Electronic Products & Semiconductor Manufacturing
The electronic products manufacturing sector employs approximately 1,092,300 people in the U.S.

Bureau of Labor Statistics, 2019
Between 1997 and 2018, the electronic manufacturing industry’s share of GDP has decreased from 2.67% to 0.81% while gross output has decreased from $412 billion to $295 billion.

Bureau of Economic Analysis, 2019
In 2015, semiconductors produced by U.S. firms constituted 50% of the global market.

*International Trade Administration, 2016*
Exports of semiconductors were worth $44 billion in 2018, ranking fourth among all U.S. products.

*International Trade Commission, 2019*
Between 2000 and 2015, the quantity of electronic product recycling increased from 190,000 tons to 1,230,000 tons.

U.S. EPA, 2018
Between 2000 and 2010, the weight of landfilled electronic products increased from 1.71 million to 2.47 million tons, before declining to 1.86 million tons in 2015.

*U.S. EPA, 2019*
Between 1996 and 2017, production-related waste reported to TRI by the electronic products manufacturing sector decreased from roughly 290 million to 107 million pounds.

U.S. EPA, Toxics Release Inventory, 2019
Between 1996 and 2017, air emissions reported to TRI by the electronic products manufacturing sector decreased from about 11 million to 1 million pounds.

_U.S. EPA, Toxics Release Inventory, 2019_
Between 2010 and 2017, the ratio of chemical waste recycling reported to TRI vs. gross output increased from 0.012 to 0.036, constituting a 200% increase.

U.S. EPA, Toxics Release Inventory, 2019; Bureau of Economic Analysis, 2019
Between 1997 and 2017, the ratio of production-related waste and air emissions reported to TRI to gross output declined by 51% and 84% respectively.

*U.S. EPA, Toxics Release Inventory, 2019; Bureau of Economic Analysis, 2019*
The average U.S. household owns 24 consumer electronic products, which are responsible for 12% of home electricity use.

U.S. EPA, ENERGY STAR, 2019
Between 2000 and 2015, the percentage of electronic products that entered the municipal waste stream and were recycled increased from 10% to nearly 40%.

*U.S. EPA, 2018*
Broadly, the electronic products and semiconductor manufacturing sector includes computer and electronic product manufacturing (NAICS 334). Establishments in this sector manufacture a wide range of computing and communication equipment as well as smaller electronic device components such as semiconductors, circuit boards, capacitors, resistors, and coils.

Establishments in this sector range from companies engaged in the production of final consumer products and scientific instruments such as phones, computers, and medical devices to manufacturers of individual inputs such as silicon chips. Specifically, EPA data sources for electronic recycling include subsets of NAICS 334.

For more information about the EPA Smart Sectors program, visit: epa.gov/smartsectors.

For more information about the electronic products and semiconductor manufacturing sector, visit:

- U.S. EPA ENERGY STAR
- U.S. EPA Sustainable Materials Management
- U.S. EPA Facts and Figures about Materials, Waste and Recycling
- U.S. Census Bureau, NAICS 334