9th Annual Southern California Economic Summit

COUNTY ECONOMIC REPORT
IMPERIAL
COUNTY ECONOMIC REPORTS
IMPERIAL

Prepared by:
Michael J. Bracken
Development Management Group

For questions regarding this report, please contact:
Kevin Kane, Ph.D.
Associate Regional Planner
Research & Analysis

Southern California Association of Governments
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90020

(213) 236-1828
kane@scag.ca.gov
www.scag.ca.gov
Forecast Sponsor Contract/Task Order Information

The Southern California Association of Governments (SCAG) has contacted with Development Management Group, Inc. (DMG) to provide a 2019 Economic Forecast for Imperial County (SCAG Task Order Number 17-002-C3: 2019 Economic Forecast for Imperial County, California). The forecast will provide key data points and analysis in a number of areas including the overall economy, housing, employment, wages, and agriculture. This information is used in concert with similar research and analysis to better determine the potential for economic growth across Southern California as a whole and Imperial County specifically.

Copyright Information

Development Management Group, Inc. has copyrighted each and every page of this report along with accompanying exhibits. The purpose of the Copyright is to protect our analysis and report structure as it is considered intellectual property of DMG, Inc. This said, the Southern California Association of Governments (SCAG) is granted unlimited use of this report (in Final Report status) for their own purposes so long as it is not reverse engineered, nor its format used for subsequent project(s). SCAG is granted the ability to reformat this report into a consistent document that may encompass various regional reports for other areas of Southern California. Any other use by anyone or entity other than the Southern California Association of Governments (SCAG) without the express written and/or licensed permission of Development Management Group, Inc. is prohibited.

1. Introduction to Imperial County

Imperial County is located in the southeast corner of California and shares borders with San Diego County, Riverside County, Yuma County (Arizona), and Mexico (and the region and City of Mexicali). The County has a 2018 population of 190,624, which represents an increase of 2,703 or 1.4% year over year (from 2017). Over the next five years, it is projected the County population will increase by a total of 3.9% (or about .8% per annum), which mirrors the projected growth of the State of California as a whole. The economy of the region continues to be based on the following industries:

   A. Agriculture
   B. Energy Production (Solar, Wind, Geothermal)
   C. Prison/Detention Facilities (Federal and State)
   D. Border Security (namely Department of Homeland Security)
   E. Logistics (Goods Movement of Agriculture Products and Products Assembled in Mexicali through the Maquiladora Program).
   F. Local Serving Small Businesses
   G. Local/Regional Government and Related Services (Police, Fire, Education)

The Imperial Valley historically has higher unemployment rates than other areas in California. This is a function of three factors. First, the region's largest industry is agriculture, which has seasonal elements impacting labor. Next, the region is located along an international border (Mexico). The greater Mexicali Valley (located just south of the international border) has a population of approximately 1,050,000 or about five times that of Imperial County. The sheer size of Mexicali and proximity to Imperial County provides for greater immigration/migration for work, shopping, entertainment, and housing, which influences unemployment rates as people (from both sides of the border) enter and leave the labor force.
Finally, Imperial County is more rural in nature than most areas in California. Population density in California is approximately 243 persons per square mile while population density in Imperial County is only 42.5 persons per square mile. The region continues to face socioeconomic issues as a result of lack of job opportunities in higher paying industries and work-related transportation constraints.

Over the last ten years, the region has experienced significant economic investment in the form of utility scale renewable power production facilities (solar, wind, geothermal) and foreign-direct investment through the EB-5 Visa program. The EB-5 Visa program, administered through the United States Customs and Immigration Service (USCIS) provides an opportunity to for permanent residency in the United States by foreign nationals that invest a minimum of $500,000 into a business/development that generates ten or more permanent full-time jobs.

As the Renewable Portfolio Standard (RPS) requirements continue to increase, so will investment in the region. California has essentially met the RPS standard of a minimum of 33% (SBX1-2) and is now working toward the implementation of SB 350, which increases the RPS standard to 50% by 2030. Most recently (September 2018), California Governor Jerry Brown signed SB 100 into law, which sets the bar for California to generate 100% of energy through renewable sources by the year 2045.

Imperial County has been a leader in renewable power generation. In 2017, Imperial County produced 7,320 GWh of renewable energy, which ranks them as second by county in renewable energy production in the State of California (behind Kern County at 13,890 GWh and in front of Riverside County at 5,434 GWh). The region has approved about 1,300 MW of additional renewable power that is in the development process and will likely be built/become operational in the next 36 months and there is an additional 300-400 MW that is currently under active application.

The report that follows will provide a statistical understanding of the region’s economy, after which the report will conclude with a forecast section to guide potential investors, government officials, business leaders, and residents into 2019.

Table of Contents

1. Introduction to Imperial County
2. Status of Economy
   Ex. A: Gross Domestic Product (GDP) of Imperial County
   Ex. B: Total Available Workforce
   Ex. C: Total Persons Employed
   Ex. D: Total Persons Unemployed
   Ex. E: Unemployment Rate
3. Industry & Occupational Analysis
   Ex. F: Distribution of Jobs by Occupation (2017-18)
   Ex. G: Occupational Categories by Median Pay
   Ex. H: Professions with Highest Anticipated Growth (2016-2026) by Number of Positions
   Ex. I: Median Pay of Occupations Identified as High Growth Industries 2014-2024 (100+ Jobs / Annual Pay of $40k+)
4. Agriculture Production as a Leading Industry
   Ex. J: Total Agriculture Production
   Ex. K: Livestock Production
   Ex. L: Field Crop Production
   Ex. M: Vegetable & Melon Crop Production
   Ex. N: Total Fruit & Nut Production
   Ex. O: Seed & Nursery Production
   Ex. P: Apiary (Honey/Wax/Pollination) Production

5. Income/Poverty Statistics
   Ex. Q: Median Household Income
   Ex. R: Household Income Distribution
   Ex. S: Median Per Capita Income
   Ex. T: Percentage of Residence Living in Poverty (Adults & Children)
   Ex. U: Percentage of Residents With-out Health Insurance

6. Educational Attainment & Earnings
   Ex. V: Educational Attainment by Adults 25+
   Ex. W: Median Earnings by Educational Attainment

7. Residential Real Estate Market & Assessed Valuation
   Ex. X: Housing Affordability Scale: Imperial County
   Ex. Y: Housing Affordability Scale by County (Southern California, California, United States)
   Ex. Z: New Home Sales
   Ex. AA: Total Home Sales (New & Existing)
   Ex. BB: Median Home Prices
   Ex. CC: Residential Sales Per Square Foot (All Product Types)
   Ex. DD: Average Home Size (Sales - All Product Types)
   Ex. EE: Total Number of Foreclosures by Year
   Ex. FF: Real Estate Owned (Bank Owned) Sale Transactions
   Ex. GG: Real Estate Short Sale Transactions
   Ex. HH: Total Assessed Valuation (County of Imperial)

8. Consumer Confidence
   Ex. II: Taxable Sales by Quarter

9. K-12 Education Test Scores (Selected 3rd, 7th & 11th Grades)
   Ex. JJ: 2015-2017 CAASPP 3rd Grade English/Language Arts Test Results
   Ex. KK: 2015-2017 CAASPP 3rd Grade Math Test Results
   Ex. LL: 2015-2017 CAASPP 7th Grade English/Language Arts Test Results
   Ex. MM: 2015-2017 CAASPP 7th Grade Math Test Results
   Ex. NN: 2015-2017 CAASPP 11th Grade English/Language Arts Test Results
   Ex. OO: 2015-2017 CAASPP 11th Grade Math Test Results

10. Economic Outlook for 2018

11. References

12. Certification of Independence
2. Status of Economy

Overall, the economy of Imperial County is stable. Gross Domestic Product (GDP) for the region exceeded $6 billion for the first time in the history of the region. The GDP equals about $31,000 per capita in the region. By comparison, the GDP per capita of the United States is about $53,000. The GDP of the Imperial County region compares to that of South Korea ($26,000), Spain ($32,000) and Italy ($35,000). If Imperial County was its own nation, its GDP per capita would rank 14th in the world.

**Exhibit A: Gross Domestic Product (GDP) of Imperial County (El Centro MSA)**

As of September 2018 (October 19, 2018 release), the unemployment rate in Imperial County was 19.3%. This figure is higher than the same period in 2017 (16.9%), though lower than it has been from the period of 2008-2016 when it averaged about 25.4%. As a reference point, unemployment at the height of the "Great Recession" was 32%. The total number of persons in the labor force increased by about 1,900 over the past year from 72,600 to 74,500. This reverses a five-year trend where the year-over-year labor force was in decline (the high point was 80,900 in 2012). The total amount employed is now 60,100, which is a slight reduction year over year, hence the increase in the unemployment rate.

In past forecasts, DMG, Inc. has stated that one reason for the large increase in labor force between 2010 and 2012 (increase of 21% over 5 years) was the re-entry of labor that is based in Mexicali to the United States as the economy began to recover. As persons that first re-entered the labor force through Imperial County migrate to the job bases in San Diego, Orange County, Los Angeles, and other similar places, the labor force has slowly reduced and stabilized. Another reason for the decline of the labor force is the continued automation in the agriculture industry that is reducing the number of total labor needed. Historically low unemployment throughout California and the entire United States is generating economic opportunity for labor in markets growing faster than the Imperial Valley, thus causing some of the labor force to migrate to other areas.
Exhibits B-E provides trend data regarding the labor force, employment, total persons unemployed and the unemployment percentage.

**Exhibit B: Total Available Imperial County Labor Force (2004-2018)**

**Exhibit C: Total Persons Employed in Imperial County (2004-2018)**
Exhibit D: Total Persons Unemployed in Imperial County

Exhibit E: Imperial County Unemployment Rate
3. Industry & Occupational Analysis

Economist’s Note: The graphs and analysis that follow in this section are based on minimum current employment of between 100 persons within a specific category (position). While this sounds low in terms of pure numbers, consider that the population of Imperial County is about 190,000. Scaled in comparison to Los Angeles County where the population is about 10.3 million people, the same minimum requirement ratio is 54 persons per Imperial County person. Another way to explain is for each 100 persons employed in a position in Imperial County it would take 5,400 persons in Los Angeles County to reach the same scaled ratio.

Approximately 30% of the total jobs in Imperial County are within government agencies (local, state, and federal). The seven incorporated cities along with the school and utility districts account for local jobs while state jobs are driven by the presence of state prisons and Federal jobs are predominately by border security (Department of Homeland Security) and a privately-operated immigration detention facility. The greatest numbers of private sector jobs are associated with the agriculture (farming, transportation, and some administrative support) and retail sectors (sales). Exhibit F provides a breakdown of the number of jobs by occupation and a comparison between 2015, 2016, 2017, and 2018. Most job categories have declined in overall employment in the last two years, though there is a notable increase in health care practitioners and related fields.
Exhibit G provides an understanding of job/occupational distribution ranked by median annual pay. The total number of jobs within the region is listed in parenthesis (in thousands of jobs). As a reminder, the comparative ratio between Imperial County and Los Angeles County is 1:54, meaning if an industry has 1,000 jobs in Imperial County, it would have to have 54,000 jobs in Los Angeles County to have the same statistical significance on that economy. The median pay for all industries in Imperial County is $44,937 per year. Note that five of the seven largest occupational categories pay less than the median.

**Exhibit G: 2018 Occupational Categories by Median Annual Pay (Job Count in Thousands)**
In terms of professions with anticipated growth, Exhibit H provides total new opportunities as projected from 2016-2026 in Imperial County (minimum 450 positions). Six of the projected growth areas are in areas that provide a path to the middle class (office/administrative, sales, education, management, health care practitioner, and farming/ranch/agriculture management) while four of the projected growth areas are in lower paying job classifications (personal care, home health care, food preparation, and retail sales).

Exhibit H: Professions with Anticipated Growth by Number of New Positions (2016-2026)
In terms of employment opportunities that are expected to generate at least 100 jobs in the coming years (by 2024) and provide an income of at least $40,000 annually, there are only seven categories. Shown below (Exhibit I), this includes supervisor of correctional officers, general operations managers, registered nurses, correctional officers, elementary school teachers, sales (non-technical), and supervisors of office and administrative personnel.

**Exhibit I: Projected High Growth Occupations (100+ Jobs / $40k Annually) 2016-2026**

4. Agricultural Production as a Leading Industry
Agriculture is the largest private sector industry in the Imperial Valley. While the direct jobs associated with the industry are traditionally low pay, agriculture supports many families in a variety of occupations such as direct farming, professional/business (including accountants), and transportation. Since many of the agriculture-related companies are family owned, the “private” wealth within the region is often rooted in agriculture.

*It is noted that the minimum wage in California continues to increase (currently $11.00 per hour, increasing to $15.00 in 2022). The increase in minimum wage will provide additional financial remuneration for direct labor involved in agriculture.*

To begin, the region actively farmed 539,272 acres in 2017. This is a decrease of about 0.52% from 2016 when 542,063 were farmed. To put this into perspective, Imperial County actively farmed 842 square miles of land. This is about the size of the cities of Los Angeles, San Diego, and Sacramento combined!

Exhibit J provides the total agriculture production for Imperial County. In 2017, agriculture production totaled $2.066 billion (or about $3,830 per acre farmed). This represents an increase of $2.4 million (0.12%) from 2016 and was within about $93 million of the record high seen in 2013 ($2.158 billion).

The Imperial Valley exports a significant amount of crop/seed. International exports are focused on Japan (37%), Mexico (35%), South Korea (10%), China (4.4%), and Canada (4.1%). The products most often exported include hay/straw, vegetables, and seed. Overall, it is estimated that about $525-$550 million of agriculture product is exported (about 25% of total production).

Domestically, Imperial Valley crops are most often exported to Hawaii and Florida (these two states account for over 90% of product export within the United States). The crops most often exported domestically include vegetables and nursery (plant) products.

The agriculture industry as a whole in the Imperial Valley continues into headwinds. Rising costs in the face of increasing minimum wage in California, increased transportation expenses, and trade uncertainly is creating significant concern for local farmers. Of increasing concern to farmers is the availability of labor. The concern is that the younger generation has little interest in the long days and seven-day weeks expected to own a local farm while the immigration policy issues in Washington, DC are causing uncertainly for those needing production labor that often comes from Mexico.

Water continues to be the top concern for Imperial Valley farmers. While California received a respite from the five-year drought (2012-2016) with the rains in the winter of 2017, drought conditions are quickly returning as there was no significant rainfall in the winter of 2018. Pending water transfers to San Diego coupled with the potentially devastating impacts of exposed playa at the Salton Sea may generate additional issues. The State of California continues to “kick the can down the road” to lasting meaningful solutions to the Salton Sea.

The net effect of these two changes will be decreased use of labor and increased automation. Crop producers are indicating that labor intensive crop production will decrease over time as said production is moved out of state (to Yuma, Arizona for example) and to Mexico. Harvesting practices are evolving as additional automation technology makes its way to the marketplace. Below are examples of traditional and automated crop work:
Picture 1: Traditional Onion Harvest: Imperial Valley

Picture 2: Automation in Carrot Harvesting

Picture 3: Automation Utilization in Row Crops

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 three tons of feed. The profit (value) in a particular animal is a function of both market price and the cost of food. The production of livestock in the Imperial Valley declined about 3% between 2016 and 2017 from $468.18 million to $452.17 million. The cattle markets have had large price fluctuation in the past 18-24 months and cattle inventory is currently high, which is causing prices to fall (simple supply/demand curve). In 2015, cattle prices were about $1.33 per pound versus 2016 when they fell to $1.18 per pound. Currently (October 2018), pricing is in the $1.13 per pound price range. As with last year, the big "winner" in the cattle industry are the processing facilities, which are charging record prices to cull/process product. The current “glut” is not expected to last more than another 12 months. Long-term production is beginning to taper as producers are not profitable. This means that the amount of cattle coming to market to be processed will decrease. This results in lower cull/processing costs. The net impact on the consumer (in the near-term) is expected to be negligible, though over the next five years, prices may increase to the consumer if production does not increase.

It has been noted in past reports that National Beef ceased beef processing operations in 2014. In the last 18 months, One World Beef has begun operations in the former facility. The facility is reportedly serving as a specialty processor for related-family operations and as a contract packager for what consumers would term as private labels. Based on employment numbers, it is estimated that the facility is operating at about one-sixth of total capacity. If One World Beef chooses to increase production, this may result in hundreds of new processing jobs being generated in the region both at the facility and in support of operations (i.e., transportation).
Field crops accounted for $365.82 million of production in 2017. This is reduced from $381.18 million in 2016 and also represents a decrease from 2015 when the total value was $422.32 million. The number of acres in production in 2017 was 326,667 (an 11,000 acre decrease from 2016 which saw 333,762 acres farmed for field crops). Overall field crops took up more space (510 square miles) than the size of the entire City of Los Angeles (486 square miles). Overall field crop prices (blended) fell to $1,119 per acre from previous amounts of $1,643 (2014), $1,208 (2015) and $1,142 (2016). Farmers continue to report losses based on crop prices in 2017, largely in pricing from alfalfa and Bermuda grass.

Unfortunately, the soft market has continued into 2018 and farmers are once again expected to sustain losses. The greatest factor has been the strength of the U.S. dollar overseas, making their product more expensive, thus causing foreign buyers to purchase crop elsewhere or adjust their own domestic production. In addition, the 2018 crop is likely to be impacted from United States trade policy which is impacting exports to Mexico, Canada, and China.

The top five crops in this category (production value) include alfalfa ($148.92 million), sugar beets ($53.6 million), Bermuda grass ($50.6 million), Sudan grass ($47.8 million) and Klein Grass ($20.7 million). Noticeably absent from the top five is wheat, which saw production decreases from $31.1 million in 2016 to $16.9 million in 2017 (a 45% decline). Exhibit L provides a historical chart of field crop production in Imperial County.
Vegetables and melons accounted for $1.019 billion, a slight increase (1%) over 2016 when crop production was $1.006 billion. The number of acres in production decreased from 133,593 acres to 128,769 (decrease of about 4%). Crop value per acre (blended) increased to $ 7,912 from $7,531 in 2016 and $6,637 in 2015 (an increase of 5% from 2016 to 2017 and 13.4% from 2015 to 2016).

The crops with the highest production value for 2017 included leaf lettuce ($217.7 million), head lettuce ($116.6 million), broccoli ($94.8 million), spinach ($84.5 million), and onions ($79.1 million). 2017 was a profitable year for producers in these categories. 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

Fruit and nut production increased from $80.1 million in 2016 to $85.2 million in 2017. At the same time, production acreage increased from 9,443 to 10,209 acres (an additional 1.5 square miles). Production by acre for 2017 dropped to...
$8,345 from $8,482. The decline began from 2015 when production per acre was $9,487 per acre. Over the past two years, DMG, Inc. predicted this category would be a beneficiary of the region’s water supply certainty. DMG, Inc. has predicted that the more stable water supply in Imperial Valley (compared to California’s Central Valley) would result in a shift to some higher valued crops. Specifically, date groves have expanded by almost 500 acres in just the past year.

Imperial Valley produce crop (fruit and nut) is led by lemons and dates. Lemons accounted for $43.6 million of value in 2017 while dates accounted for $25.7 million of value. Combined, lemons and dates account for over 80% of the produce crop in Imperial Valley. Tangerines and grapefruit represented a production value of $3.0 and $4.6 million respectively in 2017. Exhibit N below shows historic production.

**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 2017, $137.3 million of seeds were produced versus $123.1 million in 2016. Overall, some 73,000 acres were dedicated to seed production, an increase of over 8,000 acres from the previous year. Crop value per acre remained constant at $1,865 per acre between 2016 and 2017. Alfalfa seed ($75.4 million) and Bermuda seed ($25.9 million) represented most of the production while about $1.7 million of onion seed was also produced.

The seed industry in the region is facing a level of uncertainty. While 2017 produced record crop values, the continued trade dispute with China is beginning to impact the industry. Seed farmers are reporting that inventory is up and overseas buyers from previous years have not placed orders since the dispute began earlier this year (2018). The rise in inventory levels means that prices for seeds are dropping.

**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 $5.84 million of production in 2017, it is a vital industry to farming in the Imperial County. The core product in this category is pollination, which accounts for $5.3 million of production while $500,000 of honey and $22,000 of wax was produced. Exhibit P provides a history of apiary production.

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

5. **Income/Poverty Statistics**

Imperial County saw a significant increase in median household income from 2017 to 2018 (Exhibit Q). In fact, incomes increased from $42,560 to $49,371 in a single year, a 16% increase. This change is largely attributed to the increase in minimum wage in California.

**Exhibit Q: Median Household Income**
In terms of household income distribution, Exhibit R shows a breakdown since 2010. In the past year, there has been significant income migration from lower incomes (namely those segments of <$50,000 to those above. Overall, all four income categories >$50,000 saw increases while all four categories <$50,000 saw decreases.Amazingly, the percentage of families with a household income of over $150,000 more than doubled from 3.02% to 7.68% (154% increase in a single year). Households with an income of less than $50,000 decreased from 56.31% of all households to 50.44%.

Exhibit R: Household Income Distribution 2010-2017
Exhibit S provides recent data on per capita incomes. Median per capita income rose a modest $1,341 between 2016 and 2017, which represents an 8% increase (the largest year over year increase DMG, Inc. has tracked since 2005).

**Exhibit S: Per Capita Median Income 2005-2017**

The U.S. Federal definition of poverty is a family of four with a household income less than $25,100 (1/1/18). Pragmatically, this does not include families earning just over this amount (adjusted by family size) that are still likely impoverished. Exhibit T shows that almost 1-in-5 persons of all ages and just over 1-in-3 children under the age of 18 within the region live in poverty. Poverty has been reduced by over 10% in the past year, mostly as a result of a strong economy and an increase to the minimum wage.

**Exhibit T: Percentage of Population (All Residents and Children <18) Living in Poverty**
**Health Care and Coverage**

The Imperial Valley is seeing an increase in the number 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 was reduced to only 15%. In 2016, the percentage of Imperial County residents without health insurance fell to 10.6%. As of the latest figures (2017), the number of uninsured has fallen to 8.3% or by 65% from its peak in 2010.

**Exhibit U: Percentage of Residents without Health Insurance**

6. **Educational Attainment and Earnings**

Economic opportunity in the United States is tied to workforce education and training. The Imperial Valley has some of the lowest levels of education attainment by adults 25+ in both California and nationwide. This directly impacts economic opportunity. Exhibit V provides an understanding of the highest level of education achieved by adults within the region. In total, 31% of adults 25+ lack a high school diploma or equivalent. An additional 23% only have a high school diploma (or equivalent). Only about 14% 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.

It is noted that there is a noticeable migration of attainment of adults 25+ that have moved from the “less than 9th grade“ category into either the “some high school” or “high school diploma or equivalent” categories. There is no question that reversing the figures in Exhibit V will take generations, but the current trend is favorable.
Education impacts earnings. Exhibit W shows earnings of various levels of adults based on education for selected years from 2008-2017. 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.

Further, consider that since 2008, a person without a high school diploma has seen their income fall by $200 per year, while a person with a high school diploma has seen their income increase by over $4,100 per year. Over a forty-year career, that is a difference of over $160,000.
7. Imperial County Housing Market

In previous forecasts, DMG, Inc. has stated that housing has the potential to be an economic driver for a regional economy, especially one that has an abundance of semi and full-skilled construction workers. The coastal communities of Southern California (San Diego, Orange, Los Angeles, and Ventura) continue to experience a severe housing shortage. The shortage is pushing those on the lower end of the income spectrum to higher densities and even homelessness. The homeless problem in many coastal communities is now manifesting itself into a public health crisis. Imperial County has a stable housing market. Overall occupancy of rental housing is hovering in the 97% range (this is considered full occupancy for rental housing). While property managers report that 10-15% of renters pay late, they do pay and that evictions are almost non-existent, and have generally been limited to “life-changing events” such as divorce, death, and sudden job loss.

Apartment rents vary based on size and condition from $600 (lower-end 2 bedroom/2-bathroom unit) to $1,150 for a newer upper-end 3-bedroom/2-bathroom unit). Rental housing (single family) for the same 3-bedroom/2-bathroom home ranges from $1,000 to $1,400 per month depending on location, age, and condition. While occupancy is at its highest point in memory for 30+ year property managers, rents have not (yet) gone up, though they expect rents to climb 5-10% in the next year.

Overall, property managers, real estate developers, and brokers state that the housing market in Imperial County is “stable” and that if some form of hyper-growth market was to take hold, it would be predicated upon the development of middle-class job opportunities to drive the economy.
Imperial County provides an opportunity for a naturally affordable housing market. Below is scale of housing affordability based on median home price divided by the median household income. Exhibit X shows that it takes about five times the median household income to purchase the median home.

### Exhibit X: Housing Affordability Scale (Median Home Price / Median Household Income)

![Housing Affordability Index](chart)

Imperial County continues to have the most affordable housing market in Southern California. Using a comparative housing affordability scale (median home price divided by median household income), the median home in Imperial County sells for about five times the median household income. San Bernardino and Riverside Counties offer comparatively affordable home with the scale between 6.0 and 6.5. As a nation, the median home costs about 4.17 times the median income. Coastal communities and California as a whole have affordable indexes ranging from 7.42 (Ventura County) to 10.35 (Los Angeles County). Exhibit Y provides a full comparison by County.

### Exhibit Y: Housing Affordability Scale by County (Median Home Price / Median Household Income)

![Housing Affordability Index by County](chart)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial County</td>
<td>5.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>4.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Bernardino</td>
<td>6.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riverside</td>
<td>6.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventura</td>
<td>7.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Diego</td>
<td>8.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>California</td>
<td>7.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>9.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Angeles</td>
<td>10.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Total home sales (new and existing) continue to be stable. For the four-year period from 2014-2017, the Imperial Valley has averaged between 1,400 and 1,500 total home sales per annum. 2018 is expected to be lower than previous years with total home sales expected to reach about 1,240 (based on transaction through September 2018). Exhibit Z shows the stabilization after the peak of the housing boom and corresponding sell-off by financial institutions of foreclosed inventory.

Exhibit Z: Imperial County, CA Total Home Sales by Year (New and Existing) (2018 Projected)

Exhibit AA 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 had stabilized in the 160-200 homes per year range from the period 2010-2016. "Public“ builders have largely left the region leaving home construction to local/regional-based builders. The builders that have continued in recent years have focused on the "build to order" market, which is defined 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. In 2017, only 101 new homes were built, (mostly in the cities of Brawley and Imperial). For 2018, new home construction is projected to only total 90 for the year.

Figure 1: New Home in City of Imperial, CA
(Vista del Valle Ranging from 1,566-2,564 square feet and priced from $278,000 - $341,000)
Exhibit BB provides a representation of median home prices. Home prices peaked in 2006 at $275,000. Prices slid during the great recession bottoming out in 2010 and 2011 at $125,000. Prices have steadily risen since with the projected 2018 median home price of $219,000 (this is up from $215,000 one year ago and $202,000 two years ago. The rate of increase bodes well for the marketplace overall as to not generate a bubble, as may be forming in coastal markets. The median price for a home is now about $161 per square foot (Exhibit CC). Exhibit DD provides an understanding of the average housing unit sold in terms of square footage. Overall, the average housing unit sold in Imperial County is approximately 1,360 square feet in size.
Exhibit EE further shows the decline in foreclosed homes from 2009 to current (2018). The region went from a high of 1,444 homes foreclosed in 2009 to 76 in 2017 a decrease of over 90%. It is projected that for full-year 2018, foreclosures will rise slightly to 101.
A stabilized housing market also means that real estate owned (REO) sales (also known as "Bank-Owned Sales") have decreased substantially. Exhibit FF below shows the last three years (2015-2018) resulted in less than 100 REOs each year. In fact, it is projected that there will only be about 35 REO sales in 2018 in all of Imperial County.

Exhibit FF: Imperial County Real Estate Owned (REO) (Bank Owned) Sales/Transactions
A short sale is a means for which a property owner can sell a property for less than what they owe with the permission and cooperation of the lender. This arrangement often benefits buyers, sellers, and lenders to dispose of a distressed asset. Sellers can sell their home without the burden of a full-foreclosure. Buyers often purchase a property at a discount and lenders will save both time and money in this process as they will not have to invoke an expensive and burdensome legal process. A stabilized housing market also means that the number of short-sales has gone from over 300 (at the height of the "Great Recession") to about 12 (projected) for all of 2018. Exhibit GG provides a year-by-year comparison.

**Exhibit GG: Imperial County Residential Short-Sale Transactions**

Assessed Valuation

Imperial County experienced a boom in housing and commercial construction in the early-mid 2000s. This was reflected in assessed valuation that grew by over $5 billion in just five years. As the Great 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 (2018-19), total assessed valuation in Imperial County is $12.87 billion. This is a slight decrease from 2017-18 when assessed valuation was $12.98 billion. Overall, the region has seen assessed valuation increase from about $8.0 billion in 2005-06 to what it is today. The factors behind the increase continue to be three-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. Finally, renewable energy projects and associated infrastructure are generating increases in overall valuation.* Exhibit HH below shows historic trends regarding assessed valuation in Imperial County.

*Economist’s 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).
8. Consumer Confidence (Retail Sales & Use Tax & Spending)

Imperial County continues to see increases in taxable sales. Taxable sales are generally based on consumer spending (cars, gasoline, restaurant food, clothing, and other consumer goods). For the latest fiscal year (FY 2017-18), taxable sales reached a record high of $2.71 billion. Taxable sales generate revenue for local governments (Imperial County and the incorporated cities). Exhibit II shows historic taxable sales from FY 2006-07 through FY 2017-18.

Exhibit II: Taxable Sales in Imperial County FY 2006-07 to FY 2017-18
9. Education Test Scores

In 2015, DMG, Inc. introduced a new section in the annual economic forecast focused on academic achievement. Use of the California Assessment of Student Performance and Progress System (CAASPP) began in California in 2015, therefore there are now records available. This section presents a cross-section of 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.”

Overall, Imperial County students are slowly improving, but the achievement still lags against the average across the State of California. Over the last four years, small gains have been made in most areas, though there is marked slippage in scores among 11th grade math students. Exhibits JJ-OO below present the achievement results.

**Exhibit JJ: CAASPP 3rd Grade Achievement English 2015-2018**

<table>
<thead>
<tr>
<th>Year</th>
<th>Standard EXCEEDED</th>
<th>Standard MET</th>
<th>Standard NEARLY Met</th>
<th>Standard NOT Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>10</td>
<td>16</td>
<td>29</td>
<td>45</td>
</tr>
<tr>
<td>2016</td>
<td>12</td>
<td>19</td>
<td>25</td>
<td>43</td>
</tr>
<tr>
<td>2017</td>
<td>15</td>
<td>20</td>
<td>27</td>
<td>38</td>
</tr>
<tr>
<td>2018</td>
<td>17</td>
<td>20</td>
<td>27</td>
<td>36</td>
</tr>
</tbody>
</table>

---

**Exhibit KK: CAASPP 3rd Grade Achievement Math 2015-2018**

<table>
<thead>
<tr>
<th>Year</th>
<th>Standard EXCEEDED</th>
<th>Standard MET</th>
<th>Standard NEARLY Met</th>
<th>Standard NOT Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>6</td>
<td>24</td>
<td>30</td>
<td>39</td>
</tr>
<tr>
<td>2016</td>
<td>8</td>
<td>26</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>2017</td>
<td>12</td>
<td>29</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>2018</td>
<td>12</td>
<td>26</td>
<td>30</td>
<td>33</td>
</tr>
</tbody>
</table>
Exhibit LL: CAASPP 7th Grade Achievement English 2015-2018

Exhibit MM: CAASPP 7th Grade Achievement Math 2015-2018
10. Economic Outlook for 2019
Overall, the economy of the Imperial Valley is stable, but not necessarily thriving. There are no real factors that are driving real growth and the region can be described as economically treading water. Most economic indicators show return to pre-recession levels with some outperforming the highs of 2004-2005. Opportunities for the region will likely be the result of:

A. Trade Policies that force additional manufacturing/assembly/distribution back to the United States (the Agreement Between the United States-Mexico-Canada Agreement or USMCA)
B. Additional development of renewable energy projects from SB 100 (100% Renewable Portfolio Standard by 2045)
C. Hosting large institutional projects where the desire is to host in less-populated areas (State Prisons, Federal Detention Centers and other similar facilities)

**Agriculture** will continue to be the largest economic sector. 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 539,000 acres (842 square miles) of active production land. The water crisis of 2012-2016 will quickly return unless California gets significant rainfall during the winter of 2018-19. Unfortunately, the State of California continues to fail at the generation of water storage infrastructure. Headwinds facing the industry continue to be California regulatory policies that do not recognize the need for flexibility among farm labor (especially for irrigation specialists), increasing minimum wage above that of neighboring states (and nations), and a general cost of business that may prevent the ultimate success of agriculture processing. The overall strength of the U.S. dollar makes Imperial Valley exports more expensive in foreign countries and there is concern that some crops production may become more automated, cease production, or move to Yuma County (Arizona) or Mexico. Finally, there is substantial trade uncertainly relative to most countries that the Imperial Valley exports product to. The previously mentioned USMCA has not been ratified by Congress and there appears to be no end to the potential trade war with China. Further, some foreign nations, such as Saudi Arabia, with a need for specific crops (such has hay) are beginning to invest in their own production capacity in Southern California. These operations appear to have little interest in communities for which they are located and are just dedicated operations.

**Housing** in the Imperial Valley, in general, is affordable in comparison to the balance of Southern California with the median home selling for about $219,000. New home construction has been fairly slow in recent years and is expected to continue at a rate of about 100-150 homes a year for the time being. That being said, home builders are reporting that they are currently entitling new land and installing infrastructure to increase their ability to supply/deliver production homes in the marketplace. Additionally, there are still over 30,000 units of fully entitled housing units ready to build when the market forces dictate such demand. These units are throughout the entire Imperial Valley region including Brawley, Imperial, El Centro, Heber, and Calexico (along with unincorporated portions of the Imperial County).

**Renewable Energy Development** has received over $7 billion of new economic investment in the region in the past seven years. Much of this has been a result of renewable energy development (solar, wind, geothermal, and biofuels). At current, the region has about $6.5 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 RPS in California moving from 33% (2020) to 50% (2030) and 100% in 2045 and the region has the opportunity for another $20+ billion of energy production investment over the next 10-15 years. Additionally, there are multiple companies working on developments that would result in large-scale geothermal production and rare mineral extraction (lithium). Lithium is used in the manufacturing of energy storage devices (namely batteries). Finally, there has been significant investment made in proof of concept (research) projects involving growing algae as a fuel source. There is potential that algae production can be done on a commercial scale, thus generating an entirely new category of renewable energy production in the region.
Retail Sales have been increasing each of the last eight years and hit an all-time high of $2.71 billion in FY 2017-18. A growing economy being driven by increases in California’s minimum wage is putting more money in the pockets of residents, which is resulting in increased spending. Coupled with 1.1 million+ residents in Greater Mexicali, Mexico that shop in the Imperial Valley, retail spending is expected to rise by 5-7% in the coming year.

Threats to the regional economy are as follows:

A. Agriculture prices (crop and livestock) as a result of general market pricing and strength of the U.S. dollar.
B. Federal government policies regarding immigration and trade have the ability to dramatically impact the Imperial Valley economy, namely the impact of USMCA and the trade war with China.
C. Government regulation, specifically such items as mobile and stable source air quality that may impede the growth and sustainability of the agriculture industry.
D. Availability and stabilization of the water supply.
E. The impact an exposed Playa at the Salton Sea would have on air quality and in destroying farmland (particularly in the northern portions of Imperial County).
F. 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).
11. References

A. American Community Survey
B. Bureau of Economic Analysis
C. California Department of Transportation
D. California Energy Commission (CEC)
E. California State Board of Equalization
F. County of Imperial Assessor
G. County of Imperial Agriculture Commission
H. County of Imperial Executive Office
I. Dataquick
J. Development Management Group, Inc. (Internal Calculations)
K. Environics Analytics
L. Federal Energy Regulatory Commission (FERC)
M. Imperial Valley Economic Development Corporation
N. Imperial Valley Real Estate Services, Inc.
O. Nielsen/Claritas
P. State of California Department of Finance
Q. State of California Employment Development Department
R. United States Census Bureau
S. Unnamed Agriculture Professionals (Primary Research)*
T. Unnamed Energy Production Professionals (Primary Research)*
U. Unnamed Home Building Professional (Primary Research)*
V. Unnamed Multi-Family Rental Housing Professional (Primary Research)*

*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.

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 (November 2, 2018), then the undersigned reserves the professional privilege to modify the contents and/or conclusions of this report.

_______________________________
Michael J. Bracken, Managing Partner
Development Management Group, Inc.
41-625 Eclectic Street, Suite D-2
Palm Desert, CA 92260
(760) 346-8820 / (760) 346-8887 (fax)
(760) 272-9136 (mobile)
Michael@dmgeconomics.com
www.dmgeconomics.com
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
900 Wilshire Blvd., Ste. 1700, Los Angeles, CA 90017
Phone: (213) 236-1800
www.scag.ca.gov

IMPERIAL COUNTY
1503 North Imperial Avenue, Suite 104
El Centro, CA 92243
Phone: (760) 353-7800

ORANGE COUNTY
OCTA Building
600 South Main Street, Suite 1233
Orange, CA 92863
Phone: (714) 542-3687

RIVERSIDE COUNTY
3403 10th Street, Suite 805
Riverside, CA 92501
Phone: (951) 784-1513

SAN BERNARDINO COUNTY
Santa Fe Depot
1170 West 3rd Street, Suite 140
San Bernardino, CA 92418
Phone: (909) 806-3556

VENTURA COUNTY
950 County Square Drive, Suite 101
Ventura, CA 93003
Phone: (805) 642-2800