

Commercial Yellowfin Tuna Fishing in the Gulf of Mexico States

Yellowfin tuna (*Thunnus albacares*, Fig. 1), also known as Tuna or Ahi, inhabit tropical and subtropical oceans worldwide ¹. Yellowfin tuna are sensitive to low concentrations of oxygen; therefore, they tend to stay near the surface of the sea, especially in tropical waters where there is less oxygen at depth compared to cooler waters ². They are highly migratory and school by size, either with other yellowfin tuna or with different fish species ². Yellowfin tuna are torpedo-shaped and have bright yellow dorsal, and anal fins/finlets as their name suggests ¹. They grow fairly quickly, up to 400 pounds ¹. The maximum documented length is seven feet 10 inches, but they commonly grow to four feet 11 inches ². Yellowfin tuna have a maximum reported age of nine years ².

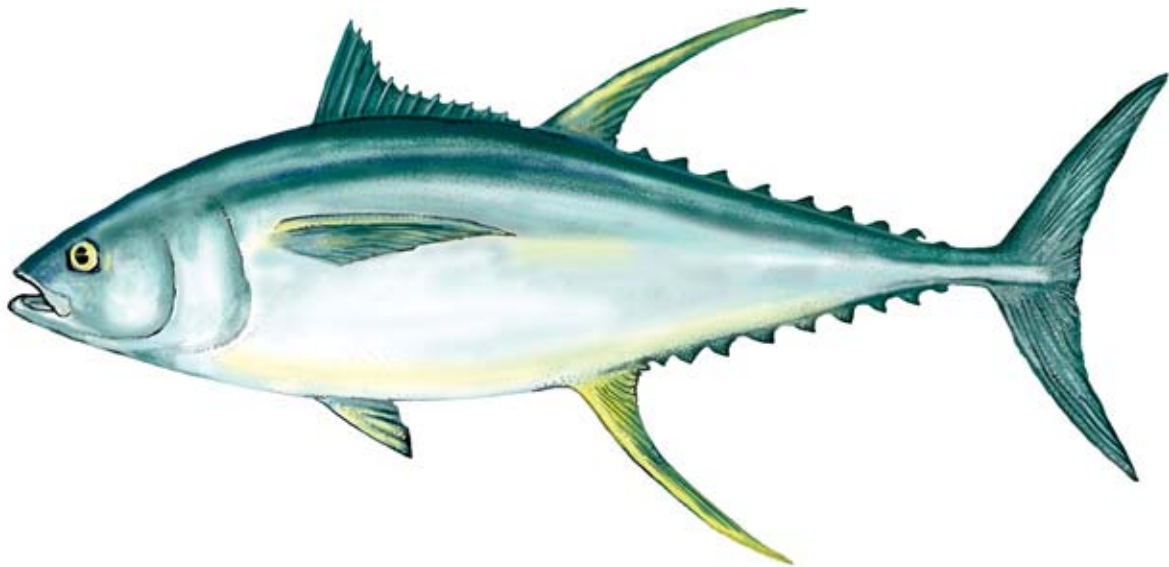


Figure 1. Yellowfin tuna (*Thunnus albacares*). Source: Florida Department of Agriculture and Consumer Service. Last visited: September 14, 2018.
<https://www.freshfromflorida.com/es/Divisions-Offices/Marketing-and-Development/Consumer-Resources/Buy-Fresh-From-Florida/Seafood-Products/Yellowfin-Tuna>.

In the Gulf of Mexico, yellowfin tuna spawn from May to August ¹. Females spawn about once every three days during these months, and produce 1-4 million eggs each time they spawn ¹. Eggs and larvae are pelagic, like the adults ². Yellowfin tuna eat fish, squid, and crustaceans, and are prey for top predators such as sharks and large fish ¹.

California's commercial yellowfin tuna fishery dates back to 1919 ³. The landings mainly supported California canneries, where the tuna was processed as light meat tuna ³. California yellowfin tuna landings increased from 1919 to 1976 but decreased thereafter until 1999 ³ (Fig. 2). The decline in the fishery is primarily attributed to the relocation of California canneries to American Samoa and Puerto Rico ³. This situation occurred as a result of the cannery "dolphin safe" policy, which called for canneries to stop buying yellowfin tuna caught on pods of dolphins ³. This policy drove many U.S. vessels to the western Pacific, and the U.S. fleet decreased from 141 vessels in 1976 to just nine in 1999 ³. From 1980 to 1985, concomitant with California's decline in landings, the Florida West Coast saw a large increase in yellowfin tuna landings ⁴ (Fig. 3). Florida's yellowfin tuna are caught with hook and line instead of nets, so the catch is "dolphin safe" ⁴.

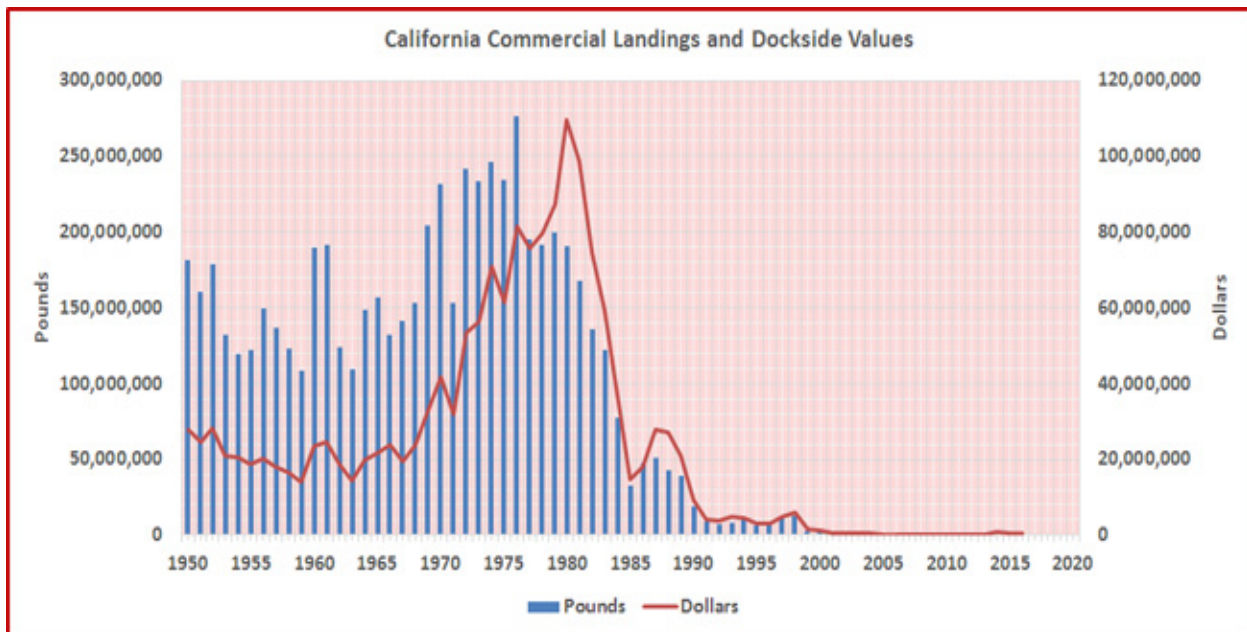


Figure 2. Commercial landings and dockside values of yellowfin tuna in California. The primary vertical axis shows the yearly commercial landings in pounds while the secondary vertical axis indicates the annual commercial dockside values in dollars. Source of raw data: NOAA Fisheries. Last visited: September 14, 2018. <http://www.st.nmfs.noaa.gov/>.

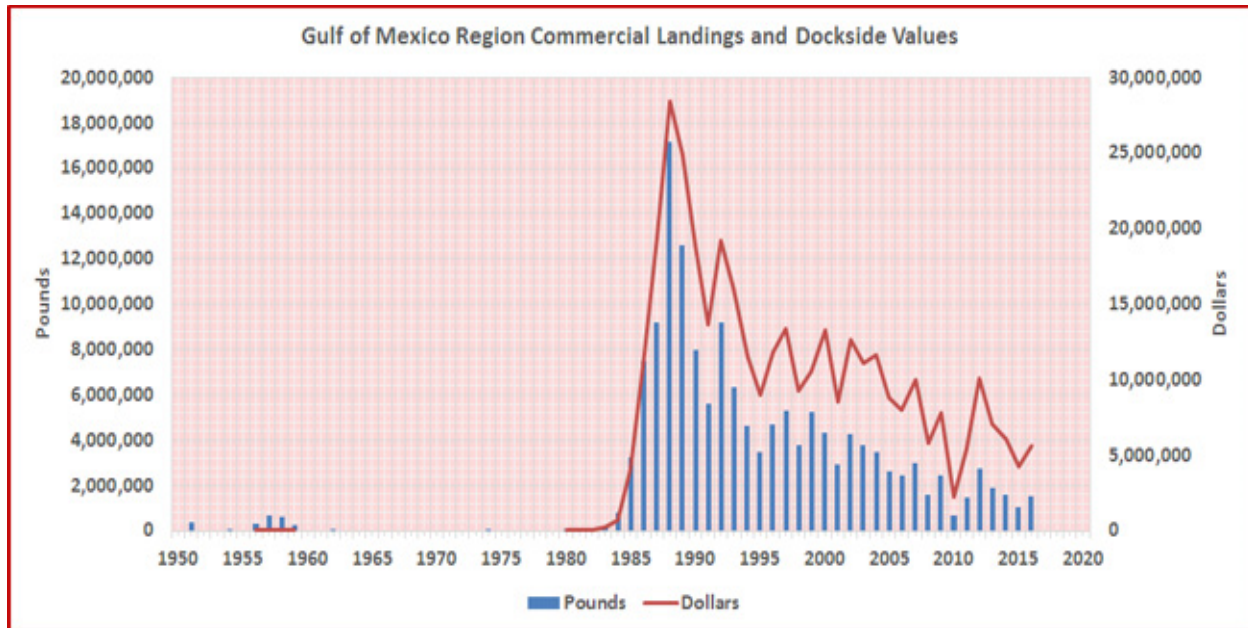


Figure 3. Commercial landings and dockside values of yellowfin tuna in the Gulf of Mexico region. The primary vertical axis shows the yearly commercial landings in pounds while the secondary vertical axis indicates the annual commercial dockside values in dollars. Source of raw data: NOAA Fisheries. Last visited: September 14, 2018. <http://www.st.nmfs.noaa.gov/>.

References:

- ¹ <https://www.fishwatch.gov/profiles/atlantic-yellowfin-tuna>
- ² <http://www.fishbase.org/Summary/SpeciesSummary.php?ID=143&AT=atlantic+yellowfin+tuna>
- ³ https://swfsc.noaa.gov/uploadedFiles/Divisions/FRD/Fishery_Monitoring/Tuna/yfweb00.pdf
- ⁴ <https://www.freshfromflorida.com/es/Divisions-Offices/Marketing-and-Development/Consumer-Resources/Buy-Fresh-From-Florida/Seafood-Products/Yellowfin-Tuna>

Recipe for Grilled Yellowfin Tuna with Marinade



Figure 4. This recipe is courtesy of allrecipes.com. For ingredients and cooking instructions, please visit <https://www.allrecipes.com/recipe/232365/grilled-yellowfin-tuna-with-marinade/>. Last visited: September 14, 2018.

Commercial Landings

The long-term annual commercial yellowfin tuna landings in the Gulf of Mexico states are shown in Fig. 3. Since 2011, the Gulf supplied 8% of the total yellowfin tuna domestic landings (Fig. 5) averaging 1.7 million pounds and valued at \$6.4 million annually. In 2016, Louisiana (13.9%) and Florida West Coast (4.5%) were the most significant suppliers from the Gulf of Mexico (Fig. 6). The bulk of the Yellowfin tuna was landed in Hawaii (56.8%). California landed 9.8%, and North Carolina added 8.0% to domestic landings. Dockside prices of Yellowfin tuna in the Gulf of Mexico states averaged about \$3.87 per pound during the past six years (Fig. 7).

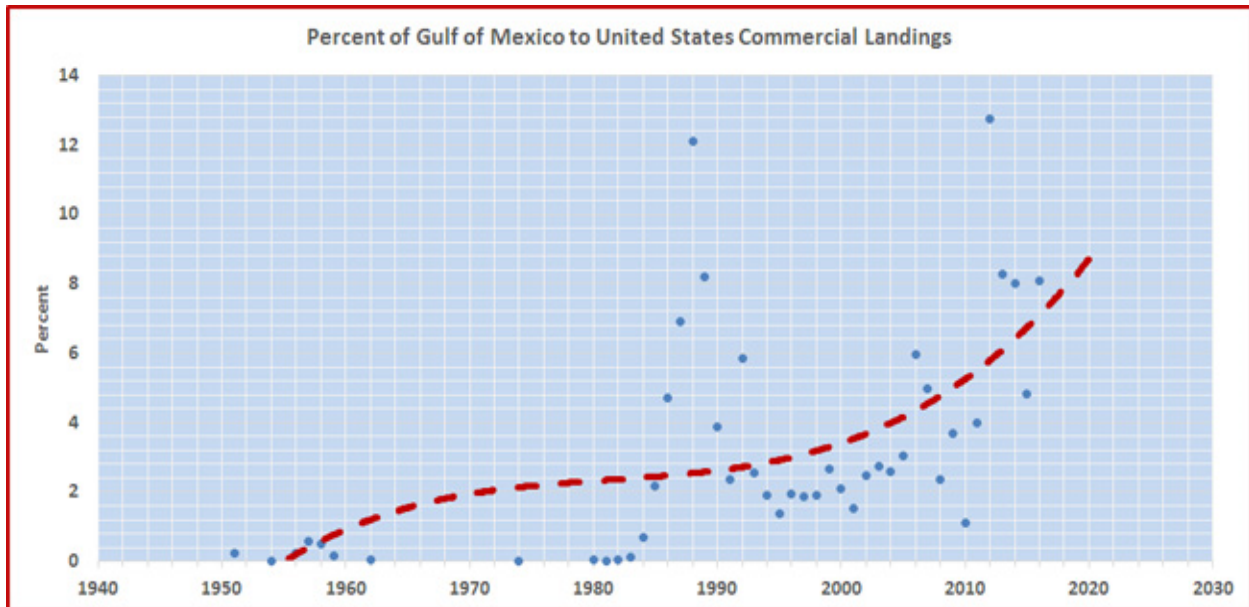


Figure 5. The vertical axis shows the percent of Gulf of Mexico to United States commercial landings of yellowfin tuna. Source of raw data: NOAA Fisheries. Last visited: September 14, 2018. <http://www.st.nmfs.noaa.gov/>.

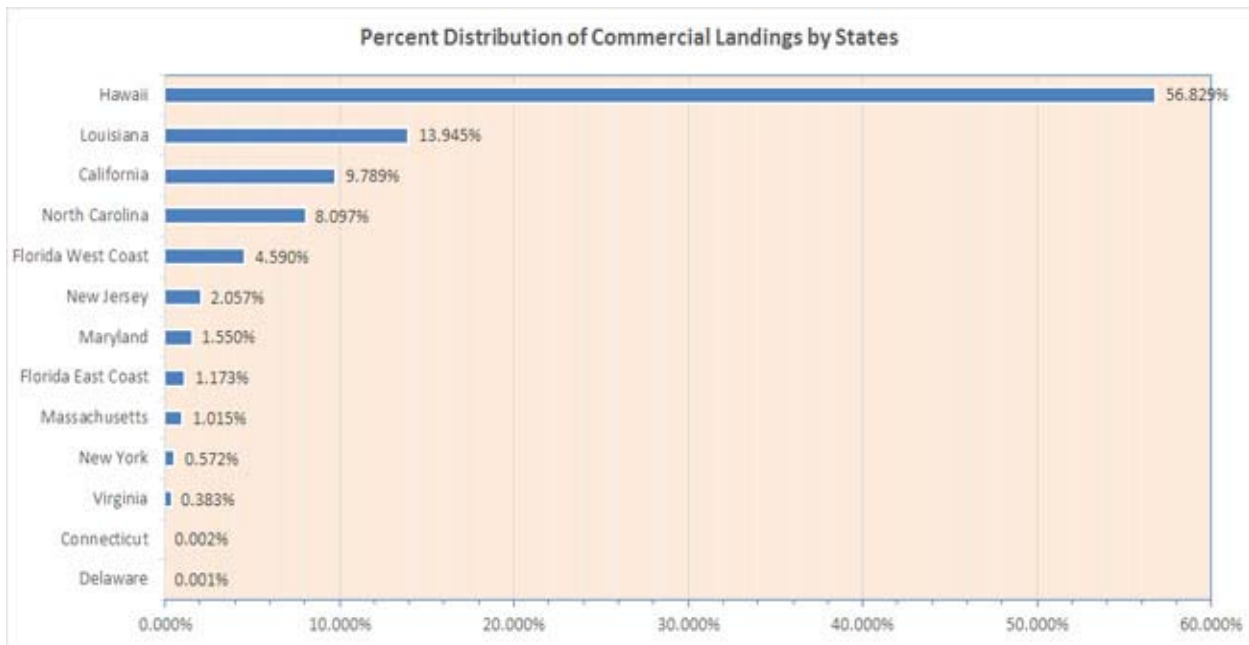


Figure 6. The vertical axis shows the percent distribution of commercial landings of yellowfin tuna by major producing states. Source of raw data: NOAA Fisheries. Last visited: September 14, 2018. <http://www.st.nmfs.noaa.gov/>.

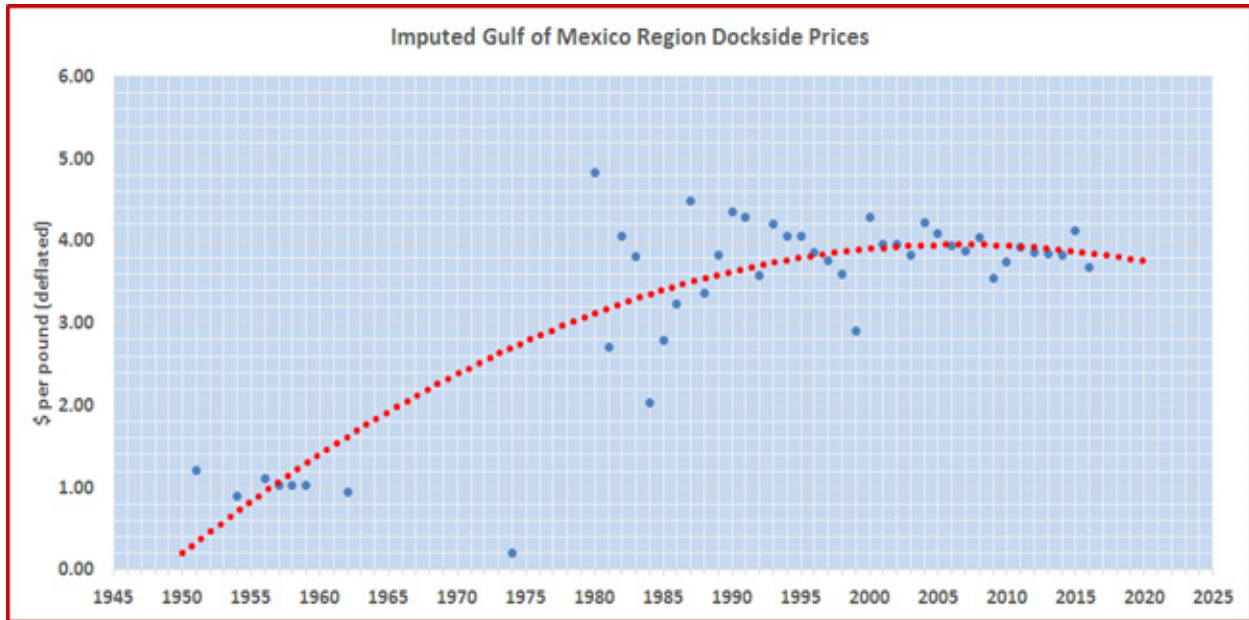


Figure 7. The vertical axis shows the average yearly dockside prices of yellowfin tuna in dollars per pound. Source of raw data: NOAA Fisheries. Last visited: August 7, 2018. <http://www.st.nmfs.noaa.gov/>.

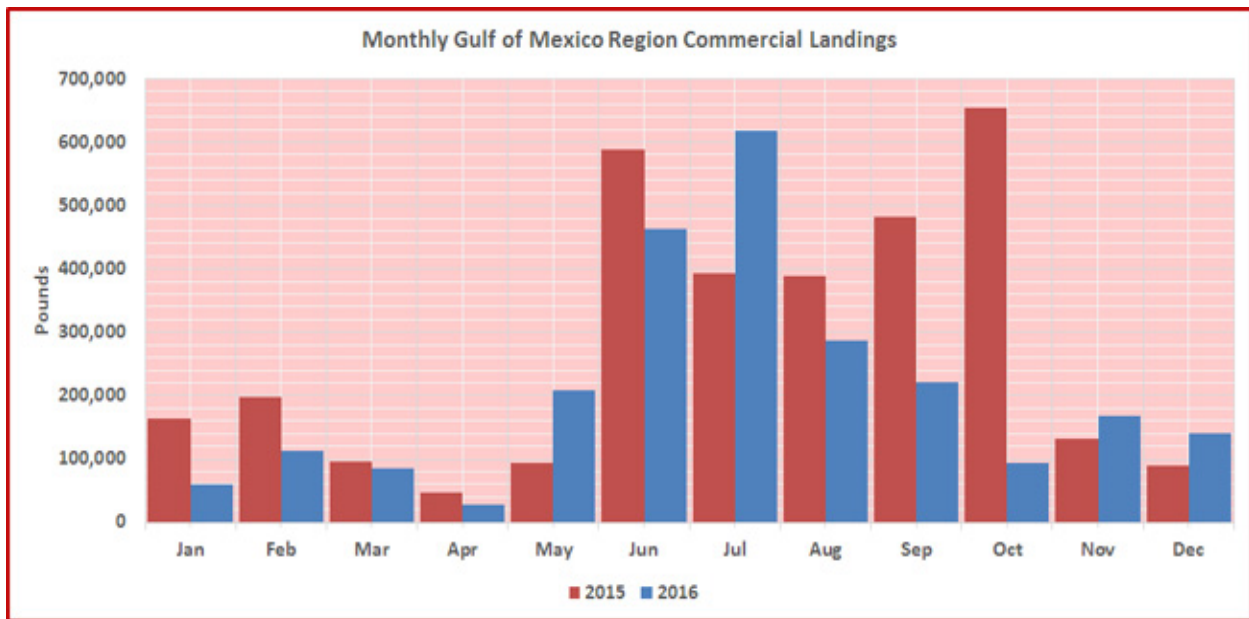


Figure 8. The vertical axis shows the monthly commercial landings of yellowfin tuna in pounds. Source of raw data: NOAA Fisheries. Last visited: August 7, 2018. <http://www.st.nmfs.noaa.gov/>.

MarketMaker Businesses

In 2016, the Gulf-wide commercial landings of Yellowfin tuna reached more than 1.5 million pounds with dockside values of \$5.6 million. Yellowfin tuna are harvested year-round (Fig. 8). More than 12,000 businesses which catch, process, and sell seafood products are registered in MarketMaker nationwide. There are more than 200 businesses which promote their seafood products and services in Mississippi MarketMaker.

To search for seafood businesses in MarketMaker, perform the following procedures:

1. Go to <https://ms.foodmarketmaker.com/main/mmsearch/>
2. Click “search” and type “**Seafood**” in the product box.
3. You can sort the search results by relevance and name.
4. You can also limit online searches by state, and type of business.

Economic Contributions

The economic contribution that the commercial Yellowfin tuna fishing makes region-wide is crucial information in making private investment decisions, formulating government policy, and developing research and extension programs for the industry. The IMPLAN (<http://implan.com/>) software and the 2013 input-output data for the five Gulf States were used in creating the regional economic model of commercial fishing in the Gulf of Mexico in 2016. The economic analysis used sector 17 or commercial fishing of the 2013 IMPLAN input-output data.

The annual commercial dockside values of Yellowfin tuna in the Gulf of Mexico states in 2016 reached \$5.6 million, which was 14.6% less than the average yearly dockside values in the region since 2011. The total output contribution of commercial Yellowfin tuna fishing in 2016 amounted to \$10.7 million (Fig. 7). This output of goods and service created by the Yellowfin tuna commercial fishing and related industries sustained 149 jobs and generated labor income amounting to \$3.8 million in the Gulf regional economy.

The Yellowfin tuna commercial fishing industry generates annual tax revenues for the Gulf States and the U.S. federal government. More than \$657,000 was projected to have been paid by households and businesses in 2016 to the federal government as social insurance tax, tax on production and imports, corporate profit tax, and personal income tax. The Gulf States were anticipated to have collected taxes from households and businesses in 2016 amounting to more than \$320,000 as social insurance tax, tax on production and imports, corporate profits tax, and personal tax.

Economic contribution of commercial Yellowfin tuna fishing in the Gulf of Mexico region				
Impact Type	Employment (Jobs)	Labor Income (\$M)	Total Value Added (\$M)	Output (\$M)
Direct Effect	121	2.4	2.9	5.6
Indirect Effect	9	0.6	1.2	2.5
Induced Effect	19	0.9	1.6	2.6
Total Effect	149	3.8	5.7	10.7

Figure 7. The total economic contribution includes direct, indirect and induced effects estimated by using 2016 annual landing values and 2013 IMPLAN data. The local purchases percentage was set at 100%. The number of jobs is rounded off.

Suggested citation:

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