

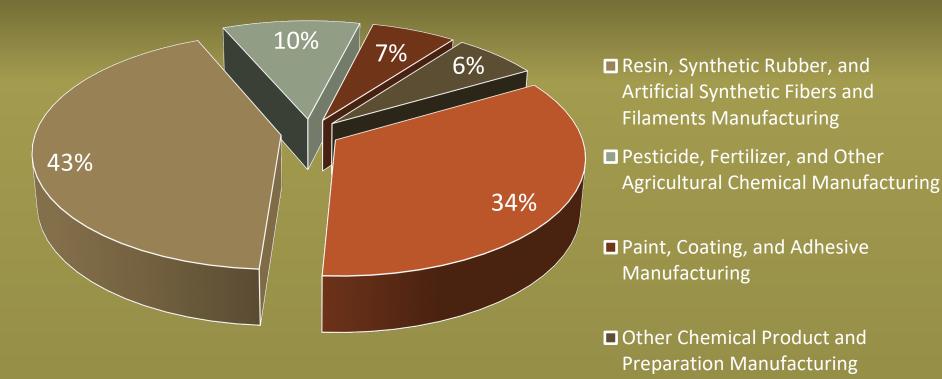
#### Accelerate Alabama Chemicals

Alabama Department of Labor

**Labor Market Information Division** 

## Alabama Chemicals Employment by Industry Sectors

■ Basic Chemical Manufacturing



#### **Alabama Chemicals Industry Overview**

Sector	# of Companies	# Employed
Basic Chemical Manufacturing	84	3,036
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	38	3,768
Painting, Coating, and Adhesive Manufacturing	38	918
Other Chemical Product and Preparation Manufacturing	44	565
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	25	1,110

#### **Basic Chemical Manufacturing**

#### **3251** Basic Chemical Manufacturing

This industry group comprises establishments primarily engaged in manufacturing chemicals using basic processes, such as thermal cracking and distillation. Chemicals manufactured in this industry group are usually separate chemical elements or separate chemically-defined compounds.

84 companies; 3,036 employed; 32% of Chemical Industry Employment

# of Employees	% of Companies
1-49	87%
50-99	5%
100-249	5%
250+	4%

**Source**: Quarterly Census of Employment and Wages, 2021 annual average. *Note: Numbers may not equal 100% due to rounding.* 

#### Top 5 Job Categories:

- 17% Chemical Equipment Operators and Tenders
- 11% Chemical Plant and System Operators
- 7% Industrial Machinery Mechanics
- 6% Supervisors of Production and Operating Workers
- 5% Extruding and Forming Machine Setters,
   Operators, and Tenders, Synthetic and Glass
   Fibers

**Source**: 2021 Release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics.

#### Basic Chemical Manufacturing Firm Age Workforce Indicators

Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	*	*	*	*
2 – 3 Years	24	\$6,304	\$5,603	3.0%
4 – 5 Years	*	\$2,123	*	*
6 – 10 Years	95	\$5,557	\$3,885	7.0%
11+ Years	2,856	\$8,817	\$6,847	3.4%
All Firm Ages	2,985	\$8,676	\$6,563	3.5%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2021 annual average data shown. \*Data not available or marked confidential. Note: Data may not add due to rounding.

### Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing

**32521** Resin and Synthetic Rubber Manufacturing This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing synthetic resins, plastics materials, and non-vulcanizable elastomers and mixing and blending resins on a custom basis; (2) manufacturing non-customized synthetic resins; and (3) manufacturing synthetic rubber. **32522** Artificial and Synthetic Fibers and Filaments Manufacturing This industry comprises establishments primarily engaged in (1) manufacturing cellulosic (e.g., rayon, acetate) and non-cellulosic (e.g., nylon, polyolefin, polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or (2) manufacturing and texturing cellulosic and non-cellulosic fibers and filaments.

38 companies; 3,768 employed; 40% of Chemical Industry Employment

# of Employees	% of Companies
1-49	50%
50-99	18%
100-249	21%
250+	11%

#### Top 5 Job Categories:

- 17% Chemical Equipment Operators and Tenders
- 11% Chemical Plant and System Operators
- 7% Industrial Machinery Mechanics
- 6% Supervisors of Production and Operating Workers
- 5% Extruding and Forming Machine Setters,
   Operators, and Tenders, Synthetic and Glass
   Fibers

**Source**: Quarterly Census of Employment and Wages, 2021 annual average. *Note: Numbers may not equal 100% due to rounding.* 

**Source**: 2021 Release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics.

# Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing Firm Age Workforce Indicators

Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	*	*	*	*
2 – 3 Years	*	*	*	*
4 – 5 Years	*	\$4,126	\$3,220	*
6 – 10 Years	168	\$4,571	\$3,652	11.2%
11+ Years	3,459	\$7,637	\$6,069	2.8%
All Firm Ages	3,655	\$7,452	\$5,466	3.3%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2021 annual average data shown. \*Data not available or marked confidential. Note: Data may not add due to rounding.

#### Painting, Coating, and Adhesive Manufacturing

**3255: 32551 Paint and Coating Manufacturing** This industry comprises establishments primarily engaged in (1) mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellant coatings for concrete and masonry, and/or (2) manufacturing allied paint products, such as putties, paint and varnish removers, paint brush cleaners, and frit. **32552 Adhesive Manufacturing** This industry comprises establishments primarily engaged in manufacturing adhesives, glues, and caulking compounds.

38 companies; 918 employed; 10% of Chemical Industry Employment

# of Employees	% of Companies
1-49	84%
50-99	8%
100-249	8%
250+	0%

#### Top 5 Job Categories:

- 16% Mixing and Blending Machine Setters,
   Operators, and Tenders
- 9% Packaging and Filling Machine Operators and Tenders
- 7% Chemical Equipment Operators and Tenders
- 6% Chemists
- 5% Inspectors, Testers, Sorters, Samplers, and Weighers

**Source**: Quarterly Census of Employment and Wages, 2021 annual average. *Note: Numbers may not equal 100% due to rounding.* 

**Source**: 2021 Release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics.

#### Painting, Coating, and Adhesive Manufacturing Firm Age Workforce Indicators

Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	*	\$5,966	\$5,966	*
2 – 3 Years	*	\$4,778	\$2,314	*
4 – 5 Years	*	\$6,174	*	*
6 – 10 Years	*	\$4,644	\$4,428	*
11+ Years	909	\$6,049	\$4,455	6.0%
All Firm Ages	917	\$6,036	\$4,494	6.1%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2021 annual average data shown. \*Data not available or marked confidential. Note: Data may not add due to rounding.

#### Other Chemical Product and Preparation Manufacturing

#### 3259 Other Chemical Product and Preparation Manufacturing

This industry group comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals; resins, synthetic rubber, cellulosic and non-cellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; soaps and cleaning compounds; and toilet preparations).

44 companies; 565 employed; 6% of Chemical Industry Employment

# of Employees	% of Companies
1-49	95%
50-99	2%
100-249	2%
250+	0%

**Source**: Quarterly Census of Employment and Wages, 2021 annual average. *Note: Numbers may not equal 100% due to rounding.* 

#### Top 5 Job Categories:

- 17% Chemical Equipment Operators and Tenders
- 11% Chemical Plant and System Operators
- 7% Industrial Machinery Mechanics
- 6% Supervisors of Production and Operating Workers
- 5% Extruding and Forming Machine Setters,
   Operators, and Tenders, Synthetic and Glass
   Fibers

**Source**: 2021 Release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics.

#### Other Chemical Product and Preparation Manufacturing Firm Age Workforce Indicators

Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	*	\$2,507	\$1,390	*
2 – 3 Years	9	\$5,907	\$1,885	*
4 – 5 Years	31	\$5,182	\$4,496	10.3%
6 – 10 Years	22	\$5,966	\$2,976	*
11+ Years	447	\$5,971	\$4,274	5.0%
All Firm Ages	511	\$5,887	\$4,211	5.2%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2021 annual average data shown. \*Data not available or marked confidential. Note: Data may not add due to rounding.

### Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing

**3253: 32531 Fertilizer Manufacturing** – This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing nitrogenous or phosphatic fertilizer materials; (2) manufacturing fertilizers from sewage or animal waste; (3) manufacturing nitrogenous or phosphatic materials and mixing with other ingredients into fertilizers; and (4) mixing ingredients made elsewhere into fertilizers. **32532 Pesticide & Other Agricultural Chemical Manufacturing** – This industry comprises establishments primarily engaged in the formulation and preparation of agricultural and household pest control chemicals (except fertilizers).

25 companies; 1,110 employed; 12% of Chemical Industry Employment

# of Employees	% of Companies
1-49	72%
50-99	12%
100-249	12%
250+	4%

**Source**: Quarterly Census of Employment and Wages, 2021 annual average. *Note: Numbers may not equal 100% due to rounding.* 

#### Top 5 Job Categories:

- 17% Chemical Equipment Operators and Tenders
- 11% Chemical Plant and System Operators
- 7% Industrial Machinery Mechanics
- 6% Supervisors of Production and Operating Workers
- 5% Extruding and Forming Machine Setters,
   Operators, and Tenders, Synthetic and Glass
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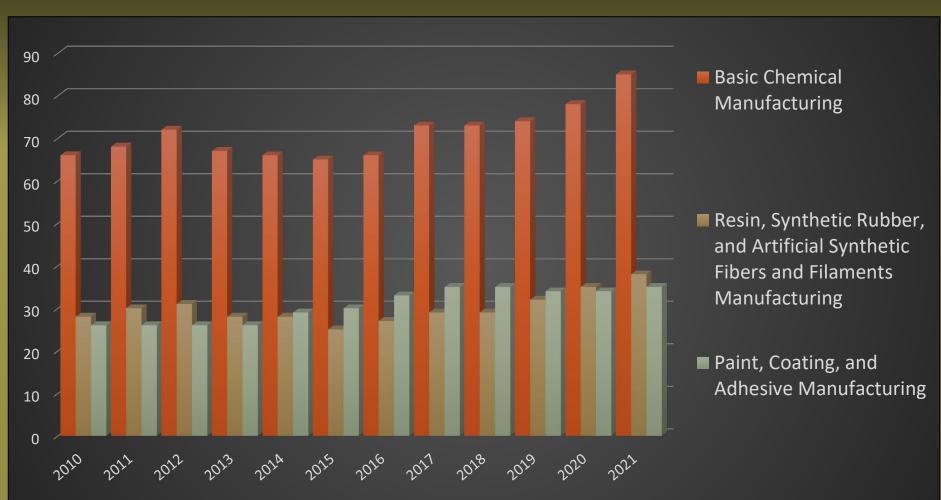
**Source**: 2021 Release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics.

# Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Firm Age Workforce Indicators

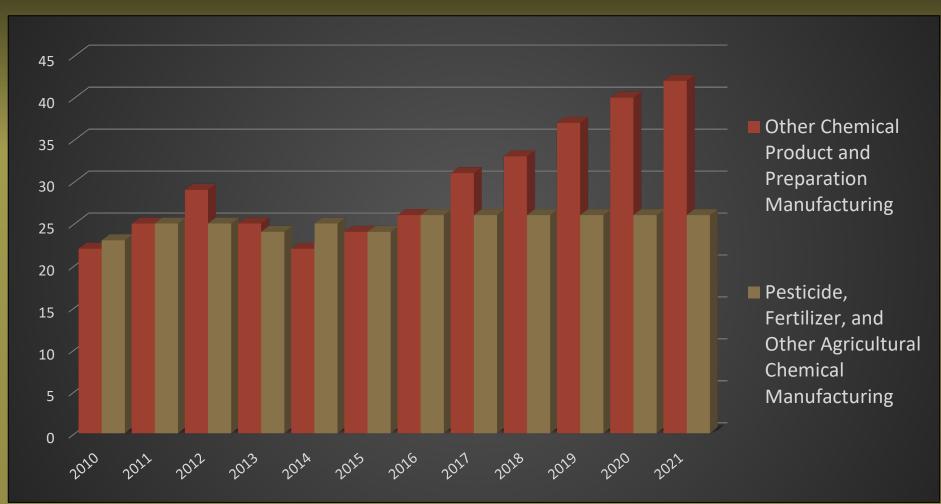
Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	*	\$2,833	\$2,419	*
2 – 3 Years	*	*	*	*
4 – 5 Years	*	\$5,380	\$4,060	*
6 – 10 Years	*	\$4,477	*	*
11+ Years	1,065	\$7,238	\$6,112	5.5%
All Firm Ages	1,134	\$7,100	\$5,934	5.8%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2021 annual average data shown. \*Data not available or marked confidential. Note: Data may not add due to rounding.

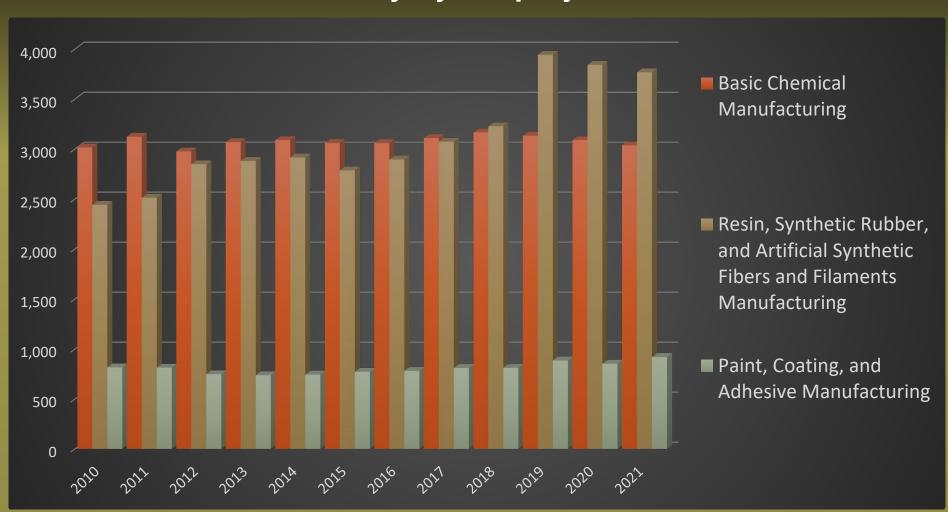
### Development of Alabama's Chemical Industry by Company



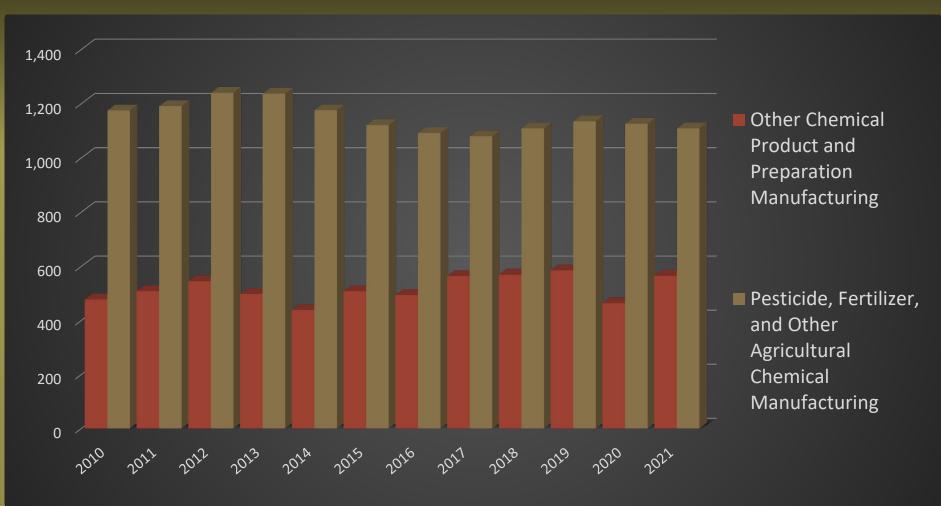
# Development of Alabama's Chemical Industry by Company



## Development of Alabama's Chemical Industry by Employment



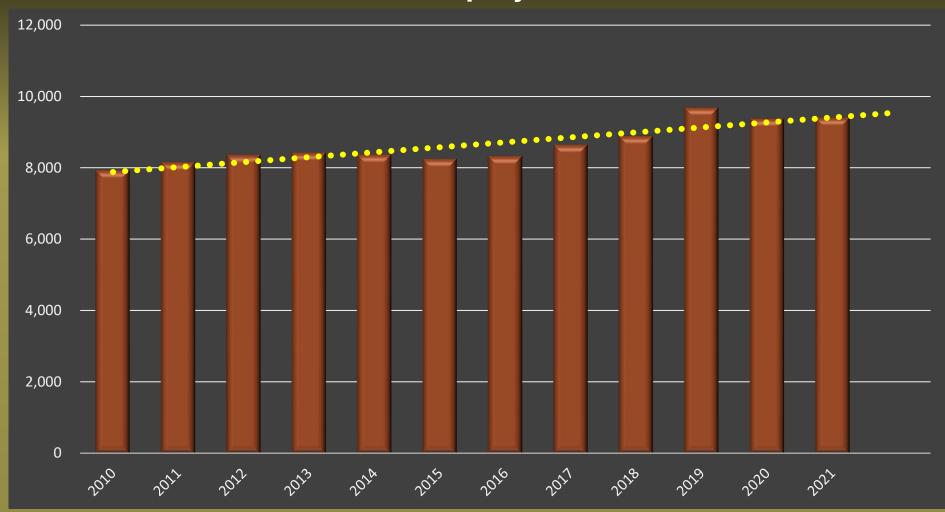
# Development of Alabama's Chemical Industry by Employment



### Cluster Change Since 2010 Total Establishment



# Cluster Change Since 2010 Total Employment



### Top Occupations for Chemical by Rounded Employment

Occupations	# of Jobs	% of Total
Chemical Equipment Operators and Tenders	1,340	15.3%
Chemical Plant and System Operators	840	9.6%
Industrial Machinery Mechanics	580	6.6%
First-Line Supervisors of Production and Operating Workers	490	5.6%
Mixing and Blending Machine Setters, Operators, and Tenders	470	5.4%
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	370	4.2%
Industrial Engineers	320	3.6%
Chemical Technicians	290	3.3%
Chemical Engineers	280	3.2%
Remaining Occupations	3,790	43.2%

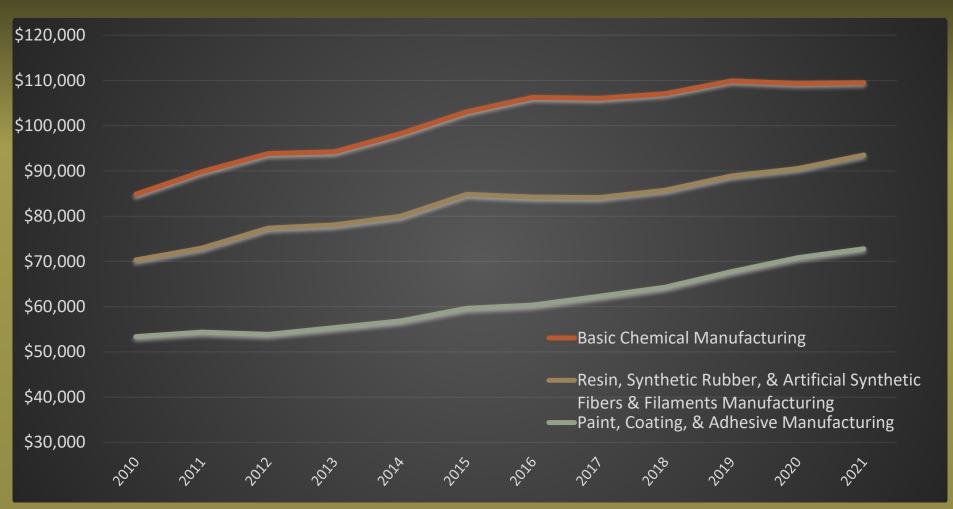
Source: Alabama Department of Labor, Labor Market Information Division in cooperation with the Projections Managing Partnership program and U.S. Bureau of Labor Statistics. Employment rounded to the nearest 10.

# Wage Information Top 10 by Rounded Occupational Employment

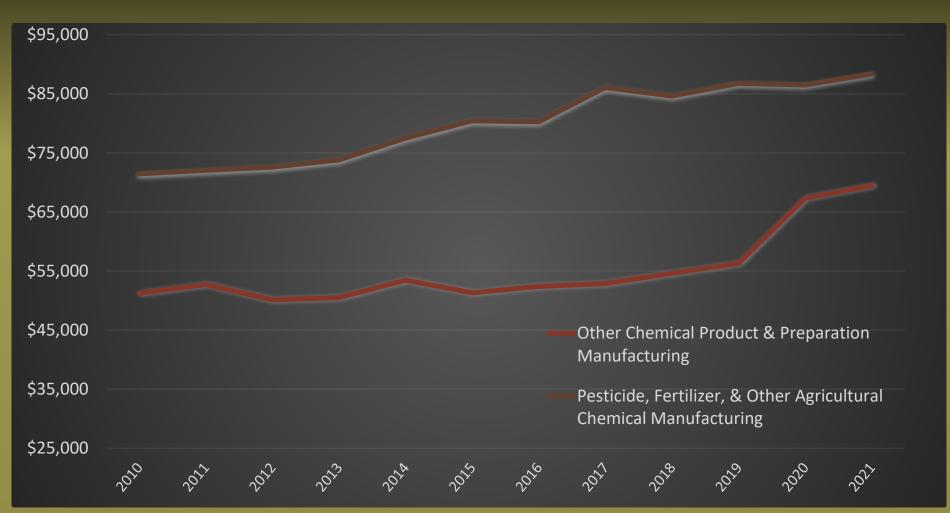
Occupation	Rounded Emp.	Entry Hourly	Entry Annual	Median Hourly	Median Annual	Experienced Hourly	Experienced Annual
Chemical Equipment Operators and Tenders	1,340	\$16.66	\$34,644	\$29.91	\$62,217	\$33.33	\$69,325
Chemical Plant and System Operators	840	\$32.61	\$67,824	\$37.05	\$77,072	\$38.69	\$80,466
Industrial Machinery Mechanics	580	\$17.54	\$36,491	\$24.39	\$50,722	\$29.24	\$60,828
Supervisors of Production and Operating Workers	490	\$19.40	\$40,353	\$29.83	\$62,044	\$37.63	\$78,277
Mixing and Blending Machine Setters, Operators, and Tenders	470	\$13.09	\$27,230	\$19.06	\$39,642	\$24.46	\$50,878
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	370	\$14.68	\$30,529	\$18.90	\$39,318	\$23.55	\$48,993
Industrial Engineers	320	\$30.45	\$63,329	\$42.23	\$87,837	\$51.17	\$106,442
Chemical Technicians	290	\$16.82	\$34,989	\$25.52	\$53,073	\$31.57	\$65,659
Chemical Engineers	280	\$35.04	\$72,893	\$51.13	\$106,360	\$58.21	\$121,076
Industrial Production Managers	200	\$35.40	\$73,628	\$50.87	\$105,812	\$64.01	\$133,147

Source: 2021 release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics; wage data aged using the most current Employment Cost Index (ECI) factors. Annual wage information rounded to the nearest whole dollar. *Note: Data reflects wages across all industries, not specifically to respective industry cluster*. Entry and Experienced Wages equal 10th percentile and 90th percentile wages, respectively.

## Wage Information Total Wages by Industry



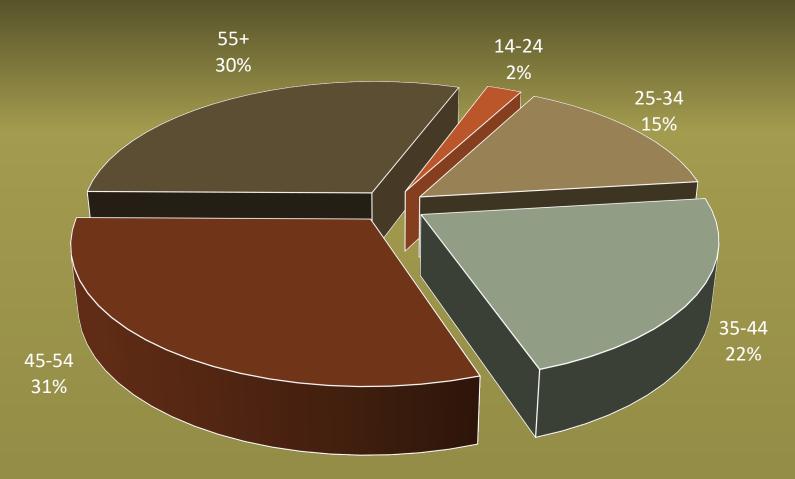
# Wage Information Total Wages by Industry



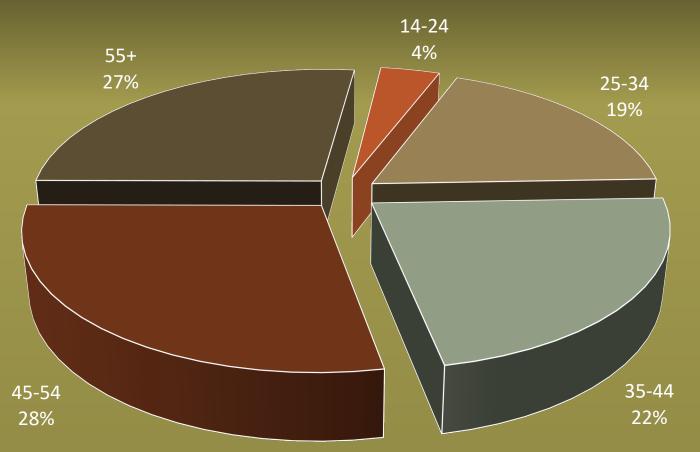
#### **2021** Quarterly Workforce Indicators

NAICS	Industry	Average Turnover Rate	Average Job Gains	Average Net Job Flows	Average Monthly Earnings	Average Monthly Earnings – New Hires
3251	Basic Chemical Manufacturing	3.5%	41	-40	\$8,676	\$6,563
3252	Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	3.3%	45	-1	\$7,452	\$5,466
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	5.8%	15	-12	\$7,100	\$5,934
3255	Paint, Coating, and Adhesive Manufacturing	6.1%	34	19	\$6,036	\$4,494
3259	Other Chemical Product and Preparation Manufacturing	5.2%	19	9	\$5,887	\$4,211

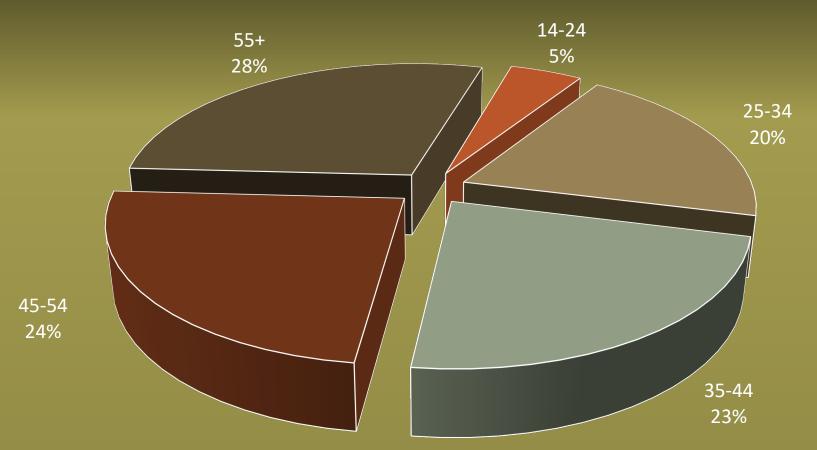
#### 3251 Basic Chemical Manufacturing 2021 Average Annual Employment by Age Group



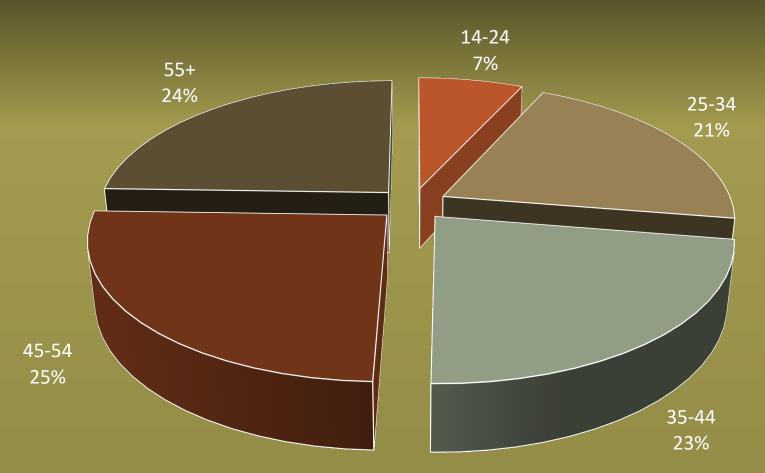
# 3252 Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing 2021 Average Annual Employment by Age Group



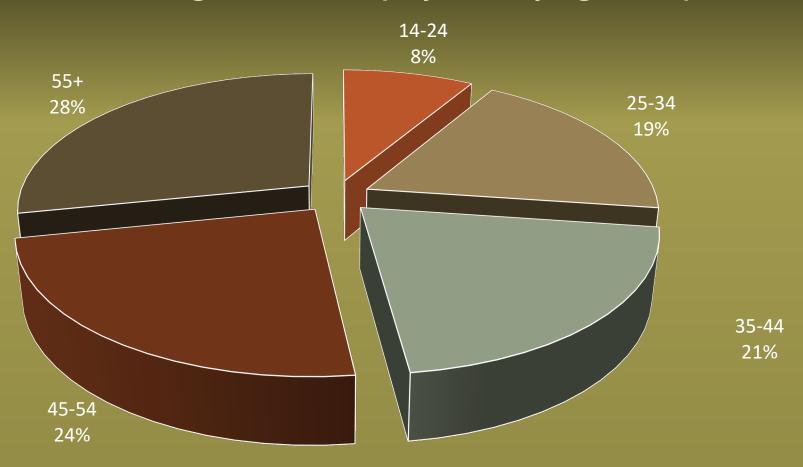
# 3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing 2021 Average Annual Employment by Age Group



#### 3255 Painting, Coating, and Adhesive Manufacturing 2021 Average Annual Employment by Age Group



# 3259 Other Chemical Product and Preparation Manufacturing 2021 Average Annual Employment by Age Group



### Projections Information 2020 – 2030 Industry Projections by NAICS Code

NAICS	Industry	2020	2030	Net Change	Percent Change	Average Annual Growth	U.S. Average Annual Growth	Location Quotient
3251	Basic Chemical Manufacturing	3,090	3,300	210	6.7%	0.65%	*	*
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	3,840	4,290	450	11.74%	1.12%	*	*
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	1,130	1,110	-20	-1.42%	-0.14%	*	*
3255	Paint, Coating, and Adhesive Manufacturing	850	840	-10	-1.41%	-0.14%	*	*
3259	Other Chemical Product and Preparation Manufacturing	460	450	-10	-3.89%	-0.4%	*	*

#### **Major Chemical Regions**

#### **Chemical Industry Maps:**

Statewide

Region 1

Region 2

Region 3

Region 4

Region 5

Region 6

Region 7