus, it appears that as the number of households expands, the mix of household types is changing as well. This is a change from two measures reported in the 2003 Hawai‘i Housing Policy Study (HHPS): “crowding and doubling up had decreased” and “average household sizes were dropping throughout the [1990s]” (SMS, 2003, Honolulu p. Exec Summary-3). To maintain a relatively constant average household size with a dramatic increase in single person households, there must also be growth in the number of large households.

Table 3: Honolulu Household and Household Population Change, 1990 to 2008

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Population</td>
<td>802,338</td>
<td>845,211</td>
<td>877,361</td>
<td>5.3%</td>
<td>3.7%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Total households</td>
<td>265,304</td>
<td>286,450</td>
<td>302,861</td>
<td>8.0%</td>
<td>5.6%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Householder Living Alone</td>
<td>51,006</td>
<td>61,963</td>
<td>72,284</td>
<td>21.5%</td>
<td>15.8%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Householder, Not Alone</td>
<td>214,298</td>
<td>224,487</td>
<td>230,577</td>
<td>4.8%</td>
<td>2.7%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

When we consider census data on crowding and average household size, we find that Hawai‘i continues to rank very high. According to the Historical Census of Housing Tables, Hawai‘i has led all 50 states in its percent of households considered “crowded” since the 1970 census. Crowding in Honolulu remains high at 7.79% in the 2008 American Community Survey, especially among renters where the rate is 11.48%. A special tabulation from Census 2000 showed Hawai‘i had the highest incidence of multigenerational families (which include at least three generations of a family in a single household) of any state at 8.21%. The 2008 ACS reports the State of Hawai‘i’s multigenerational family incidence rate at 7.39%, which is still higher than any other state in Census 2000. These data are consistent with a shift to polarization of household sizes toward the high (crowded, multigenerational households) and low (single householder living alone) ends of the spectrum.

The City and County of Honolulu can be described as a dynamic, fluid market with many movers and people seeking housing services. Since 1990, the number of households has increased about one and a half times as fast as the overall population, suggesting that the demand for housing services will continue to be robust into the foreseeable future. The changing profile of households suggests the housing needs of families moving forward may be different from the needs of families for whom the prior housing stock was originally built.

B. HOUSING STOCK ON OAHU

We begin with a historical overview of housing stock since Statehood. Figure 1 shows the total number of single, duplex, and apartment (condo) unit starts on Oahu since 1959. Indicated on the figure are vertical lines at 1975, 1991, and 2002 denoting significant regulatory changes in Honolulu land policy. In 1975, the Land use Reform Act at the State level implemented mandatory leasehold conversion for single-family homes but not condominiums. At the same time, major changes were made to the Land Use Law and the discretion of the Land Use Commission to approve redistricting was curtailed. Following protests in 1974 and legislative changes in 1975, new housing starts on Oahu fell precipitously and have not recovered for more than 30 years.

The line drawn at 1991 indicates the passage of City Ordinance 91-95 by the City and County of Honolulu, which extended the applicability of leasehold conversion to condos. In 1998, the United States Supreme Court refused to hear a challenge to 91-95 because it was similar to the existing larger State law that was already in operation. By 2001, annual apartment construction (including condominiums) dwindled near zero. A ruling in 2002 by the Hawai‘i State Supreme Court neutered the law, exempting nearly all units on Oahu from 91-95’s scope. While much of the recovery in apartment starts after 2001 can be attributed to an upswing in the housing cycle, it is possible that regulatory easing may have helped.
Table 4 displays the current number of total housing units on Oahu, which grew from 315,988 in 2000 to 337,177 in 2008, an annual average growth of 2,649 housing units. At first glance, this 6.71% growth over the last 8 years (0.815% annualized growth) implies that additions to the housing stock kept pace with and slightly exceeded the 5.6% growth rate in the number of households. A more detailed breakout of the total unit growth shows that most of the growth has been in single family detached homes. More than three times as many owner-occupied single family detached homes as owner-occupied condominium units in large buildings (more than 50 units) have been built since 2000. Moreover, the entire increase has been in owner-occupied units. In fact, the number of total rental units of all types has actually declined over both 8- and 18-year periods.

Table 4: Total Housing Unit Stock, City and County of Honolulu

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Housing Units</strong></td>
<td>281,683</td>
<td>315,988</td>
<td>332,718</td>
<td>334,799</td>
<td>337,177</td>
<td>55,494</td>
<td>21,189</td>
</tr>
<tr>
<td><strong>Total Occupied:</strong></td>
<td>265,304</td>
<td>286,450</td>
<td>299,217</td>
<td>304,611</td>
<td>302,861</td>
<td>37,557</td>
<td>16,411</td>
</tr>
<tr>
<td><strong>Owner occupied:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, detached</td>
<td>137,910</td>
<td>156,233</td>
<td>173,806</td>
<td>173,715</td>
<td>176,148</td>
<td>38,238</td>
<td>19,915</td>
</tr>
<tr>
<td>50 or more</td>
<td>93,833</td>
<td>105,797</td>
<td>117,591</td>
<td>116,966</td>
<td>117,392</td>
<td>23,559</td>
<td>11,595</td>
</tr>
<tr>
<td><strong>Renter occupied:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, detached</td>
<td>16,772</td>
<td>18,610</td>
<td>19,538</td>
<td>21,991</td>
<td>21,674</td>
<td>5,102</td>
<td>3,264</td>
</tr>
<tr>
<td>50 or more</td>
<td>5,442</td>
<td>4,092</td>
<td>4,212</td>
<td>5,405</td>
<td>5,405</td>
<td>1,573</td>
<td>1,370</td>
</tr>
<tr>
<td><strong>Total Vacant Units</strong></td>
<td>16,379</td>
<td>29,538</td>
<td>33,501</td>
<td>30,188</td>
<td>34,316</td>
<td>17,937</td>
<td>4,778</td>
</tr>
</tbody>
</table>

While there was an increase in total housing units, there was also a large increase in the number of vacant units that were not part of the active real estate market. A subset of the total number of vacant units, these are units that were neither for rent nor for sale for some reason. One example of units in this category is housing units used for seasonal or occasional use by non-residents, also sometimes referred to as “vacation homes.” Removing these types of units from the housing inventory is appropriate when evaluating the available supply for those seeking housing services. “Where they are identified, vacation homes and unit (sic) otherwise not available to the local housing market have been eliminated from the inventory.” (SMS, 2003, p. Section IIA-1)

Removing the 8,651 increase in units not for rent or sale from all housing stock estimates reduces the 8 year growth in the effective housing stock available to 4.14%, about one and a half percentage points below the growth in households during that period. Therefore, the increase in the effective housing stock on Oahu is not keeping pace with the increase in resident households.

The most recent data on the age of the housing stock in Honolulu shows that construction fell sharply after the 1970s and has remained low since then. Figure 2 shows the distribution of when housing units in 2008 were built by the decade of construction, broken out for owner-occupied and renter-occupied units.
Figure 3 shows the annual number of new housing units authorized by building permits for Honolulu from 1988 to 2008.

In sum, the stock of housing on Oahu is growing slower than household counts. The bulk of the existing stock of housing, for both owner-occupied and renter-occupied housing, was built in the 1960s and 1970s. Even after accounting for the housing cycle, the number of permits authorized for new construction on Oahu has declined over the last 20 years. This suggests the older stock of housing from prior decades will continue to supply the majority of units in the active housing market.

C. HONOLULU’S HOUSING AFFORDABILITY

Homeownership rates in Honolulu have been relatively stable since 1990, fluctuating between roughly 50% and 60% for the entire period. At 60%, homeownership in Honolulu has been near record levels since 2004, though still below the national average which has hovered around 65% since the early 1980s.
While the high price of housing in the Honolulu market would seem to create a significant barrier to ownership, the growth in homeownership, even since 2002, has been significant. Even with high prices, income growth and low borrowing costs allowed for a growing share of Oahu’s population to purchase housing. Furthermore, for the median Honolulu household of about 3 people earning 100% of the household size-adjusted median HUD designated income, the median priced condo has been affordable every year for the last 15 years.

During this same time period, the UHERO affordable mortgage indicates that condominiums became affordable for households with the nominal Honolulu median income. Figure 5 below graphs the UHERO affordable mortgage against the median price of both single family homes and condos. The affordable mortgage computed by UHERO is the maximum mortgage a household with the actual median Honolulu income could afford after a 20% down payment, assuming the household spends no more than 30% of its monthly income on the mortgage. While standalone single-family homes have not been affordable since 2003, condominiums have been well within the means of the median Honolulu household since 1993 assuming the household has sufficient wealth for a down payment and is able to qualify for a mortgage.

The increase in prices over the past decade has resulted in a rightward shift in the distribution of single-family home prices. This means there are relatively more high end units in the housing stock than there was in the past. While this may be partly due to the overall increase in housing prices during the recent housing cycle, it may also be due to the shift in the mix of types of housing units available on Oahu.

From Table 4 earlier, we know that the majority of new housing units built were of the standalone single-family unit type that has gone down in affordability. At the same time, less than 10% of the housing units built since 1990 were condominiums in large structures (with more than 50 units). Thus, the stock of housing is growing slower than household counts, and what units are being added are mostly in the least affordable category.

**Figure 5: Quarterly Housing Affordability, 1990-2009**

![Graph showing quarterly housing affordability, 1990-2009](source: UHERO)
As incomes have not kept pace with the increase in single-family home prices, this implies a lower number of affordable homes available in the market for Honolulu householders seeking to purchase and own the home they will live in. It is useful to keep in mind the peak of the UHERO affordable mortgage series was at $407,053 to provide context for the rightward shift in Figure 6 below.

In the next section we provide a brief overview of one popular policy solution to meeting the affordable housing challenge – inclusionary zoning rules.

Figure 6: Distribution of Owner Occupied Home Values, 2002-2008

3. INCLUSIONARY ZONING AS A SOLUTION TO THE AFFORDABLE HOUSING CHALLENGE

A. BRIEF INTRODUCTION TO INCLUSIONARY ZONING

Inclusionary zoning refers to a class of policy tools that attempt to link construction of affordable housing to construction of market priced housing. The “inclusionary” portion of the name stems from the fact that these policies require builders to include certain types of buildings (homes targeted to lower income households) in their developments. Exclusionary policies, on the other hand, prohibit or exclude certain types of construction from occurring in permitted development projects. Inclusionary zoning policies can be either mandatory or voluntary, and are generally incorporated as part of the permitting process; developers comply with the policy to receive approval to proceed with their projects (if it is mandatory) or receive incentives. Typical inclusionary zoning (IZ) policies offer incentives such as expedited permit processing, permit waivers, or density bonuses to compensate for the land use restrictions or increased costs imposed on developers.

The first IZ ordinance in the country was implemented in the 1960s in Newton, MA. The policy produced 225 units of affordable housing over 30 years (Engler 2002). Since then, IZ policies have grown in number and scope in jurisdictions across the country. Adoption of programs grew rapidly in the 1980s largely in response to double-digit increases in housing prices. In California the number of communities with IZ policies increased by almost 400% in the 1990s (Powell and Stringham 2004). As of 2004 there were an estimated 350 to 400 local jurisdictions with IZ policies, the vast majority being in California, Massachusetts, and New Jersey (Porter 2004).

According to Schofield and Brown-Graham (2004), the pursuit of affordable housing provision through IZ policies differs from other traditional affordable housing programs in three major ways. First, IZ involves construction of affordable housing using private rather than public funding. As opposed to direct public construction or public financial support of construction (such as the federal Low Income Housing Tax Credit), inclusionary zoning projects are funded by private developers. Second, inclusionary zoning programs usually require some degree of socioeconomic integration in the development by requiring designated affordable units to be dispersed throughout the project. This is designed to prevent segregation of affordable housing units to less desirable areas, separate from market rate housing. Lastly, Schofield and Brown-Graham (2004) point out that most traditional (non-inclusionary zoning) programs aim to serve the very-low end of the income range of households; inclusionary zoning produced housing “is largely for sale and targeted to low- and moderate-income families.”

B. ECONOMICS OF INCLUSIONARY ZONING

Inclusionary zoning acts as a tax on developers that funds additional housing for “gap” income households. Requiring developers to produce additional units of housing and sell them at below-market rates reduces their revenues. These lost revenues go toward subsidizing affordable housing services for low to moderate-income members of the community.

The magnitude of the tax that IZ imposes varies considerably program to program, depending on both the reserved housing requirement and the amount that affordable units are discounted. While it is difficult to calculate exactly how large of a burden IZ is for developers, it is at least as large a tax as an in-lieu fee if a substantial number of developers choose to pay the fee rather than build the additional units.
The effect of a tax on the production of any product, housing included, is relatively straightforward. The extra tax imposed by IZ increases the cost to developers and limits the supply of housing provided. Facing the additional cost, developers will build fewer housing units, all else equal. This phenomenon is illustrated in Figure 7.

The vertical axis is the price for housing units and the horizontal axis represents the quantity of housing units built. In the above figure, the line labeled D indicates the demand for housing units. As with most commodities, people are willing to buy more units the lower the price. This can occur from, for example, renters who would like to own a home becoming able to afford to buy as prices fall. The line labeled S represents the original supply for houses. The line labeled S’ is the supply of houses after the implementation of the IZ policy. The higher the price of housing units, the more developers are willing to build as it becomes easier to turn a profit.

The distance between the two supply lines, T, is equal to the profit developers forego per market rate unit under the reserve requirement. T increases with the reserve requirement and the price differential and decreases with land costs and quality differential. When an IZ policy is enacted, developers receive less revenue per project. While some projects may proceed as planned, some projects may be cancelled (or never started) because either they are no longer profitable, or because it is more profitable to build elsewhere. With fewer new units being built to meet market demand, developers are able to charge a higher price for their units, making market units more expensive for anyone who is unable to obtain the subsidized housing.
C. EXAMPLE DATA FOR A NEW CONDO IN KAKAAKO

An example using data from an actual condominium project in the Kakaako district of Honolulu subject to a 20% IZ requirement illustrates the economic effect of IZ policy. In late 2006, the 46 floor Moana Vista condominium began construction. Using actual sales and price data, reported square footage from government sources, and construction cost estimates from Rider Levett Bucknall, we are able to estimate the expected profit of the developer when all units were sold. The object of this analysis is to obtain estimates as close as possible to the projected revenues and costs at the time the developer was deciding whether to proceed or not.

Financial estimates for the project are presented in Table 5 for 2007 when Moana Vista began construction, for the fourth quarter of 2009, and for hypothetical scenarios under two proposed 2010 bills. On the cost side, the table includes “hard” construction costs as well as non-construction costs using the actual land purchase price and conservative estimates on “soft costs.” These soft costs include things like permitting, marketing, planning, and management costs outside of the construction site. Also included are the standard 3% development fee and a 6% contingency fee, both of which are set to conservatively low levels for a condominium project of this scale.

For the revenue side, market prices for residential units were obtained from the developer’s original Moana Vista price list from 2007. Using a median price ratio reflecting current and previous market conditions, these prices were scaled to adjust for price swings in the housing cycle. All units, including those used to satisfy the reserved housing requirement, were treated as fee simple units using the rules for reserved housing units for sale and not rental. For simplicity, we capitalized rental revenue from commercial and industrial portions of the building with an 8% terminal capitalization rate. Where we did not have an actual price quote for a particular unit (i.e. all units of a given type were already sold and had no posted prices), we estimated prices based on similar units on nearby floors.

D. EVEN AT “BEST CASE,” LOW PROFIT MARGINS MAKE FINANCING DIFFICULT

All of the scenarios reported in Table 5 should be regarded as “best case” outcomes for each scenario. The costs do not include any financing costs and employ rates for each cost category on the low side of what is typical in the industry. On the revenue side, every scenario assumes all 492 units are immediately sold (“absorbed”) upon completion of the project. In reality, it may take time to sell all of the units, during which time the developer incurs additional inventory holding costs. This problem can be exacerbated by the risk of buyer default. Furthermore, the prices used for the reserved housing units were weighted to favor sales to the upper end of the eligible gap income distribution. The prices used were the legal maximum allowed for the reserved housing, further increasing the revenue per unit.

Without any affordable housing, the 33.1% expected profit margin for a Honolulu developer in 2007 would have been very near the 35-40% rule of thumb level of profitability expected by financial backers of such projects. Expected profitability levels are crucial to securing financing for these types of projects because of the high amounts of risks involved. Once a project of this nature is underway, there is no way to easily recover the resources committed if something goes wrong. When the reserved housing requirement is added, one eighth of the pre-financing profit margin goes to cover the IZ tax. If we could estimate the costs associated with the risks mentioned earlier like inventory holding costs, profit margin is likely much lower. Even with most cost and revenue factors deliberately chosen to maximize expected profitability at the height of the housing market boom in
2007, what appears to be a modest reserved housing requirement leaves the project teetering on the edge of viability.

The second column shows that outside of a booming economy, the possibility that this project could obtain financing falls apart. While costs increased from 2007 to 2009, the cooling of the housing market also reduced revenue from market rate units. The combination of higher costs and lower revenues drops the profitability of even a best-case scenario, with no reserved housing, below 20%. When we add the existing affordable housing requirement, one eighth of the profit disappears again, driving the project further from viability. Again, these calculations are based on very optimistic assumptions, and do not take into account higher financing costs due to a tighter 2009-2010 credit market.

The columns on the right side of the table repeat the exercise using the proposed rules in two pending pieces of legislation, HB 2846 and HB 2849. The first thing to note is that both bills would dramatically increase the number of reserved housing units required. Under both of the proposed bills, our best case scenario pre-financing profit margins fall below 15%. The increased affordable housing requirement, along with more realistic assumptions about inventory costs and pricing, might drive actual pre-financing profit margins below 10%. In short, a new condominium project similar to this would never be able to obtain financing and be built under either proposed bill.30

Comparing the “best case” scenarios from 2007 and 2009 for Honolulu show the net effect of the IZ policy on the project depends on the overall state of the economy and housing cycle. This means increasing IZ affordable housing requirements during poor economic times has the unfortunate cyclical effect of discouraging construction the most when the economy needs it the most. Provisions in IZ policies that restrict sales to only qualified buyers make it more difficult to find buyers for every unit. This is particularly true if the rules prevent selling to buyers with relatively higher incomes, place restrictions on down payments, or have requirements to sell reserved units only to first time homebuyers.

Table 5: Pre-Financing Data for a Newly Built Moana Vista-like Structure under Existing Kakaako Rules and Two Proposed Revisions

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>107,295,000</td>
<td>122,820,000</td>
<td>175,578,775</td>
<td>180,283,851</td>
<td>193,175,000</td>
<td>197,186,000</td>
</tr>
<tr>
<td>Commercial</td>
<td>1,069,063</td>
<td>1,155,000</td>
<td>1,472,851</td>
<td>1,543,280</td>
<td>1,725,453</td>
<td>1,802,473</td>
</tr>
<tr>
<td>Industrial</td>
<td>2,585,000</td>
<td>2,750,000</td>
<td>3,727,280</td>
<td>3,922,143</td>
<td>4,323,000</td>
<td>4,629,000</td>
</tr>
<tr>
<td>Parking</td>
<td>19,164,844</td>
<td>22,376,250</td>
<td>28,376,250</td>
<td>32,498,473</td>
<td>35,376,250</td>
<td>39,498,473</td>
</tr>
<tr>
<td>Construction Total&lt;sup&gt;36&lt;/sup&gt;</td>
<td>130,113,906</td>
<td>149,101,250</td>
<td>168,927,931</td>
<td>183,360,138</td>
<td>201,376,250</td>
<td>216,927,931</td>
</tr>
<tr>
<td>Inflation Adjusted Land Costs</td>
<td>15,000,000</td>
<td>15,636,822</td>
<td>18,000,000</td>
<td>18,973,822</td>
<td>20,366,822</td>
<td>21,873,822</td>
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<tr>
<td>Soft Costs (33%)</td>
<td>42,937,589</td>
<td>49,203,413</td>
<td>54,937,589</td>
<td>62,203,413</td>
<td>70,937,589</td>
<td>78,203,413</td>
</tr>
<tr>
<td>Contingency Fee (6%)</td>
<td>10,383,090</td>
<td>11,898,280</td>
<td>12,383,090</td>
<td>14,898,280</td>
<td>16,383,090</td>
<td>18,898,280</td>
</tr>
<tr>
<td>Development Fee (3%)</td>
<td>6,137,152</td>
<td>6,984,735</td>
<td>6,813,715</td>
<td>8,284,735</td>
<td>8,813,715</td>
<td>9,813,735</td>
</tr>
<tr>
<td>Total Costs Before Financing</td>
<td>204,571,737</td>
<td>232,824,499</td>
<td>244,007,931</td>
<td>268,620,238</td>
<td>290,376,250</td>
<td>314,876,238</td>
</tr>
<tr>
<td>Estimated Required Reserved Housing Units&lt;sup&gt;36&lt;/sup&gt;</td>
<td>34</td>
<td>34</td>
<td>32</td>
<td>32</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Residential Revenue, no RH, % Sales Com.</td>
<td>308,450,000</td>
<td>289,179,000</td>
<td>369,450,000</td>
<td>350,179,000</td>
<td>389,450,000</td>
<td>370,179,000</td>
</tr>
<tr>
<td>Commercial Revenue</td>
<td>2,813,250</td>
<td>2,772,000</td>
<td>3,183,250</td>
<td>3,147,000</td>
<td>3,683,250</td>
<td>3,647,000</td>
</tr>
<tr>
<td>Industrial Revenue</td>
<td>4,323,000</td>
<td>3,597,000</td>
<td>5,123,000</td>
<td>4,917,000</td>
<td>6,323,000</td>
<td>6,017,000</td>
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<tr>
<td>Commercial and Industrial Commission</td>
<td>214,088</td>
<td>191,070</td>
<td>234,088</td>
<td>211,070</td>
<td>264,088</td>
<td>241,070</td>
</tr>
<tr>
<td>Profit, no RH</td>
<td>101,546,925</td>
<td>53,857,061</td>
<td>121,546,925</td>
<td>65,857,061</td>
<td>151,546,925</td>
<td>75,857,061</td>
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<tr>
<td>Residential Revenue with Reserved Housing</td>
<td>288,382,000</td>
<td>280,888,000</td>
<td>358,382,000</td>
<td>340,888,000</td>
<td>408,382,000</td>
<td>390,888,000</td>
</tr>
<tr>
<td>Revenue, with RH, % Sales Com.</td>
<td>279,730,540</td>
<td>272,461,360</td>
<td>339,730,540</td>
<td>322,461,360</td>
<td>399,730,540</td>
<td>382,461,360</td>
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<tr>
<td>Commercial Revenue</td>
<td>2,813,250</td>
<td>2,772,000</td>
<td>3,183,250</td>
<td>3,147,000</td>
<td>3,683,250</td>
<td>3,647,000</td>
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<td>6,323,000</td>
<td>6,017,000</td>
</tr>
<tr>
<td>Commercial and Industrial Commission</td>
<td>214,088</td>
<td>191,070</td>
<td>234,088</td>
<td>211,070</td>
<td>264,088</td>
<td>241,070</td>
</tr>
<tr>
<td>Profit, with RH</td>
<td>82,080,965</td>
<td>45,814,791</td>
<td>102,080,965</td>
<td>53,814,791</td>
<td>129,080,965</td>
<td>84,814,791</td>
</tr>
</tbody>
</table>

Sources: HCDA Moana Vista page, KC Rainbow II Prices, RLB Quarterly Cost Reports, Colliers Monroe Friedlander Retail Market and Industrial Market Reports

SOURCES: HCDA MOANA VISTA PAGE, KC RAINBOW II PRICES, RLB QUARTERLY COST REPORTS, COLLIERS MONROE FRIEDLANDER RETAIL MARKET AND INDUSTRIAL MARKET REPORTS
E. IMPACTS OF INCLUSIONARY ZONING ON HOUSING SUPPLY AND LONG-TERM PRICING

The analysis thus far has only looked at the supply of housing within a given year. As mentioned in Section 2, the undersupply of housing services relative to household formation is a chronic problem, and solutions should take a long range approach. IZ has the same effect as a tax. Therefore, it limits development, resulting in fewer market-rate units than otherwise. This is a particularly worrisome result because “[l]ow-cost housing is usually produced through a process called filtering where existing housing units drop in cost as their relative quality falls, rather than through construction of new, lower-cost units.” (Feldman, 2002 p. 9)

Over time, the existing stock of housing depreciates and declines in quality relative to new amenity-rich units. For example, new housing often includes central air-conditioning and energy-saving appliances, whereas twenty years ago few housing units would have such amenities. The construction of new housing units also increases the overall supply of housing, which increases the supply of lesser-quality units to those with lower incomes. (Feldman 2002, p. 10). Malpezzi and Green (1996, p. 1811) also found that “high-quality new construction is associated with growth in the low-quality stock as well”. Specifically, they found that the construction of new units in 1995 led to a 2.5% increase in the number of lesser-quality rental units available. “[T]o the extent that a city makes it easy for any type of housing to be built, it will also enhance the available stock of low-cost housing” (p. 1811)

It is important to note that other forms of regulation may hinder the filtering process. As shown in Figure 1 on page 14, the number of new housing units developed in Hawai‘i dropped markedly in the mid 1970s after the LUC was created. Somerville and Mayer (2003, p. 45) find that “restrictions on the supply of new units lower the supply of affordable units.” As the demand for higher-quality units increases in the face of building restrictions, rising prices increase the incentive for owners to maintain, repair and upgrade their existing housing units, resulting in less filtering.

Malpezzi (1996, p. 224) rated seven aspects of local government regulation, such as the change in approval time, for single-family projects between 1983 and 1988. Honolulu tied with San Francisco for the highest city-specific regulatory index value among 56 large metropolitan areas. Using this regulatory index, Malpezzi found that metro areas with the highest regulatory rankings have higher housing costs. After controlling for factors other than regulation, he found that increasing the regulatory burden from the lowest levels such as those of Dallas or Chicago to the highest rankings found in Honolulu would raise rents by 17 percent, reduce the number of housing units constructed by 42 percent, increase home prices by 51%, and reduce homeownership rates by about 10 percent. While these results may seem excessively large, keep in mind that the change in regulatory environment is very large as well.
The benefits of inclusionary zoning commonly touted in the literature include:

1. Strengthening communities
2. Stimulating economic development
3. Supporting “smart growth” principles
4. Enhancing economic and racial integration
5. Overcoming NIMBY-ism (“Not in My Backyard”)
6. Offering a predictable and level playing field to developers

While these benefits are easy to articulate, they are difficult to test empirically. Most of the analyses on inclusionary zoning focus on the costs of these types of policies. The potential costs that are most frequently discussed are:

1. Reducing the total stock of available housing in a market
2. Increasing the median/average market price of housing

The effects of inclusionary zoning on the surrounding housing market have been widely discussed in the literature. Bento et al. (2009) examine California data from 1988-2005. The authors conducted a multivariate statistical analysis of housing starts, prices, and size, isolating the effects of inclusionary zoning programs by controlling for spatial and temporal conditions such as the neighborhood or school district and changing market conditions over time. The authors were able to show that the price of single-family houses increases and the size of single-family homes decreases under inclusionary zoning policies.

Schuetz et al. (2009) examine IZ policies in San Francisco, Boston and Washington, D.C., and find evidence that inclusionary zoning increased prices, lowered production in Boston and Washington, D.C., but find no effect on market outcomes in San Francisco. The authors suggest that San Francisco’s use of exemptions and density bonuses may have helped ease market distortions. The authors also find that for all jurisdictions, the number of years the IZ program had been in place was the biggest determinant of how many units were produced total, and that annual housing production is mostly determined by what is offered to developers (density bonuses and other incentives).

Mintz-Roth (2008) reviews affordable housing strategies for “hot markets,” using New York City as a case study. This paper uses interviews with national policymakers and experienced affordable and mixed-income housing developers to assess the relative success of affordable housing initiatives. The author finds that neither relying on inclusionary zoning or extending existing NYC affordable housing programs should be considered a replacement for federal subsidies, which have historically provided the most affordable housing to jurisdictions.

Powell and Stringham (2004a) use data from Los Angeles and Orange County and argue that IZ makes market-priced homes more expensive, restricts the supply of new homes, and produces limited affordable units. They find that IZ increases the price of new homes in the median city by $33,000 to $66,000. In eight CA cities, 17,296 fewer homes were produced during the seven years after the adoption of inclusionary zoning (with 770 “affordable” units produced). The estimated present value losses in government tax revenue due to Los Angeles and Orange County inclusionary zoning ordinances is over $750 million. An opposite conclusion was reached by Rosen (2002) for the Los Angeles area. Using a land residual approach which creates scenarios of development based on income potential and costs, Rosen was unable to find any effect of inclusionary zoning on housing starts.
Similar conclusions are drawn by Powell and Stringham (2004b) for 50 cities in the San Francisco Bay area. After passing an ordinance, the average city produces fewer than 15 affordable units per year. Median prices increase by $22,000 to $44,000 and new construction decreases by 31 percent the year following the adoption of IZ. Means et al. (2007) use panel data for cities in California and find that these policies drive housing prices up by 20% and decrease the stock of homes by 10%.

Table 7 summarizes the national studies reviewed, and any outcomes that were analyzed and reported in the studies. Heavy data requirements make empirical analysis of IZ difficult, limiting the number of pure empirical case studies of the effects of inclusionary zoning policies. We reviewed 18 studies that were able to assess the effect of an inclusionary zoning policy on housing market outcomes. Of these, 13 policy studies were found to increase the market price of housing and decrease housing units available in the market. In two studies the market price of houses increased, and one study provided evidence of a fall in the overall quantity of housing units.

Of the 18 studies reviewed, there were only two cases in which reported results contradicted the theoretical prediction of increased price and/or decreased quantity of market priced homes. A study of the policy in Fairfax County, VA, found evidence of lower market prices, and the analysis of the Loudoun County, VA, inclusionary zoning ordinance found evidence of increased overall housing units in the market as a result of the policy. There are 11 other policies we examined that were not able to assess market effects of inclusionary zoning. We summarize these 29 inclusionary zoning policies over the next two pages.
Table 6. Key to Table 7, National Affordable Housing Policies

<table>
<thead>
<tr>
<th>Heading</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting</td>
<td>Place where the policy was implemented</td>
</tr>
<tr>
<td>Location</td>
<td>City or County and State</td>
</tr>
<tr>
<td>Policy</td>
<td>Characterization of the policy</td>
</tr>
<tr>
<td>Start date</td>
<td>Year policy began</td>
</tr>
<tr>
<td>% Median</td>
<td>Upper income limit qualifying for affordable housing</td>
</tr>
<tr>
<td>% Required</td>
<td>Affordable homes a developer must provide as a percentage of market priced homes</td>
</tr>
<tr>
<td>Duration (years)</td>
<td>Years affordable home must remain in the program</td>
</tr>
<tr>
<td>Mandatory</td>
<td>Policy was required of all new development</td>
</tr>
<tr>
<td>Rentals Allowed</td>
<td>Rental housing was included in the provision affordable homes</td>
</tr>
<tr>
<td>Incentives</td>
<td>Allowances were granted to developers to encourage construction of affordable homes</td>
</tr>
<tr>
<td>Density bonus</td>
<td>Developers were allowed to build in excess of density limits (units/acre)</td>
</tr>
<tr>
<td>Other</td>
<td>Other developer incentives</td>
</tr>
<tr>
<td>Exemptions</td>
<td>Conditions for which builders were not required to provide affordable homes</td>
</tr>
<tr>
<td>Size (units)</td>
<td>Development below which builders were not required to provide affordable homes</td>
</tr>
<tr>
<td>Additional</td>
<td>Other reasons builders were not required to provide affordable homes</td>
</tr>
<tr>
<td>Flexibilities</td>
<td>Alternatives to building affordable units on the development site</td>
</tr>
<tr>
<td>Cash buyout</td>
<td>Developers paid the housing authority in place of building affordable homes</td>
</tr>
<tr>
<td>Offsite</td>
<td>Developers were allowed to build affordable homes at another location</td>
</tr>
<tr>
<td>Market Outcomes</td>
<td>Policy impact on home prices and home construction</td>
</tr>
<tr>
<td>P↑Q↓</td>
<td>Home prices went up and homes built went down as result of the policy</td>
</tr>
<tr>
<td>P↓Q↑</td>
<td>Home prices went down and homes built went up as a result of the policy</td>
</tr>
<tr>
<td>Affordable (Units)</td>
<td>Total number of affordable homes built as a result of the policy at the time the study referenced was conducted</td>
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NOTES TO TABLE 7:
A. REPEALED IN 1996; B. EXPANDED IN 2000; C. BECAME ORDINANCE IN 1977; D. UPDATED IN 2007; E. LIFETIME DURATION FOR RENTAL UNITS; F. MANDATORY ONLY FOR SPECIAL REQUESTS; G. RENTAL UNITS ONLY; H. FLEXIBLE DESIGN STANDARDS; I. PRIORITY PROCESSING; J. SUBSIDIES; K. REZONING/MIXED USE ZONING; L. FEE DEFERRAL/WAIVER; M. LOWER QUALITY HOUSING; N. DESIGN MODIFICATIONS; O. TECHNICAL AND FINANCIAL ASSISTANCE; P. IF REQUIREMENT PREVENTS DEVELOPMENT FROM PROCEEDING; Q. SPECIAL DEVELOPMENT ZONES, REBUILDING AFTER A NATURAL DISASTER; R. 5 FOR RENTALS; S. OR 1 ACRE; T. 1200 UNITS FROM 1992 IZ PROGRAM, ADDITIONAL 1200 EXPECTED FROM AFFORDABLE HOUSING PROGRAM; U. INFORMATION ON THE MARKET EFFECTS OF THE POLICY WERE NOT FOUND; V. EXEMPTIONS WERE GRANTED TO LOW DENSITY DEVELOPMENTS, SINGLE FAMILY DEVELOPMENTS WITH MINIMUM LOT SIZE REQUIREMENTS, MULTI-FAMILY BUILDINGS, DEVELOPMENTS NOT SERVED BY MUNICIPAL WATER AND SEWAGE, AND WHERE IMPLEMENTATION OF THE POLICY WOULD CAUSE HOUSING PRODUCTION TO DECREASE OR HOUSING PRICES TO RISE; W. EXCLUDING MONTGOMERY CO. MD AND FAIRFAX CO VA.
Table 7. National Affordable Housing Policies

<table>
<thead>
<tr>
<th>Setting</th>
<th>Location</th>
<th>Start date</th>
<th>% Median</th>
<th>% Required</th>
<th>Duration (years)</th>
<th>Mandatory</th>
<th>Rentals Allowed</th>
<th>Density bonus</th>
<th>Other</th>
<th>Size (units)</th>
<th>Cash buyout</th>
<th>Offsite</th>
<th>p↑Q↓</th>
<th>p↓Q↑</th>
<th>Affordable (Units)</th>
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</thead>
<tbody>
<tr>
<td>Location</td>
<td>Start date</td>
<td>% Median</td>
<td>% Required</td>
<td>Duration (years)</td>
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<td>Rentals Allowed</td>
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<td>10-20</td>
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The review of literature above provides some clues regarding the relative achievements and shortcomings of various inclusionary zoning policies around the country. Inclusionary zoning has been implemented in a wide variety of housing market types, with rules that range from extremely flexible to highly restrictive. In the next section we provide an overview of the current inclusionary zoning policies on Oahu, and compare the characteristics of the Oahu housing market and the characteristics of the Kakaako Rule to those described in the literature. We use this comparison to draw implications about the likely success of the Kakaako Rule in the Oahu housing market.
5. OVERVIEW OF OAHU’S INCLUSIONARY ZONING POLICIES

The affordability of housing services in Hawai‘i has long been recognized by the public and the state legislature as a persistent problem. For example, in 1989 the legislature wrote at the very beginning of a bill regarding housing in Hawai‘i:

The legislature finds that there exists a critical shortage of safe, sanitary and affordable housing units in the State and that the legislature must quickly eliminate or reduce that critical shortage by using temporary, but courageous and novel legislation designed to rapidly increase the inventory of affordable housing units, and to do so in the most expeditious and economical way with a high degree of flexibility given to the developer in developing real property for affordable housing.1

With the intent of encouraging a “[rapid] increase [in] the inventory of affordable housing units, and to do so in the most expeditious and economical way,” the legislature implemented in that bill (SLH 1988 Act 15) a statewide inclusionary zoning policy. The legislature, therefore, regarded IZ as a solution to the growing need for affordable housing with a degree of immediacy and low cost that other solutions did not offer. In this section, we discuss the structure of the Kakaako and Honolulu County policies to date.

A. THE KAKAAKO COMMUNITY DEVELOPMENT DISTRICT

Implementation of IZ policy occurs at multiple levels of government. Some policies, like the 5-year program allowing exception to zoning rules and ordinances in SLH 1988 Act 15, are enacted as State law. Others, like the City and County of Honolulu’s rules regarding unilateral agreements, occur at the local government level. Still other instances of IZ policies relating to land use on Oahu are not in statutes or ordinances at all, but instead reside in the administrative rules of an agency like the Land Use Commission. A prime example of this last class of IZ rules existing outside of statutes and ordinances are the Hawai‘i Community Development Authority’s Kakaako Mauka area rules, which also happen to be the oldest and first instance of IZ policy in Hawai‘i.

In 1976, the Hawai‘i State Legislature established the Hawai‘i Community Development Authority (HCDA) with the passage of SLH 1976 Act 153. The law states that HCDA is intended to be “a public entity which shall determine community development programs and cooperate with private enterprise and the various components of federal, state, and county governments in bringing plans to fruition” (HRS 206E-1). Areas under the jurisdiction of HCDA are called community development districts, and must be specially designated by legislative action (HRS 206E-3).

The first community development district, established by the legislature in the same 1976 bill, was the Kakaako Community Development District (hereafter referred to as the “Kakaako district”). As part of the designation, the legislature noted the district’s relatively low state of development and proximity to the urban core gave it “potential for increased growth and development that can alleviate community needs such as low-income housing, parks and open space, and commercial and industrial facilities” (HRS 206E-31).

The current boundaries of the Kakaako district detailed in HRS 206E-32 are shown in Figure 8.

HCDA began operations in 1977 and focused first on drafting a comprehensive development plan with significant community input. After 5 years, on February 16, 1982, the Kakaako Community Development District Plan was approved by the Governor pursuant to HRS 206E-5(e). The
In 1976, the Hawaii State Legislature established the Hawaii Community Development Authority (HCDA) with the passage of SLH 1976 Act 153. The law states that HCDA is intended to be “a public entity which shall determine community development programs and cooperate with private enterprise and the various components of federal, state, and county governments in bringing plans to fruition” (HRS 206E-1). Areas under the jurisdiction of HCDA are called community development districts, and must be specially designated by legislative action (HRS 206E-5).

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The current boundaries of the Kakaako district detailed in HRS 206E-32 are shown in Figure 8.

**Figure 8: Kakaako Community Development District Map**

HCDA began operations in 1977 and focused first on drafting a comprehensive development plan with significant community input. After 5 years, on February 16, 1982, the Kakaako Community Development District Plan was approved by the plan included Hawaii’s first inclusionary zoning policy, which remains in force today.22

**B. KAKAAKO’S RESERVED HOUSING REQUIREMENT RULE**

HRS 206E-4(18) implicitly empowered HCDA with the ability to impose affordable housing requirements on any proposed development project in any jurisdiction under its control. The “[r]equirement of providing reserved housing units” requires every development that includes multi-family dwelling units on a lot of at least 20,000 square feet to provide at least 20 percent of the units for sale or rental to qualified persons.33 The requirement could be met by either building residential units for sale or rent at controlled prices as part of the project itself, by building controlled price units elsewhere in Kakaako, or by making cash payments to the Authority in lieu of providing the units.34 In return for providing reserved housing units, the builder would be permitted to build high rise multi-family residential structures (i.e. condominiums) that would otherwise be prohibited.

After July 1995, the “cash payments in lieu of providing such reserved housing units” were determined in the rules as a percentage of the expected gross revenues of the developer. The percentage was set using a sliding scale: the more reserved units in the project and the lower the expected average price of the non-reserved units in the project, the lower the percentage of gross revenues that had to be paid by the developer as cash payments in lieu. The formula used to determine the payment (A) is:

\[
A = 4.0\% \times [1 - (B/D/20\%)] \times C
\]

Where:

- **B** = number of reserved housing units provided
- **D** = total number of units
- **C** = gross revenue

Note that the bracketed term drops to zero when B/D is 20% and it is equal to one when B is zero. This is why the cash
payment in lieu ranges from 0% to a maximum of 4% of expected gross revenues.\(^{33}\)

Gross revenues are defined in the rules to include any receipts from selling non-reserved units and parking plus the capitalized value of net operating rent for rental space in the proposed development. The expected values of these gross revenues are determined by HCDA using estimates at the time of permit approval. Payment is made prior to issuance of the permit, which may then be “adjusted based on the actual average price of the development” at a later date.\(^{36}\) Cash fees collected in this way are placed in a revolving fund to be used by HCDA to contract to build or improve reserved housing in Kakaako.

The final component of the reserved housing policy is the definition of who the “qualified persons” eligible to purchase the reserved units are, and the price controls on the reserved units. The adjusted gross income (AGI) limits for qualifying households depends on whether the household is seeking to purchase (not to exceed 140% of median income) or rent (not to exceed 100% of median income).\(^{37}\) Moreover, the purchasing or renting applicant household cannot have more than 125% of the relevant AGI limit in assets, including gifts to assist in down payments. Pricing of the reserved units to be sold, after a maximum 10% down payment, are capped in a way that ensures the total costs of homeownership\(^{38}\) for the buyer does not exceed 33% of their gross monthly income. In a similar way, the total monthly rent plus expected water and electricity bills could not exceed 30% of a renter’s gross monthly income. These rent and qualification controls retain force from time of sale or rental for a minimum period of 15 years on any reserved unit.\(^{39}\)

While the 20% reserved housing requirement remains in the HCDA Kakaako plan, it is not always enforced in a consistent way. In April 1997, HCDA passed a temporary 12-month waiver of the affordable housing fees paid in lieu of providing qualifying units.\(^{40}\) This effectively suspended the IZ program to “facilitate redevelopment efforts by providing incentives that encourage timely new development activity.”

To qualify for the waiver, projects had to submit permit applications within 12 months of the waiver’s enactment and meet certain project timeline benchmarks.\(^{41}\)

The 1997 general waiver was not extended after it expired, but HCDA has given exemptions to specific projects since then. For example, 909 Kapiolani built by POSEC Hawai‘i was granted a full waiver from the reserved housing requirement.\(^{42}\) Since the reserved housing requirement administered by HCDA is part of the administrative rules passed by the authority and not encoded in any statute, its application is at the discretion of HCDA. This can be observed on Schedule A of the Mauka Area Rules, which states the amount of cash required as a cash payment in lieu of providing reserved housing units is a range from 0 to the maximum amount determined by the formula cited above. This implies that HCDA always reserves the right to reduce or eliminate the cash payment amount for any development project in its jurisdiction. While Schedule A is no longer applicable due to SLH 2009 Act 18’s prohibition of cash in lieu payments for HCDA’s reserved housing requirement, the variability remains: HCDA has the power to waive or reduce the number of units that must be provided on a project by project basis.

**C. 2009 SENATE BILL 1350**

During the 2009 session of the Hawai‘i Legislature, a bill was proposed and subsequently passed to raise the reserved housing requirement in the Kakaako district from 20% to 30%. The measure was vetoed by Governor Lingle because it would have extended the reserved housing requirement to commercial development projects and included questionable language. For example, the Governor notes that “the provisions of the bill appear to permit a development project to satisfy a reserve housing requirement outside of Kakaako,
but Section 3 of the bill eliminates the power of the Hawai‘i Community Development Authority to allow these outside developments.\textsuperscript{44}

SB1350 would have enlarged the types of projects required to provide reserved housing units because the current HCDA rules only require development projects that include multi-family dwelling units to provide reserved housing. Section 1 of the bill included the following table (Table 8) showing the revised requirements.

As noted by Governor Lingle’s veto message, this would impose reserved housing requirements on purely commercial development projects that do not exist under the current HCDA rules.

The other notable effect of SB1350 would have been to encode the HCDA reserved housing requirement directly into the statutes that empower HCDA. Section 3 of the bill would have changed the language in HRS 206E-4 enumerating HCDA’s powers to recognize legislative limits on what reserved housing requirements could be enforced. HRS 206E-4(18) would have been changed to read that HCDA could “[a]llow satisfaction of any affordable housing requirements imposed by law or the authority upon any proposed development project through the construction of reserved housing units.”\textsuperscript{45} Previously, there were no statutory restrictions (i.e. “by law”) on HCDA’s powers regarding affordable housing requirements.

Furthermore, Section 6 would have encoded minimum requirements for who reserved housing units in the Kakaako district could be sold to. Previously, the enabling language put the buyer qualifications at the discretion of HCDA: “‘Reserved housing’ means housing designated for residents in the low or moderate income ranges who meet such eligibility requirements as the authority may adopt by rule”(HRS 206E-101). SB1350 would have inserted a standard that said eligible buyers must earn not more than 140% of the area median income in addition to any eligibility requirements established by the authority.

While these policies would have put a stable set of policy standards in place for the Kakaako district’s reserved housing policy, it would have also taken away much of the flexibility of HCDA to respond to changing economic and market conditions. Moreover, as noted by the Governor, the bill would “place a de facto halt on the permitting of new projects in Kakaako until such time as the Hawai‘i Community Development Authority completes rulemaking actions that would be required to implement the provisions of this bill.”\textsuperscript{45}

D. HONOLULU COUNTY: OCTOBER 1994 DHCD RULES

Relevant to the discussion of Kakaako district reserved housing requirements are the affordable housing policies of the City and County of Honolulu. The policy is relevant because the City and County’s jurisdiction covers largely the same market and represents the next best alternative for both builders and buyers. While the Kakaako district is governed under the authority of HCDA and not the City and County of Honolulu (hereafter referred to as “the City”), the urban zoned land governed by the City is the closest substitute for developable land in Kakaako.

\begin{table}
\centering
\begin{tabular}{|c|c|c|}
\hline
\textbf{Land Area (square feet)} & \textbf{Residential Development (%)} & \textbf{Commercial Development (%)} \\
\hline
0 - 19,999 & 0 & 0 \\
20,000 - 79,999 & 20 & 10 \\
80,000 or more & 30 & 20 \\
\hline
\end{tabular}
\caption{SB1350 Reserved Housing Requirement for Kakaako mauka area}
\end{table}
Prior to 1998, the administration of inclusionary zoning policy for the City was done by the Department of Housing and Community Development (DHCD). In October 1994, that agency adopted Rules for the Terms of Unilateral Agreements Requiring Affordable Housing which allowed developers to satisfy a 30% affordable housing condition for permit approval by providing affordable rental or sale units either on- or off-site, by conveying developable land to the City, or by paying an in-lieu fee to the City. The policy required affordable units to be rented or sold to buyers earning no more than 120% of the HUD median income. One third of the affordable units (10% of the entire project) had to be rented or sold to those making no more than 80% of the HUD median income. Affordable rental units that were rented to either category had to be rented for a minimum of 10 years at controlled prices.

According to the rules, the for-sale affordable sale units had to be priced in a way that the monthly total costs of ownership did not exceed 33% of the purchaser’s gross monthly income. Affordable unit rental rates for those making less than 80% of the HUD median income could not exceed the Section 8 Fair Market Rents established by HUD. For those making above 80% of the HUD median income, the monthly rent could not exceed 30% of the renter’s gross monthly income.

Purchasers of the for-sale affordable units were subject to a 2 to 8 year buyback provision, under which the City reserved the right to buy the unit back if the purchaser wanted to sell it and move during that period; this restriction on transfer prevented the purchaser from reselling the unit on the open market for prevailing market prices. Similarly, affordable rental units could be sold 10 years after initial rental, but for an additional 10 years thereafter the City would have the right to buy the unit first. Thus, a rental unit could only be freely sold under the 1994 rules 20 years after the initial rental. Bonus considerations left unspecified were available to developers who maintained affordable rental units at affordable rents for more than 20 years.

In April 1998, DHCD was eliminated and the powers to negotiate unilateral agreements for developer permits moved to the Department of Planning and Permitting (DPP). “By 1999, this set of controls was clearly not working.” (SMS, 2005, p. i) and the City passed a two year temporary suspension of buyer qualification requirements and buyback provision. City Ordinance 01-33 extended this moratorium to August 5, 2005, but a subsequent effort by developers to obtain another extension to June 30, 2006 failed. Note that the price controls for affordable housing were not suspended by the moratorium in either 99-51 or in the extension ordinance 01-33. Therefore, units could be priced in a way that met the requirements to satisfy the City’s affordable housing rules and count as provision of an affordable unit, but could be sold to anyone (as long as they resided in the unit for at least one year). Since the expiration of 01-33, the original 1994 DHCD rules have been in place regarding applicant qualifications and transfer of affordable units.

E. DEFINING “SUCCESS” OF INCLUSIONARY ZONING

What does it mean for an IZ policy to be successful? If the policy is mandatory, any new development will result in additional affordable units in the market unless the development receives a waiver. The success of an IZ policy should be examined in light of its effects on the entire housing market in the jurisdiction of interest. For example, does imposition of the policy have any effect on the price and quantity of other (market-priced) housing units? As discussed in Section 3, if an IZ policy increases the number of affordable units at the expense of reduced development in the area and higher market prices, the policy may be unsustainable. This is because the long run market price of homes will depend on not only the restricted price of current “affordable units,” but on the over-
all stock of housing units. Furthermore, the affordable units revert to market-priced units at some point. Based on Figure 7, if the supply of housing units is restricted, the market price of homes will increase, all else equal. A truly successful IZ policy is one that increases the number of “affordable homes” available to the target population without having negative effects on the larger housing market in the area. These negative effects include increases in the market prices of housing units and/or decreases in the number of housing units.

The literature has much to offer regarding characteristics of markets where IZ has worked reasonably well to produce affordable units without significantly distorting the surrounding housing market, and characteristics of IZ policies that tend to perform better than otherwise. From the studies we reviewed, it appears that mandatory IZ policies in general lead to construction of more units of affordable housing than voluntary policies (NHC 2002, Minnesota 2002). By imposing additional costs, however, mandatory IZ policies can discourage overall development by reducing construction of new homes, therefore leading to higher overall home prices. In some areas, cash buyouts or in-lieu fees have proven successful in generating revenues to support low-income housing programs.

In other areas, such as California, Massachusetts, and Colorado, allowing construction of affordable units at offsite locations has helped meet critical regional housing needs. Successful IZ policies have included inducements to builders such as density bonuses, expedited permitting, financial assistance, and technical assistance (Schuetz et al. 2007). Exemptions, while not directly contributing to new affordable units, can be part of a successful IZ program if the policy is transparent and applied consistently. Finally, long duration requirements have helped successful programs maintain the stock of affordable homes by imposing restrictions on when homes can be resold (Brown 2001, Minnesota 2002).

Success of an IZ policy will also be determined in part by local housing conditions. Table 9 lists the policy, market, and land characteristics of past successful IZ programs in the U.S. and assesses these characteristics for Kakaako.

Previous successful IZ programs were in areas with high demand for affordable housing (Brunick 2003), located outside major cities (NHC 2002) where housing markets were “hot” i.e. prices were rising (Brown 2001, Brunick 2003), and in locations that were desirable for development (Brunick 2003).

Land availability has helped some IZ programs succeed. Rural land on the periphery of a growing metropolitan area or surplus land that becomes available enables more rapid development at lower overall cost. Rezoning of land from rural or agricultural to residential will also increase the value of that property, making it easier to provide affordable units than in a previously developed area where income is already being generated.

The Oahu housing market and the Kakaako IZ policy have some of the characteristics that the literature suggests are necessary to meet affordable housing needs through inclusionary zoning. We now turn to specific data regarding the provision of affordable housing units and report outcomes of the Kakaako and Honolulu inclusionary zoning policies to date.
Table 9. Policy, Market, and Land Characteristics of Successful IZ Programs

<table>
<thead>
<tr>
<th>Select Characteristics of Successful IZ Programs in the U.S.</th>
<th>Kakaako Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Mandatory</td>
<td>✓</td>
</tr>
<tr>
<td>Cash buyout</td>
<td></td>
</tr>
<tr>
<td>Off-site construction</td>
<td>✓</td>
</tr>
<tr>
<td>Density bonus</td>
<td>✓</td>
</tr>
<tr>
<td>Preferential permitting</td>
<td></td>
</tr>
<tr>
<td>Cost offset</td>
<td></td>
</tr>
<tr>
<td>Exemptions</td>
<td>✓</td>
</tr>
<tr>
<td>Transparent consistent exemptions</td>
<td></td>
</tr>
<tr>
<td>Long duration requirement</td>
<td></td>
</tr>
<tr>
<td>High demand for affordable housing</td>
<td>✓</td>
</tr>
<tr>
<td>Outside a large city</td>
<td></td>
</tr>
<tr>
<td>Hot market</td>
<td></td>
</tr>
<tr>
<td>Desirable location</td>
<td>✓</td>
</tr>
<tr>
<td>Rural land</td>
<td></td>
</tr>
<tr>
<td>Surplus land</td>
<td></td>
</tr>
</tbody>
</table>

Previous successful IZ programs were in areas with high demand for affordable housing (Brunick 2003), located outside major cities (NHC 2002) where housing markets were “hot” i.e. prices were rising (Brown 2001, Brunick 2003), and in locations that were desirable for development (Brunick 2003).

Land availability has helped some IZ programs succeed. Rural land on the periphery of a growing metropolitan area or surplus land that becomes available enables more rapid development at lower overall cost. Rezoning of land from rural or agricultural to residential will also increase the value of that property, making it easier to...
6. THE EFFECTS OF OAHU IZ ON AFFORDABLE HOUSING

We can use the data above and lessons from the extensive literature on inclusionary zoning to anticipate effects of policies like HB 2846 and HB 2849. Evidence from various types of housing markets and various forms of IZ policy suggest what is in store for Oahu.

The state bill referenced at the start of section II, SLH 1988 Act 15, created a statewide program that allowed the state’s Housing Finance and Development Corporation (HFDC) to enter into agreements with private developers “for the purpose of exempting the project from all statutes, ordinances, charter provisions, and rules of any governmental agency relating to zoning and construction standards for subdivisions, development, and improvement of land, and the construction, improvement, and sale of homes thereon.”

In short, essentially all governmental restrictions at all levels could be waived for one concession by the developer: “not less than sixty per cent of the units shall be sold in price ranges established by [HFDC].” Here, inclusionary zoning offered the lifting of bureaucratic red tape in return for provision of affordable units.

The program, which lasted for five years, resulted in agreements signed by HFDC with private builders for more than 16,000 units, at least 60% of which would have been affordable. Unfortunately, “the vast majority of these homes were not developed due to the sixty per cent affordable housing requirement that made many projects economically unfeasible.” Furthermore, according to HFDC, “less than 600 were actually constructed.”

A. KAKAAKO

As can be seen in Table 10, more than two-thirds of the reserved housing units provided in the Mauka Area of

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Sale Units</th>
<th>Rental Units</th>
<th>Senior Rentals</th>
<th>Public Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>1133 Waimanu</td>
<td>264</td>
<td>18</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>1226 Waimanu*</td>
<td>64</td>
<td>0</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>Honuakaha</td>
<td>93</td>
<td>0</td>
<td>151</td>
<td>HCDA</td>
</tr>
<tr>
<td>Kamakee Vista</td>
<td>0</td>
<td>227</td>
<td>0</td>
<td>HCDCH</td>
</tr>
<tr>
<td>Kauhale Kakaako</td>
<td>0</td>
<td>268</td>
<td>0</td>
<td>HCDCH</td>
</tr>
<tr>
<td>Keola Lai</td>
<td>63</td>
<td>0</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>Moana Vista*</td>
<td>124</td>
<td>0</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>Na Lei Hulu Kupuna</td>
<td>0</td>
<td>0</td>
<td>76</td>
<td>HCDA</td>
</tr>
<tr>
<td>Pohulani</td>
<td>0</td>
<td>0</td>
<td>263</td>
<td>HCDCH</td>
</tr>
<tr>
<td>Royal Capitol Plaza</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>636</strong></td>
<td><strong>513</strong></td>
<td><strong>490</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total (Actually Built)</strong></td>
<td><strong>448</strong></td>
<td><strong>513</strong></td>
<td><strong>490</strong></td>
<td></td>
</tr>
</tbody>
</table>

Kakaako are rental units rather than fee simple units for sale. Furthermore, Kamakee Vista, Pohulani, Na Lei Hulu Kupuna, Kauhale Kakaako, and Honuakaha were all developed at least in part by either HCDA or HCDCH; by public entities rather than private developers.

Many private sector projects do not appear on this list because they have no reserved housing units, although many of these projects did pay the in-lieu fee required at the time of development. Note that the 1133 Waimanu project in Table 10 “was developed by Waldron Ventures to satisfy the Hawai‘i Community Development Authority’s reserved housing requirement for the 404 Piikoi Street Project,” which has no reserved housing units. This is the Nauru Development entry in Table 11, which shows how many reserved units were actually included within the planned development condominiums by private developers. Only the two most recent projects actually provided most or all of the units required; all other prior projects either paid the in-lieu cash fee to buy out the requirement, built the reserved units off site, or received a complete waiver from HCDA.

The historic data suggests that the overwhelming majority of reserved housing in Kakaako (74.3%) has so far been built in public development projects. So far, it appears that the experience of the HCDA and the Kakaako inclusionary zoning policy have resulted in very little private developer driven reserved housing. Instead, developers have chosen to pay cash in-lieu and leave it to the public housing agencies to build (mainly rental) affordable housing. With the recent prohibition of cash in-lieu in Kakaako by SLH 2009 Act 18 and expressed interest of the State in exiting oversight of public affordable housing, it is unclear what the future of affordable housing in Kakaako will be.

Table 11: Private Planned Development Projects Subject to Kakaako Rules

<table>
<thead>
<tr>
<th>Permitted Year</th>
<th>Project Name</th>
<th>Condominiums Total Units</th>
<th>Market Units</th>
<th>20%</th>
<th>Provided</th>
<th>Cash in-lieu</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>One Waterfront Tower</td>
<td>307</td>
<td>307</td>
<td>62</td>
<td>0</td>
<td>$2,427,379</td>
</tr>
<tr>
<td>1984</td>
<td>Royal Capitol Plaza</td>
<td>297</td>
<td>269</td>
<td>59</td>
<td>28</td>
<td>$399,310</td>
</tr>
<tr>
<td>1984</td>
<td>Nauru Development</td>
<td>1373</td>
<td>1091</td>
<td>275</td>
<td>0</td>
<td>1133 Waimanu</td>
</tr>
<tr>
<td>1989</td>
<td>Imperial Plaza</td>
<td>221</td>
<td>221</td>
<td>44</td>
<td>0</td>
<td>$2,539,349</td>
</tr>
<tr>
<td>1995</td>
<td>One Archer Lane</td>
<td>331</td>
<td>331</td>
<td>66</td>
<td>0</td>
<td>$1,183,778</td>
</tr>
<tr>
<td>2002</td>
<td>Hokua</td>
<td>248</td>
<td>248</td>
<td>50</td>
<td>0</td>
<td>Waiver</td>
</tr>
<tr>
<td>2003</td>
<td>Moana Pacific</td>
<td>706</td>
<td>706</td>
<td>141</td>
<td>0</td>
<td>Waiver</td>
</tr>
<tr>
<td>2005</td>
<td>909 Kapiolani</td>
<td>227</td>
<td>227</td>
<td>45</td>
<td>0</td>
<td>Waiver</td>
</tr>
<tr>
<td>2005</td>
<td>Keola Lai</td>
<td>352</td>
<td>289</td>
<td>70</td>
<td>63</td>
<td>$1,194,560</td>
</tr>
<tr>
<td>2005</td>
<td>Moana Vista</td>
<td>520</td>
<td>396</td>
<td>104</td>
<td>124</td>
<td>$ -</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>4582</strong></td>
<td><strong>916</strong></td>
<td><strong>215</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. CITY AND COUNTY OF HONOLULU

The City’s Department of Planning and Permitting (DPP) has issued two studies regarding the effectiveness of the City’s inclusionary zoning policies in delivering affordable housing to targeted groups. The first study, issued in 2001, examined the effect of the buyer qualification and transfer/buyback rules moratorium implemented in Ordinance 99-51. The second study, transmitted to the City Council in 2005, reported on the effects of the extension of the moratorium from 2003 through August 2005.

We have been unable to determine the number of units sold under the DHCD 1994 rules from 1994 through 2001, but information provided by DPP make it possible to characterize the program’s outcomes from 1999 to 2005. DPP concluded in the first study in 2001 that “most of the buyers (of affordable housing units) fit within the target groups for the City’s Affordable Housing Program.” However, in the subsequent period from 2001 to 2005, DPP’s analysis of transaction level sales data including buyer income and family size showed that less than one-third of the buyers in any of those years were actually in the targeted affordable housing groups that would have qualified in the absence of a moratorium. We return to this point in the conclusion.

DPP determined “that when the buyer qualification restrictions were suspended, sales of affordable units were made to families who would not have qualified with the restrictions in place.” DPP further recommended that the moratorium be lifted and that buyer eligibility qualification provisions be reinstated on affordable units. According to the transaction level data, “Half of the households had incomes 20% higher than the maximum qualifying income for the unit they purchased, and one-fourth had incomes, almost 50% higher than the maximum.” In some cases, buyers of affordable homes were making several times the HUD median income; there is even a case of an affordable home buyer who was earning in excess of $500,000 in income. In short, the homes were priced to be affordable to those who could not afford market priced homes, but instead were mostly sold to those who could have afforded market priced homes anyway. Under the 01-03 extension, affordable homes were not going to the families the program was intended to help.

Median home prices in the Honolulu housing market provide insight as to why this was the case. According to DPP, “under the unique housing market conditions in 1999, market unit prices had moved so close to affordable housing unit prices that the additional restrictions on the affordable units made them less attractive than the market units for many prospective ‘qualified’ buyers.” This can be seen in Figure 5 presented earlier, which shows Honolulu median condo prices below the affordable mortgage since 1992. From the standpoint of a developer, selling a unit under the affordable home pricing and as market priced made little difference. But if any unit past the 30% minimum was designated as an affordable unit, it could be used as a credit to satisfy the affordable housing requirement for future projects.

<table>
<thead>
<tr>
<th>Table 12: Honolulu Affordable Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Total Affordable Units Provided</td>
</tr>
<tr>
<td>Number Affordable to 80% of Median Income</td>
</tr>
<tr>
<td>Number Affordable to 120% of Median Income</td>
</tr>
<tr>
<td>Share of Households With Qualifying Income</td>
</tr>
</tbody>
</table>

SOURCE: DPP (2005), TABLES 2 AND 5
However, market prices rose after 2002, and “[e]ven moderate-income families [were] priced out of the housing market.” Both qualified buyers and higher income buyers who may not have met the original income requirements turned to affordable housing as an attractive option. Since the moratorium lifted all buyer income restrictions, it allowed developers to sell affordable units to buyers of any income level. It is likely that sellers viewed buyers with higher incomes as less risky and easier to secure home loans for, and as a consequence were incentivized to seek them out even for affordable units that had to be sold.

According to DPP, no new projects since the expiration of 01-33 in August 2005 have required certification for provision of affordable housing because every single development has drawn down on affordable housing credits earned during the moratorium when market prices and affordable housing prices were near each other. Builders have discussed new projects because they are running low on banked affordable housing credits, but to date (November 2009) no new projects have been submitted for affordable housing review. Therefore, the City’s inclusionary zoning policy has provided no new affordable housing units since 2005, and delivered less than one-third of the affordable units between 2001 and 2005 to targeted families in need of affordable housing.

C. AFFORDABILITY UNDER CURRENT KAKAAKO AND SB 1350 RULES

On the supply side, it appears that neither the HCDA nor Honolulu’s IZ policies have delivered substantial numbers of affordable housing units (by their own programmatic definitions). We now turn to the demand side and examine how many households exist on Oahu that could qualify for reserved housing as defined in the HCDA rules. Table 13 shows the HCDA inclusionary zoning policies for affordable unit pricing and buyer eligibility.

Using data for HUD median income, median home prices in Honolulu from the Honolulu Board of Realtors, and income distribution data for homeowners and renters from the US Census Bureau; we are able to provide approximate measures of the relevant demand and affordability for the units provided by these programs. We present results using the policy parameters from the HCDA rules for Kakaako’s Mauka area rules, which would have remained constant through the present even if SB 1350 had entered into law.

---

Table 13: Kakaako Affordable Unit Pricing and Buyer Eligibility Standards

<table>
<thead>
<tr>
<th></th>
<th>HCDA Mauka Rules</th>
<th>SB 1350</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Max. Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buyer</td>
<td>140% of Median</td>
<td>140% of Median</td>
</tr>
<tr>
<td>Renter</td>
<td>100% of Median</td>
<td>100% of Median</td>
</tr>
<tr>
<td><strong>Max. Owner Monthly Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buyer</td>
<td>33% of Gross Inc.</td>
<td>33% of Gross Inc.</td>
</tr>
<tr>
<td>Renter</td>
<td>30% of Gross Inc.</td>
<td>30% of Gross Inc.</td>
</tr>
<tr>
<td><strong>Min. Years of Affordability</strong></td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>
Figure 9 shows maximum affordable mortgages for four Honolulu income groups from 1990 to 2009 and median prices of single-family homes and condominiums, revealing that the affordability problem in the state is cyclical. From 1990 to 1995, at the end of the last Oahu housing cycle, single-family homes remained out of reach of households earning 140% of HUD income. Yet from 1996 to 2003 households in the 120-140% bracket could afford the median priced home, and all gap income households could afford a median priced condo from 1996 through 2005. From 1992 to 2008, all income groups except the 80% group could afford the median priced condo. Finally, the recent peak in unaffordability occurred in 2007, and the expected decline in Oahu home prices is expected to bring single-family homes within reach of the top gap housing group and condos within reach of all gap housing income levels.

**Figure 9: Honolulu Maximum Affordable Mortgage by Income Group, 1990-2009**

![Graph showing Honolulu maximum affordable mortgage by income group from 1990 to 2009.](image)

NOTE: 2009 DATA ARE UHERO FORECASTS.
SOURCE: UHERO
Across the U.S., a variety of policies, programs, and initiatives have been implemented to augment affordable housing supplies and increase home ownership among low- and moderate-income households. Listed below are some of the policies that have the potential to increase housing affordability in the Honolulu market. We cannot say how these alternatives would work in Hawai‘i because at the time this study was completed the demand for housing at various income levels was unknown; however, these alternatives have been used with success in other places. The alternative policies are grouped under the following objectives: A) maintain existing supplies, B) maintain existing home ownership, C) increase land availability, D) reduce conflicting policies and restrictions, and E) leverage resources and programs.

A. MAINTAIN SUPPLY OF EXISTING AFFORDABLE HOMES

Maintaining and restoring affordable rentals is a strategy that has been shown to work. In New York, NY, a group of 80 banks and insurance companies sponsor a nonprofit organization that administers low cost loans for construction and rehabilitation of multifamily homes. In 30 years, the organization has provided financing and technical assistance for more than 100,000 units (Lubell, 2006).

Providing increased flexibility by way of building, permitting, and restoration codes is another strategy to help maintain an existing supply of affordable homes. Building codes can be revised to facilitate private investment in restoration. The state of New Jersey revised requirements to allow older homes to be updated to meet codes at lower cost. In this way, many new rehabilitation projects were undertaken and millions of dollars were saved (Lubell, 2006).

Creative financing and tax incentive strategies have also been used to maintain the supply of existing affordable homes. Jurisdictions can implement tax abatement financing to encourage owners to invest in restoration of existing rentals by reducing or freezing the assessed value on which the property is taxed. In Portland, Oregon, tax abatement financing can be applied to developments near public transportation, rehabilitation of homes for rent, rehabilitation of owner-occupied homes, and construction of affordable not-for-profit rental homes. And in Chicago, Illinois, older rental homes may qualify for reduced property taxes (Lubell, 2006).

B. MAINTAIN EXISTING OWNERSHIP OF AFFORDABLE HOMES

An important part of affordable housing initiatives is encouraging families to responsibly maintain budgets to stay in their homes after they purchase them, or discouraging them from purchases they cannot afford. Offering financial education and counseling, especially to first-time homebuyers, is an important component of a successful affordable housing solution. The state of Montana created a network that educated 10,000 families and 3,000 homebuyers in 200 communities in just 8 years. In Chicago, Illinois, counseling, telephone hotline, credit counseling services, a faith-based outreach, and workshops helped borrowers avoid foreclosure. In the first three years, 1,300 families who received assistance were able to avoid foreclosure. An estimated $86 million has been saved in city services and fees and costs to financial institutions (Lubell, 2006).

C. INCREASE LAND AVAILABILITY FOR AFFORDABLE HOME CONSTRUCTION

Increasing land availability has the effect of lowering costs to builders, increasing potential profit margins and thus potentially driving down housing prices (all else equal). This strategy has been shown to work in many diverse jurisdictions. In Woodinville, Washington, land that had originally
been purchased for a solid waste transfer station had become surplus property. King County acquired the parcel and built 170 affordable houses and rentals for low- to middle-income families. In Camarillo, California, land that had been part of a state mental hospital was acquired and used to build affordable homes for university faculty and staff at Cal State Channel Islands. An old elementary school in Rossville, Georgia, was converted to affordable homes for seniors, and in Denver, Colorado, airport property was acquired for a mixed-use development with 10% set aside for affordable homes for working families (Lubell, 2006).

Modifications to zoning restrictions can also increase availability of sites on which to build affordable housing. In Fairfax County, VA, an area near the site of a planned mass transit stop was rezoned high density. Sixty-five homes and a five acre parking lot will be replaced by 2,000 condominium units and a half million square feet of office and retail space. The redevelopment will provide approximately 100 affordable homes. Vacant waterfront in Brooklyn was rezoned residential and will be the site of 10,000 new homes, open space, and public parks. The redevelopment will include approximately 3,500 affordable homes (Lubell, 2006).

Relaxing housing restrictions by allowing for different types of housing has also been shown to work. In Cambridge, Massachusetts, a Massachusetts Institute of Technology development included 137 mixed-income homes comprising flats, duplexes, and three bedroom homes. Oakland, California, is using manufactured housing in an infill development to supply working families with affordable homes, and Santa Rosa, California, and Mercer Island, Washington, are using accessory dwelling units to help meet affordable housing demands.

**D. RECOGNIZE AND ELIMINATE CONFLICTING POLICIES AND PROGRAMS**

Streamlining the review and permitting processes to expedite construction of affordable housing is a strategy that has worked elsewhere and has significant potential to help in Hawai‘i. In Austin, Texas, expedited reviews and fee waivers were offered for projects meeting program standards for affordable homes. The State of Massachusetts also provided a streamlined approval process for developments that include affordable homes.

Re-examining fee structures such as impact fees can alleviate the burden on developers and increases their incentive to provide housing units. In Albuquerque, New Mexico, Lincoln, Nebraska, and Martin County, Florida, impact fees were waived for low- to moderate-income level housing, and in Phoenix, Arizona, impact fees were waived or reduced (Lubell, 2006).

It is plausible that reducing the regulatory burden on developers could reduce home prices on Oahu or at least slow their rate of growth. Malpezzi (1996) found that a large increase in the regulatory burden of a city acts to reduce housing construction by 42 percent, increases home prices by 51 percent, and reduces homeownership rates by about 10 percent. If policy makers were to reduce the regulatory burden on developers even modestly, then the supply of housing will respond more rapidly to increased demand and allow for a slowing of the appreciation of existing housing. Even a modest increase in the number of condos developed and a modest slowing of the growth of condo prices over the next decade would put them in reach of most gap-income households. If policy makers “are interested in reducing housing costs, they would do well to start with zoning reform. Building small numbers of subsidized housing units is likely to have a trivial impact on average housing prices (given any reasonable demand elasticity), even if well targeted towards deserving
poor households. However, reducing the implied zoning tax on new construction could well have a massive impact on housing prices.” (Glaeser and Gyourko, 2002 p. 21)

**E. RECOGNIZE AND LEVERAGE INTEREST-COMPATIBLE POLICIES AND PROGRAMS**

Working with, supporting, and providing resources for grass root organizations and non-profits such as Habitat for Humanity has worked to increase affordable housing around the country. This has the potential to work in Hawai‘i as well. The Honolulu Habitat for Humanity is a nonprofit affiliate of the Habitat for Humanity International (HFHI). Homes are built using volunteer labor and donated materials and sold to buyers for no profit with zero-interest 20-year mortgages. As a condition of the purchase, the homebuyer must help with construction of the home. Between 1988 and 2008, Honolulu Habitat for Humanity completed 63 homes with two additional planned in 2009 and at least four more scheduled for 2010 (Honolulu Habitat for Humanity, 2010).

Fostering relationships between the housing authority and local businesses has proven to be a win-win strategy in cities such as Rochester, Minnesota. Rising home prices prompted the Mayo Clinic to pledge $7 million for affordable homes within the region. Funds were combined with contributions from other employers, donations from local foundations, and state housing monies and financing. The effort resulted in 800 new affordable homes. In the state of Illinois, employers are entitled to a 50% tax credit on investments in affordable housing for workers (Labell, 2006).

Because high housing costs make it difficult for business to attract and retain workers, getting local businesses involved in the challenge to provide affordable housing is a key part of the solution. Examples of this are plentiful. In San Diego, California, the Chamber of Commerce formed a 34 member housing committee to report on key issues and develop a set of recommendations for presentation to the mayor, and in Chapel Hill-Carrboro, North Carolina, the Chamber created a housing council composed of a broad spectrum of stakeholders. In addition to regular meetings, the council started a website to provide information on the local housing market. In San Francisco, California, the Chamber listed “workforce housing and land use” as a top priority, supported measures aimed at increasing affordable housing, conducted a survey of renters, and holds stakeholder meetings to garner information and feedback on policy proposals, and in Sarasota County, Florida, the Chamber initiated an advisory group to provide county commissioners with recommendations on ways to address affordable housing issues. In San Jose, California, the Silicon Valley Leadership Group formed a coalition group with outreach and education activities and organized a speaker’s bureau made up of prominent business leaders who are available to speak at community function about affordable housing issues. In the District of Columbia, the city invites input from housing groups and local businesses on projects targeted at neighborhood development and middle income housing, and in Omaha, Nebraska, housing groups and local businesses joined forces to support a development with open space, and light industry, and affordable housing (Joint Center for Housing Studies, 2004).

Creative financing schemes and use of taxes and subsidies has also increased affordable options in diverse jurisdictions. In Tucson, Arizona, borrowers can receive down payment assistance with silent second mortgages at zero interest if the family lives in the home for 20 years and 2% interest if less than 20 years. Within 12 years, $4 million in funds had been repaid and recycled to other homebuyers. In the state of Arizona, unclaimed property revenues are being used to fund a housing trust which to date has yielded $20 million per year for affordable housing including set asides for housing on rural and tribal lands. The state of Montana set aside funds totaling $65 million for first and second mortgages and $0.5 million in federal funds for down payment...
assistance. In North Bethesda, Maryland, rents on affordable townhouses are subsidized by a combination of exactions on market priced homes, reduced land costs, tax-exempt financing, property tax exemptions, and an additional state contribution. In Milwaukee, Wisconsin, the 4% low-income housing tax credit was combined with historic tax credits, federal funds, and state financing to renovate a 100-year-old landmark building into affordable apartments (Lubell, 2006). The local government of Escondido, California acquired state financing in the form of low interest loans for the acquisition and rehabilitation of affordable rental apartments, and the state of California recently initiated a short-term loan program to help defray site acquisition and pre-development costs for new homes at infill sites. In New York, land was acquired to preserve and build thousands of affordable homes using a combination of city funds, loan guarantees, and private financing. In Alachua County, Florida, funds were set aside in the form of forgivable second mortgages to cover impact fees costs for below-median income households.

Housing bonds are another popular tool used to increase supply. In the state of California, voters passed $4 billion in bonds for affordable housing programs and activities. Within the first few years, funds were used to preserve nearly 100,000 affordable homes, rentals, and shelters. In Phoenix, Arizona, voters passed $30 million in bonds to develop affordable rental homes. In Miami-Dade County, Florida, voters passed a general obligation bond from which nearly $200 million will be made available for affordable homes. And in New York, a reserve funding was directed toward preserving and developing 165,000 affordable homes (Lubell, 2006).

F. DEMAND-SIDE POLICIES

It is important to note that the majority of the policies described above are supply side policies, that is, they act to increase the supply of housing. Yet in a well-functioning housing market, it is unclear that supply is the problem. As discussed above, a reduction in the regulatory burden could put median priced condos well within reach of the gap-income group. But as is clear from the above analysis, the typical renter does not have sufficient income to qualify to purchase median priced condos with or without regulatory reform. While the purpose of this study was not to evaluate the affordability of rentals and the affordability problem facing the less than gap-income population, we believe that this is where the true affordability problem exists. Once we have adopted a more flexible regulatory environment that facilitates building housing, the problem of affordability is one of low income. Even eliminating all regulatory barriers would not end the affordability problem for low-income renters. Instead, Feldman (2002, p. 16) argues “policymakers should respond to the high housing cost-to-income ratios by facilitating the ability of low-income households to acquire non-housing necessities like food and medicine.” The idea is that society cares about the high housing cost-to-income ratio primarily because it prevents low-income households from purchasing other necessities such as adequate food and clothing. And, providing cash or cash-like subsidies to help low-income households acquire basic necessities crowded out by high housing costs is the most cost-effective way of dealing with the affordability problem. “If policymakers provide subsidies that can be used only in the housing market, then they must address the fact that building new housing units appears to be a relatively expensive method of providing low-cost housing compared to the alternatives.” (Feldman, 2002 p 16.)
8. CONCLUSION

To assist the gap income groups with housing and homeownership, inclusionary zoning was implemented on Oahu requiring new developments to provide below-market priced units. What have been the implications of Oahu’s inclusionary zoning policies? Using the best available data on population, housing and income, and findings from several decades of inclusionary zoning across the U.S. we arrive at the following conclusions.

1. Inclusionary Zoning policies have failed in other jurisdictions, and are failing on Oahu. IZ reduces the number of “affordable” housing units and raises prices and reduces the quantity of “market-priced” housing units.
   - Requiring developers to sell housing units at below-market rates reduces their revenues. Lowering the incentives for developers to produce housing will deter them from starting new projects, all else equal.
   - A comprehensive literature review of IZ policy studies from around the U.S. overwhelmingly indicates IZ policies have undesirable long-term effects. Approximately 90% of the policy studies found that IZ increases the market price of housing and decreases housing units available in the market.
   - A five year State program authorized by SLH 1988 Act 15 resulted in agreements to build 16,000 housing units, a percentage of which would be affordable. To date less than 600 total units of any kind have actually been built under those agreements.
   - Rules governing development in Kakaako dating from the 1980s were intended to increase affordable housing availability. More than 20 years later, only 1,451 affordable (predominantly rental) units have been built in Kakaako.

2. There is no affordable housing crisis in the “gap” income groups earning between 80 and 140 percent of household median income.
   - The UHERO affordable mortgage indicates that condominiums have been affordable for households with the nominal Honolulu median income since 1993.
   - The affordability problem in the state is cyclical. From 1990 to 1995, at the end of the last Oahu housing cycle, single-family homes remained out of reach of households earning 140% of HUD income. Yet from 1996 to 2003, households in the 120-140% bracket could afford the median priced home, and all gap income households could afford a median priced condo from 1996 through 2005. From 1992 to 2008, all income groups except the 80% group could afford the median priced condo.
   - The recent peak in unaffordability occurred in 2007 at the height of the last housing cycle, but the declining price of Oahu homes has once again brought single-family homes within reach of the top gap

• Affordable units under an IZ policy begun by the City and County of Honolulu in 1994 were originally intended for “gap” income group buyers. To encourage participation, the City lifted buyer income and resale restrictions in 1999. According to a review by the City, from 2001 to 2005 more than 66% of the designated affordable homes were sold to buyers earning more than the gap income group range. Since the restrictions were put back in place in 2005, no new projects have been submitted for affordable housing review under the City and County.
housing group and condos within reach of all gap
housing income levels.

3. Kakaako IZ policies endanger project viability by squeez-
ing profit margins, especially under proposed HB 2846
and HB 2849.

- The economic implications of IZ policy can be
illustrated using revenue and cost data from an
actual condominium project in Kakaako that began
construction in late 2006. With no reserved housing,
the 33.1% expected profit margin for a Honolulu
developer in 2007 would have been very near the
35-40% rule of thumb level of profitability expected
by financial backers of such developments.

- However, when the reserved housing requirement is
added, one eighth of the pre-financing profit margin
goes to cover the IZ tax.

- To examine what happens outside of a booming
economy, we repeat the exercise using 2009 prices
and costs. Costs increased from 2007 to 2009, and
the cooling of the housing market reduced revenue
from market rate units. The combination of higher
costs and lower revenues drops the profitability of
even a best-case scenario, with no reserved hous-
ing, below 20%. When we add the existing afford-
able housing requirement, one eighth of the profit
disappears again, driving the project further from
viability.

- Finally, we repeat the exercise using the proposed
rules in two pending pieces of legislation, HB 2846
and HB 2849. Under both of the proposed bills, our
best-case scenario profit margins fall below 15%.
In short, a new condominium project similar to this
would never be able to obtain financing and be built
under either proposed bill.

4. Eliminating inclusionary zoning and easing development
regulations will result in more housing units and lower
housing prices.

- Reducing or eliminating overly burdensome regula-
tion on development, including inclusionary zoning,
will increase affordability of housing for two reasons.

- First, it will encourage building, increasing the over-
all stock of housing, which will help hold down the
market price of housing.

- Second, removing IZ will allow for the natural
“filtering” process to occur unheeded, with newer
units going to higher income households and older
units being increasingly occupied by lower income
households as their values depreciate.

In summary, inclusionary zoning has not worked in a
number of jurisdictions around the U.S., and is not currently
working on Oahu. Overall, inclusionary zoning policies re-
duce the number of “affordable” housing units, while raising
prices and reducing the number of “market-priced” hous-
ing units. We found no evidence of an affordable housing
problem for Oahu’s “gap” income group earning between 80
and 140 percent of household median income. Eliminating
inclusionary zoning and easing development regulations will
result in more housing units and lower housing prices.
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Hawai'i Community Development Authority, Review of the Fifth Year: July 1, 1981 to June 30, 1982, Honolulu, 1982.


ENDNOTES

1These metrics are available on our website at http://uhero.prognoz.com/

2The census estimates for July 1, 2008 show Honolulu at 70.3% of Statewide resident population.

3Includes movers within the same county, total immigrants, and movers from abroad.

4Includes movers from other counties in Hawai'i but excludes movers within the same county.

5However, the study notes that military households on Oahu in the private sector are “almost exclusively in the rental market.”

6In the 2000 census, average Honolulu household size was 2.91. The four most recent years of the American Community Survey indicate average household sizes of 2.91, 2.93, 2.88, and 2.90. Variations in the ACS estimates are not statistically significant (e.g. 2008 margin of error was 0.03), suggesting no change over those four years.

7A “crowded” household is one where there is more than 1 person per room in the housing unit. This table is available at http://www.census.gov/hhes/www/housing/census/historic/crowding.html

8US Census Bureau, 2008 American Community Survey 1-Year Estimates, Table C25014

9See, for example, Vorsino (2005).

10US Census Bureau, 2008 American Community Survey 1-Year Estimates, Table B11017 – note that no county level version was available for Honolulu for this table.

11The “Maryland law” was passed in 1967, but was not actually applied until 1975. See Cooper and Daws (1990), Chapter 13: The Maryland Law. In particular, p. 412: “The 1967 law came into effect without Burns’ signature. And even then it was not implemented by Democratic state administrations until after several legislative acts in 1975.”

12See, for example, Cooper and Daws (1990), Chapter 3: The Land Use Commission. “On balance, the LUC came off looking like what it was: an enormously powerful government agency, though one whose discretionary leeway was trimmed somewhat by the 1975 amendments to the Land Use Law.” (p. 123)


14See “Historical Census of Housing Tables – Vacation Homes,” available at http://www.census.gov/hhes/www/housing/census/historic/vacation.html. It is possible for a housing unit to be for sale but vacant because it is not the owner’s primary residence.

15In 2008, American Community Survey Table H5 Vacant housing units shows 34,416 total vacant units, but only 5,718 (For rent) + 3,799 (For sale only) + 3,075 (Rented, not occupied) = 12,592 in the active housing services market. That means 34,316 – 12,592 = 21,724 units were not available to anyone seeking housing services in 2008. The same value in Census 2000 was 29,538 – 16,465 = 13,073. Thus the growth in number of existing units not actually part of the housing market for some reason between 2000 and 2008 is 21,724 – 13,073 = 8,651.

16Census 2000 Summary File 1 (SF 1) 100-Percent Data, Table H5 and US Census Bureau, 2008 American Community Survey 1-Year Estimates, Table B25004.

17Schofield and Brown-Graham (2004, p. 4) note that affordable housing provided by traditional programs usually produce housing units that are kept separate from market-rate housing developments. “Often [traditional programs’ affordable] housing is located at the city center or along the urban fringe, where land is cheaper but far less accessible to community resources.”

18HCDA’s Moana Vista page at http://hcdaweb.org/what-s-new/moana-pacific-under-construction reported 552,000 square feet of multi-family residential, 5,500 square
feet of commercial, and 22,000 square feet of industrial space. No mention was made of parking availability; we assumed 1 stall per residential unit and 8 stall/guest stalls at 325 square feet per stall. Sources have reported that the developer was to provide between 100 and 200 parking stalls to accompany the affordable units, but no precise number was given. Since the project was never completed, an observable ex post number of parking stalls is unavailable.

Quarterly Construction Cost Reports are available online from Rider Levett Bucknall at http://www.americas.rlb.com/cost-research_quarterly.html. For this analysis, we used the second quarter 2009 data for present value and an average of the four quarterly reports in 2007 to proxy for construction costs faced by the developer of Moana Vista. We assume raw construction costs constitute 60% of the overall project costs; the other 40% includes financing, marketing, planning, and design.

HB 2846 and HB 2849 would both place additional reserved housing requirements above and beyond what already exist in the HCDA rules. These bills introduce higher requirements that take the square footage of the project and require a percentage of that total be used for reserved housing. Our estimates under these two proposals are based on the floorplan data of the original Moana Vista project rather than the revised Pacifica project’s floorplan data.

Regular Document No. 2008-105520 at the State Bureau of Conveyances indicated that $45,000 of conveyance tax was paid when title was conveyed from Evershine X to KC Rainbow II for the land at the Moana Vista site. Since the conveyance tax rate is 30 cents per $100 of purchase price, the purchase price must have been $15,000,000. The land value used in Table 5 for 2009 is inflation adjusted using the UHERO forecasted Honolulu CPI.

Reserved housing units were selected based on the prices used by the developer; the lowest priced units were selected first for use as reserved housing units subject to price controls. This assumption will maximize the possible revenue raised, even if it is not necessarily what a developer would do (e.g. they may prefer to separate the affordable housing onto their own floors away from the market rate units).

In June 2009, more than two years after construction began and following major price decreases, almost one in every seven units in the actual Moana Vista condominium remained unsold. This is based on the developer’s price list from June 21, 2009.

Reserved Housing was assumed to target the lowest income group (80% of HUD median income) with only 10% of the reserved units. 20% were assumed to target the highest group (140% of HUD median income).

The computed prices account for the homeowner property tax exemption and assume low monthly maintenance fees ($500 in 2007, $700 in 2009). These increase the amount of income available and therefore increase the maximum allowable condo prices.

According to Paul Fried, Principal of AFC Realty Capital, “[w]e also look for projected profit margins of at least 35 to 40%, before we begin analyzing the developer’s projected construction costs.” See “Experts discuss concerns in condo development finance,” Real Estate Weekly, February 1, 2006 available at http://www.thefreelibrary.com/Experts+discuss+concerns+in+condo+development+finance.a0142207151.


According to a letter from Hawaiian Dredging to KC Rainbow II dated November 2, 2007 entered into evidence for 1st Circuit Court case 1CC09-1-000914, the contracted costs
of building the tower of Moana Vista from the ground floor to the 6th floor was “not to exceed $11,877,929.” Included in the document is a detailed line item cost estimation. Extrapolating the costs to all 46 floors imply the costs of the tower alone would have been around $96 million, which is relatively close to our estimate using RLB cost data in 2007. A statement by Hawaiian Dredging published September 26, 2009 in the Honolulu Star-Bulletin (available online at http://www.starbulletin.com/business/20090926_Private_sale_talks_delay_Moana_Vista_auction.html) said “it would take from $126.5 million to $131.5 million to complete Moana Vista if work were to begin in December.” Again, their estimate of remaining work corresponds well with our 2009 estimated total costs (minus already completed work).

Conversion of Square Footage requirements in the legislative proposals are done using the original Moana Vista floor plans and indicate the minimum number of units to meet the requirement.

The Moana Vista project was sold to a San Diego-based developer to avoid foreclosure. The resulting decrease in the cost basis of the project (the original developer absorbed the losses) probably contributed to the new viability of the project. See, for example, Janis L. Magin, “Pacifica, formerly Moana Vista, set to restart sales,” Pacific Business News, December 22, 2009 available at http://pacific.bizjournals.com/pacific/stories/2009/12/21/daily15.html.

SLH 1988 Act 15, Section 1

The most current publicly accessible copy of this policy is an unofficial compilation from June 2005 posted by HCDA. HCDA (2005) is available at http://hcdaweb.org/kakaako/plans-rules/. The relevant sections are subchapters 4 (Planned Developments) and 7 (Sale and Rental of Reserved Housing Units).

See HCDA (2005), Chapter 22, Subchapter 4, Section 15-22-115(a).

See HCDA (2005), Chapter 22, Subchapter 4, Section 15-22-115(c). Note that SLH 2009 Act 18 modified the authorization in HRS 206E-4 under which HCDA was allowed to impose inclusionary zoning; cash payment in lieu of providing reserved housing units is now largely prohibited by statute.

A detailed schedule of percentages is given in Schedule A of HCDA (2005). If 20% or more units were reserved, the schedule indicates “no cash is required.” Interestingly, there is another equation provided for use when the average unit price in a proposed development is lower than 180% of median income. Since Honolulu median condominium prices are much higher than median income (currently more than 3.5 times as large), no projects make use of these lower price range equation.

See Tune (1999) for an example of this clause in action. HCDA refunded $770,462 plus accrued interest to the developer of One Archer Lane after prices on units were lowered 10% the year before. “The refund covers only part of the fees paid. The authority retains $1.36 million in affordable housing fees . . . The fee schedule was changed in 1995 to encourage development in the slow Hawai‘i economy. Myers paid $2.13 million based on original sales prices.”

HCDA (2005), Chapter 22, Subchapter 7 Section 15-22-184(a)(1).

Includes principal and interest of mortgages, real property taxes, insurance, and condominium association fees.


HCDA (1997), p. 5. Projects smaller than 200,000 square feet had to start construction no later than 18 months after approval; they also had to complete construction no later than 2 years from that start date. For projects larger than 200,000 square feet, the respective start and completion targets were 2 years after approval and 4 years after construction start date.

See the 909 Kapiolani project page on the HCDA site available at http://hcdaweb.org/kakaako/projects/private-sector-projects/909-kapiolani/ : “On January 5, 2005, HCDA members approved revisions to POSEC Hawai‘i’s request...
for modifications of the Rules relating to yard, view corridor, height, open space and loading. The Authority also approved the joint development of the Project site with the adjacent Musicians’ Association building, as well as the waiver of the reserved housing cash-in-lieu fee.”

41Governor’s Message No. 812, July 13, 2009 available at http://www.capitol.Hawai‘i.gov/session2009/bills/GM812_.PDF. Section 1 states that HCDA would be able to count fractions of eligible units constructed outside of the jurisdiction controlled by HCDA, but Section 3 removed language that had explicitly allowed this practice. It is unclear if the legislature believed such powers were already implied in the authorization to administer reserved housing requirements in the first place.

42This is also where language that had previously enabled HCDA to give reserved housing credits for reserved housing developed outside HCDA’s jurisdiction was stricken.

43Governor’s Message No. 812, July 13, 2009.


45DHCD (1994), Chapter 2, Sections 2-4(a) and 2-7(b).

46DHCD (1994), Chapter 2, Sections 2-11(a) and 2-11(d).

47DHCD (1994), Chapter 5, Section 5-3. The restriction was 8 years for purchasers making 80% or less than HUD median income, 4 years for those making 81% to 120% of HUD median income, and 2 years for those making 120% or more of HUD median income. Oddly, nobody making above 120% would qualify to be a purchaser in the first place, so the last 2 year restriction seems to apply only to those making exactly 120% of the median HUD income.

48DHCD (1994), Chapter 2, Sections 2-8(b) and 2-8(d).

49DHCD (1994), Chapter 2, Sections 2-4(a) and 2-4(d) only says that “[t]o the maximum extent possible, the affordable units shall be constructed and delivered simultaneously with the market units.” In a sense, this “improves” on 2-4(d) by delivering the affordable units first.

50SLH 1988 Act 15, Section 6(c).

51SLH 1988 Act 15, Section 6(b)(1).

52SLH 2005 Act 198, Section 1. We note that this is a statewide policy, and not limited to Honolulu.

53We do not have a copy of the 2001 report, and DPP was unable to provide a copy of it. The report is City and County of Honolulu, Department of Planning and Permitting, “A Report on the Implementation of Ordinance 99-51,” Honolulu, February 6, 2001.

54We were able to obtain a copy of the 2005 report from the City Clerk’s office (DPP, 2005). Additional information was provided via phone conversation with Eugene Takahashi at DPP on November 23, 2009.

55DPP (2005), p. 3


57Per conversation with Eugene Takahashi at DPP, November 23, 2009.

58DHCD (1994) Chapter 2, Section 2-8(d) does not specify a time on when a unit built off-site to satisfy the requirement for a project has to be built. Section 2-4(d) only says that “[t]o the maximum extent possible, the affordable units shall be constructed and delivered simultaneously with the market units.” In a sense, this “improves” on 2-4(d) by delivering the affordable units first.

59SLH 2005 Act 196, Section 1

60Per conversation with Eugene Takahashi at DPP, November 23, 2009. Also, builders may have a new avenue of obtaining credits to replenish their stores through purchase of Department of Hawaiian Home Lands (DHHL) credits authorized by SLH 2009 Act 141. To date, no builder has yet
attempted to claim the new DHHL credits to satisfy the Honolulu affordable housing requirement.

61 A new home constructed at a factory location and then reassembled on site.

62 Typically a small private unit inside or adjacent to a single family home.

63 A second loan used to supplement the primary mortgage that need not be repaid until the home is sold or refinanced.

64 Such as inactive bank accounts, bank deposits, lay-away fees, unclaimed refunds from lenders, insurance companies and commercial retail operations.

65 An empty lot or a space between buildings in a developed urban area.

66 A loan with no repayment obligation if program requirements are met.