Key Findings from the General Plan Comprehensive Review Trends and Forecasts Report

September 2016

Context

Requirements of the General Plan

The County of Hawaiʻi Planning Director initiated a comprehensive review of the General Plan in February 2015. The purpose of the General Plan is to set forth the County Council's policy for long-range comprehensive physical development of the County. As required by HRS §226-58 and Hawaiʻi County Charter §3-15, the Plan must be formulated on the basis of sound rationale, data, and analyses and must include, among other things, objectives, policies, and implementation actions for the desirable density of population, land use, infrastructure (water, waste, transportation, public buildings), utilities, affordable housing, and economic development.

Purpose of the Trends and Forecasts Report

The General Plan Comprehensive review, therefore, requires an understanding of demographic, economic, and real estate trends and forecasts that can be used to anticipate and plan for impacts on land use, infrastructure, and services. The Trends and Forecasts Report is intended to meet that need by providing both trends and forecasts for a set of variables relevant to the County of Hawaiʻi's General Plan review. The Report was prepared by Honolulu-based SMS Research & Marketing Services, Inc.

Apart from the report, SMS provided data both at the County-wide level and by the following Forecast Analysis Zones (FAZs), which are groupings of census tracts based on the geographic location of population centers in Hawaiʻi County:

- Hilo (Hilo and Wainaku)
- North Hilo - Hāmākua Coast Villages (Paukaʻa to Laupāhoehoe)
- Honokaʻa-Paʻauilo
- North Kohala
- Waimea
- Waikoloa Area (Kawaihae-Puakō-Waikoloa-Waikoloa Resorts)
- North Kona
- South Kona
- Kaʻū
- Upper Puna (Volcano to Mountain View)
- Keaʻau-Kurtistown
- Hawaiian Paradise Park-Orchidland
- Lower Puna.

Below, these FAZ groupings are used to refer to geographic sub-areas of the County.

Historic data are generally provided from 1990, and forecasts are provided to 2040, which is the year through which forecasts are provided by the state Department of Business, Economic Development, and Tourism (DBEDT).

In addition to informing the Trends and Forecasts Report, these data are being used for the development of planning scenarios reflecting baseline conditions, build-out, growth capacity, growth trends, and alternatives to the trend.

Purpose of these Key Findings

Importantly, forecasts typically assume "business as usual" – that is, they generally assume that historic trends will continue into the future. The planner's challenge is to understand the implications of those trends and the trade-offs associated with adapting to or influencing them.

The Trends and Forecasts Report provides definitions of each metric, data sources, discussions of trends and forecasts, explanations of forecast methods, and short discussions of demographic, economic, and real estate dynamics. However, it is beyond the scope of that report to connect those dynamics to planning. Therefore, the purpose of these Key Findings is to identify "take-aways" from the report that inform the analysis required for the General Plan Comprehensive Review.

Summary of Key Findings

Hawaiʻi County is rural. Only 60% of Hawaiʻi County's population is within its eight urban areas, and in both urban and rural areas, population density is low.

The County is expected to grow by 50% by the year 2040. Visitors make up about 15% of the population, and during peak periods, 70% of the growth is from immigration. A disproportionate number of residents from 2025 and beyond will be seniors.

Rates of job growth are expected to match population growth, but due to the economy's reliance on lower-paying service sector jobs, median incomes are likely to remain low. Moreover, roughly half the households find housing unaffordable, and many are struggling to make ends meet, often living in overcrowded conditions. Much of the affordable housing is not located in or near job centers, so commutes are getting longer.

Visitor units are clustered primarily in West Hawaiʻi, and steady growth is expected to continue, though the makeup of that growth (hotel vs. vacation rental) is unknown.

Demographic Key Findings

Population Centers are both Rural and Urban

The Census Bureau identifies "urban areas" as densely developed territories adjacent to areas with low population density. The Census Bureau identifies the following "Urban Clusters (UCs)" of at least 2,500 and less than 50,000 people in the County of Hawaiʻi:

Urban Cluster	Population	% of Population	Population Density (Pop/Sq Mile)
Hilo	43,925	23%	1,791
Hōlualoa	28,850	15%	2,013
Captain Cook	4,175	2%	999
Hawaiian Paradise Park Area	20,503	11%	635
Waimea	6,960	4%	1,475
Waikoloa Village	4,089	2%	3,799
Kapaʻau	3,597	2%	888
Honokaʻa	2,667	1%	1,699

Population Density is Low

By the Census definition, the majority (60 percent) of the County's population has been classified as urban throughout the last 25 years, and no change is expected through 2040. In contrast, nationwide, 80.7 percent of the population lives in urban areas.

In both urban and rural areas, the County of Hawaiʻi has relatively low population density. It has an average of 1,300 people living in every square mile of urban areas and an average of 18 persons per square mile in rural areas. In contrast, urban Honolulu had over 5,500 persons per square mile in 2010.

Roughly 50% Growth by 2040

In 2013, there were 194,190 residents living in the County of Hawaiʻi. Over the next 25 years, the population growth rate is expected to decline from an average 1.7 percent per annum to about 1.4 percent per annum. In 2040, the County resident population is forecast to be approximately 296,322 – a 53% increase since 2013.

The *de facto* population is the sum of the resident population and the average daily visitor census. The average daily visitor census was around 29,000 in 2013 and is expected to rise to approximately 36,000 by 2040, bringing the de facto population from about 221,000 to about 333,000 – a 51% increase.

Immigration Outpaces Resident Population Growth

During the last two decades, there has been an average of 2,218 births and 1,269 deaths per year in the County, resulting in a net increase of almost 950 people annually. Also contributing to population growth are the approximately 2,300 individuals, on average, who choose to move to Hawaiʻi County each year. In other words, about 70% of the growth on average is through immigration.

Senior Tsunami is Imminent

In 2013, about half the County's population was between the ages of 45 and 64. Another quarter was age 65 or older, and there were similar numbers of residents from birth to 44 years of age. By 2025, the large middle cohort will be retiring. As this subset of the population continues to age, it will present a variety of opportunities and challenges with regard to housing, economic development, and public services.

Growth and Development Key Findings

Housing is a Burden for more than 50% of Households

The housing guidelines from the federal Department of Housing and Urban Development suggest that households should devote no more than 30 percent of their income to pay monthly housing expenses; otherwise, a household is considered "shelter burdened" and may have difficulty affording necessities such as food, clothing, transportation and medical care.

In Hawaiʻi County, the percent of households that is shelter burdened has been steadily increasing since 2000. In 2000, 36.9 percent of owner households with a mortgage and 43.0 percent of all renter households were paying more than 30 percent of their income for housing. By 2010, this had increased to 48.0 percent and 51.2 percent, respectively, and by 2013 it had risen to 50.1 percent and 57.2 percent.

Nationally, 35.3 percent of households paid more than 30 percent of their income on housing in 2014. For the State of Hawaiʻi, the comparable figure is 42.8 percent, the third highest nationally.

Housing Remains Unaffordable

SMS considered housing affordable if its price (asking rent or sales price) is affordable to households with annual household incomes less than 80 percent of the Area Median Income (AMI) ($41,177 in 2014), which includes the very low, low, and moderate income thresholds established by the federal Department of Housing and Urban Development each year. Between 2009 and 2013, roughly 56 percent of all housing units available to residents of Hawaiʻi County were classified as affordable.

Households Remain Overcrowded

A household is considered overcrowded when the ratio of household members to rooms in the housing unit exceeds 1.0. A household is classified as extremely overcrowded when that ratio exceeds 1.50. Crowding is considered to be a negative indicator of the health of a local housing market, a sign that the market is unable to supply the number and types of housing units needed.

Hawaiʻi has one of the highest overcrowding rates in the country, and at 5.6 percent of owner-occupied units, the level of overcrowding in Hawaiʻi County's owner-occupied units is the highest among all of Hawaiʻi's counties. The percentage of overcrowded renter-occupied units, however, is notably higher at 12.6 percent of rented units.

Affordable Housing can be Found Island Wide

The availability of affordable housing varies by region. Relative to the countywide average, the rural communities – particularly Puna, Kaʻū, Honokaʻa-Paʻauilo, and North Kohala – have largest percentages of housing that is affordable. In contrast, the Waikoloa area and North Kona have the lowest percentages of affordable housing. At the same time, most of the County's total stock of affordable housing is in Puna (22.5%), Hilo (23.9%), and North Kona (22.5%).

Forecasted Growth Rates Vary by Community

The number of housing units in the County of Hawaiʻi in 2015 was estimated to be 87,310. Among those, approximately 80 percent were single-family dwellings, and the remainder were multi-family units. 64 percent of housing units were owner-occupied.

Growth rates have varied considerably by region, and that trend is expected to continue. Relative to the countywide estimate of 59% growth in housing units from 2010 to 2040, Hilo (29%) and the North Hilo-Hāmākua Villages (36%) are expected to grow more slowly. Others are expected to grow more quickly: Waimea (60%), Kaʻū (93%), and Puna – Keaʻau-Kurtistown (72%), Upper Puna (101%), and Hawaiian Paradise Park-Orchidland (171%).

These differences in growth rates are forecasted to result in shifts in the relative population centers. For example, half of the housing is currently in Hilo (24%) and North Kona (25%), while only about 13% is in Upper Puna and Hawaiian Paradise Park-Orchidland. But by 2040, only 42% of the units are forecasted to be in Hilo and North Kona, while 19% is estimated to be in Upper Puna and Hawaiian Paradise Park-Orchidland.

There is also variation among forecasted growth rates in non-residential square footage (i.e., commercial and industrial), but the variation is less extreme. Relative to the countywide estimate of 34% non-residential growth from 2010 to 2040, the North Hilo-Hāmākua Villages (28%), Upper Puna (28%), and the South Kona Villages (29%) are expected to grow more slowly, and Kaʻū (43%) and Hawaiian Paradise Park-Orchidland (65%) are expected to grow more quickly (assuming the availability of appropriately-zoned land).

Visitor Unit Growth Steady, but Types are Shifting

The vast majority of visitor units are in the Waikoloa Area and North Kona. With the upward trend in visitor arrivals expected to increase through 2040, increasing demand for visitor units is likely. With this growth comes the challenge of planning for their impact on the local economy, especially with regard to accommodations. Hotel rooms account for the majority of the visitor accommodation units in the County of Hawaiʻi (59.5%). A distant second and third are timeshare properties and Visitor Rental Units (VRUs), with 13 and 12 percent of the total visitor units, respectively.

One of the significant difficulties in keeping track of visitor accommodations units on Hawaiʻi Island is that the number of housing units being let to visitors as short term rentals is unknown. Residential units used for this purpose were referred to as Transient Vacation Rentals (TVRs). Their number is reported based on tax records in the Hawaiʻi Tourism Authority's annual Visitor Plant Inventory. However, it is strongly suspected that significant numbers of homeowners rent all or parts of their units to visitors as short term rentals without registering their rental activity and without paying the required taxes.

There is no estimate for the number for those properties. A study commissioned by HTA in 2014 (Individually Advertised Units in Hawaiʻi, 2014) reported that there were 9,986 vacation rental units in the County of Hawaiʻi. That would bring the total of visitor accommodations units up from 10,666 to 13,969. The DBEDT 2040 forecast for the County of Hawaiʻi was 11,600 units.

Economic Key Findings

Poverty Persists

Household income rises and falls along with economic cycles. The median household income on Hawaiʻi Island has not yet recovered to its 2007 high.

The percentage of persons in poverty was 15.7 percent in 2000 and was on a downward trend, falling to a low of 13.1 percent in 2007. Since that time, the percentage in poverty has increased to a record high in 2013 of 18.3 percent for individuals. The official poverty rate nationwide was 14.8 percent, and statewide it was nearly 11 percent.

Self-Sufficiency is Out of Reach for Many

The poverty rate is a national measure and is hardly a living wage, especially in Hawaiʻi. The poverty line for a family of four in 2013 was $23,834. The State Department of Business, Economic Development & Tourism publishes an annual Self-Sufficiency Income Standard. In 2014, Hawaiʻi County had the lowest self-sufficiency income requirements ($58,874 for a family of four with a preschooler and one school-age child), but that income is well above the poverty line. A family of four needed to earn a combined hourly wage of $27.88 (or $13.94 each on average) to be economically self-sufficient. That was 92.2 % above the state minimum wage level and 114.6% above the federal poverty threshold for Hawaiʻi.

Job Growth Mirrors Population Growth

The average annual growth rate for jobs averaged 1.7 percent since 1990, mirroring population trends, and it is expected to remain at that level for the next several decades.

80% Employed in the Service Sector

The three primary economic sectors of the Hawaiʻi Island economy are the services producing sector, the goods producing sector (construction and manufacturing), and agriculture. The services producing sector (education, health, accommodation, entertainment, food, professional, financial, real estate, public, etc.) is by far the largest, representing over 80% of employment. The agriculture sector represents about 6% of employment.

More than two-thirds of workers are employed in one of five key industries: educational service, healthcare, and social assistance (~19%); arts, entertainment, recreation, accommodation, and food services (~18%); retail trade (~13%); professional, scientific, management, administrative, and waste management (~10%); and construction (~9%). Tourism drives the arts, entertainment, recreation, accommodation, and food services industries and much of the retail trade, representing ~25% of total employment.

Job and Population Centers Mismatch = Longer Commutes

Data varies by source and date, but in general, about 1/3 of jobs in Hawaiʻi County are in Hilo, another quarter in North Kona, 5-10% in the Waikoloa area, 5% in Waimea, and about 1-7% in each of the other population centers.

It is useful to compare these job centers with the County's population centers. Hilo and the Waikoloa area have a surplus of jobs relative to their population, reflecting the fact that residents commute there from other communities. At the other end of the spectrum, the Hawaiian Paradise Park-Orchidland area has a working population that far exceeds the number of nearby jobs.

These mismatches are reflected in the increase in the Census measure of "mean travel time to work" from 24.5 minutes in 2000 to 27.1 in 2013. The national average is 25.5 minutes, and the Hawaiʻi average is 26.0 minutes.

Competitive Advantages Vary

In contrast to employment and occupation data, which are from the Census and therefore tie data to the physical location of the *resident*, jobs data are collected from employers and therefore tied to the physical location of the *employer*.[1] Hawaiʻi County has the greatest number of jobs in government (20.2%); retail (14.8%); business, professional, and other services (13.2%); health and social assistance (10.9%); dining (9.5%); and hotels (8.8%).

Because jobs data are geographically linked to the place of employment, they can be used to identify characteristics of job centers. A location quotient (LQ) quantifies how concentrated jobs are within a geographic area relative to a larger area. A high location quotient in a specific industry may translate into a competitive advantage in that industry for the local economy. The Trends and Forecasts Report considered the LQ of Hawaiʻi County vis-à-vis the State and each FAZ population center vis-à-vis the County.

Hawaiʻi County has a much higher concentration of agricultural jobs relative to the State as a whole – more than three times higher. Hawaiʻi County also employed about 1.5 times as many residents in utilities and in hotel professions as the rest of the State. On the other hand, professional services in Hawaiʻi County are underrepresented as compared to the rest of the State (LQ = 0.54). Employment in the finance and insurance industry has also been relatively low in Hawaiʻi County compared to the State (approximately two-thirds).

The competitive advantages of population centers relative to the County are provided below (LQ provided in parentheses). The urban centers are the seat of government and the center of professional, service, and retail trades. Agriculture, food processing, and related wholesale trade are centered in the most rural areas and Waimea. Tourism and related industries are centered on the leeward side and in North Kohala and Honokaʻa. Interestingly, Lower Puna's economy is quite diversified despite its limited number of jobs, and the HPP-Orchidland area appears to be a small hub for the information industry.

[1] This explains the slight differences between employment and jobs data.

Forecast Analysis Zone (FAZ)	Location Quotient Relative to the County
Hilo	• Government (1.71) • Transportation and utilities (1.41) • Manufacturing and food processing (1.29) • Finance and insurance, real estate and rentals (1.24) • Other services (1.2) • Retail trade (1.16) • Wholesale trade (1.13)
North Hilo - Hāmākua Coast Villages	• Wholesale trade (1.81) • Agriculture, mining, and construction (1.14)
Honokaʻa-Paʻauilo	• Agriculture, mining, and construction (1.64) • Arts/entertainment, hotels, eating, drinking (1.32) • Other services (1.19)
Waimea	• Manufacturing and food processing (2.41) • Agriculture, mining, and construction (1.44) • Professional services and business services (1.27)
North Kohala	• Arts/entertainment, hotels, eating, drinking (1.84) • Wholesale trade (1.16)
Kawaihae-Puakō-Waikoloa-Waikoloa Resorts	• Arts/entertainment, hotels, eating, drinking (1.72) • Finance and insurance, real estate and rentals (1.26)
North Kona	• Finance and insurance, real estate and rentals (1.58) • Retail trade (1.25) • Other services (1.22) • Arts/entertainment, hotels, eating, drinking (1.16)
South Kona Villages	• Agriculture, mining, and construction (1.7) • Other services (1.43) • Finance and insurance, real estate and rentals (1.41)
Kaʻū	• Manufacturing and food processing (2.84) • Agriculture, mining, and construction (1.96) • Wholesale trade (1.21)
Upper Puna	• Wholesale trade (2.13) • Manufacturing and food processing (1.34) • Other services (1.31)
Keaʻau-Kurtistown	• Agriculture, mining, and construction (1.41) • Wholesale trade (1.16)
HPP-Orchidland	• Information (1.94) • Agriculture, mining, and construction (1.12)
Lower Puna	• Wholesale trade (3.84) • Manufacturing and food processing (2.53) • Other services (1.52) • Retail trade (1.22) • Agriculture, mining, and construction (1.19) • Information (1.17) • Transportation and utilities (1.16)