

Employment, Incomes, and Economic Contributions of Aquaculture. Vol. 9, No. 4, Apr. 17, 2019.

U. S. Aquaculture Industry

U.S. aquaculture includes finfish farming and fish hatcheries, shellfish farming, and other aquaculture (<https://www.naics.com/>). The “finfish farming and fish hatcheries” industry comprise establishments primarily engaged in farm raising finfish (e.g., catfish, trout, goldfish, tropical fish, minnows) and hatching fish of any kind. The “shellfish farming” industry comprises establishments primarily engaged in farm raising shellfish (e.g., crayfish, shrimp, oysters, clams, mollusks). The “other aquaculture” industry comprises establishments primarily engaged in farm raising of aquatic animals (except finfish and shellfish) and farm raising of aquatic plants. Alligator, algae, frog, seaweed, or turtle production is included in this industry.

Aquaculture Employment, Wages, and Salaries

The U.S. aquaculture industry directly created more than 6,000 jobs per year in the United States since 2001 (Figure 1). All the Gulf of Mexico States (AL, FL, LA, MS, and TX) contributed less than one-third of all the jobs during the period. These jobs only involve those that were included in the Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) survey. Due to the lack of available data, non-QCEW employees, self-employed, and extended proprietors engaged in the aquaculture industry were not included. Aquaculture activities in Mississippi and Alabama during the same period added an average of 13 and 2 percent of the total number of QCEW jobs, respectively (Fig. 2). The number of QCEW jobs directly created by the aquaculture industry in the two states declined consistently starting in 2008.

The combined wages and salaries of all the QCEW employees averaged more than \$30,000 per person during the entire period under consideration (Figure 3). The annual earnings of workers in the Gulf of Mexico States during the period averaged more than \$35,000 per person or 117 percent of the national average. During the same period, Mississippi and Alabama QCEW workers received average annual pay amounting to 88 and 100 percent of the national average, respectively.

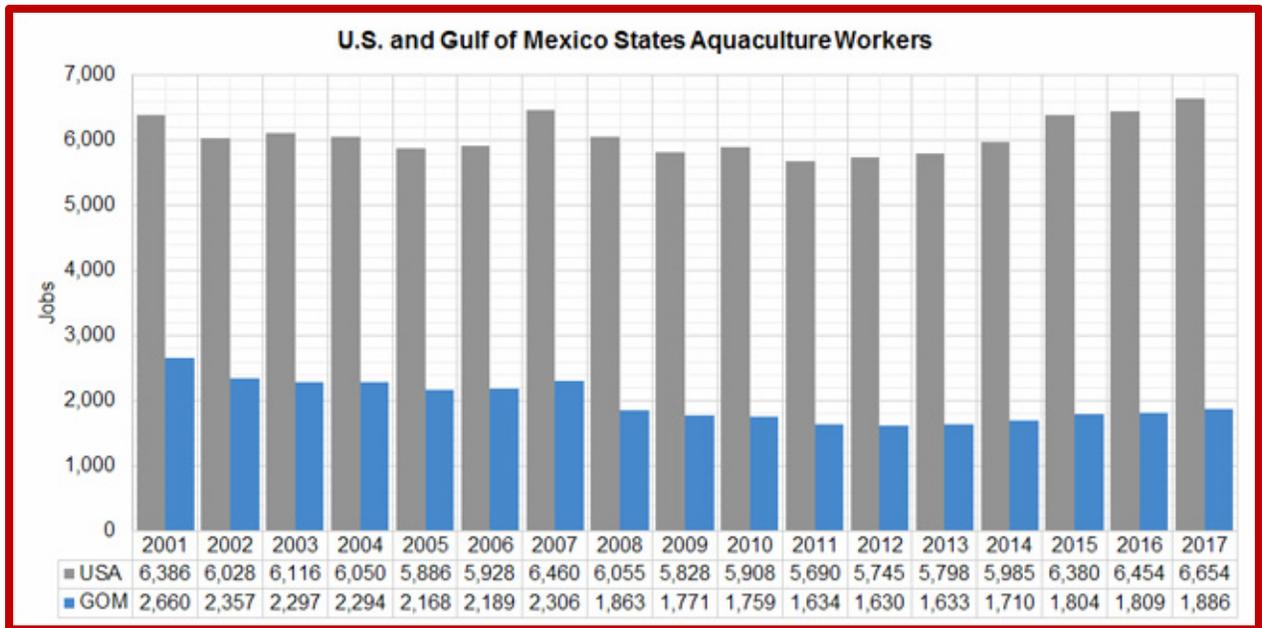


Figure 1. U.S. and Gulf of Mexico States annual employment of QCEW employees. Source of raw data: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

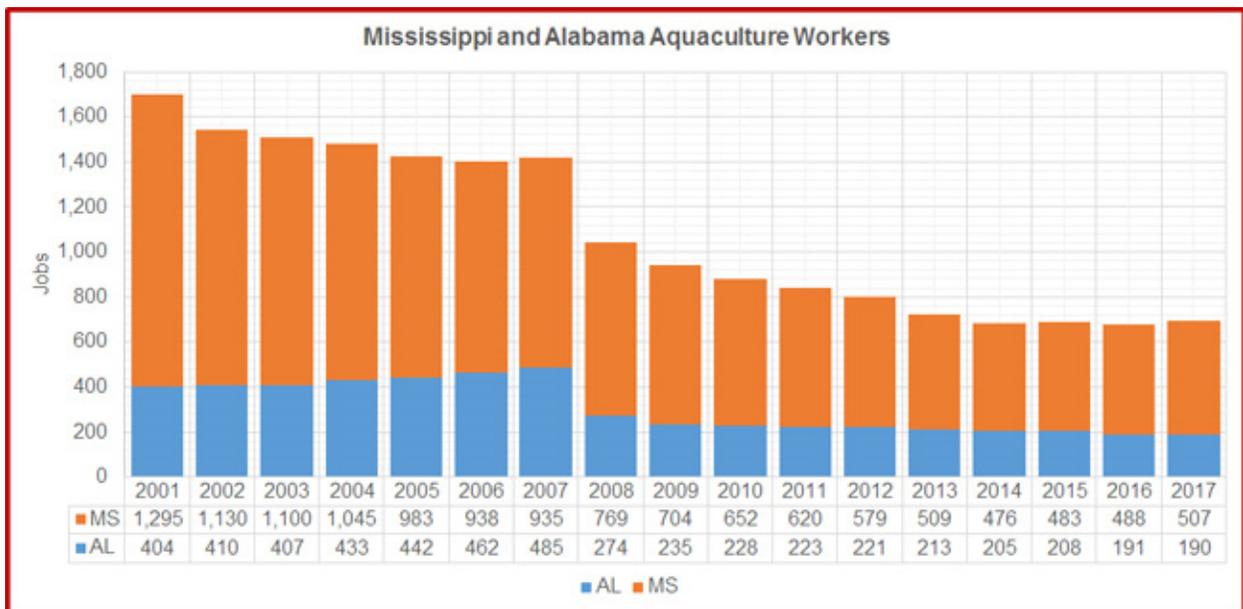


Figure 2. Mississippi and Alabama annual employment of QCEW employees. Source of raw data: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

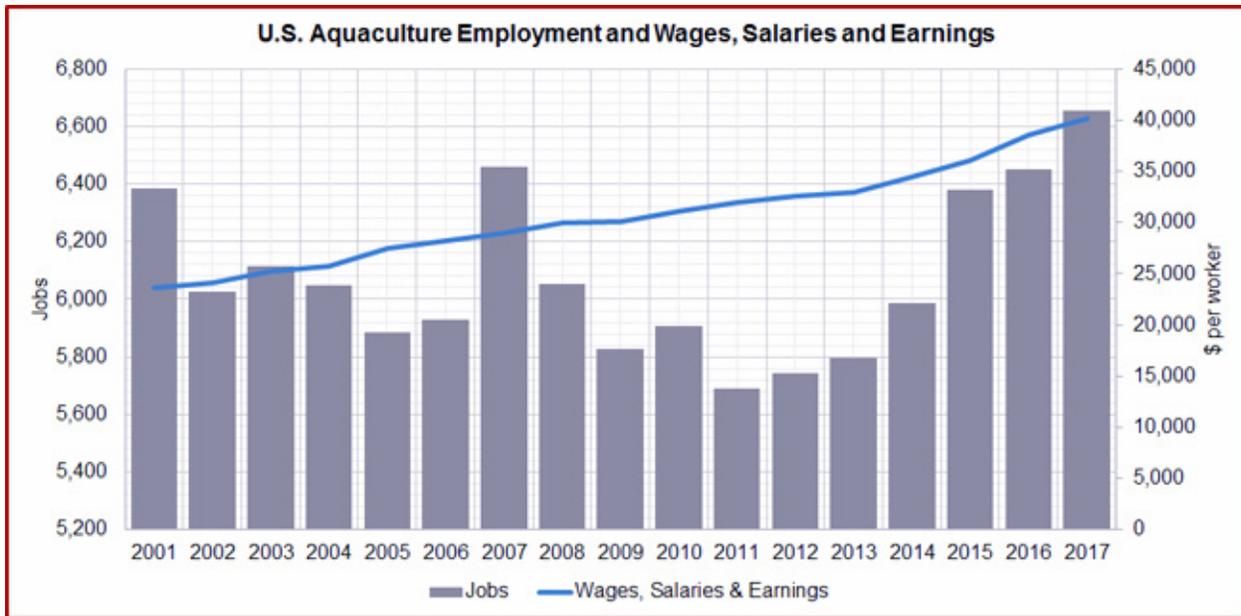


Figure 3. U.S. annual employment, wages, and salaries of QCEW employees. Source of raw data: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

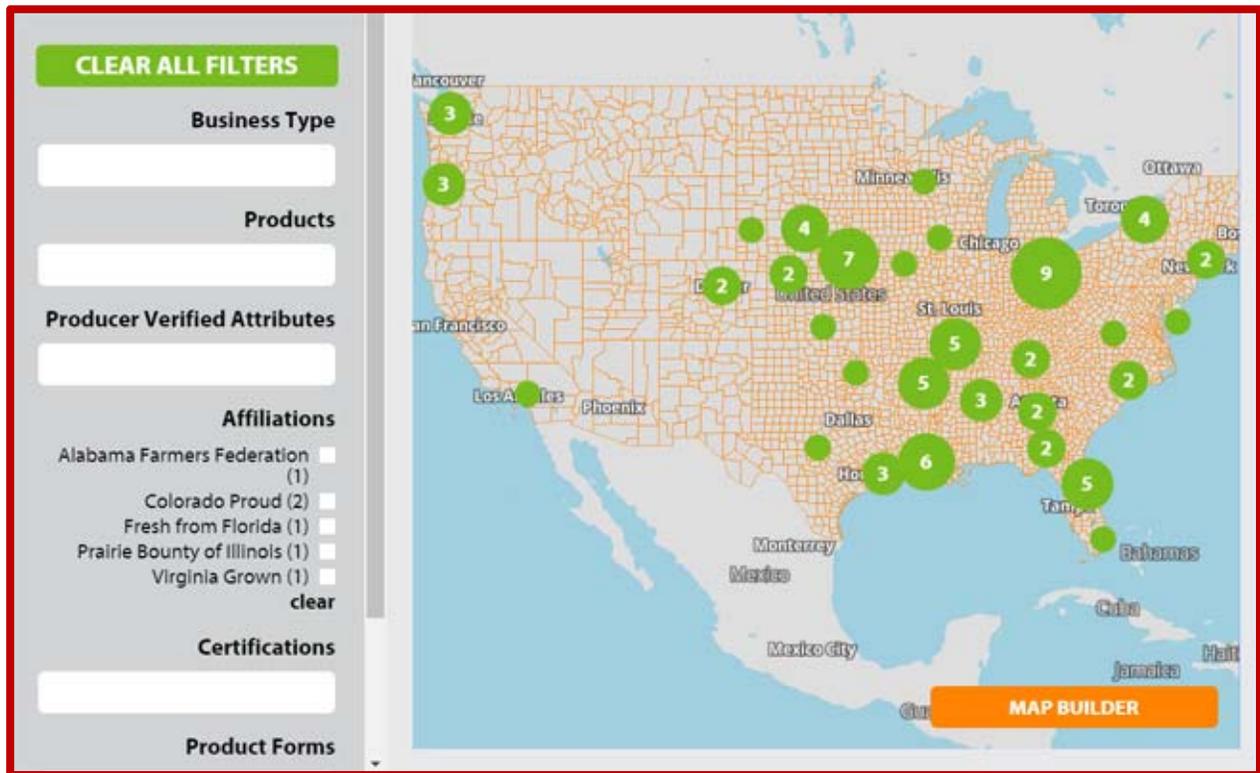


Figure 4. Local fish farms which registered their business profiles in MarketMaker. Source: <https://ms.foodmarketmaker.com/main/mmsearch/>. Last accessed: April 17, 2019.

Aquaculture Businesses Registered in MarketMaker

More than 80 local fish farms registered their business profiles in MarketMaker (Fig. 4). Click this [LINK](#) to view the search results online. You can sort the results alphabetically, by state or relevance. To search for fish farms in MarketMaker, perform the following procedures:

1. Go to <https://ms.foodmarketmaker.com/main/mmsearch/>
2. Type “fish farm” in the search box.
3. You can sort the search results by relevance and name.
4. You can also limit online searches by state.

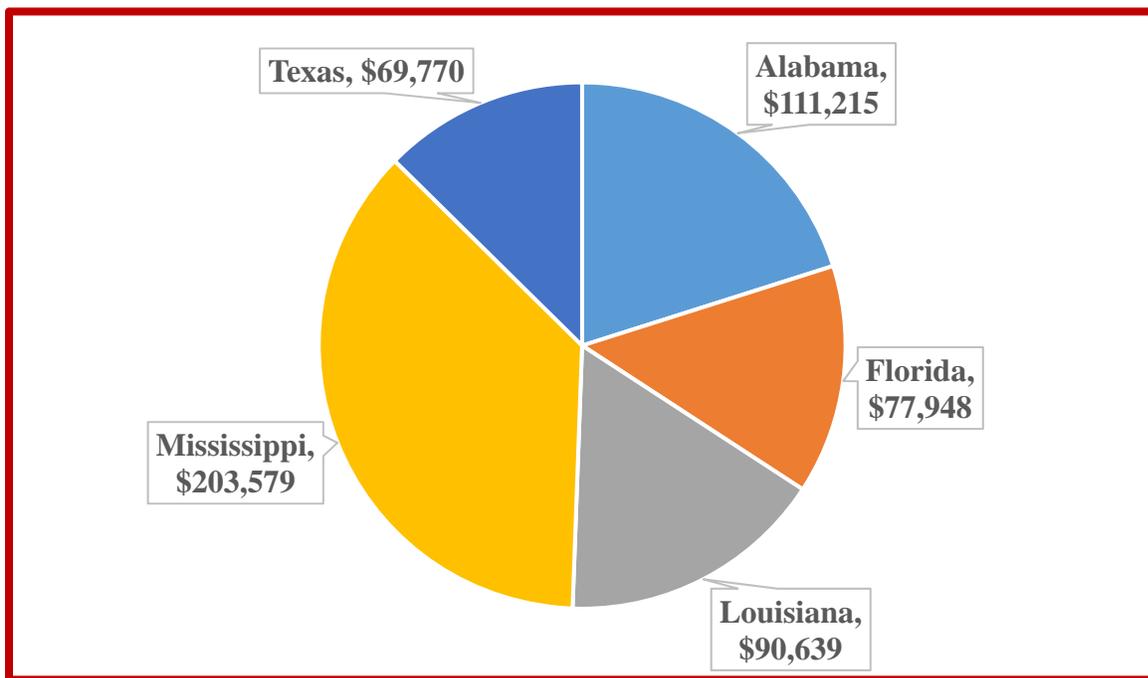


Figure 5. Gulf of Mexico States total value of aquaculture products sold in 2012 (in thousand dollars). Source of raw data: USDA, National Agricultural Statistics Office. 2012 Census of Aquaculture. AC-12-SS-2.

Aquaculture Makes Significant Contributions to the Gulf Regional Economy

The economic contribution that aquaculture 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 to estimate the economic contribution of aquaculture to the regional economy in 2012.

The economic contribution analysis used sector 14 or ‘animal production, except cattle and poultry and egg’ of the 2013 IMPLAN input-output data. Due to the lack of reliable data, the contributions of aquaculture processing, wholesaling, and retailing to the regional economy were excluded in the present analysis.

The total value of aquaculture products sold by 1,371 fish farms in the Gulf of Mexico States in 2012 reached more than \$553 million (Fig. 4). Overall, the IMPLAN model estimates that the Gulf aquaculture industry supported 14,943 direct jobs in the region in 2012 (Fig. 5). This IMPLAN employment estimate is about 9.167 times the QCEW employment estimate reported by the Bureau of Labor Statistics (BLS) in 2012. As mentioned earlier, these differences could be explained by the exclusion of non-QCEW employees, self-employed, and extended proprietors in the BLS estimates.

The total output contribution of the Gulf aquaculture industry in 2012 amounted to \$933 million. The Gulf aquaculture industry generated labor income amounting to \$209 million and supported a total of 17,435 jobs in the regional economy in 2012 (Fig. 5). The aquaculture industry generates annual tax revenues for the Gulf states and the U.S. federal government. More than \$55 million was projected to have been paid by households and businesses in 2012 to the federal government as social insurance tax, tax on production and imports, corporate profit tax, and personal income tax. The Gulf of Mexico states were anticipated to have collected taxes from households and businesses in 2012 amounting to more than \$7 million as social insurance tax, tax on production and imports, corporate profits tax, and personal tax.

Economic contribution of the aquaculture industry in the Gulf of Mexico region in 2012				
Impact Type	Employment (Jobs)	Labor Income (\$M)	Total Value Added (\$M)	Output (\$M)
Direct Effect	14,943	110,740,372	377,969,987	575,920,397
Indirect Effect	1,531	49,316,319	95,667,752	211,464,620
Induced Effect	961	48,512,939	88,387,518	145,309,145
Total Effect	17,435	208,569,630	562,025,257	932,694,162

Figure 4. The total economic contribution includes direct, indirect and induced effects estimated by using the 2012 Census of Aquaculture total value of aquaculture products sold and 2013 IMPLAN data. The local purchases percentage was set at 100%. The number of jobs is rounded off.

Promote your Aquaculture Products in Season

As a member of MarketMaker, you can promote your food products and services in season at the MarketMaker BUY or SELL Forum. Registration in MarketMaker in the state where your business is located is FREE and simple. Email me at ben.posadas@msstate.edu for assistance.

You can view the current listing of products posted at the MarketMaker BUY or SELL Forum at <https://ms.foodmarketmaker.com/marketplace/category/2> (Fig. 8).

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<http://extension.msstate.edu/newsletters/mississippi-marketmaker>