

Economic Impact Analysis of Fresh Mexican Tomatoes Imported by the United States

Luis A. Ribera, Landyn Young, Samuel Zapata, Dan Hanselka and Dean McCorkle¹

CNAS Report 2023-05

August 24, 2023

TEXAS A&M

GRILIF

Introduction

The United States imported 17.26 million metric tons (MMT) of agricultural products from Mexico in 2022 (Figure 1). Mexican products totaled \$43 billion, which represented 23 percent of the total value of agricultural products imported by the United States. Of these imports from Mexico, 6.72 MMT was fresh vegetables worth \$7.95 billion. Further, there were 1.81 MMT of fresh tomatoes imported by the United States from Mexico which was valued at \$2.48 billion (Figure 2). Since 2015, tomatoes imported from Mexico have accounted for 90-93 percent of the fresh tomato imports for the United States.

The following study assesses the economic impact of Mexican fresh tomatoes imported by the United States. Selected economic impact indicators were estimated using IMPLAN, an economic input/output model, in combination with publicly available trade and market data. The direct value of sales or employment of an industry is an important measure of an industry's strength. However, an industry's sales or employment figures alone fail to capture the full economic contribution of an industry or event. As money circulates through the local economy, it multiplies the original direct expenditure to a larger total economic output. In this study, *economic impact* is the study of an industry in an existing economy and is used to describe an industry's role in the economy. Economic multipliers for each sector of the economy were used to estimate how fresh tomato imports from Mexico impact business activity, income, and employment along the supply chain. The analysis accounted for the indirect effects on other sectors of the U.S. economy that supply inputs and services to support the movement of the imported tomatoes from U.S. ports of entry all the way to the final retailers.

Economic Impact of Imported Mexican Fresh Tomatoes

Mexico is the largest global exporter of tomatoes to the United States. Since 2015, the volume of fresh tomato exports from Mexico has ranged from 1.42 to 1.81 MMT per year, with an annual value ranging between \$1.67 and \$2.48 billion. Furthermore, in 2022 fresh tomato imports from Mexico reached the highest reported level in terms of volume and value. Mexico is a dominant player in the U.S. market for fresh tomatoes, supplying over 90 percent of total imports each year since 2018. In addition to Mexico, Canada has exported around 150 thousand metric tons (TMT) annually since 2018. Guatemala and the Dominican Republic also export a relatively small volume that does not exceed 20 TMT each year.

The reported value of fresh tomato imports from Mexico in 2022 (i.e., \$2.48 billion) was used to estimate its subsequent value at the retail level. Particularly, the U.S. retail value of Mexican fresh tomatoes was calculated using the corresponding average weekly retail prices of fresh tomatoes consumed domestically weighted by tomato type (i.e., round, cherry, grape and plum). A 15 percent loss was assumed from the port of entry to retail weight. For 2022, the retail value of Mexican fresh tomatoes was estimated at \$5.98 billion. Using this retail value, the

-

¹ Authors are, respectively, Professor and Extension Economist and Director, Center for North American Studies; Program Manager, Center for North American Studies; Associate Professor; Extension Program Specialist I; and Senior Extension Program Specialist. All are with Texas A&M University System.

marketing of fresh tomatoes imported from Mexico generated an estimated \$2.74 billion in direct economic output on the U.S. economy in 2022 (Figure 3). At the retail level, output represents the retail margin (gross sales adjusted for retail margin). This impact accounts for supply chain-related expenditures, including transportation, wholesale, and retail services associated with the sale of fresh vegetables. When adding in the indirect and induced effects generated from the movement and marketing of fresh tomatoes imported from Mexico in 2022, total economic output is estimated at \$7.54 billion (Table 1). The indirect and induced effects include business to business-related spending and household expenditures (employees in supporting sectors spending their wages). In addition, a total of 49,128 full- and part-time jobs are supported in the United States through the economic activities around the import and marketing of fresh tomatoes from Mexico.

Of the estimated value generated in the United States by imported fresh tomatoes from Mexico, the direct impact includes \$1.34 billion for the retail industry, \$1.05 billion for the wholesale sector, and \$319 million for transportation (Table 1). An additional \$2.04 billion is generated by all the supporting activities through the supply chain of these tomatoes. Lastly, \$2.77 billion in induced effects in the U.S. economy is associated with household spending derived from the import and marketing of fresh tomatoes from Mexico.

The four industries most impacted (directly and indirectly) by the imports of fresh tomatoes from Mexico are retail (\$1.55 billion), wholesale (\$1.29 billion), transportation (\$489 million), and real estate (\$329 million) (Figure 4). It is estimated that Mexican fresh tomato imports require 24,234 full- and part-time jobs directly with an additional 24,894 full- and part-time jobs through indirect (supporting industries) and induced effects (household spending). The industries that account for the majority of these jobs, both direct and indirectly, are retail (19,104 jobs) wholesale (5,873 jobs), and transportation (2,945 jobs) (Figure 5). The remainder of the jobs are spread among numerous sectors including warehousing, management, restaurants, and hospitals.

Summary

A total of \$2.48 billion worth of fresh tomatoes were imported from Mexico in 2022, with an estimated retail value of \$5.98 billion. The total economic impact associated with the import and sale of Mexican fresh tomatoes was estimated at \$7.54 billion, which is comprised of \$2.74 billion in direct effects and \$4.80 billion in indirect and induced effects. In addition to the economic activity generated, fresh tomato imports supported 49,128 full- and part-time jobs across the United States in various supporting and related industries.

References

- 2019 Data, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078 www.IMPLAN.com
- USDA ERS. 2023. Food Availability (Per Capita) Data System.
- USDA ERS. 2022. Fresh Tomatoes, Field Grown Retail and Farm Price, and Farm Share Calculations Using Data from BLS and NASS.
- USDA AMS. 2023. Weekly Advertised Fruit & Vegetables Retail Prices.
- USDA Foreign Agricultural Service (FAS). Global Agricultural Trade System (GATS). https://gats.fas.usda.gov/. Online public database accessed August 2023.

Figure 1: U.S. Imports of Ag Products from Mexico

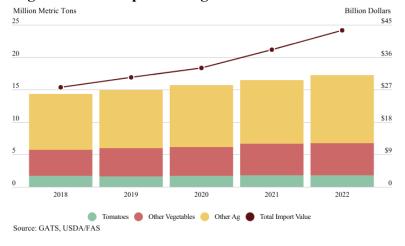


Figure 2: U.S. Fresh Tomato Imports from Mexico

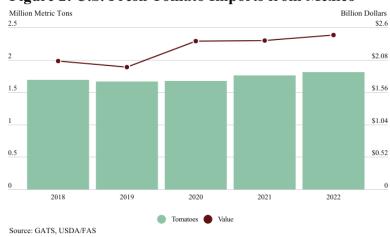
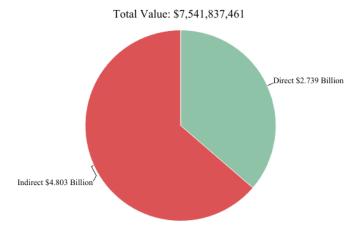


Figure 3: Impact of U.S. Imports of Mexican Tomatoes



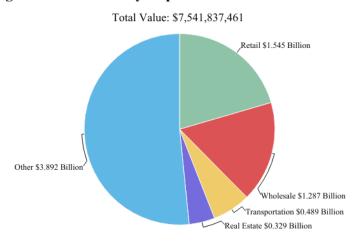
Source: IMPLAN Model Estimation

Table 1: Summary of Economic Activity by Mexican Tomatoes Exported to the United States

	Economic Output (Millions)		Employment
Total Direct	\$	2,739	24,234
Retail	\$	1,336	17,035
Wholesale	\$	1,047	5,186
Transportation	\$	319	1,904
Other Direct	\$	37	109
Total Indirect	\$	2,036	10,021
Total Induced	\$	2,768	14,873
Total Output	\$	7,542	49,128

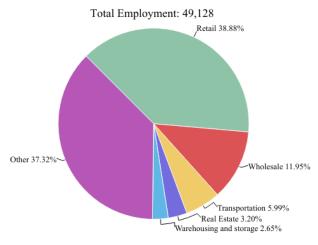
Source: IMPLAN Model Estimation

Figure 4: U.S. Industry Impact of Mexican Tomatoes



Source: IMPLAN Model Estimation

Figure 5: Jobs Sustained by Mexican Tomato Imports



Source: IMPLAN Model Estimation