

## Affordability by Occupation

The following statistical analysis contains a unique approach to measuring housing affordability for various geographic areas. Traditionally, an affordability analysis is done by income for individuals, families or households. This approach not only puts an individual's face to a recognizable occupation, but focuses on a particular area.

The Bureau of Labor Statistics also provides detailed information by occupation and geographic areas, which breaks the occupations (jobs) into 5 different income strata's by percentile that the general public can easily understand.

Those in the lowest percentile group are typically new to the industry and do not have the same skill level as the highest percentile group who are typically the most seasoned and skilled workers. It is intuitive that the pay for the same job would vary with tenure, experience and skill. While age information is not contained herein, it is logical to assume the youngest workers are paid the least and the oldest workers are paid the most.

In addition, the fact that 77% of the homeowners in Honolulu are over the age of 52 emphasizes the employment crisis that Honolulu is about to face with baby boomers soon retiring. This is especially critical for essential personnel including skilled, degreed and advanced degreed occupations. The first of the baby boomers are now eligible for Social Security and are retiring. Combine this with the fact that most of these people have owned their home for some time and have accumulated a tremendous amount of wealth; they may start relocating in large numbers. This, in turn, creates demand to replace the existing worker with a new worker. The very real challenge is these new workers cannot afford to purchase the retiree's home. In fact, it is almost impossible to afford a median home or condominium at all. Housing prices have sky-rocketed over 103%, while annual income averages have increased by a mere 20-25% over the last 8 years.

There is a very high correlation between occupation, education, skill and home ownership. It is unreasonable to expect this segment (essential personnel, skilled, degreed and advanced degreed) of the workforce is going to relocate to Honolulu without the chance of ever owning a home. As it is pointed out in the labor stats spreadsheet, there are countless places offering a lifestyle that our younger populations are attracted to and where they can afford to purchase a home. Currently, rents for this select group are far more affordable than home ownership and are not in balance with the prices of homes and condos. This indicates that rents will continue to increase until they are more in line with the value of homes and condos.

The subtitle of the report is, "How many job holders by occupation does it take to afford the median home, condo or rental in Honolulu for the years 2000, 2003, 2006 & 2008 by various occupation and the percent of workers for that occupation". On the sample sheets for each workbook - we have measured the change that has occurred since 2000 numerically, as well as by percentage. As indicated for every occupation the gain in income has not offset the rapid increase in the price of homes, condos and to a lesser degree, rentals. Some occupations are affected more than others, but the lowest income group fared the very worst.

One of the theories behind using how many job holders does it take to own the median home, condo or rental is there are other places where the same occupations can afford a median home, condo or rental with only one or two workers. In today's society with households containing two or more persons there are two wage earners, the primary and the secondary. It is uncommon that each makes the same amount. So this is why we use the division process for how many workers it takes for affordability. If you assume one of the persons in a two person traditional working family, one has a higher income and the other has the lower income. A simple example: A Civil Engineer has a spouse who most likely does not have the same occupation, but

perhaps is a Bank Teller. The combined income, in reality, is much lower than what we have shown. The method that we have presented here represents just how serious the shelter affordability situation is and in fact, is a conservative way to view the situation. The point of using affordability by occupation is to put a sense of realism around this analysis. The reader knows friends, neighbors, associates, by their job, and most likely knows how long they have been on the job, and also knows what their spouse does.

The occupations contained in this analysis were randomly (sample sheet) selected with an emphasis on essential personnel and correlated with the workforce in Honolulu. An average for each is found at the end of the analysis. You can see the average income for all of the occupations listed for all percentiles has increased between 25%-30% and the loan amount they can support has increased by the same amount; however the median home prices increased 103%. And when you correlate that to the number of employees it takes to afford the median home, you can see that it has increased (additional workers) from the lowest percentile at 1.95 to the highest income group at 1.06. While it is necessary to express the average percentage changes and the degree of difficulty that has occurred overall, what one should look at is the different occupations where it takes more than 6 persons to afford the median home, condo or even a rental. These workers are all doubling up and sometimes there are as many as 10 workers in a household to afford shelter.

When you compare the overall statistics for homes, condos and rentals, home prices have increased 103%, condos 172% and rentals 107% (however, with a much lower basis). Economists argue that either the home prices will have to be drastically reduced or the rents will increase significantly. Home prices have come off their highs; however, condo prices have continued to increase. This, of course, is a phenomenon that shows there are more eligible condo buyers by income than there are for houses. Rents have been held in check by the large number of speculators that have disproportionately increased the supply of rental units. The speculators were motivated by the rapid appreciation and with a declining rate of appreciation to fulfill investment objectives; they will have to sell which will decrease the supply of available rental units further, causing price spiraling in rents.

What does this all mean? The socioeconomic character of Honolulu is threatened by the spiraling costs of homes. As Paul Brewbaker said, "Hawaii and Honolulu are suffering from a supply imbalance. When employment increases and the economy starts growing it takes too long and it is far too difficult because of the regulatory barriers for the housing industry to deliver adequate units quick enough and efficiently to temper the price spiral."

The idea that Honolulu and Hawaii are the most regulated places in America has been documented many times. The other point that must be noted is that all forms of housing are linked in a chain of substitution. There are only quantitative and qualitative considerations. What this means is you can not only build low income affordable and work force housing and disregard the balance of the market. As it has been proven in numerous places and countless times, those with the most money get the first choice of whatever is available and those with the lowest income are pushed down the chain of substitution to the point that they are homeless or must leave the community. This simple economic fact is so often misunderstood. This also includes the second homeowner and part time resident. We have seen high income households all across the country gentrify areas and push the prices up. Without a supply release mechanism, all housing costs will increase. Honolulu is going to face continuous spiraling price pressure as to home prices (and all shelter costs). Sooner or later, when people can no longer double up and their quality of life declines, Honolulu's economy will go into a dislocation period or wages will have to increase rapidly to make up for the imbalance.

When you examine the changes from 2000 to 2008 in terms of home affordability, there have been some dramatic shifts. In 2000, 7.74% of all job possibilities could afford the median house with only one income. In 2008, this percentage has decreased 1.76% of all job possibilities, which equates to over a 74% decrease. Furthermore, in 2000, over 28.19% of all job possibilities

required over 3 jobholders to afford the median house. In 2008, this number has skyrocketed to 58.43% of all job possibilities requiring over 3 jobholders to afford the median home. This means that well over 80% of all dual income married couples still cannot afford the median house price in Honolulu.

When you examine the changes from 2000 to 2008 in terms of condo affordability, there have also been some large shifts. In 2000, 52.48% of all job possibilities could afford the median condo with only one income. In 2008, this percentage has decreased to 10.25% of all job possibilities, which equates to over a 77% decrease. Furthermore, in 2000, no job possibilities required over 3 jobholders to afford the median condo. In 2008, this number has jumped to 26.65% of all job possibilities requiring over 3 jobholders to afford the median condo. Please note, there is a difference in the size and number of bedrooms between the median house and the median condo which has only 1.75 bedrooms. This means only smaller households will be able to live in the median condo which contributes to the problem even further.

Rentals of course, fared much better and again, reinforce the theory that rents will continue to increase. Even in 2008, over 40% of the job possibilities can afford a rental with 2 jobholders. There are 31.31% of the job possibilities that require 3 or more jobholders to afford the median 3-bedroom rent (FMR).

Honolulu's answer to the work force dilemma has always been to recruit locally, educate and bring back from the mainland former residents whose parents still own a home. When you consider the massive requirements from baby boomers retiring over the next ten years, the problem worsens even further.

To solve Honolulu's housing crises a comprehensive approach must be taken to reform regulatory barriers and streamline the permitting process or when the next up tick in the economy accrues prices will get even more out of balance with wages. Besides regulatory barriers there are several other items to work on like infrastructure, tax abatement, subsidy, but if you do not change the system of delivery we cannot bring down the cost of shelter.

The answer to the problem is to create a broad based coalition such as Housing Hawaii that can advocate and educate the public as well as elected officials as to the solutions. The coalition needs the support and mentoring of business and industry along with its many housing advocates and service providers. We all need to become active with the simple gesture of joining Housing Hawaii and having our friends and neighbors join. Strength is in the numbers of members that can be added to Housing Hawaii's roster and the quality of the business and civic leaders that support Housing Hawaii's mission.

How to read and use the data tables:

This analysis has been performed for the Honolulu Area (data is also available for the combined non-metro markets of Kauai, Maui, and Hawaii). The following spreadsheets are separated into three categories: single family houses, condominiums and rentals. The analysis represents all job categories (Bureau of Labor Statistics), divided into 5 income strata's (possibilities) including 10<sup>th</sup> percentile, 25<sup>th</sup> percentile, median, 75<sup>th</sup> percentile and 90<sup>th</sup> percentile. Furthermore, the analysis uses historical information for years 2000, 2003 and 2006 and projects data for 2008.

The total possibilities varies slightly year to year due to changing job types and survey information year over year. The total job possibilities ranges from 2,095 to 2,555 depending on the year. However, there are actually only 452 to 511 occupation types (jobs). The reason why there are so many job possibilities is due to having 5 strata's for each of the occupation types.

The top section of each analysis contains each occupation type with their corresponding incomes for each of the strata's and broken out by year. Depending on which analysis will dictate whether the median home price, median condo price or fair market rent is utilized. The affordability of the house, condo or rent is formulated based on liberal underwriting standards (house and condo) and fair market rents (rents). The median home price (home and condo) is taken from the Honolulu Board of Realtor's statistics) and the fair market rents (rents) is taken from the Department of Housing and Urban Development (HUD).

The primary aspect of the analysis is identifying the degree of difficulty in affording shelter. Basically, it analyzes how many jobholders it takes by occupation type and by strata to afford a home, condo or rental. Each of these numbers is color coded to visually depict the information. The more intense the color, the greater degree of difficulty or the higher the number of jobholders it takes to afford shelter. A color-coded reference table follows each analysis, which represents the ranges of jobholders required for affordability.

At the bottom of the each analysis there is a recap table. This summarizes the total counts from the above based on how many jobholders by strata with both total counts and percentages by year based on affordability.

All contained spreadsheets are not locked. There is also many calculations and information that are contained in hidden cells. Any comments, suggestions, modifications or different ways to analyze the data is appreciated and welcomed. Between the lines are many stories to be told about the struggle that the residents of Honolulu are faced with in providing shelter. The ultimate goal is for ideas to be discussed and shared and to collaborate on the housing crisis.