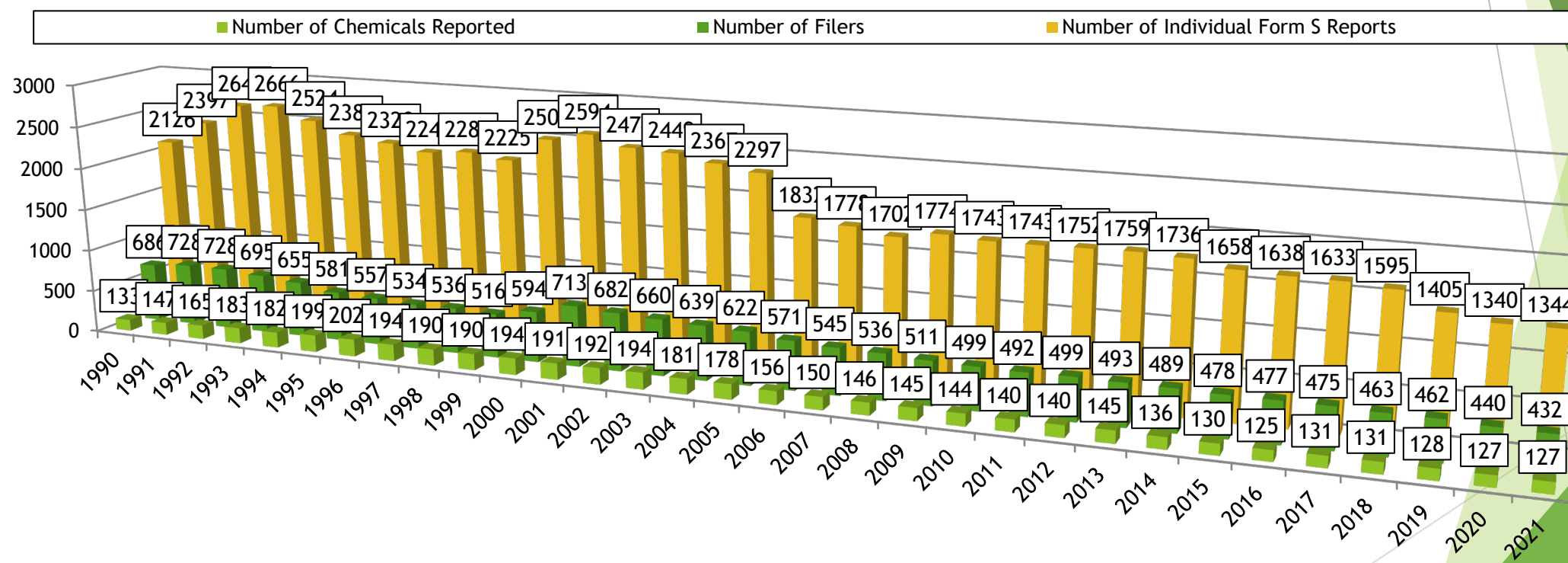


2021 TURA Information Release

Lynn Cain
MassDEP

of TURA Filers, Individual Chemical Reports, and Different Chemicals Reported (1990-2021) (Including Trade Secret Data)



Raw Reported Data on the Pounds of Total Use, Generated as Byproduct, Shipped in
or as Product,
Released On-Site and Transferred Off-Site for Treatment or Disposal
Reporting Years 1990-2021 (includes trade secret data)



Production Ratio

- ▶ The TURA reported production ratio is what we use in measuring progress, to account for changes in production.

Progress in Toxics Use Reduction

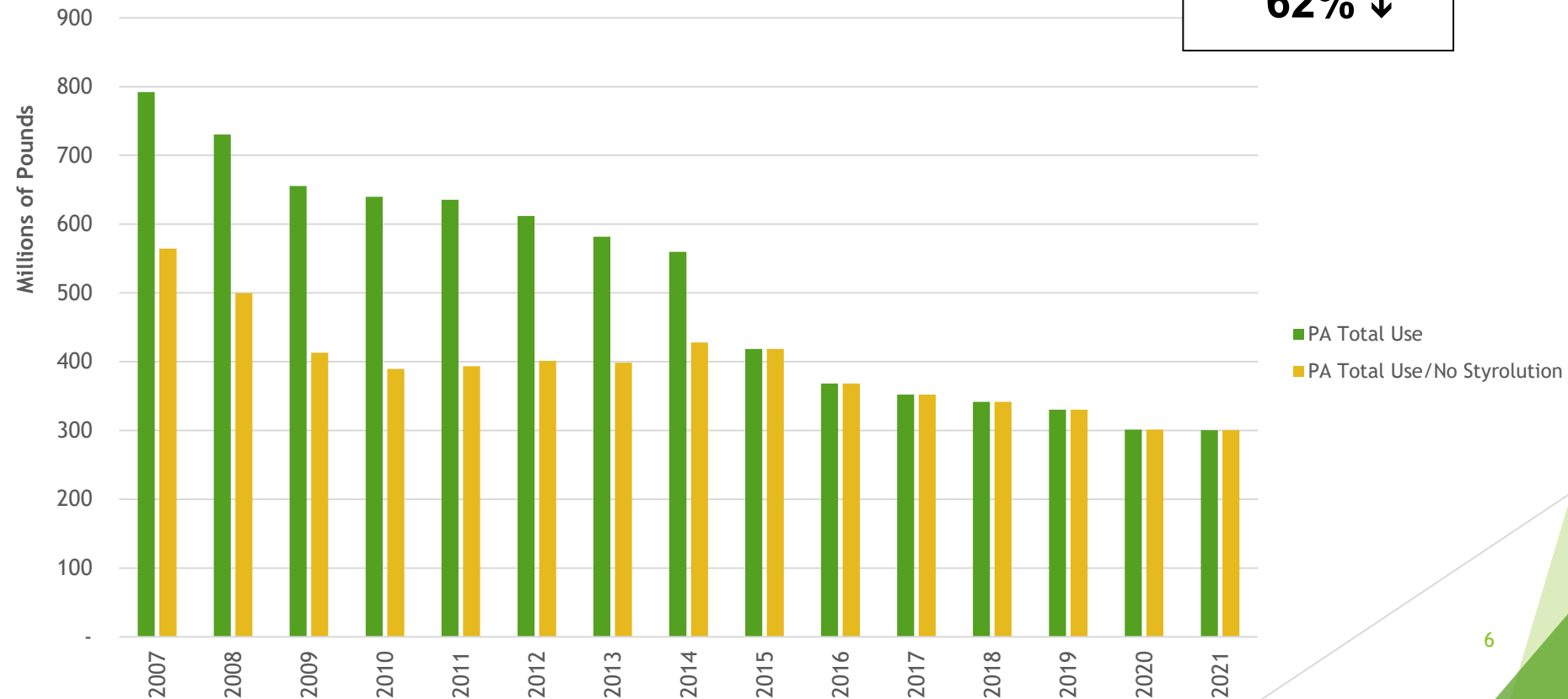
2007 Core Group

- ▶ Includes all industry categories and chemicals subject to reporting in 2007 and remained subject to reporting in 2021 at the same threshold
- ▶ Excludes trade secret chemicals and chemicals designated as higher hazard substances, and chemicals added through EPA TRI after 2007
- ▶ Includes 389 filers, which represents 90% of the 2021 TURA filers

2007 Core Group
Progress in Toxics Use Reduction (2007-2021)
Production Adjusted Total Use
(Excludes Trade Secret Data)

Production Adjusted
Total Use

62% ↓

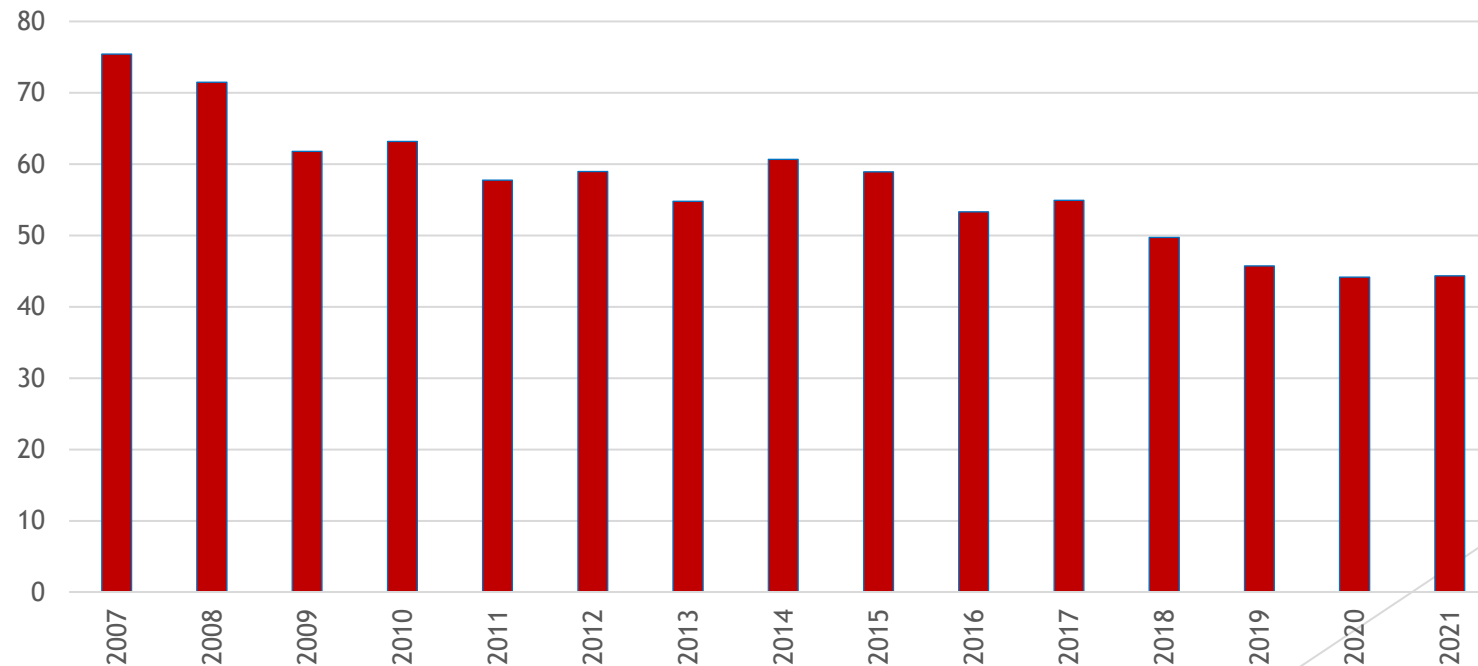


2007 Core Group
Progress in Toxics Use Reduction (2007-2021)
Production Adjusted Byproduct
(Excludes Trade Secret Data)

Production Adjusted
Byproduct

41% ↓

Millions of Pounds

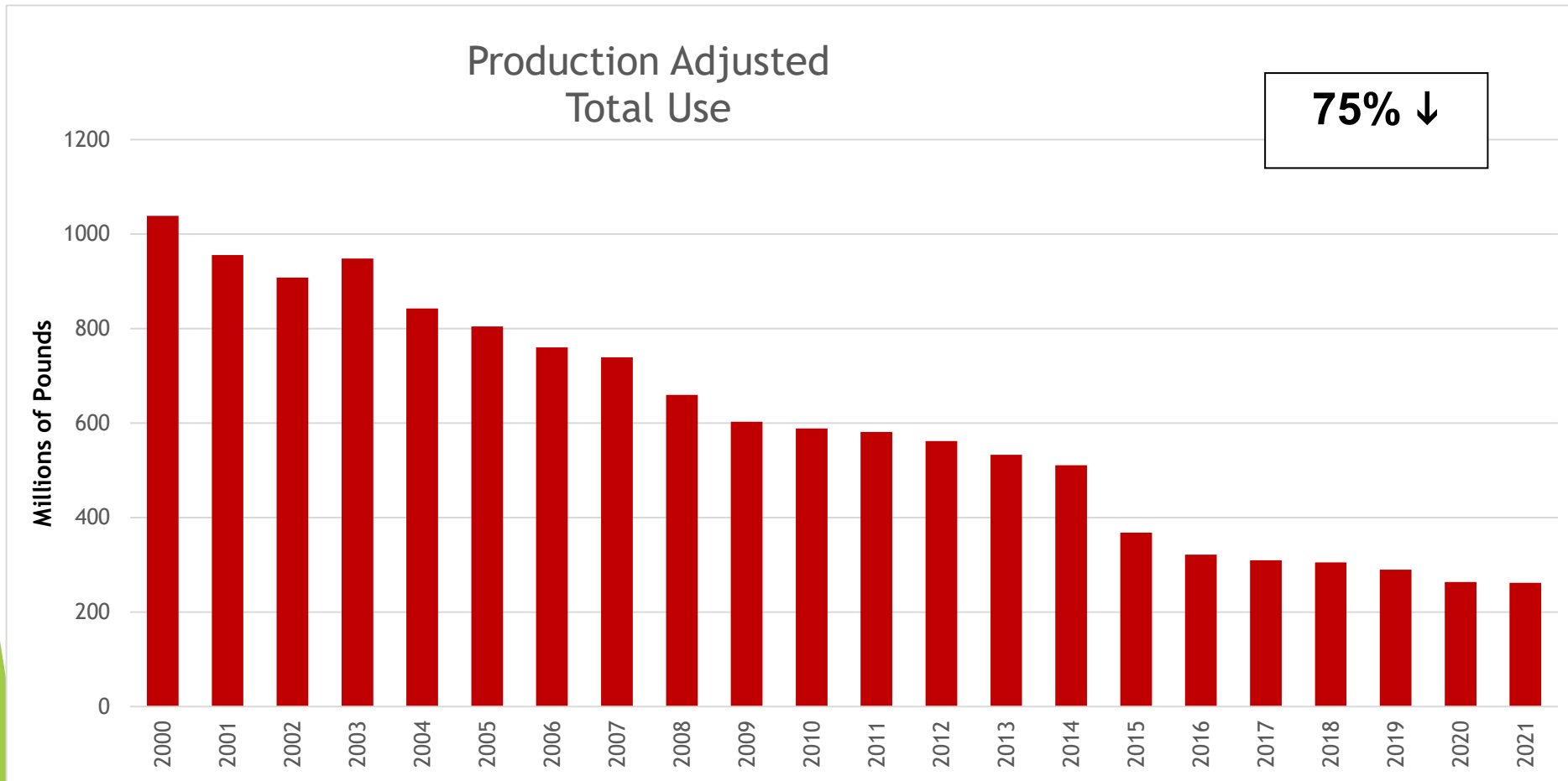


Progress in Toxics Use Reduction

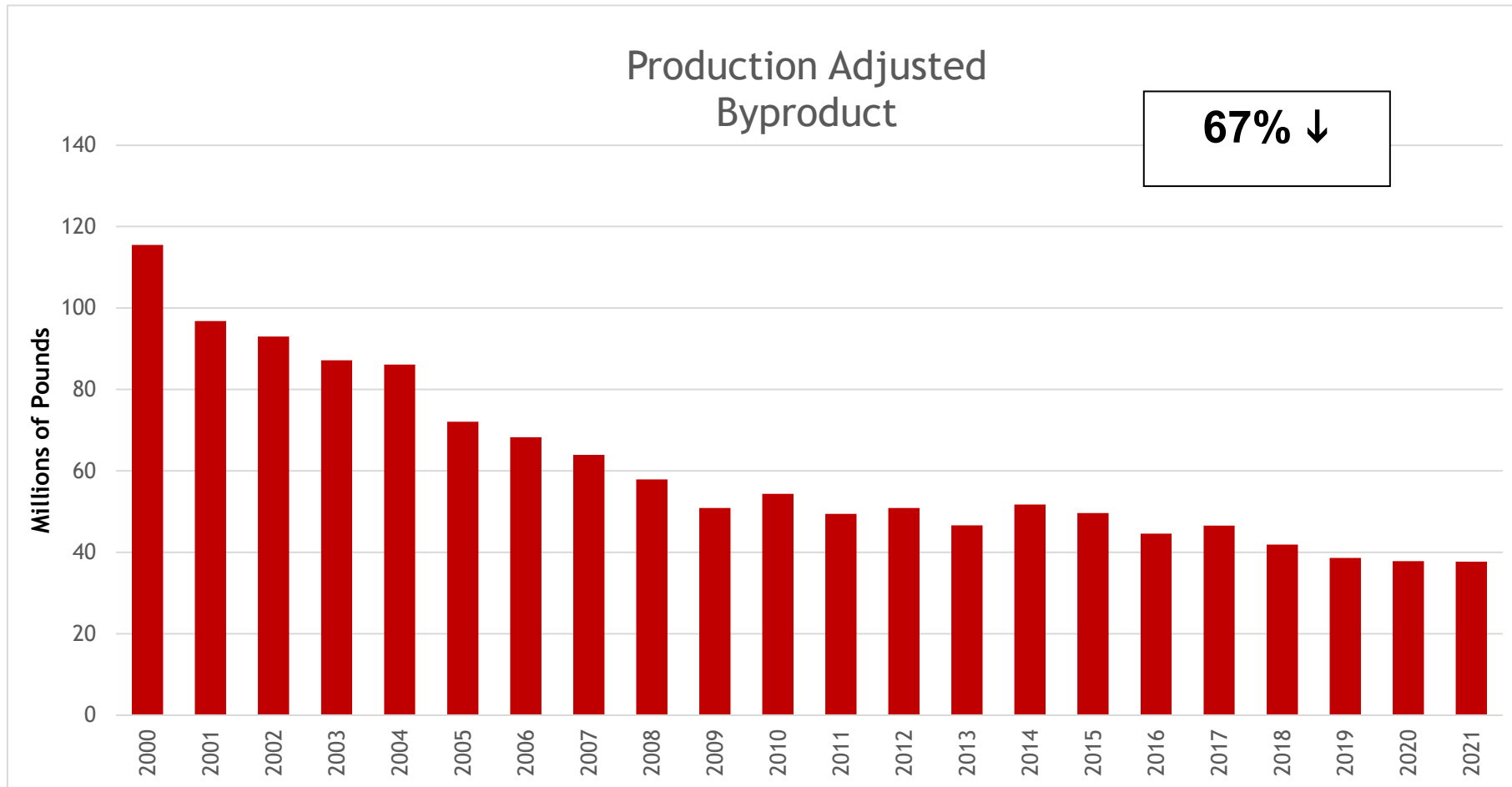
2000 Core Group

- ▶ Includes all industry categories and chemicals subject to reporting in 2000 and remained subject to reporting in 2021
- ▶ Provides a longer history than the 2007 Core Group
- ▶ Includes 341 filers, which represents 79% of 2021 TURA filers
- ▶ Excludes trade secret data

2000 Core Group
Progress in Toxics Use Reduction 2000-2021
Production Adjusted Total Use
(Excludes Trade Secret Data)



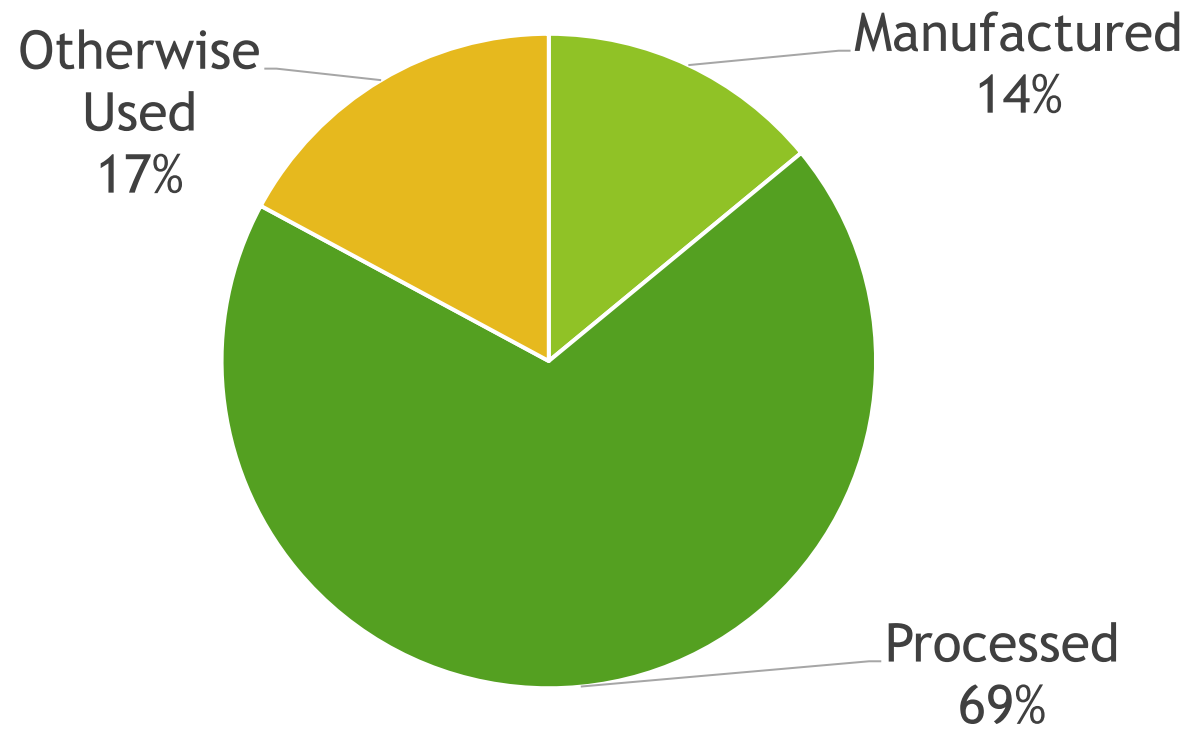
2000 Core Group
Progress in Toxics Use Reduction 2000-2021
Production Adjusted Byproduct
(Excludes Trade Secret Data)



All Reported Chemical Data 2021
(Rounded to millions of pounds)
(Includes Trade Secret Data)

TOTAL USE	649,000,000
SHIPPED IN PRODUCT	279,000,000
GENERATED AS BYPRODUCT (total waste prior to treatment or disposal)	71,000,000
ON-SITE RELEASES (to air, water or land disposal)	2,500,000
TRANSFERS OFF-SITE (to a wastewater treatment plant, recycling or waste management facility for treatment or disposal)	33,000,000

2021 Total Use by Category
(649 Million Pounds)
(includes trade secret data)



2021 Top 4 Chemicals (excluding trade secret data)

Top 4 Chemicals (Excluding Trade Secret)	Percentage of Total Use	# Facilities	Total Pounds
Sodium Hydroxide	14%	150	65 Million
Hydrochloric Acid	13%	41	57 Million
Methanol	8%	28	48 Million
Sodium Hypochlorite	9%	29	38 Million

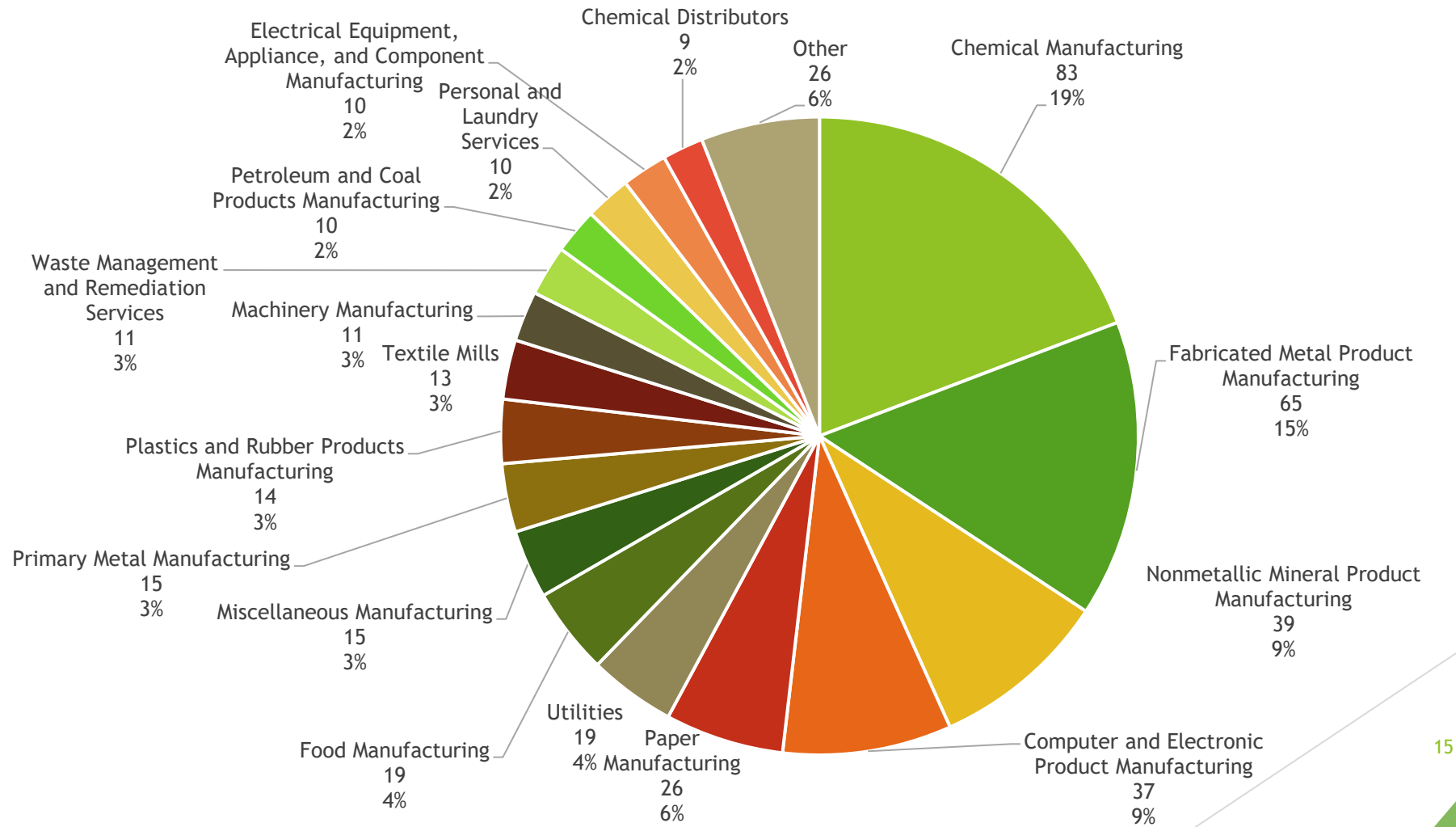
2021 Top 20 Chemicals (excluding trade secret data)

The 2021 top 20 chemicals accounted for:

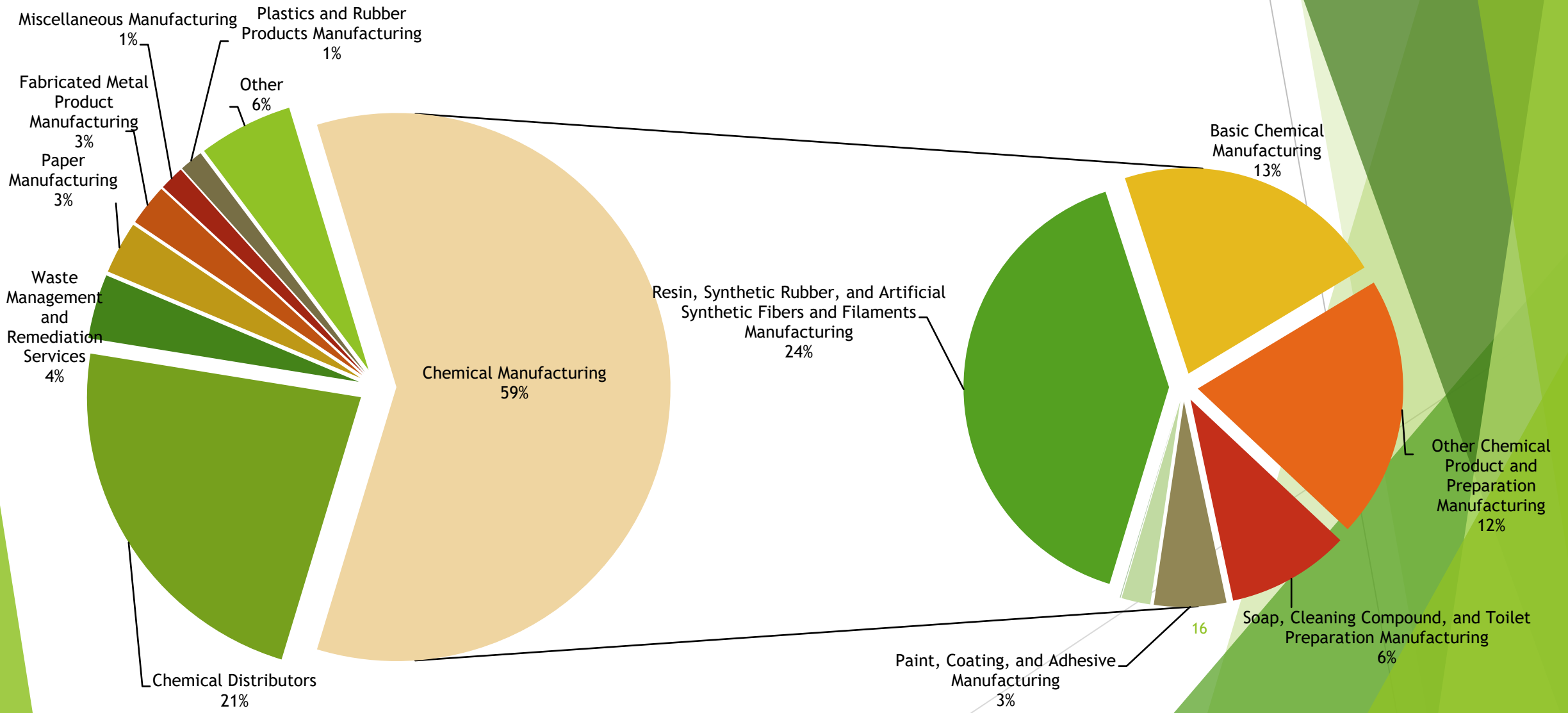
- 89% of the total reported byproduct
- 89% of the total reported shipped in product
- 93% of the total on-site releases
- 93% of the total off-site transfers

2021 Number of Facilities by Industrial Sector

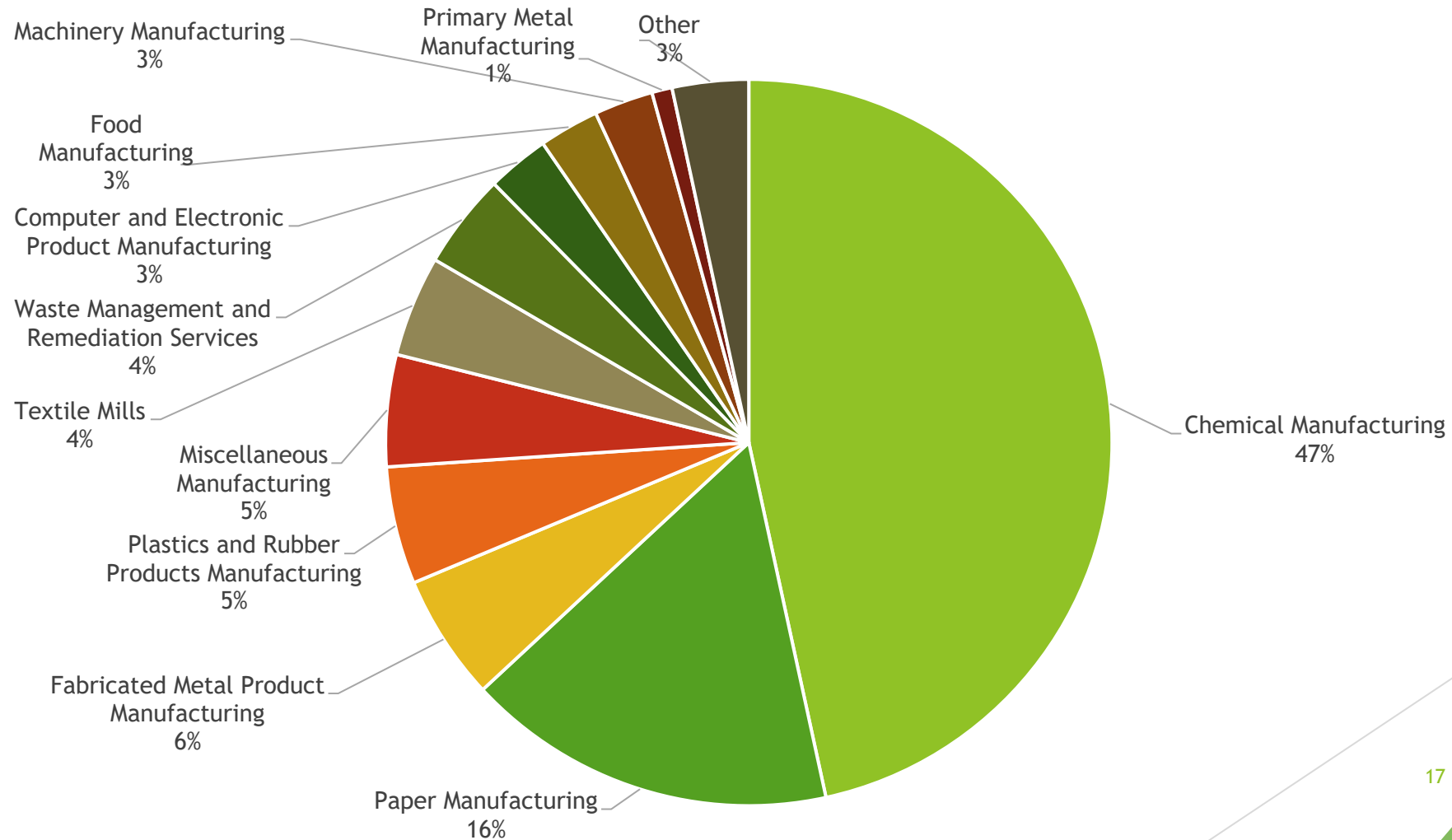
Total Number of Facilities = 432
(Includes Trade Secret Data)



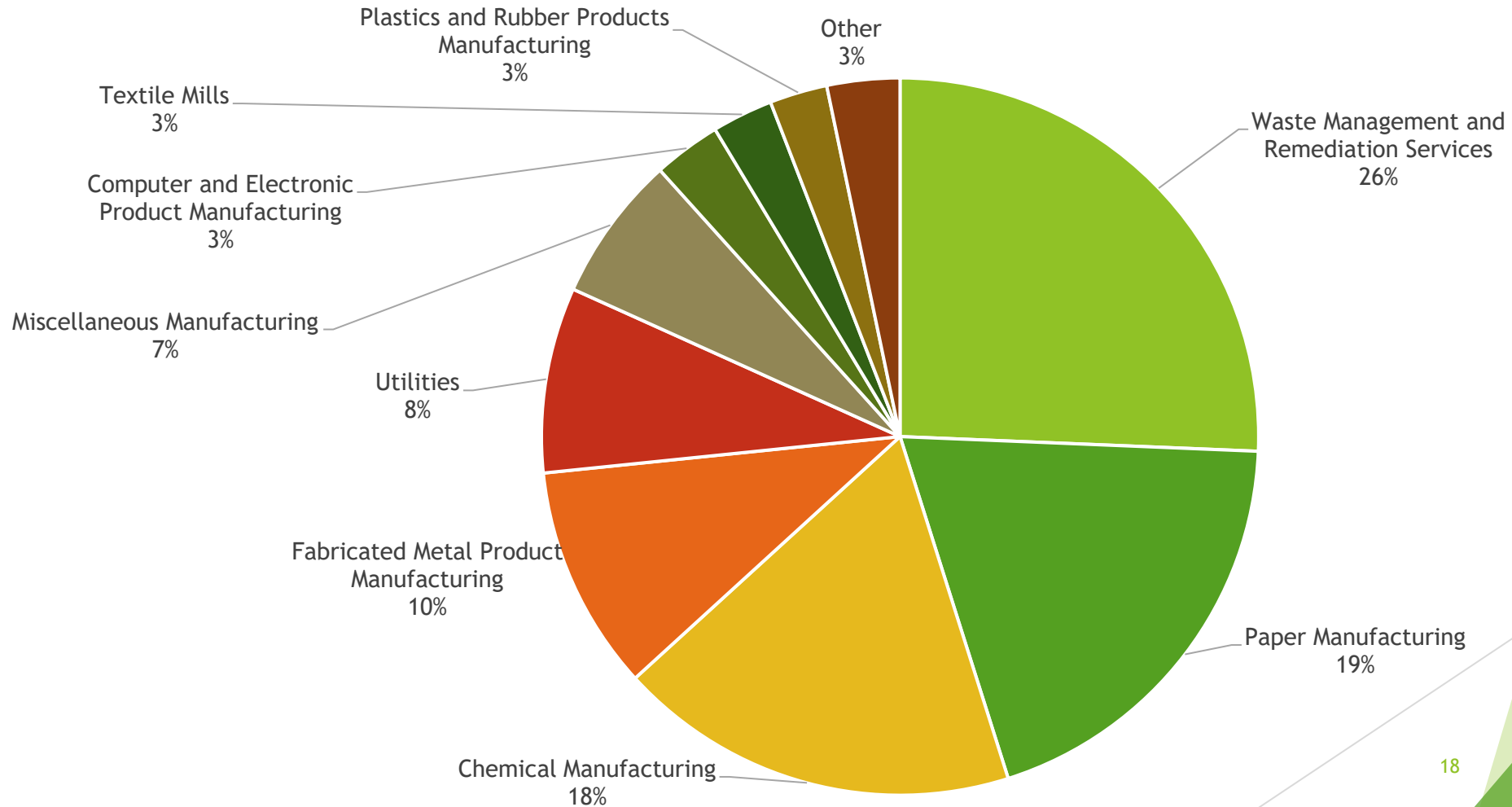
All Reported Data: 2021 Chemical Use by Industrial Sector
Total Use = 649,000,000 Pounds
(Includes Trade Secret Data)



All Reported Data: 2021 Byproduct Generation by Industrial Sector
Total Byproduct = 71,000,000 Pounds
(Includes Trade Secret Data)



All Reported Data: 2021 On-Site Releases by Industrial Sector
Total On-Site Releases = 2,500,000 Pounds
(Includes Trade Secret Data)



TURA has been Successful

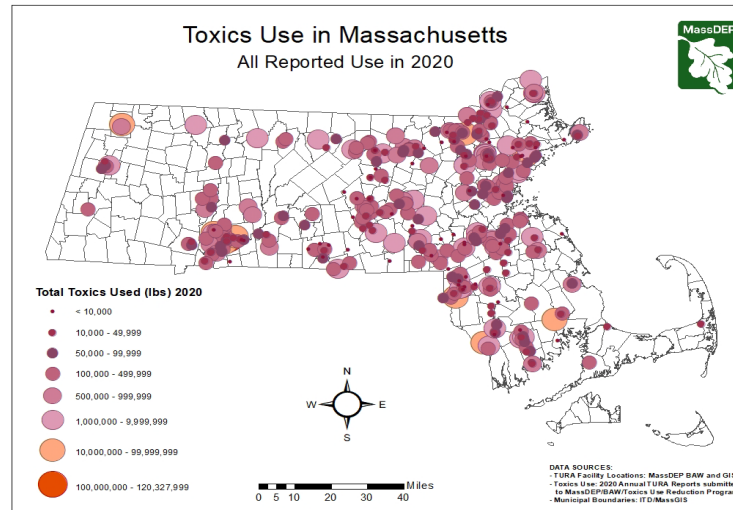
- ▶ Massachusetts manufacturers and other businesses subject to TURA have dramatically reduced their reliance on toxic chemicals, making Massachusetts a national leader in toxics use reduction.

TURA has been Successful

- ▶ Through Toxics Use Reduction, Massachusetts businesses have saved money while reducing pollution released to the environment, chemical transportation risks, workplace hazards, and toxics in products and waste.

TURA Information Releases are on MassDEP TURA Website

Reporting Year 2020 Toxics Use Reduction Information Release



Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection



Developed in collaboration with:
Toxics Use Reduction Institute
Office of Technical Assistance and Technology
June 2022

TURA Data Extracts and Information Releases from MassDEP

- ▶ The 2021 TURA Data Extracts and former years' Information Releases can be found on our website at:
- ▶ <https://www.mass.gov/guides/massdep-toxics-use-reduction-program#-data-&-results->