Economic Impacts of the Texas Shrimp Fishery

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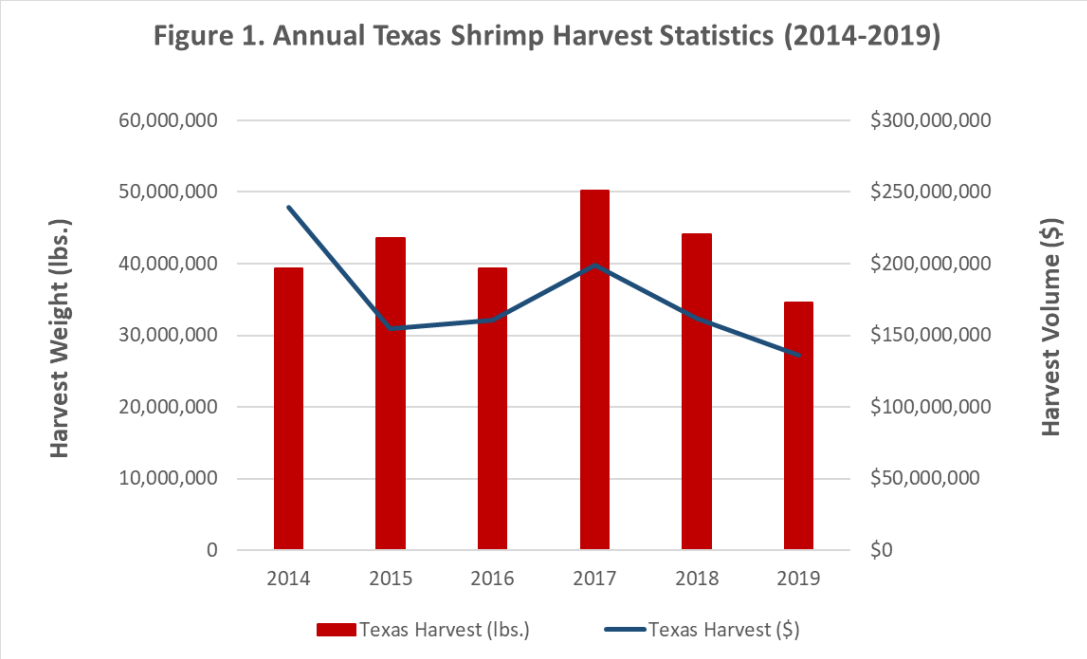
The Texas shrimp fishery is the state's largest commercial fishery. Between 2014 and 2019, shrimp landings accounted for 84% and 81% of Texas commercial fish landings by weight and value, respectively. Shrimp harvesting and processing are an important part of the Texas marine economy. Figure 1 displays the annual Texas shrimp landings, by headless weight and value, for the last six years (NOAA, 2020a).



Economic impacts of dockside and processing revenues were calculated for three scenarios: 1) the best year, 2) an average year (average of the six years), and 3) the worst year. These scenarios account for the substantial variability in annual harvests and revenues (see Figure 1).

Four types of impacts are estimated: employment (number of jobs due to the shrimp fishery), labor income (combined income of those employed as a result of the shrimp fishery), value added (the shrimp fishery's contribution to GDP), and output (the effect of shrimp fishery direct spending on overall economic activity).

In an average year the Texas shrimp harvesting sector contributes approximately $265 million to the Texas economy and 4,944 part- and full-time jobs (Table 1). In an average year, the Texas shrimp processing sector contributes $55 million to the Texas economy and 222 part- and full-time jobs (Table 2). Labor income is a component of value added, which is a component of output, so these figures cannot be summed. Average employment is greater than employment in the best year because jobs are calculated based on the number of shrimping vessels and dockside pounds. The best year based on dockside value was not year with the largest harvest by weight due to variations in price.

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Table 1. Dockside Impacts for Texas

Best Year Impacts				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	4,095	$86,055,600	$236,309,000	$239,445,500
Total Effect	4,653	$114,247,100	$285,508,000	$325,007,500
Average Year Impacts				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	4,356	$91,546,700	$173,752,900	$176,059,100
Total Effect	4,944	$121,120,400	$225,430,300	$265,784,900
Poorest Year Impacts				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	3,605	$75,762,700	$134,324,800	$136,107,700
Total Effect	4,091	$100,186,600	$177,011,700	$210,205,500
Economic impact values are not additive across measures (employment, labor income, value added, and output).				

Table 2. Processing Impacts for Texas

Best Year Impacts				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	98	$5,400,700	$9,675,900	$39,761,700
Total Effect	264	$13,945,300	$24,896,200	$65,540,400
Average Year Impacts				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	83	$4,551,800	$8,154,900	$33,511,400
Total Effect	222	$11,753,200	$20,982,700	$55,237,900
Poorest Year Impacts				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	68	$3,714,800	$6,655,400	$27,349,200
Total Effect	181	$9,591,900	$17,124,300	$45,080,600
Economic impact values are not additive across measures (employment, labor income, value added, and output).				

Analysis Notes

- Annual shrimp landings data (amount and value) were provided by NOAA Fisheries; landings (weight) are measured in headless pounds.
- Direct employment was calculated by assuming five workers per federally permitted vessel and three workers per state permitted vessel to account for vessel and dockside workers associated with harvesting sector (NOAA, 2020b, TPWD personal communication).
- Direct labor income is based on 2015-2019 average Texas wages for "Forestry, fishing, and related activities" reported by the Bureau of Economic Analysis.
- Economic impacts were calculated using IMPLAN (2019), a software program that calculates economic impacts using classic input-output analysis.
- Fishing impacts were calculated using 2017 IMPLAN sector 17 and wage compensation (sector 5001) multipliers using the analysis-by-parts method.
- Processing impacts were calculated using 2017 IMPLAN sector 93 multipliers

References

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NOAA, National Marine Fisheries Service. 2020a. Landings data.

NOAA, National Marine Fisheries Service. 2020b. Federally permitted vessels data.

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