

The Imperial Valley continues to export a significant amount of crop/seed. In fact 46% of hay production as well as 38% of vegetables and 16% of seeds are exported to foreign nations. Mexico (39%), Japan (37%) and Republic of Korea (8%) represent the three nations where the largest amount of crop is exported to. Imperial Valley production is also exported to other states. Of the crops exported, Hawaii (66.4%) and Florida (29.7%) account for almost all export demand.

In looking at future economic prospects for the agriculture industry, the water crisis in California still looms large, though there is little statistical or anecdotal evidence of impact. DMG, Inc. still predicts that there could be movement of higher value crops from the Central Valley (Bakersfield to Sacramento) to the Imperial Valley over time to utilize a more stable water supply. That said, as world-wide demand for Imperial Valley hay and grass crops continue to keep yields strong and prices increasing (\$220 per ton in 2014 for alfalfa production), farmers may be reluctant to convert their lands.

Exhibit J: Total Agriculture Production (in billions of \$) by Year

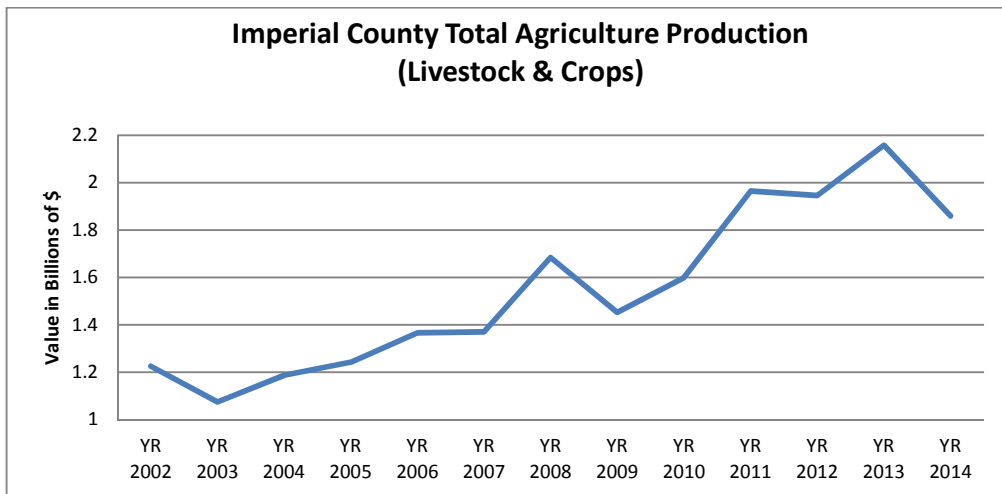
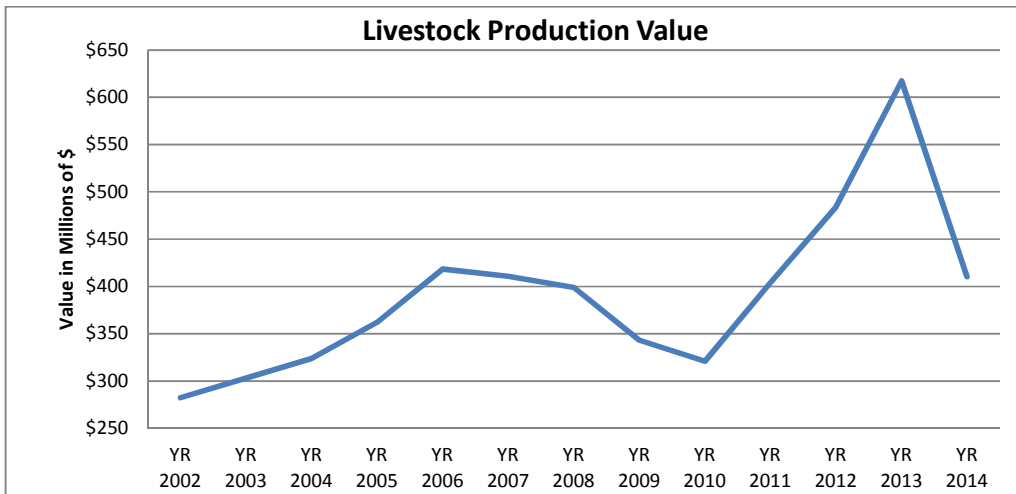


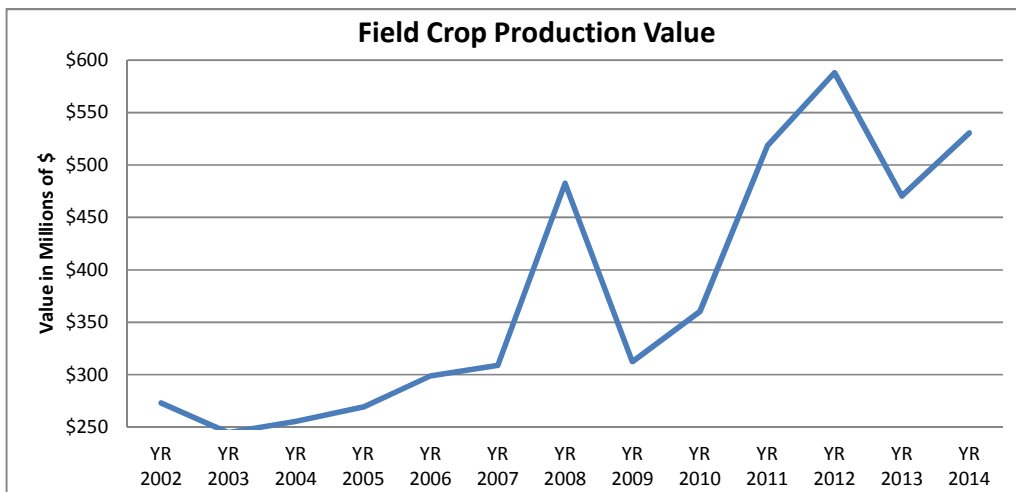
Exhibit K provides historic production numbers for livestock. Much of the livestock production is specific to “feeder beef” which is the raising of calves to prepare them for market. During this time an individual animal may consume approximately 3 tons of feed. Therefore the profit (value) in a particular animal is a function of both market price and the cost of food. In general the value of livestock in Imperial County has increased over the last four years. This is a factor of increased domestic and international demand for cattle (beef) as the world economy has continued recovery. As noted previously in this report, the industry has essentially collapsed in the Imperial Valley as National Beef ceased operations earlier in 2014. We will see the full impact of the closure in the 2015 Agriculture Report (to be released mid to late 2016). Outside of beef, there is a small amount of aquatic-fish farming (\$13.3 million in 2014) and feedlot sheep (\$5.6 million in 2014) produced in the region.

Exhibit K: Total Livestock Production (in millions of \$) by Year



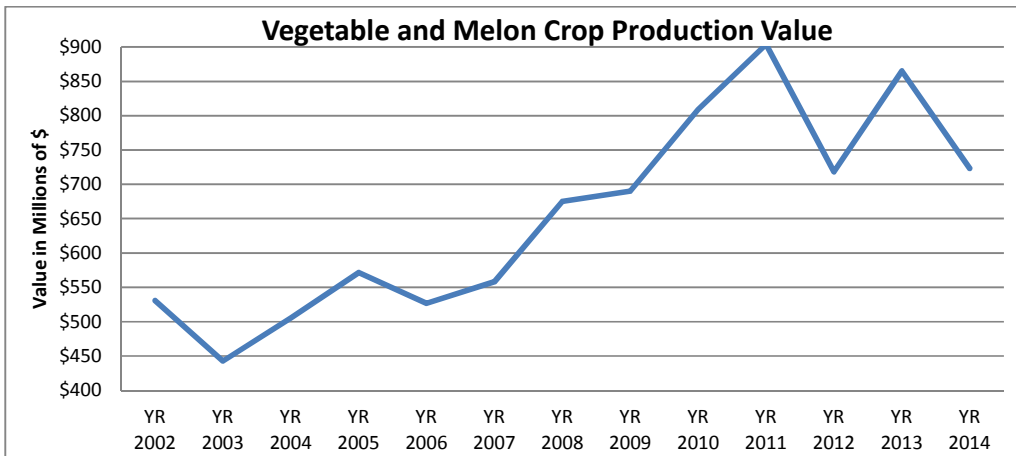
Field crop production within the region continues to be strong (\$530.85 million in 2014), up about \$60 million from 2013 but is down from their historic highs found in 2012 (\$587.9 million). Leading the way for the region was production of alfalfa hay, sudan and bermuda grass, between them accounting for the greatest amount of all field crops (in terms of value). For the year 2014 some 322,589 acres were farmed for field crops (504 square miles) By comparison the City of Los Angeles is 486 square miles. Exhibit L provides a historical chart of field crop production in Imperial County.

Exhibit L: Total Field Crop Production (in millions of \$) by Year



Vegetables and melons accounted for \$723.3 million of production value in 2014, down over \$142 million from 2013. Broccoli, carrots, cauliflower, onions and various lettuce varieties comprise much of the overall production for this category. These crops are considered higher value and DMG Economics predicts will likely see increased production if the water crisis in the balance of the state worsens as production moves toward regions that have a more stable water supply. Exhibit M reflects the historic production values for Vegetable and Melon crops.

Exhibit M: Total Vegetable and Melon Crop Production (in millions of \$) by Year



Imperial Valley produce is led by lemons and dates. In fact, the region is one of the largest producers of dates in the world. In 2014, over \$35.6 million of dates were produced in the region. Unfortunately, market pricing didn't agree with farm production as the market value for dates fell by over 55% between 2013 and 2014. Other fruit and nut production within the region includes oranges and grapefruit. 2014 production for the entire category was \$95 million a decrease of about \$5 million from 2013 when total production was \$100 million. The reduction can be attributed to the production value of dates that fell from \$52 million in 2013 (\$17 million in a single year). Even with the decrease seen in 2013, this category of agriculture has almost doubled in production in just four (4) years. Exhibit N below shows the substantial increase in production in a short period.

Exhibit N: Total Fruit & Nut Production (in millions of \$) by Year

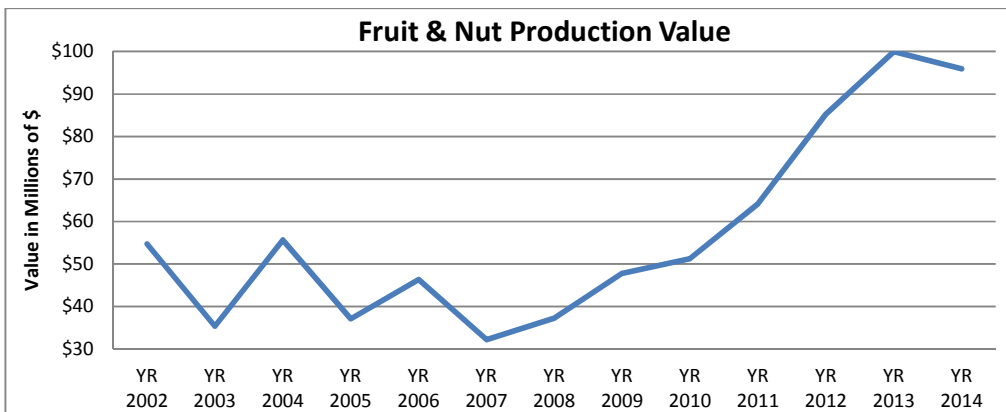
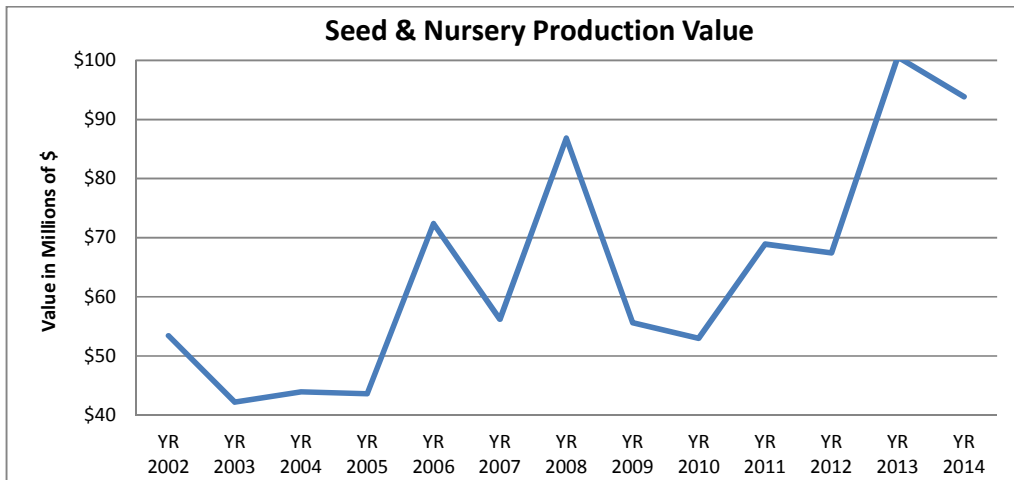


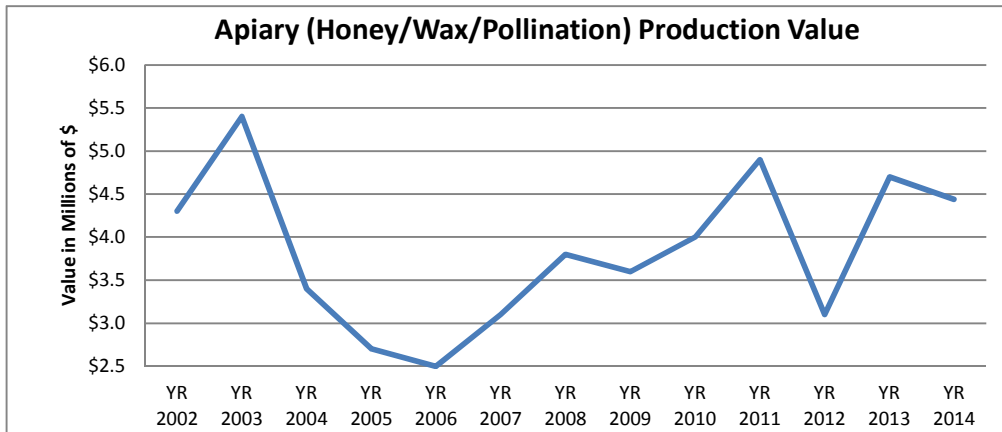
Exhibit O shows the history of seed production in the region. Seed production is a vital component to the agriculture economy. There are farming entities that specialize in the generation of seed that is used locally, domestically and internationally. Further, primary research (interviews) with those in this segment of the industry shows that there is significant technology and testing involved in creating seeds that provide for higher production, greater drought tolerance and overall hardiness. In 2014, some \$93.8 million of seeds were produced. This is down about 8% from 2013 but still, up from \$67 million in 2012. Much of the production was specifically for alfalfa and bermuda grass (finished crop in these categories is predominately used for animal feed).

Exhibit O: Total Seed & Nursery Production (in millions of \$) by Year



The final segment of agriculture production analyzed was that of apiary which includes honey, wax and pollination (bee) production and use. While this industry only accounted for about \$4.4 million of production in 2014 (down slightly from \$4.7 million in 2013 but still up from \$3.1 million in 2012) the need for pollination and therefore the potential production of honey and wax continue to be of extreme importance to the overall agriculture economy of the region. Exhibit O provides a history of apiary production.

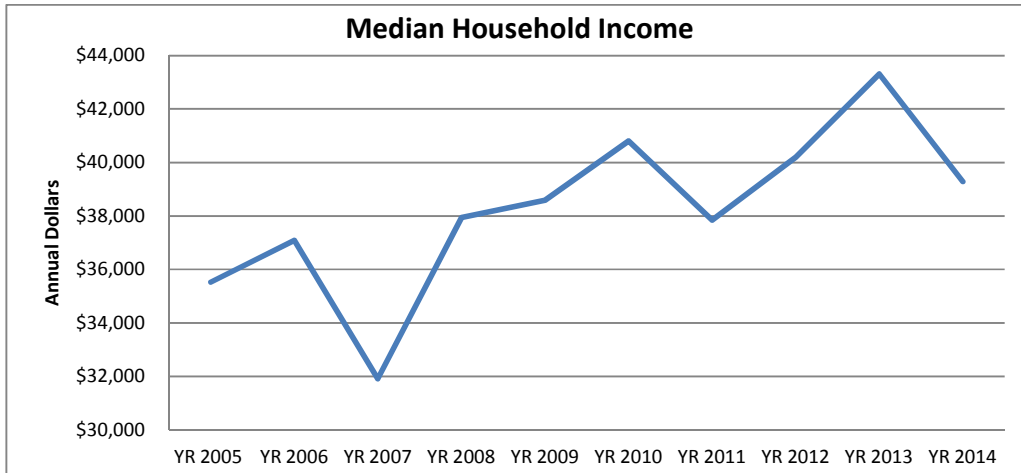
Exhibit P: Total Apiary (Honey/Wax/Pollination) Production (in millions of \$) by Year



5. Income/Poverty Statistics

An important benchmark in economic advancement is whether median household income is growing. Exhibit Q provides information from 2005-2014 regarding total personal income (all sources) in Imperial County. Note that incomes continued to rise during the recession (2008-2010) but did decline slightly in 2011. During 2012-13, median household income began to rise again topping \$40,000 both years. In 2014, there was a slight decrease to \$39,290. Note that median income is presented in inflation adjusted dollars.

Exhibit Q: Median Household Income



The Imperial Valley continues to be a region of the "have's and have-not's". As shown in Exhibit R, 46% of all households exist on an annual income of less than \$35,000 and 58% of households have an income of under \$50,000 per year. At the same time, about 17.6% of households have an income of over \$100,000. This leaves a "middle class" of only about 24.6% of the households in the region (household income of between \$50,000 and \$100,000 per year).

Exhibit R: Household Income Distribution

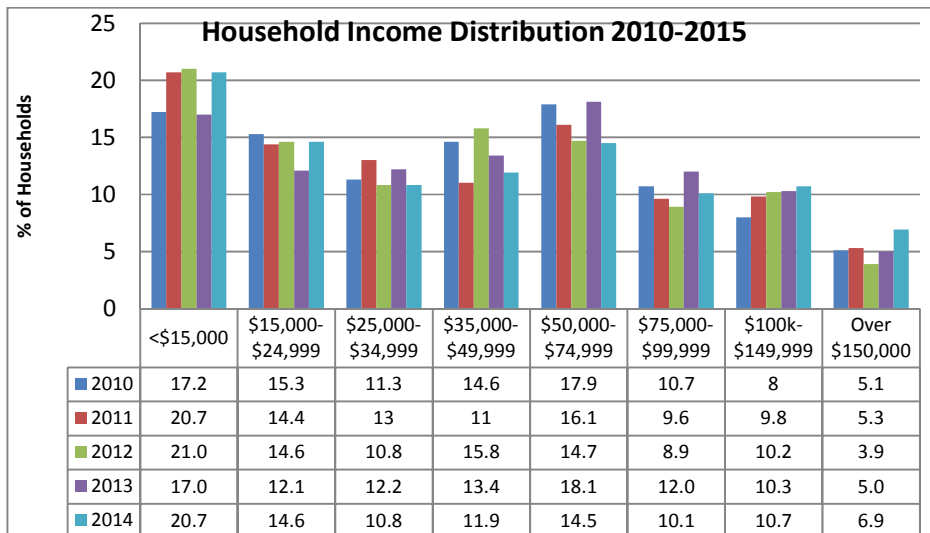
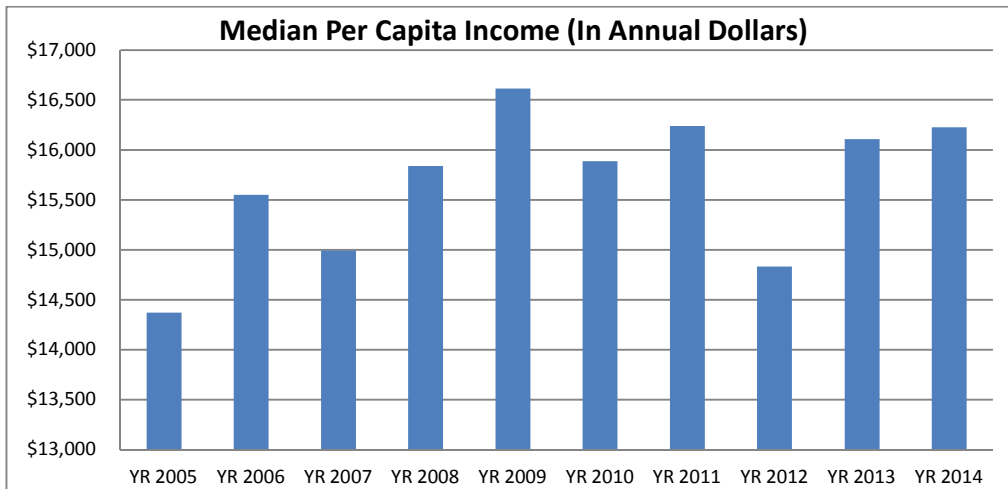


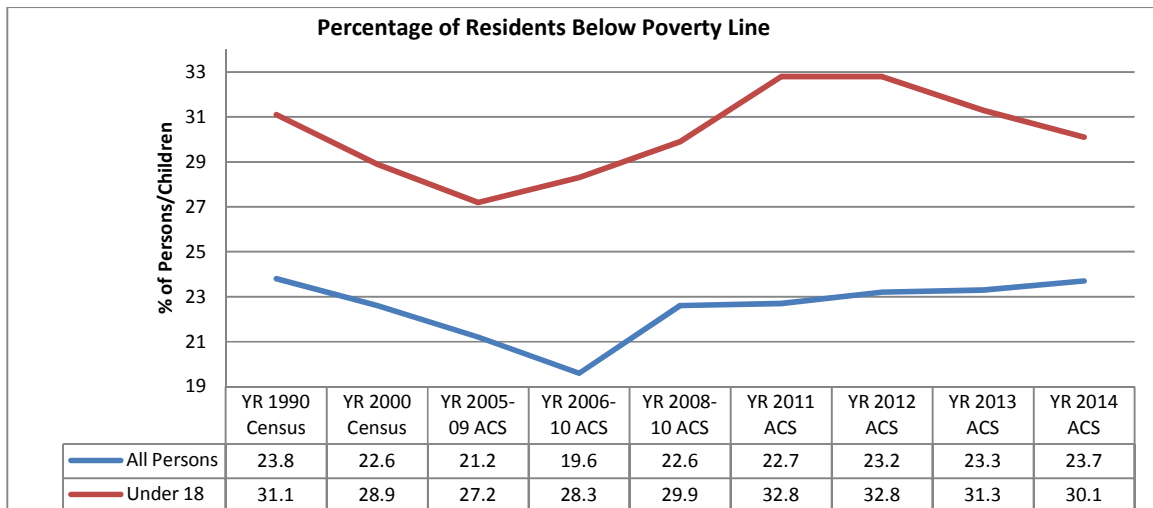
Exhibit S provides recent data on per capita incomes. The purpose of this exhibit is to show that per capita incomes from the period 2010-2014 are essentially flat. Meaning, that even as the United States economy is reportedly to have recovered (and specific to the Imperial Valley that has MORE jobs today than during a previous peak in 2008), it is not translating into higher per capita income.

Exhibit S: Per Capita Median Income 2005-2014



The greatest social issue in the region is poverty. In the United States the federal definition of poverty is a household income for a family of four that is less than \$24,250. Certainly there are additional families of all sizes that have incomes just above the poverty line that have substantial issues providing for the most basic of family needs (housing, food, medical care and transportation). Exhibit T shows that almost 1 in 4 persons of all ages and about 3 in 10 children under 18 within the region live in poverty.

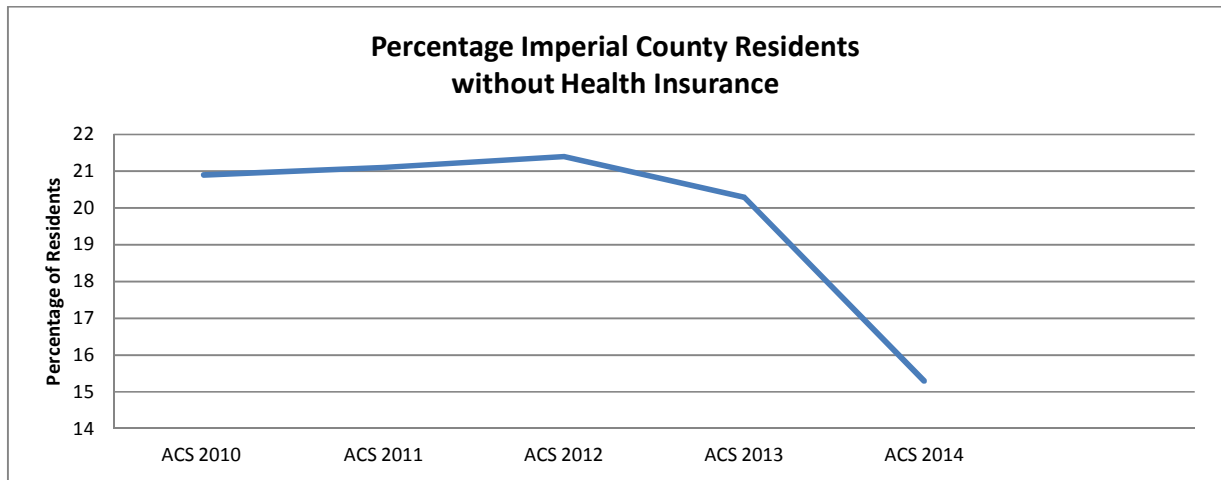
Exhibit T: Percentage of All Residents and Children <18 Living in Poverty



Healthcare and Coverage

The Imperial Valley is seeing an increase in the amount of persons that are now covered in either a private or government sponsored health insurance program. Exhibit U tracks the percentage of residents in Imperial County without health insurance starting in 2010. In 2010 and 2011, about 22% of the population was without coverage. By 2014, this has been reduced to only 15%. The Federal Affordable Care Act and associated mandates are largely responsible for this improving statistic.

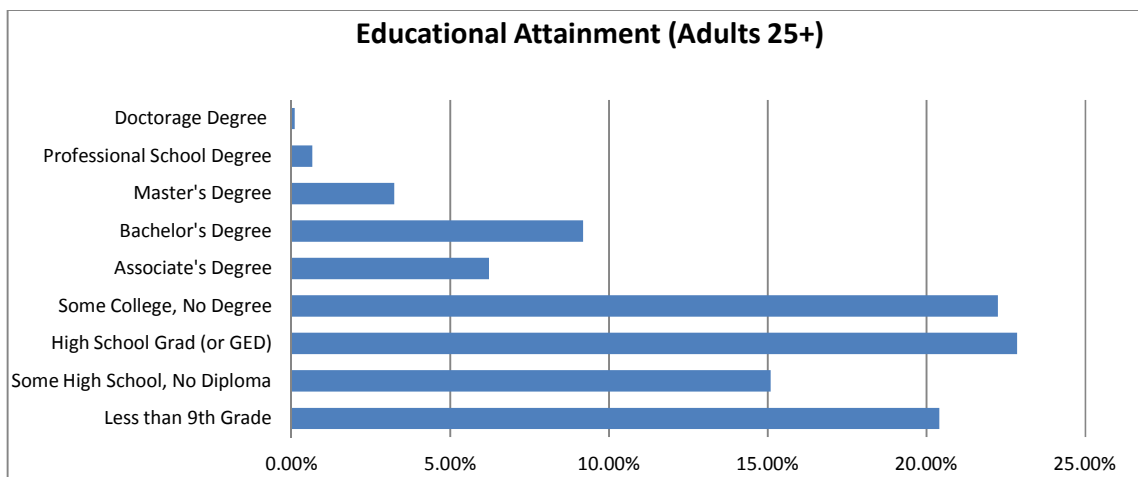
Exhibit U: Percentage of Residents without Health Insurance



6. Educational Attainment and Earnings

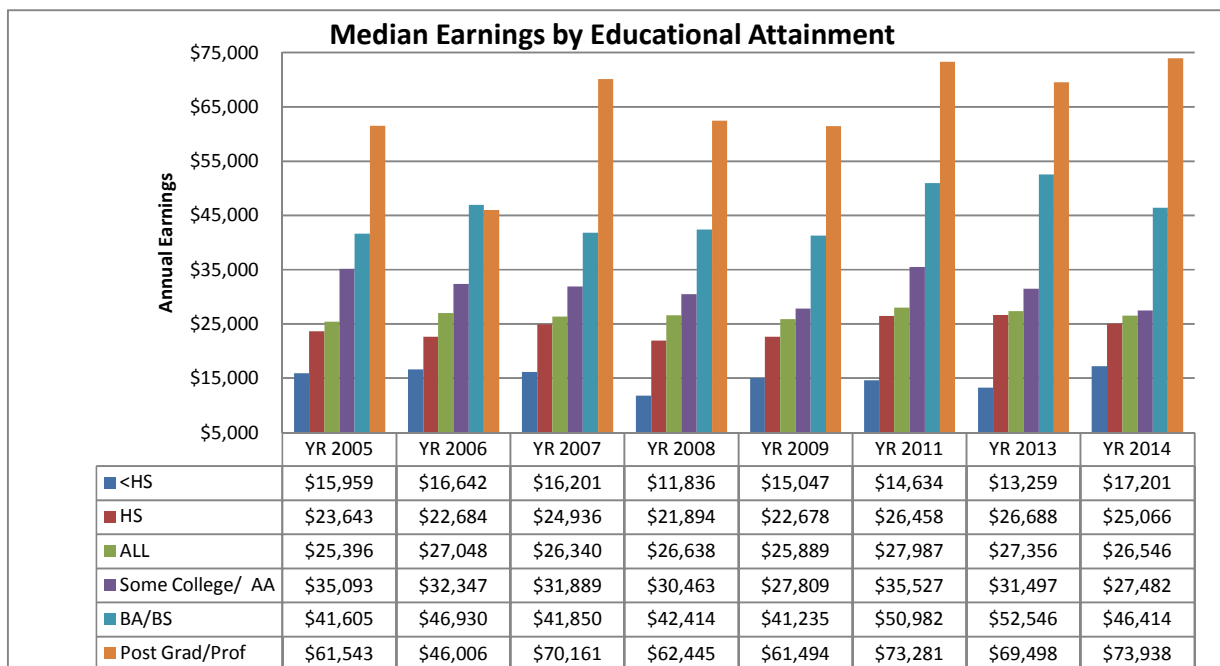
Economic opportunity in the United States has long been tied to education. The Imperial Valley has some of the lowest levels of education attainment by adults 25+ in both California and nationwide. Exhibit V provides an understanding of the highest level of education achieved by adults within the region. Thirty-five percent (35%) of adults lack a high school diploma or equivalent. An additional 23% only have a high school diploma (or equivalent). Only about 13% of adults 25 and over have a bachelor's degree or better. As the United States works to complete in a more global economy where technology has been introduced and plays a role in almost every industry sector, the lack of education directly impacts the employability of over one-half of adults within the region.

Exhibit V: Educational Attainment (Adults 25+)



Education impacts earnings. Exhibit W shows earnings of various levels of adults based on education for selected years from 2005-2014. While almost all persons saw their income impacted (in average) by the economic downturn, it remains that persons with a high school diploma make about twice as much as a person without. College graduates (on average) make twice that of someone with only a high school diploma and three-times as much as someone that dropped out of high school. This single chart, more than any other, points to the direct impact educational achievement has upon the ability for a person to support themselves and their family.

Exhibit W: Median Earnings of Adults 25+ by Educational Attainment



7. Residential Real Estate & Assessed Valuation

Exhibit X shows the number of new home sales over a ten year period. Note that the region saw about 1,800 homes sold in 2006. Scaling this figure to that of Los Angeles County for comparison purposes, it is tantamount to 100,000 new homes being built and sold during the same time period. New home sales appear to be stabilized in the 175-200 homes per year range from the period 2010-2014, though it appears that in 2015 the total number of new homes built will be closer to about 120. Primary research shows that the “public” builders have largely left the region leaving home construction to local/regional based builders. They report building what is termed as semi-custom or production-custom homes whereas the buyer is often under contract before the home is actually built. This lessens the risk to the builder (and their lender) while providing the buyer additional options for materials and interior customization.

Exhibit X: Imperial County, CA Total Home Sales by Year

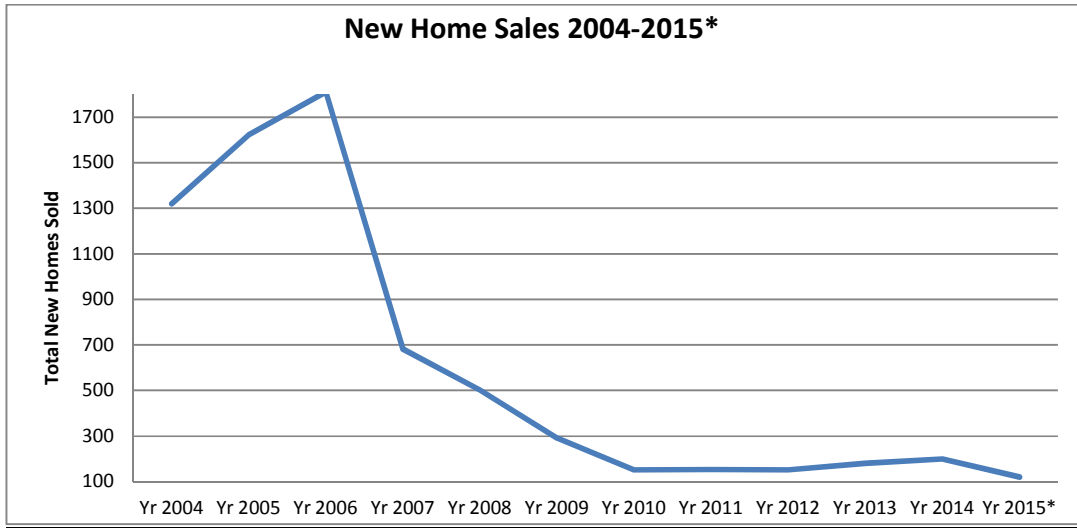


Exhibit Y provides a representation of median home prices. Again, home prices began to stabilize in 2010 and have risen over the last two (2) years. Thus far in 2015, the median home price is about \$185,000. This represents an increase of over 48% from the low in 2010. What is impactful about the rise of median price is that the sale price per square foot (approximately \$120) is at a number in which new home builders can deliver product to the marketplace, which will generate addition economic investment and job opportunities to the region.

Exhibit Y: Median Home Prices (Residential Real Estate)

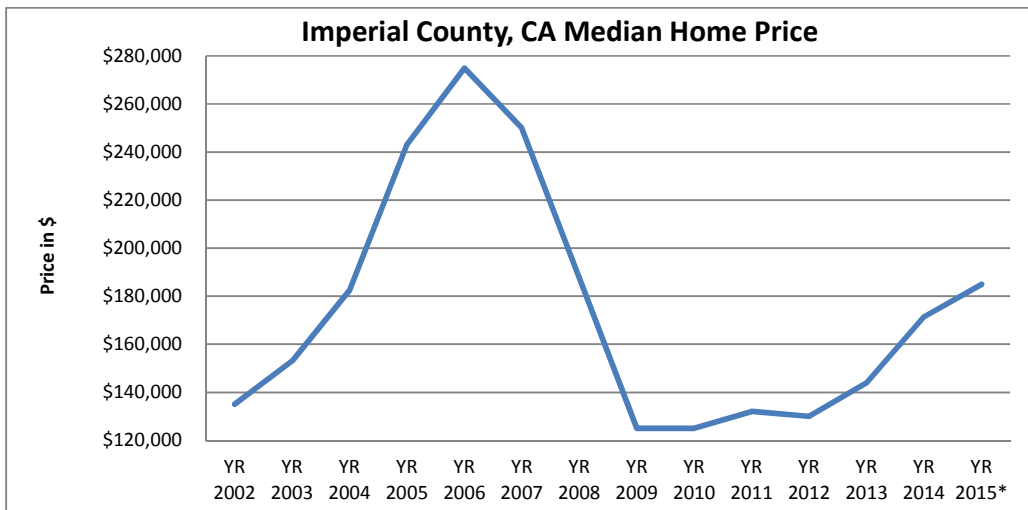
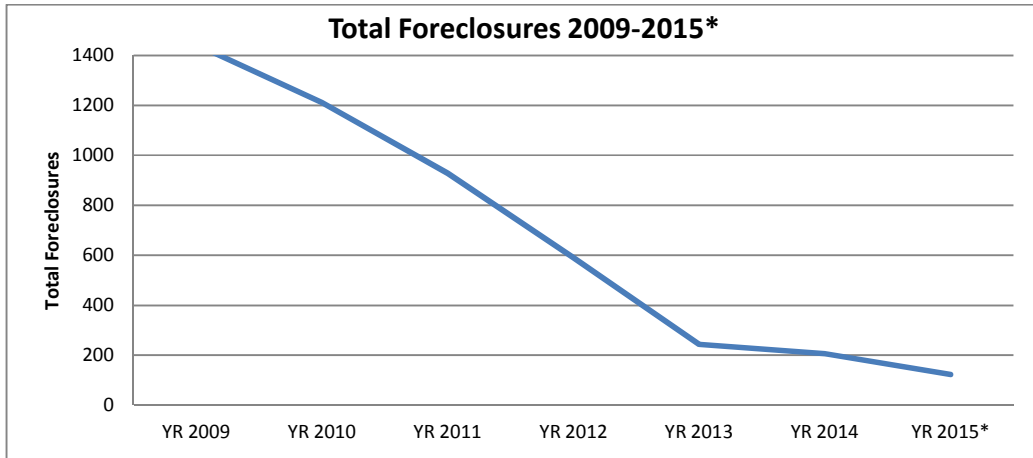


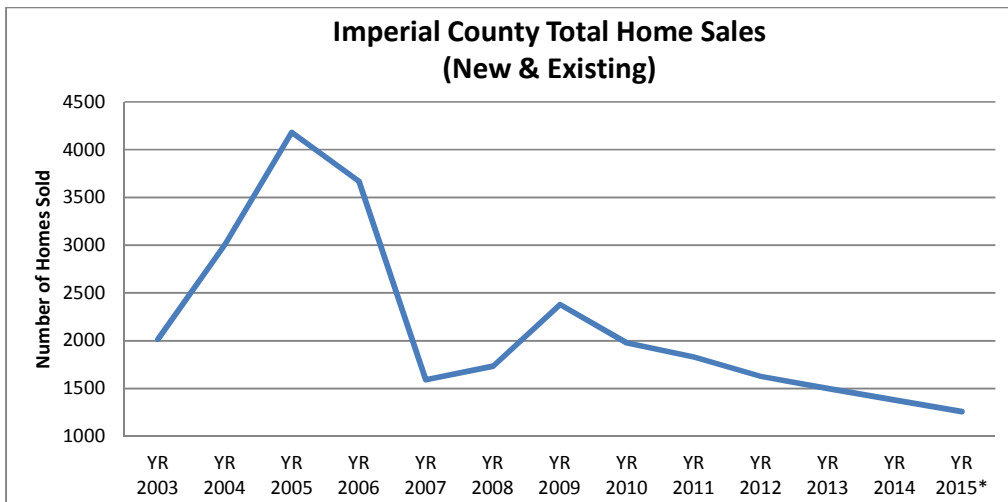
Exhibit Z further shows the decline in foreclosed homes from 2009 to current (2015). The region went from a high of 1,444 homes foreclosed in 2009 to a projected 123 in 2015 a decrease of over 90%.

Exhibit Z: Total Foreclosures 2009-2015



Total home sales (new and existing) continue to be stable. For the four year period from 2012-2015, the Imperial Valley has averaged between 1,300 and 1,600 total home sales per annum. Exhibit AA shows the stabilization after the peak of the housing boom and corresponding sell-off by financial institutions of foreclosed inventory.

Exhibit AA: Total Homes Sold (New & Existing)



Assessed Valuation

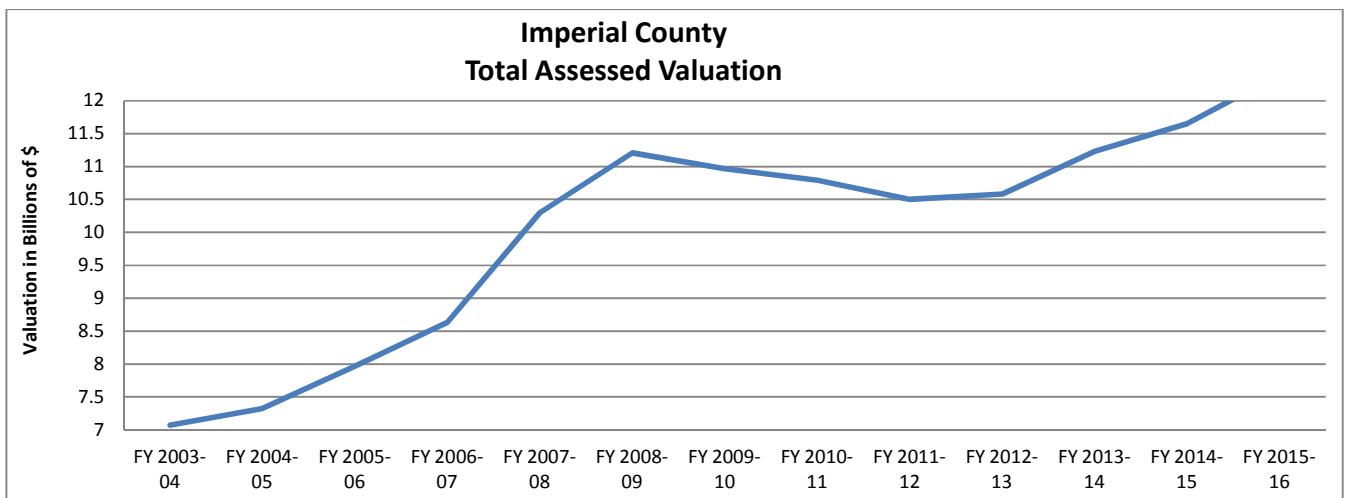
Imperial County experienced a boom in housing and commercial construction in the early-mid 2000's. This was reflected in assessed valuation that grew by over \$5 billion in just 5 years. As the recession took hold, the County did see a correction in assessed value, but the overall change was minimal and represented only a 5% or so decrease.

For the current tax year (2015-16), total assessed valuation in Imperial County has jumped to \$12.4 billion. This represents a 6.46% increase over 2014-15 (\$11.65 billion). The factors behind the increase continue to be two-fold. First, home values in general are increasing so Proposition 8 appeals and assessments are both declining and reversing.

Second, there is some new construction (both residential and commercial) that is adding to the tax rolls. Second, renewable energy projects and associated infrastructure are generating increases in overall valuation*. Exhibit BB below shows historic trends regarding assessed valuation in Imperial County.

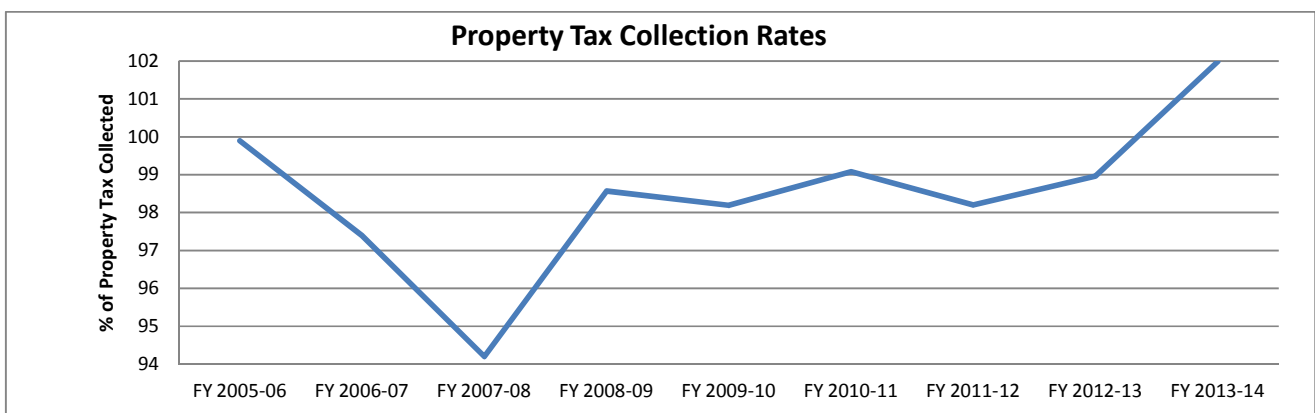
**Economist note: wind and geothermal energy production equipment is subject to property tax in its entirety. Solar does have a State Revenue & Taxation Code Section 73 exemption for the panels and posts, but ancillary improvements are subject to property tax (including transmission lines, substations, fencing, and interior roads).*

Exhibit BB: Total Assessed Property Valuation



As the economy of Imperial County has improved, so have collection rates for property taxes. Exhibit CC provides a dynamic model of property tax collection from 2005-06 thru 2013-14. The dynamic nature of this chart reflects that the County of Imperial receives property tax payments not just for the current year but for previous years as well. As a general rule, at such time as a property is delinquent on taxes for five (5) years, it is subject to seizure and auction. Exhibit CC shows that in the most recent year that property tax collection is more than 100%, this is because they are receiving payments in the most current year for property taxes in arrears.

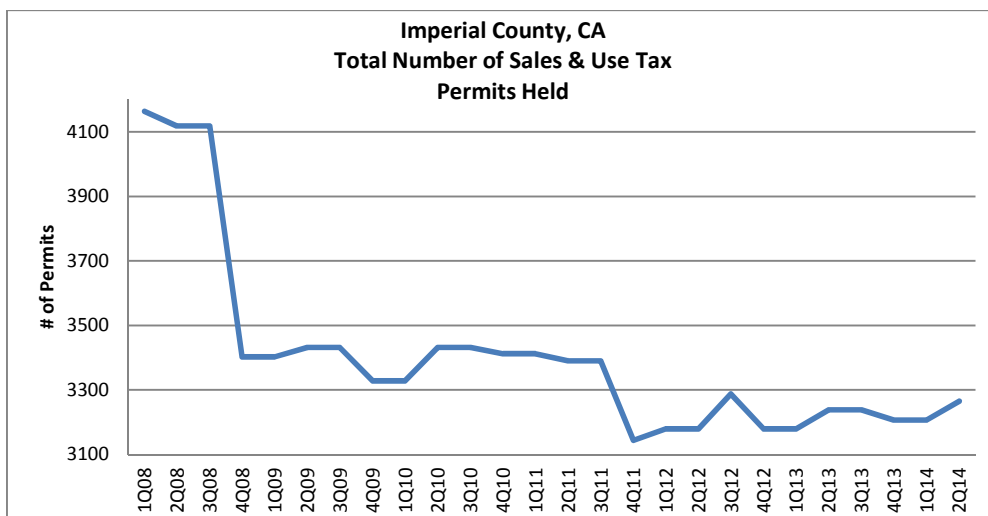
Exhibit CC: Property Tax Collection Rates



8. Consumer Confidence (Retail Spending)

Economists look to consumer spending as a key factor in understanding confidence in the economy. First, we look at the number of Sales & Use Tax Permits held within a community or region. This shows the number of persons and companies engaged in retail sales. During the economic downturn, the Imperial Valley saw a decrease of over 800 permit holders within a 1 year time period (about a 20% decline). For a three year period from late 2008 to late 2011, the number of permit holders was stable. In more recent times, the number of retailers is beginning to increase showing that there is renewed interest in the Imperial County economy. For the latest period available (2Q14) there were about 80 additional Sales & Use Tax Permit holders than there were one year prior (Exhibit DD).

Exhibit DD: Sales & Use Tax Permits Held in Imperial County



Taxable sales in Imperial County were impacted by the “Great Recession”. Tracking overall recovery is made more difficult because about the same time the economy began to recover, the region started to experience construction of renewable energy (wind, solar and geothermal projects). Under State Board of Equalization Publication 28, Exhibit A, the "Point of Sale" for construction materials associated with the construction of wind, solar and geothermal projects is designated in Imperial County. This election provides for significant tax revenue to the County, but will also cause for large swings in taxes collected as they are one-time events. For quarters in which projects are actively under construction, taxable sales within the region almost double. Exhibit CC shows historic taxable sales from 2010 through 2Q2015.

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Exhibit EE: Taxable Sales in Imperial County by Quarter

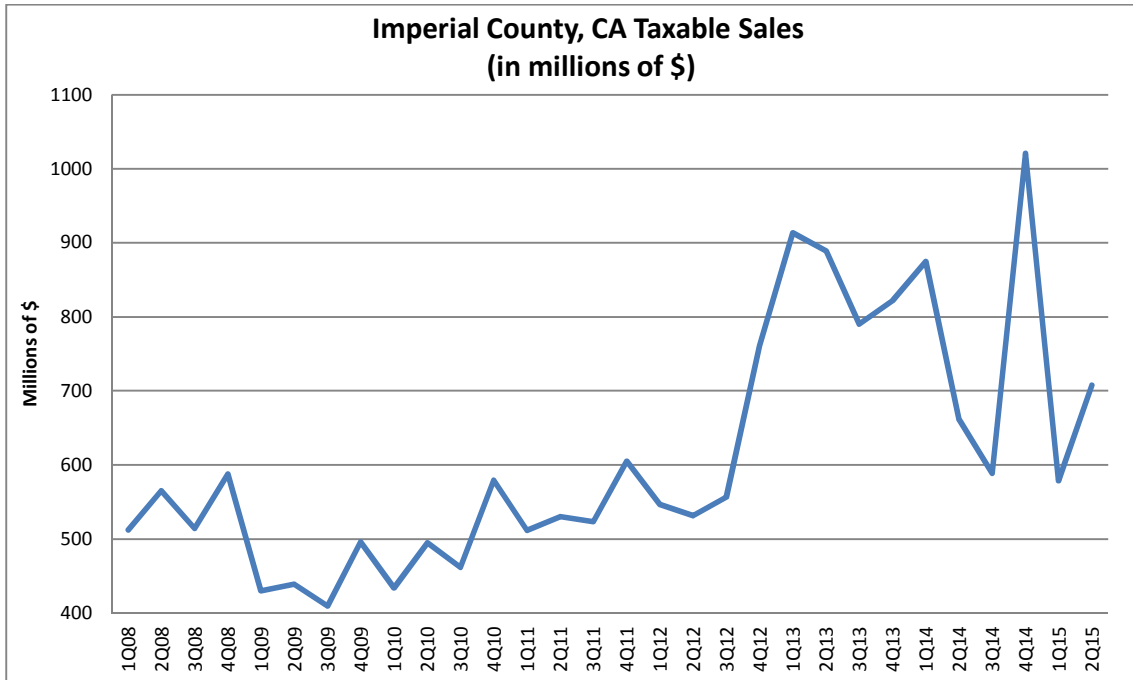
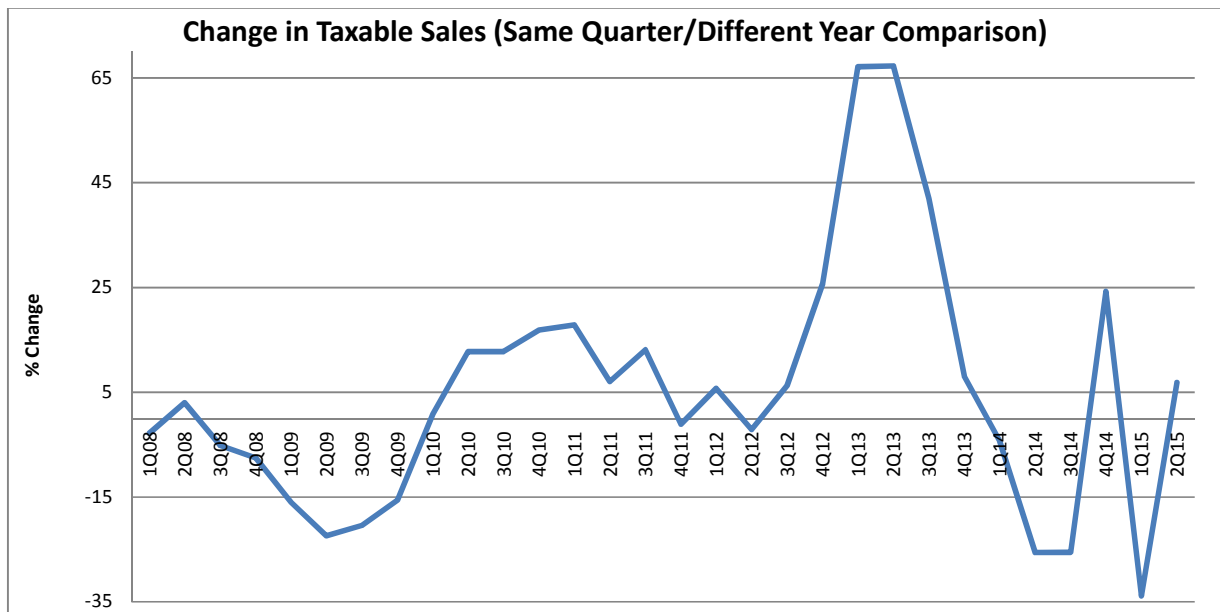


Exhibit FF shows the change in taxable sales from 2009 through the most current period (2Q15). This chart shows the swings in sales tax generation year over year (same quarter/different year) created by whether there are active renewable energy projects under construction. The County of Imperial is aware that local sales and use tax generated under the Publication 28, Exhibit A election should be considered one-time revenue.

Exhibit FF: Change in Taxable Sales (Same Quarter/Different Year Comparison)



9. Education Test Scores

Last year, DMG Economics introduced a new section in the annual economic forecast focused on academic achievement. In 2015, we presented the STAR Test Results for Imperial County in comparison to other counties in Southern California. The State of California discontinued use of the Standardized Testing and Reporting (STAR) exam and replaced it with the California Assessment of Student Performance and Progress System (CAASPP). For this reason, we will simply present the percentage of students in selected grades (3rd, 7th and 11th) and their achievement in English and Math. Test achievement is measured in students that “Standard Exceeded”, “Standard Met”, “Standard Nearly Met” and “Standard Not Met”.

Exhibit GG: CAASPP 3rd Grade Achievement English

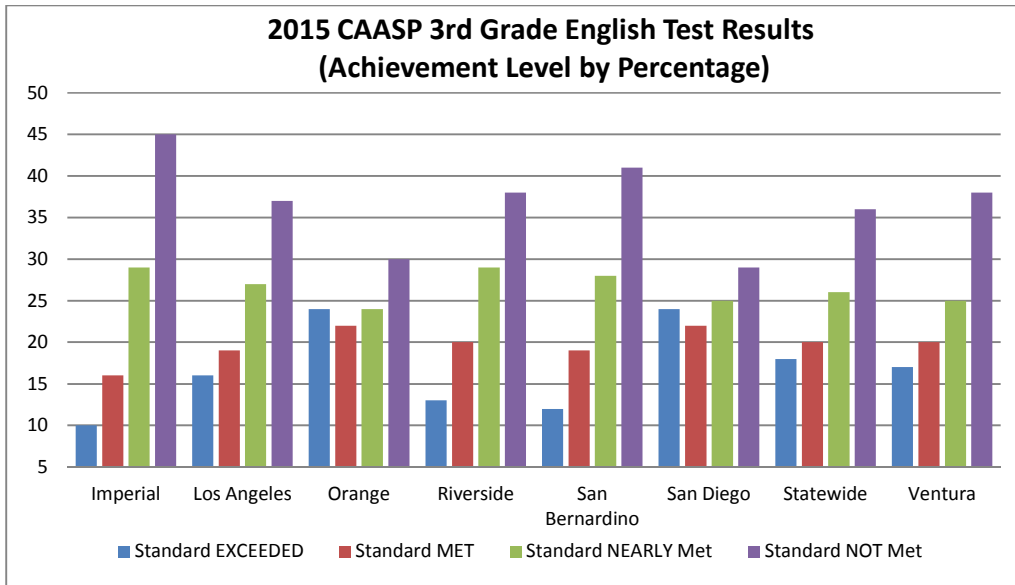


Exhibit HH: CAASPP 3rd Grade Achievement Math

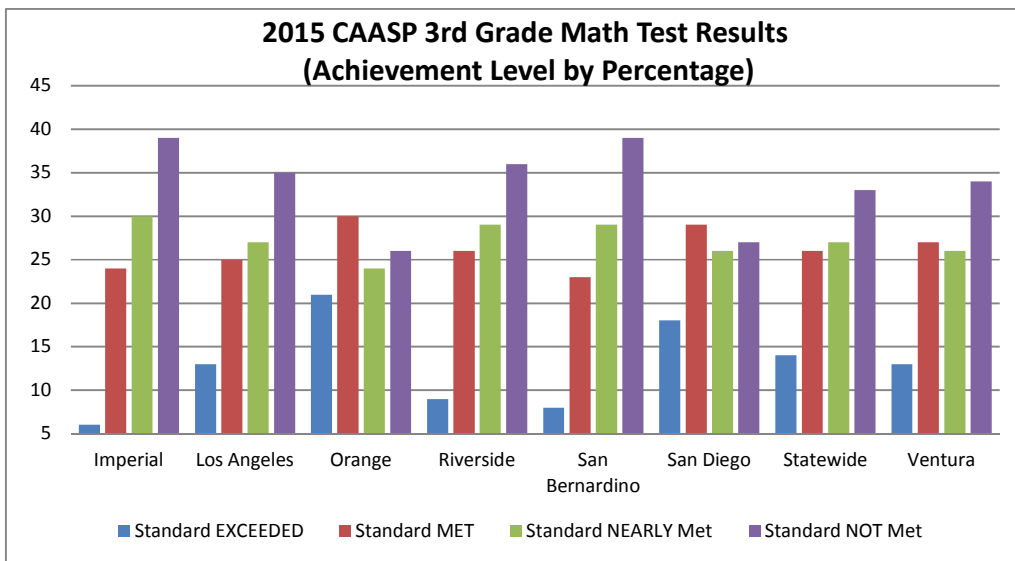


Exhibit II: CAASPP 7th Grade Achievement English

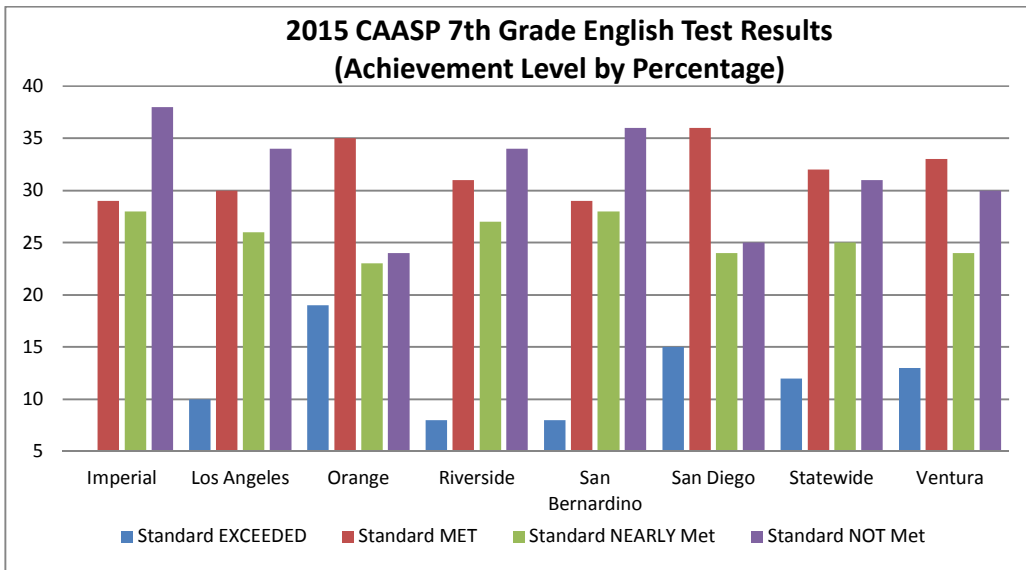


Exhibit JJ: CAASPP 7th Grade Achievement Math

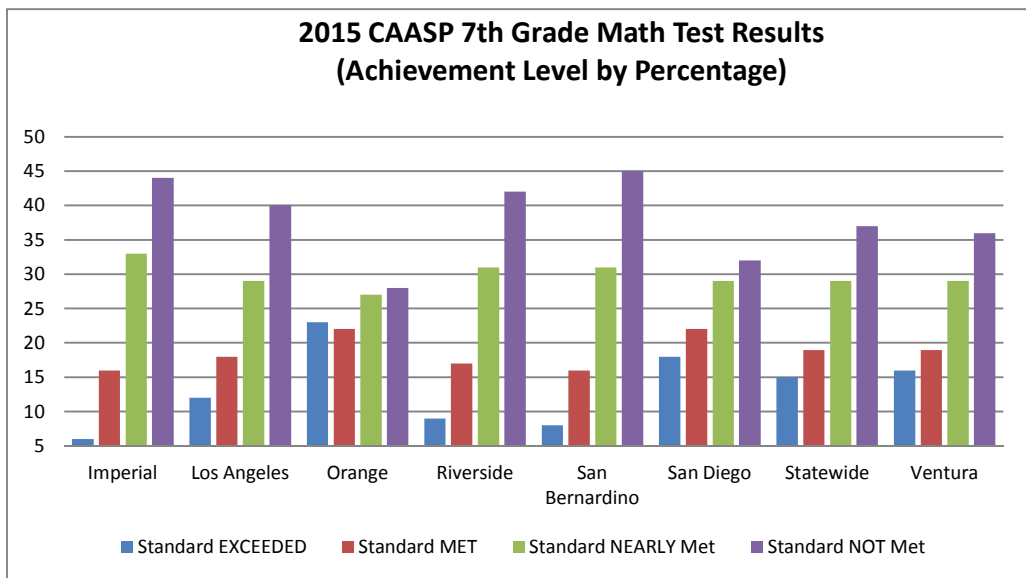


Exhibit KK: CAASPP 11th Grade Achievement English

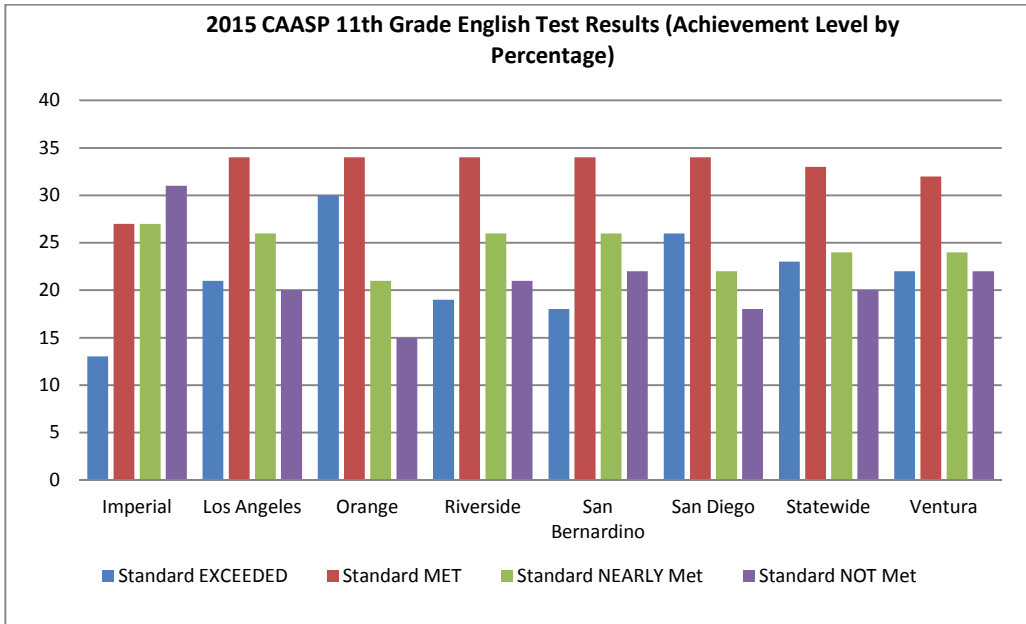
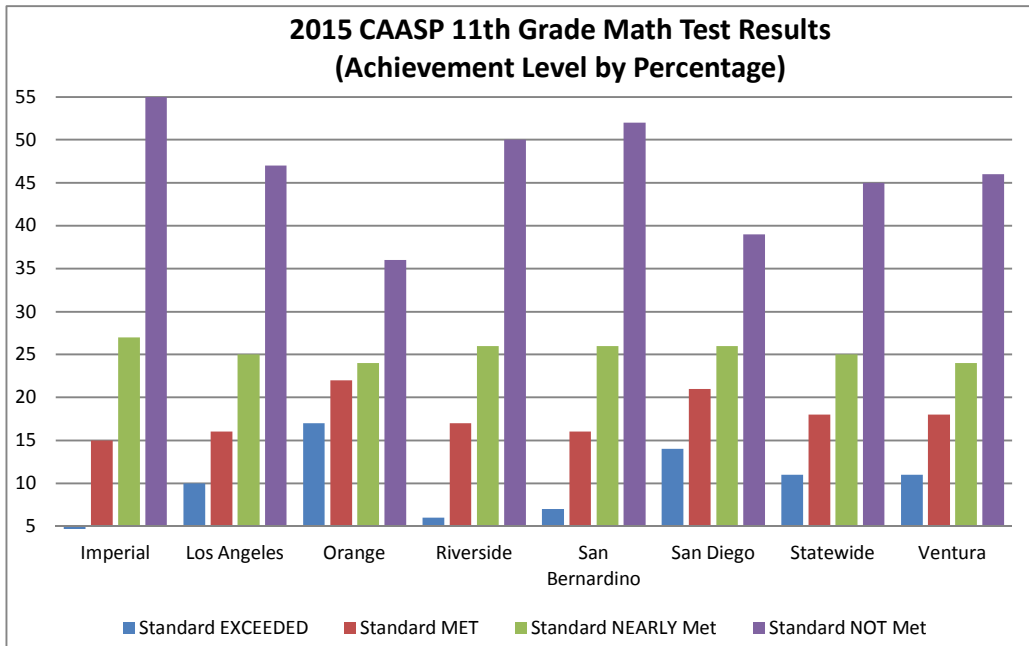


Exhibit LL: CAASPP 11th Grade Achievement Math



10. Economic Outlook for 2016

The economy of the Imperial Valley continues to be stable. Most economic indicators show return to pre-recession levels with some outperforming the highs of 2004-2005. The region has also successfully absorbed the loss of a key industry (beef processing) and loss of jobs as a result of the opening of a modern Federal Detention Center that calls for less labor. At current, there is about \$996 million of projects under construction (renewable energy and industrial based). As we look toward 2016 and beyond consider the following:

Agriculture: will continue to be the strength of the economy. Simply stated, the Imperial Valley literally feeds California and produces crops for export in a number of nations around the world. The region has developed over 3,000 miles of canals that distribute water to over 500,000 acres of active production land. It is anticipated that some higher value crops found in the Central Valley will make their way into the production mix if water supply issues in that region are not solved.

Housing: In general, housing in the Imperial Valley is affordable in comparison to the balance of Southern California with the median home selling for about \$185,000. New home construction has been fairly slow in recent years and is expected to continue at a rate of about 150 homes a year for the time being. That said, there are approved specific plan developments that may be game-changers for the region in the future if those are used to attract the baby boomer generation to the region in the form of master-planned communities for those 55+. This strategy has worked to fuel growth in parts of Arizona and the Coachella Valley in the past.

Renewable Energy Development: The region has received some \$5.5 billion of new economic investment in the past five to seven years. Much of this has been a result of renewable energy development (solar, wind, geothermal and biofuels). At current, the region has about \$5.2 billion of projects that are "under development" which is defined as entitled. These projects will propel the regional economy for the next few years. Couple this with the Renewable Portfolio Standard (RPS) in California moving from 33% (2020) to 50% (2030) and the region has the opportunity for another \$6-8 billion of energy production investment over the next ten (10) to fifteen (15) years.

Retail Sales: Are projected to remain stable as the region will continue to provide retail goods and service opportunities to both residents and those from a 1.1 million+ market in Mexicali, Mexico that do some shopping in the Imperial Valley. The total sales tax generated within the region will likely continue to fluctuate greatly depending on the status of construction of renewable energy projects (the County of Imperial requires that all energy projects with construction material purchases of \$5 million or more utilize the Publication 28, Exhibit A election under the California State Board of Equalization designating the construction site as the point of sale for tax purposes).

EB-5 Investment: The region has made a concerted effort to attract foreign-direct investment as equity or total financing for qualifying projects. Officials from throughout the region participate regularly in business trips to China and other places to attract investors. This has resulted in capital flowing to a variety of hotel, office, light industrial and energy projects.

Threats to the regional economy are as follows:

- A. Government regulation specifically such items as mobile and stable source air quality that may impede the growth and sustainability of the agriculture industry.
- B. Availability and stabilization of supply of water supply.
- C. Attracting new investment into the region that can effectively employ a semi-skilled blue collar workforce at a wage \$15 per hour or more (what is typically needed to support families).
- D. Impact of increased minimum wage on the agriculture sector

While substantial progress has been made on the percentage of residents without health insurance (down to about 15%), largely as a result of the Affordable Care Act (ACA), poverty within the region continues to be high with 3 in 10 children and about 1 in 4 adults living in poverty. When looking at the statistical evidence in regards to educational achievement and median earnings, it is clear that education is a path to economic sustainability. The region must continue to push educational achievement as a path to prosperity.

11. References

- A. American Community Survey
- B. California Department of Transportation
- C. California State Board of Equalization
- D. County of Imperial Assessor
- E. County of Imperial Agriculture Commission
- F. Dataquick
- G. Development Management Group, Inc.
- H. Imperial Valley Economic Development Corporation
- I. Nielsen/Claritas
- J. State of California Department of Finance
- K. State of California Employment Development Department
- L. United States Census Bureau
- M. Unnamed Agriculture Professionals (Primary Research) (Four)*
- N. Unnamed Home Building Professional (Primary Research) (Two)*

*Often times business owners/operators will provide information for primary research under agreement that their names are not specifically mentioned. Interview information is available for SCAG audit/verification purposes only.

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12. Certification

I certify that my engagement to prepare this report was not contingent upon developing or reporting predetermined results. The statements of fact contained herein and the substance of this report are based on public records, data provided by the Southern California Association of Governments and other sources as described in the reference section of this report. This report reflects my personal, unbiased professional analyses, opinions and conclusions. If any of the underlying assumptions related to this report change after the date of this report (December 18, 2015), then the undersigned reserves the professional privilege to modify the contents and/or conclusions of this report.



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