

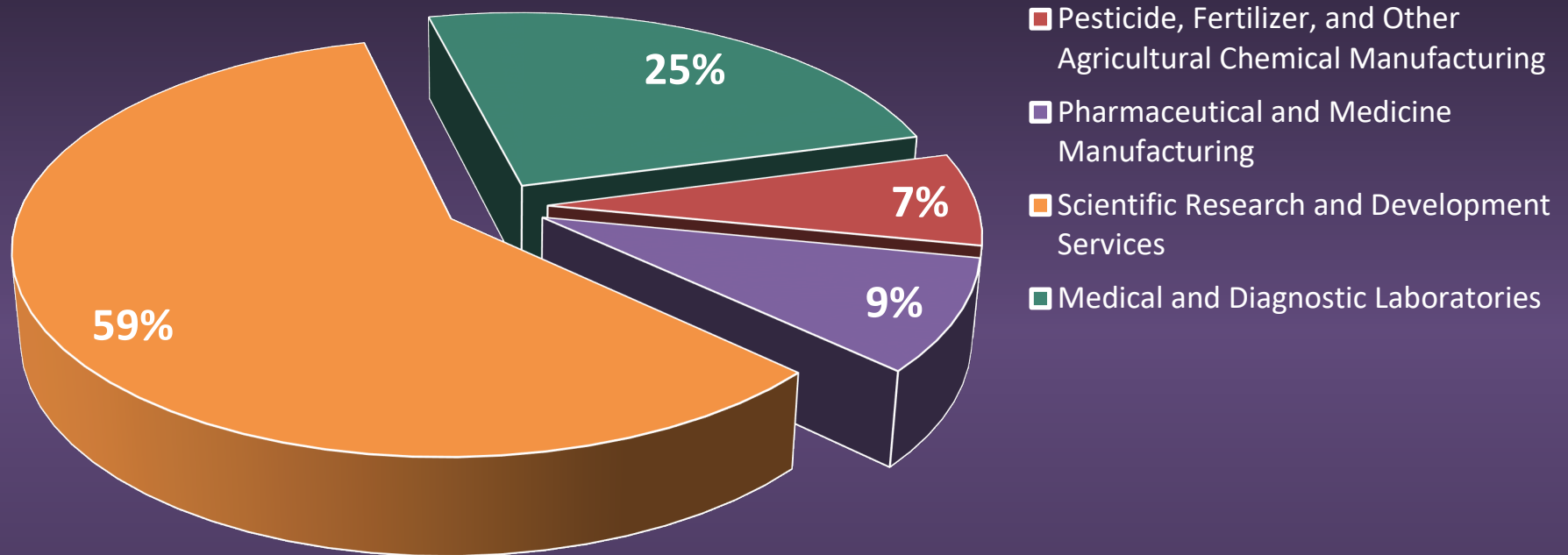


Alabama  
Department  
of Labor

# Accelerate Alabama Bioscience

Alabama Department of Labor  
Labor Market Information Division

# Alabama Bioscience Employment by Industry Sectors



# Alabama Bioscience Industry Overview

Sector	# of Companies	# Employed
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	25	1,110
Pharmaceutical and Medicine Manufacturing	84	1,343
Scientific Research and Development Services	534	9,057
Medical and Diagnostic Laboratories	566	3,775

# 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;  
7% of Bioscience 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 Fibers

**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.*

# Pharmaceutical and Medicine Manufacturing

## 3254 Pharmaceutical and Medicine Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing biological and medicinal products; (2) processing (i.e., grading, grinding, and milling) botanical drugs and herbs; (3) isolating active medicinal principals from botanical drugs and herbs; and (4) manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

84 companies; 1,343 employed;  
9% of Bioscience Industry Employment

# of Employees	% of Companies
1-49	94%
50-99	2%
100-249	1%
250+	2%

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

### Top 5 Job Categories:

- 12% Chemists
- 10% Mixing and Blending Machine Setters, Operators, and Tenders
- 8% Chemical Technicians
- 8% Packaging and Filling Machine Operators and Tenders
- 7% Industrial Machinery Mechanics

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

# Pharmaceutical and Medicine Manufacturing

## Firm Age Workforce Indicators

Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	9	*	\$5,538	28.6%
2 – 3 Years	33	\$6,330	*	11.5%
4 – 5 Years	64	\$5,347	\$2,867	12.5%
6 – 10 Years	63	\$6,215	\$3,613	7.7%
11+ Years	1,033	\$7,388	\$5,272	7.1%
All Firm Ages	1,202	\$7,197	\$5,191	7.7%

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.*

# Scientific Research and Development Services

## 5417 Scientific Research and Development Services

This industry group comprises establishments engaged in conducting original investigation undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development). Techniques may include modeling and simulation. The industries within this industry group are defined on the basis of the domain of research; that is, on the scientific expertise of the establishment.

534 companies; 9,057 employed;  
59% of Bioscience Industry Employment

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

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

## Top 5 Job Categories:

- 19% Software Developers and Software Quality Assurance Analysts and Testers
- 12% Computer Systems Analysts
- 6% Computer Network Architects
- 4% Information Security Analysts
- 3% General and Operations Managers

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



# Scientific Research and Development Services

## Firm Age Workforce Indicators

Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	29	\$5,354	\$5,438	*
2 – 3 Years	164	\$7,949	\$6,467	8.4%
4 – 5 Years	118	\$7,957	\$5,363	11.0%
6 – 10 Years	235	\$7,973	\$7,511	9.5%
11+ Years	8,010	\$8,588	\$7,110	6.2%
All Firm Ages	8,555	\$8,537	\$7,037	6.4%

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.*

# Medical and Diagnostic Laboratories

## 6215 Medical and Diagnostic Laboratories

This industry comprises establishments known as medical and diagnostic laboratories primarily engaged in providing analytic or diagnostic services, including body fluid analysis and diagnostic imaging, generally to the medical profession or to the patient on referral from a health practitioner.

566 companies; 3,775 employed;  
25% of Bioscience Industry Employment

# of Employees	% of Companies
1-49	97%
50-99	2%
100-249	1%
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:

- 25% Phlebotomists
- 22% Clinical Laboratory Technologists and Technicians
- 6% Customer Service Representatives
- 4% Radiologic Technologists
- 4% Receptionists and Information Clerks

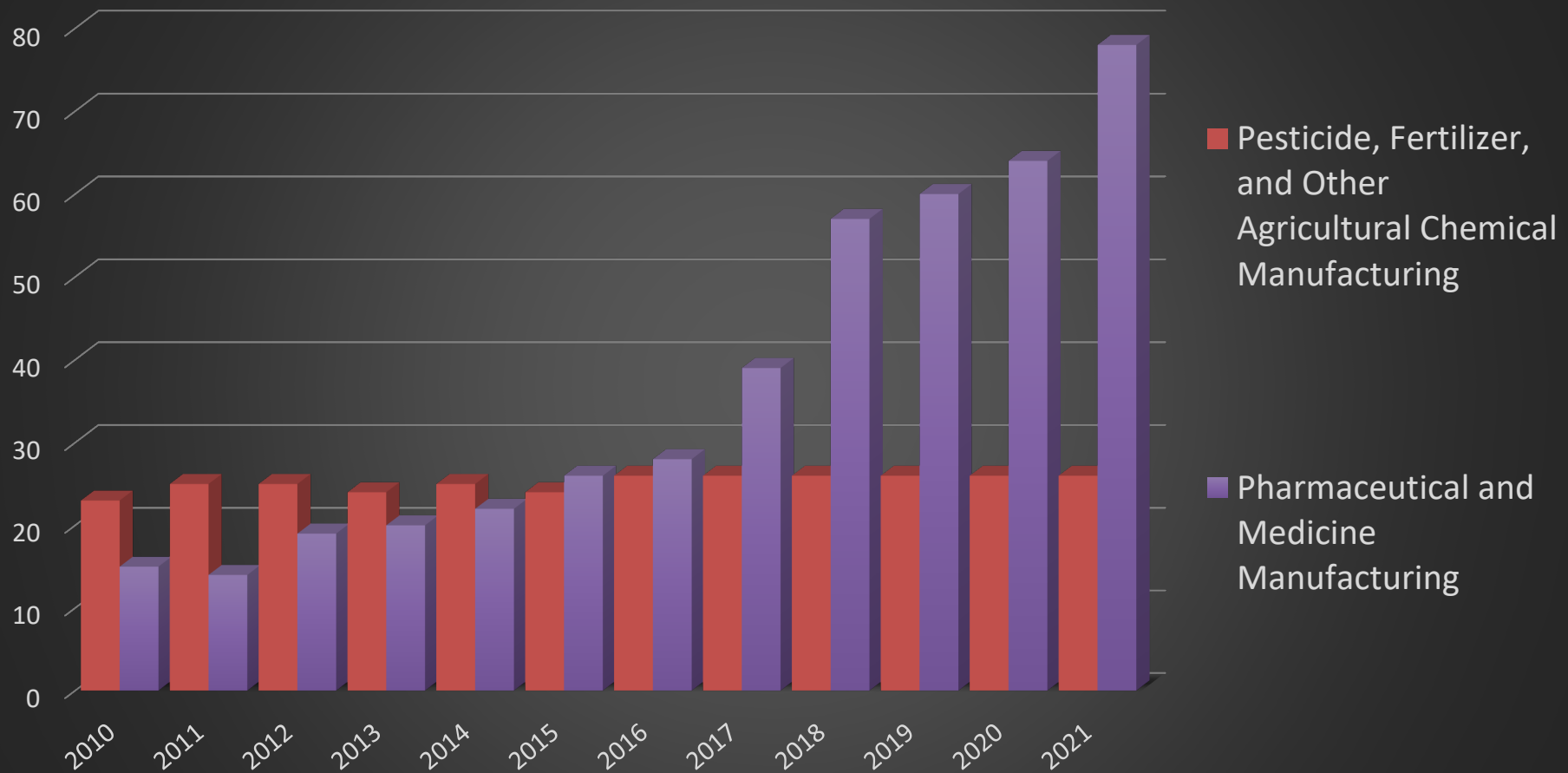
**Source:** 2021 Release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics.

## Medical and Diagnostic Laboratories Firm Age Workforce Indicators

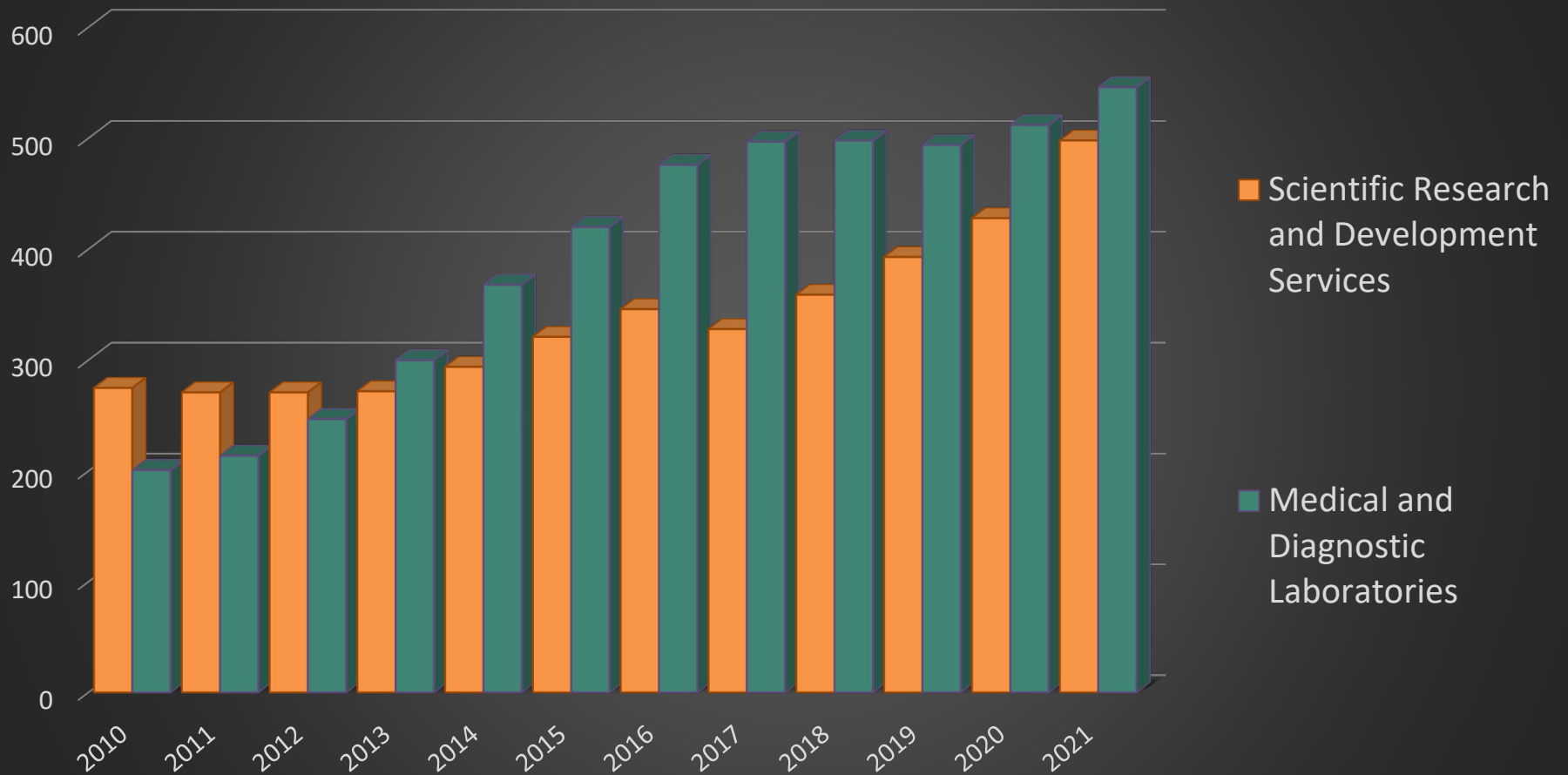
Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	144	\$5,952	\$3,430	15.3%
2 – 3 Years	129	\$6,202	\$4,999	25.2%
4 – 5 Years	112	\$5,553	\$4,689	12.1%
6 – 10 Years	458	\$5,867	\$3,721	11.0%
11+ Years	2,672	\$4,371	\$3,675	7.2%
All Firm Ages	3,516	\$4,754	\$3,927	8.8%

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.*

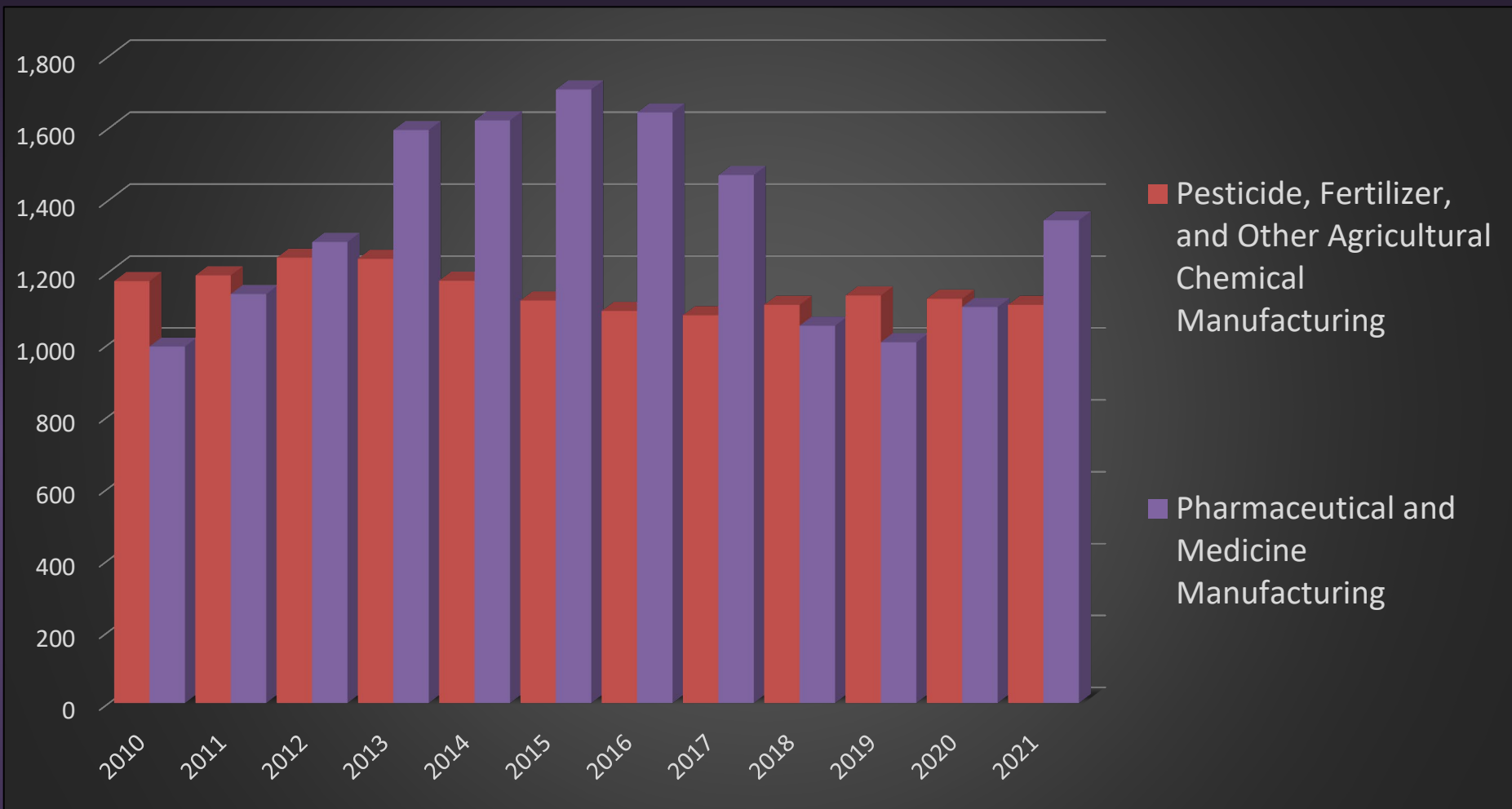
# Development of Alabama's Bioscience Industry by Company



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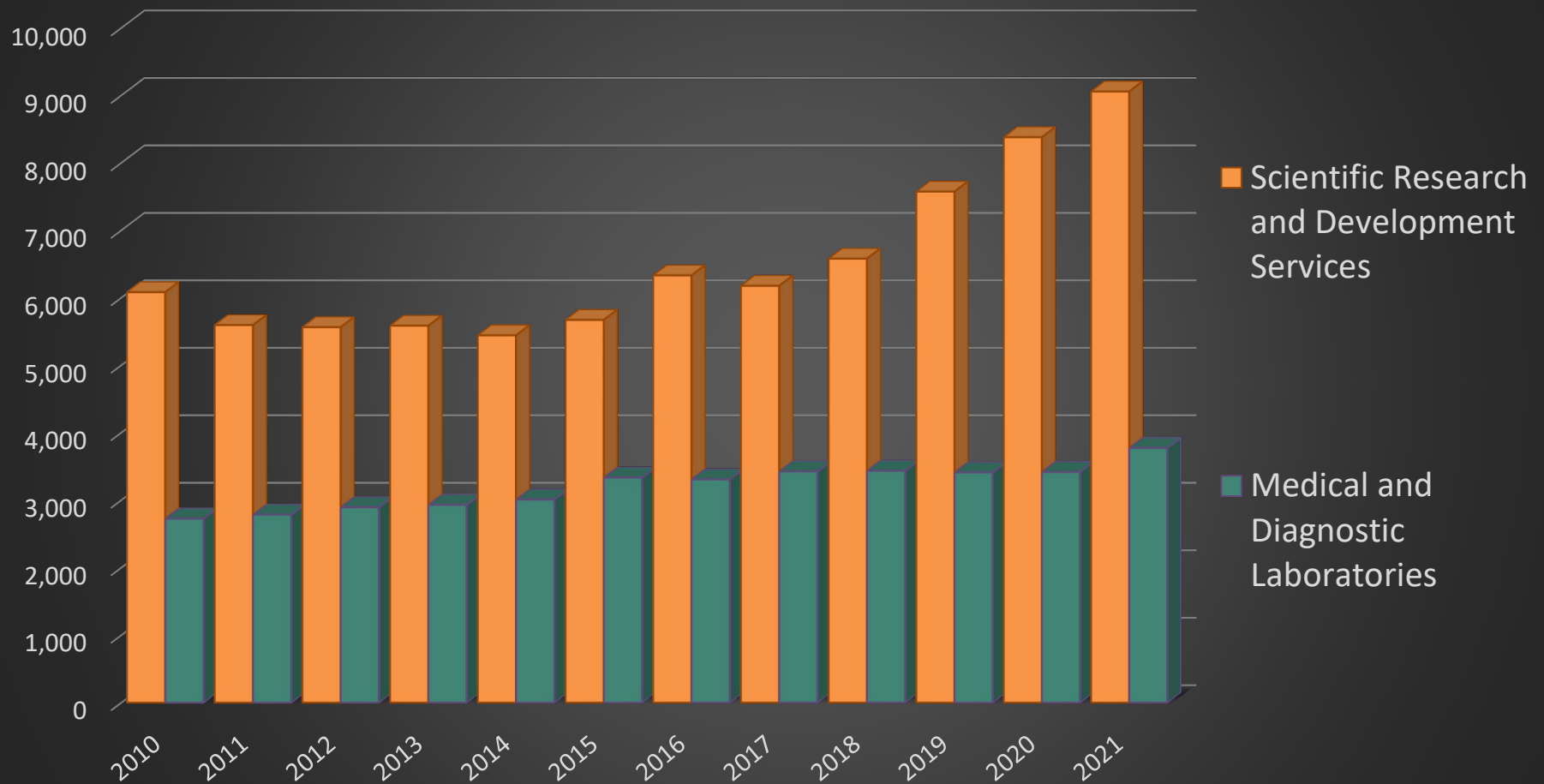


# Development of Alabama's Bioscience Industry by Employment



Source: Alabama Department of Labor, Quarterly Census of Employment and Wages.

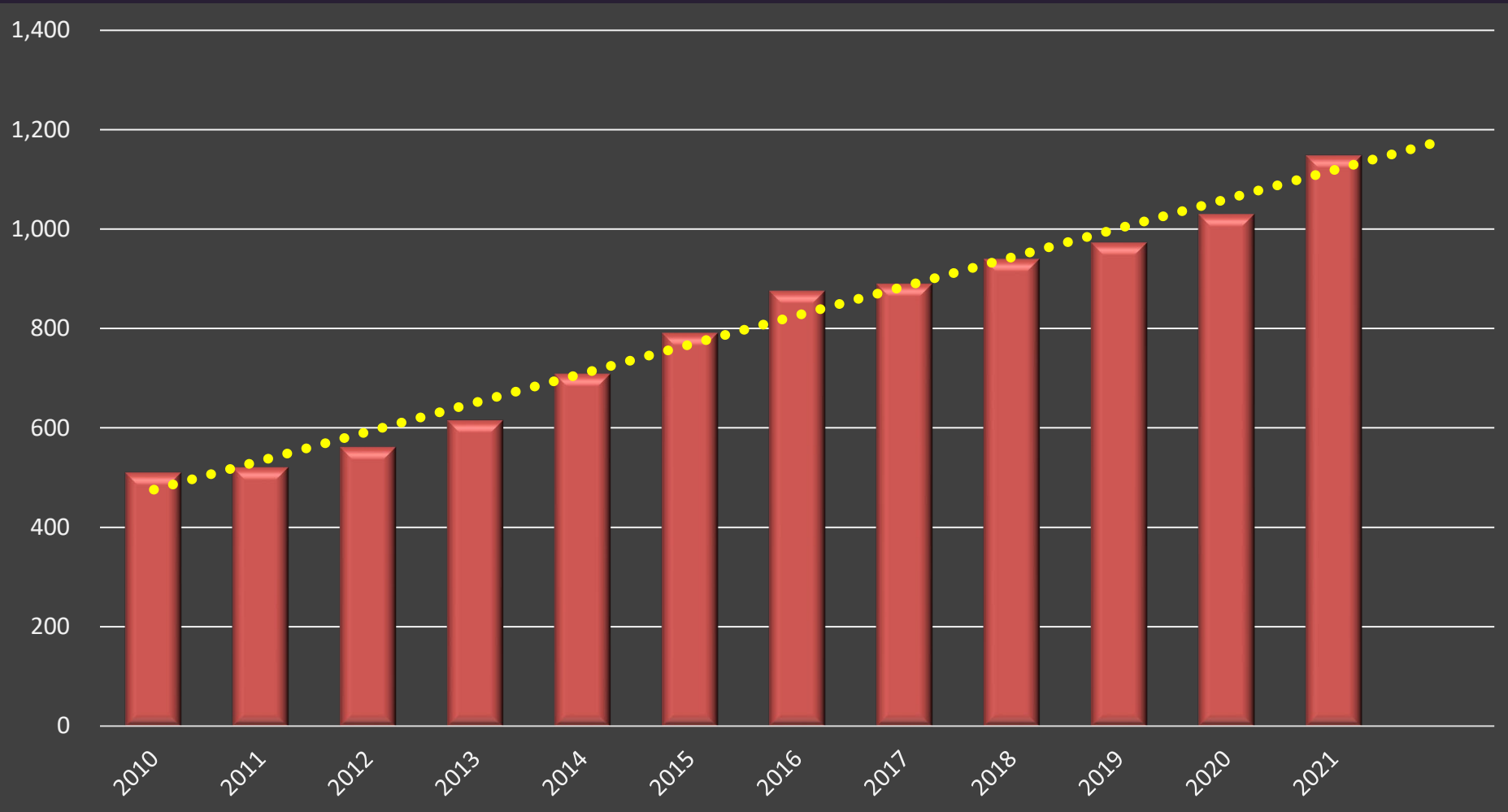
# Development of Alabama's Bioscience Industry by Employment



Source: Alabama Department of Labor, Quarterly Census of Employment and Wages.

# Cluster Change Since 2010

## Total Establishment

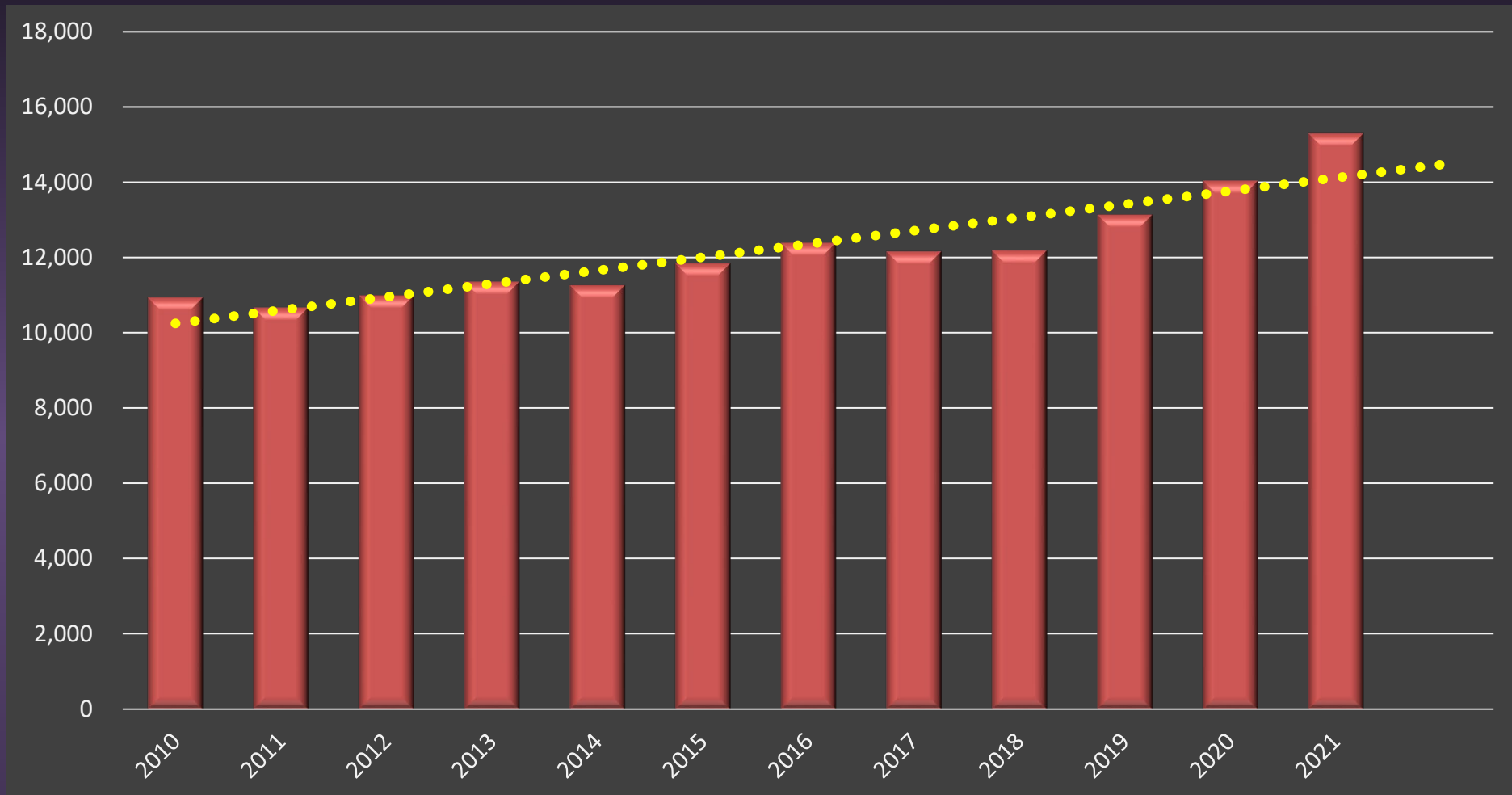


Source: Alabama Department of Labor, Quarterly Census of Employment and Wages.



# Cluster Change Since 2010

## Total Employment



# Top Occupations for Bioscience by Rounded Employment

Occupations	# of Jobs	% of Total
Software Developers and Software Quality Assurance Analysts and Testers	1,640	8.0%
Chemical Equipment Operators and Tenders	1,310	6.4%
Computer Systems Analysts	1,070	5.2%
Phlebotomists	870	4.3%
Chemical Plant and System Operators	840	4.1%
Clinical Laboratory Technologists and Technicians	830	4.1%
Industrial Machinery Mechanics	610	3.0%
First-Line Supervisors of Production and Operating Workers	500	2.4%
Computer Network Architects	490	2.4%
Remaining Occupations	12,340	60.1%

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

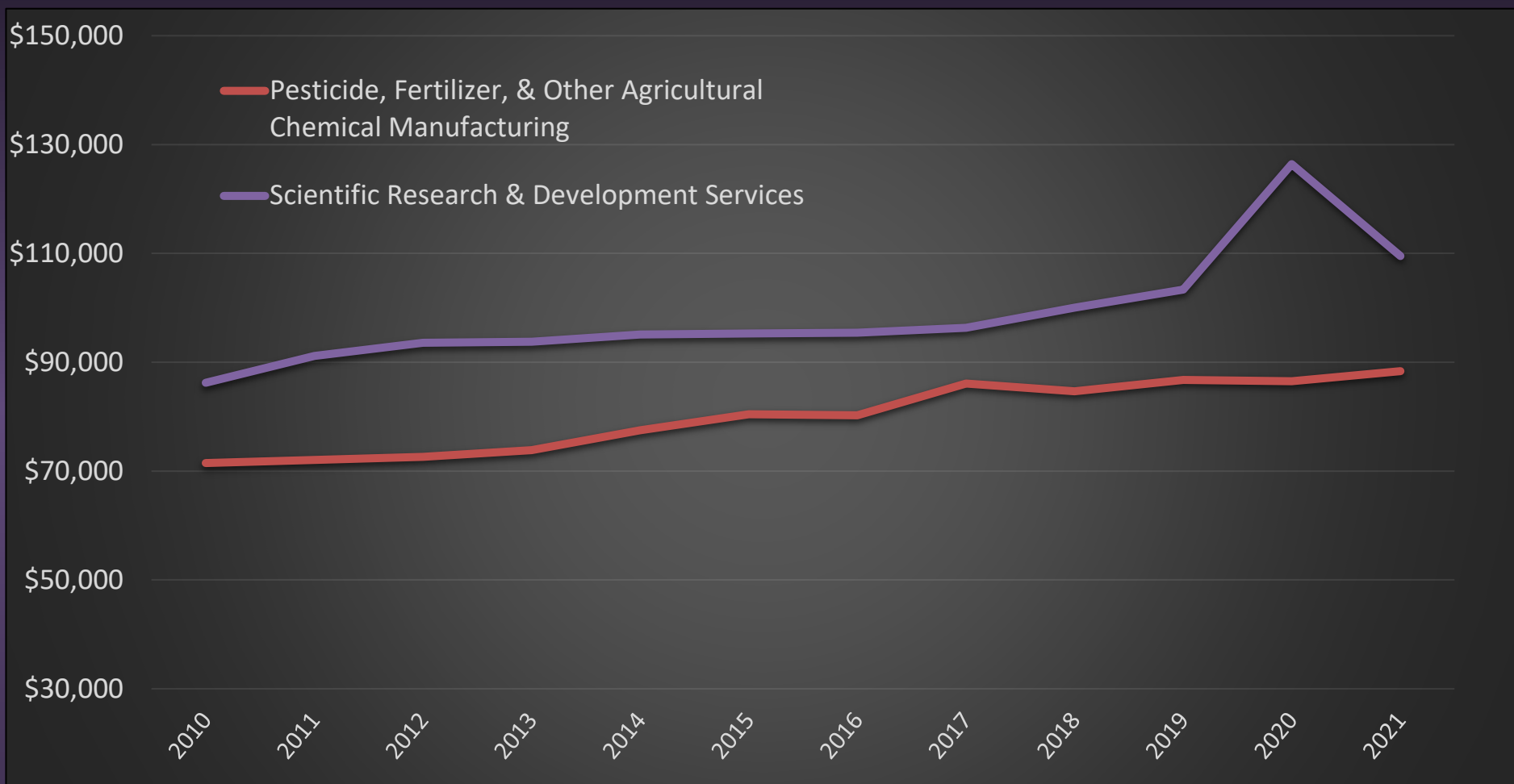
## Top 10 by Rounded Occupational Employment

Occupation	Rounded Emp.	Entry Hourly	Entry Annual	Median Hourly	Median Annual	Experienced Hourly	Experienced Annual
Software Developers and Software Quality Assurance Analysts and Testers	1,640	\$30.10	\$62,615	\$47.37	\$98,524	\$59.17	\$123,066
Chemical Equipment Operators and Tenders	1,310	\$16.66	\$34,644	\$29.91	\$62,217	\$33.33	\$69,325
Computer Systems Analysts	1,070	\$29.92	\$62,239	\$42.57	\$88,552	\$52.49	\$109,170
Phlebotomists	870	\$12.20	\$25,373	\$15.29	\$31,804	\$17.31	\$36,007
Chemical Plant and System Operators	840	\$32.61	\$67,824	\$37.05	\$77,072	\$38.69	\$80,466
Clinical Laboratory Technologists and Technicians	830	\$13.85	\$28,814	\$21.12	\$43,923	\$26.33	\$54,770
Industrial Machinery Mechanics	610	\$17.54	\$36,491	\$24.39	\$50,722	\$29.24	\$60,828
Supervisors of Production and Operating Workers	500	\$19.40	\$40,353	\$29.83	\$62,044	\$37.63	\$78,277
Computer Network Architects	490	\$36.33	\$75,572	\$51.02	\$106,123	\$61.53	\$127,978
General and Operations Managers	450	\$26.83	\$55,799	\$48.64	\$101,174	\$74.42	\$154,798

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

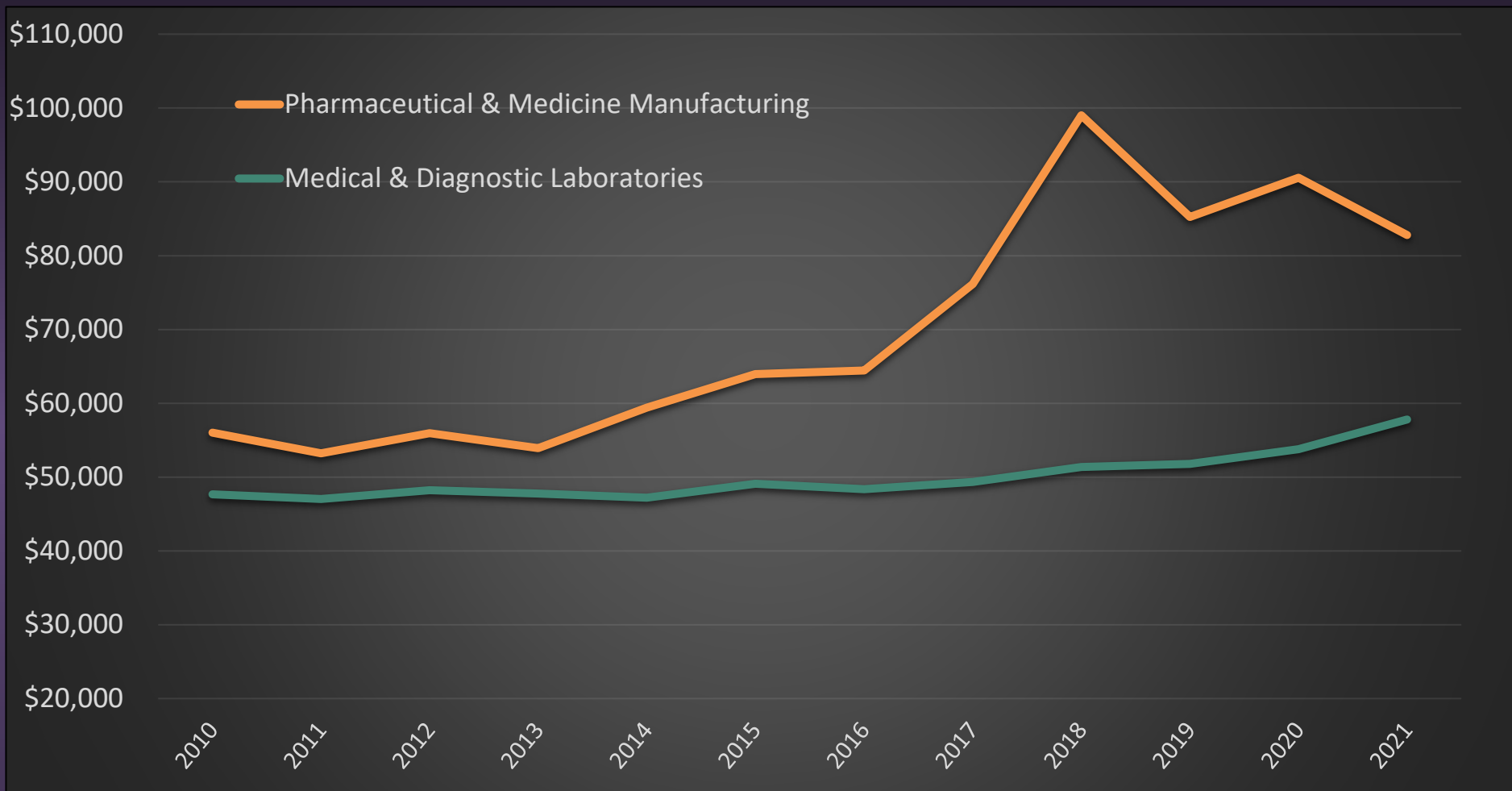
## Total Wages by Industry



Source: Alabama Department of Labor, Quarterly Census of Employment and Wages

# Wage Information

## Total Wages by Industry

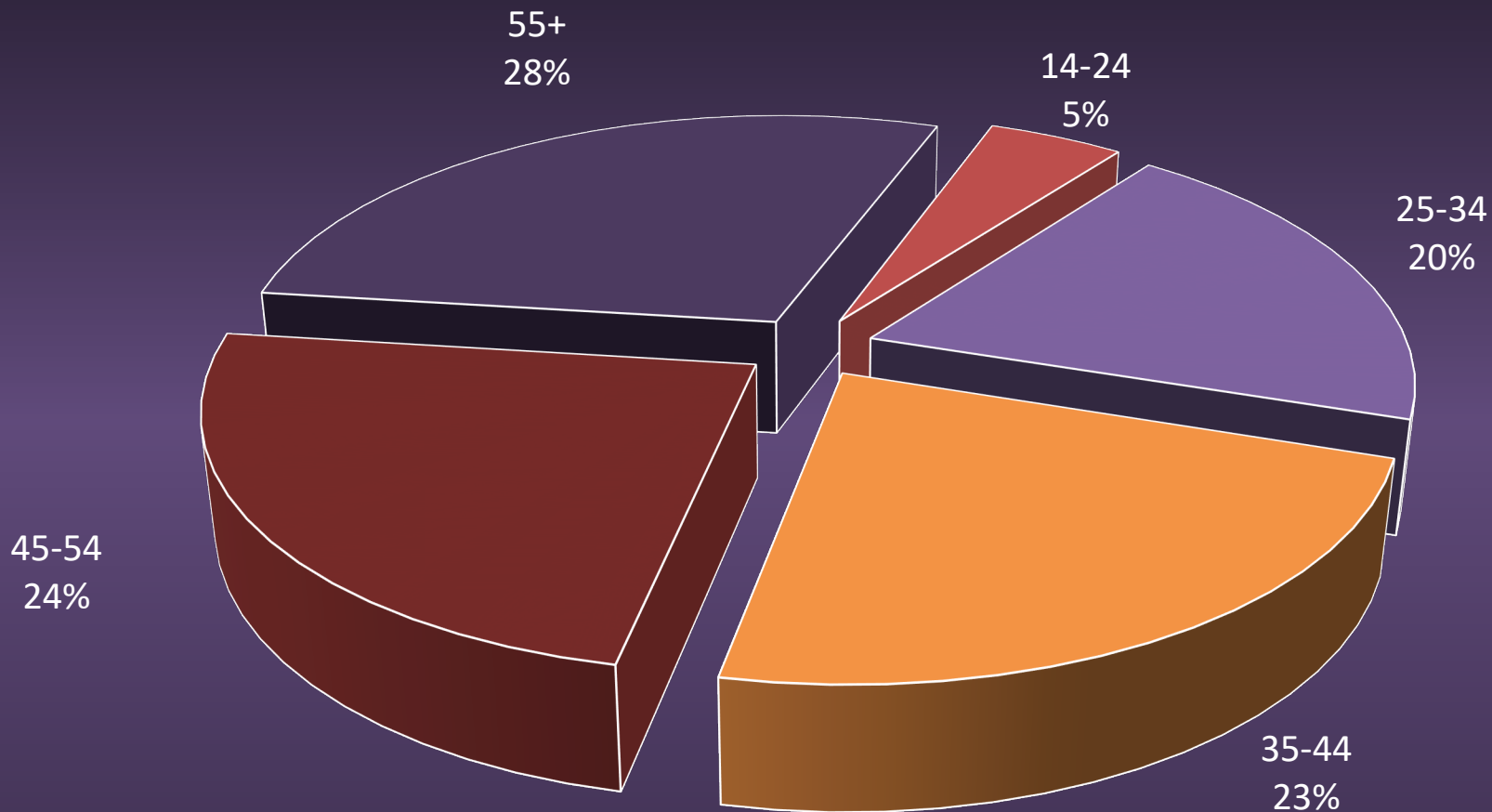


## 2021 Quarterly Workforce Indicators

NAICS	Industry	Average Turnover Rate	Average Job Gains	Average Net Job Flows	Average Monthly Earnings	Average Monthly Earnings – New Hires
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	5.8%	15	-12	\$7,100	\$5,934
3254	Pharmaceutical and Medicine Manufacturing	7.7%	94	69	\$7,197	\$5,191
5417	Scientific Research and Development Services	6.4%	218	54	\$8,537	\$7,037
6215	Medical and Diagnostic Laboratories	8.8%	158	60	\$4,754	\$3,927

# 3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing

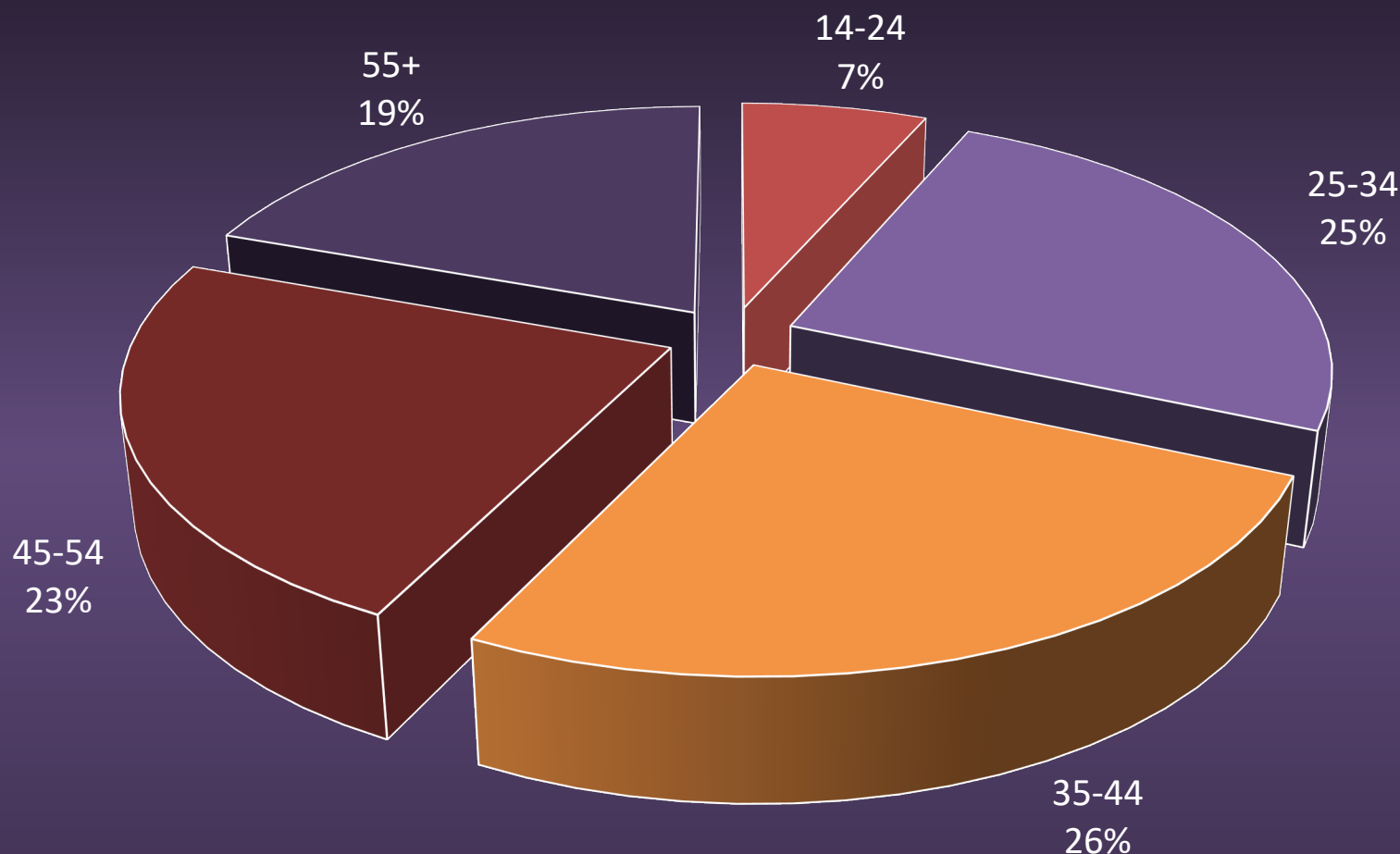
## 2021 Average Annual Employment by Age Group



Source: Partnership between the Alabama Department of Labor, Labor Market Information Division and the U.S. Census Bureau, Longitudinal Employment-Household Dynamics (LEHD) Program, Quarterly Workforce Indicators (QWI) data.

# 3254 Pharmaceutical and Medicine Manufacturing

## 2021 Average Annual Employment by Age Group

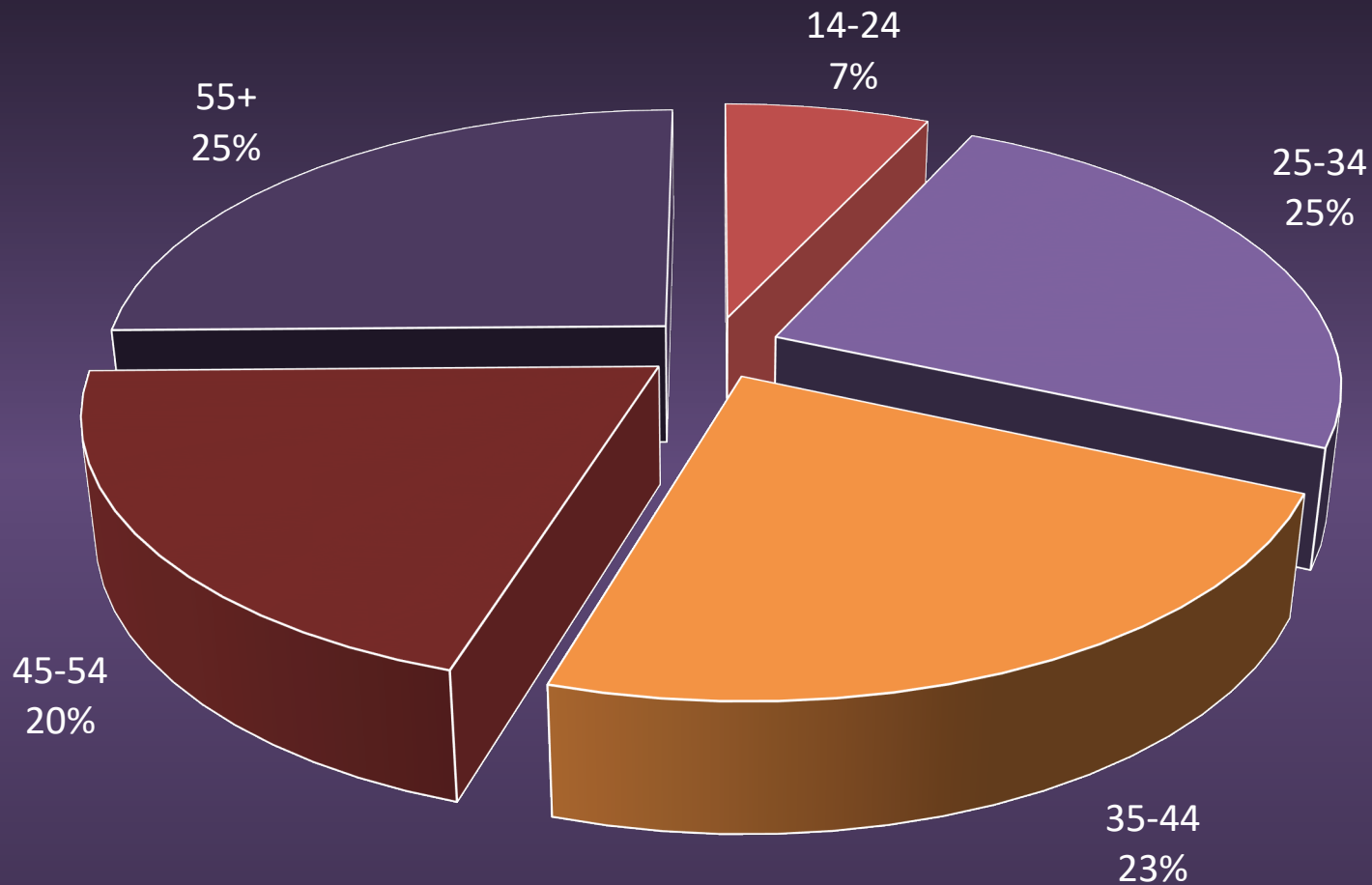


Source: Partnership between the Alabama Department of Labor, Labor Market Information Division and the U.S. Census Bureau, Longitudinal Employment-Household Dynamics (LEHD) Program, Quarterly Workforce Indicators (QWI) data.



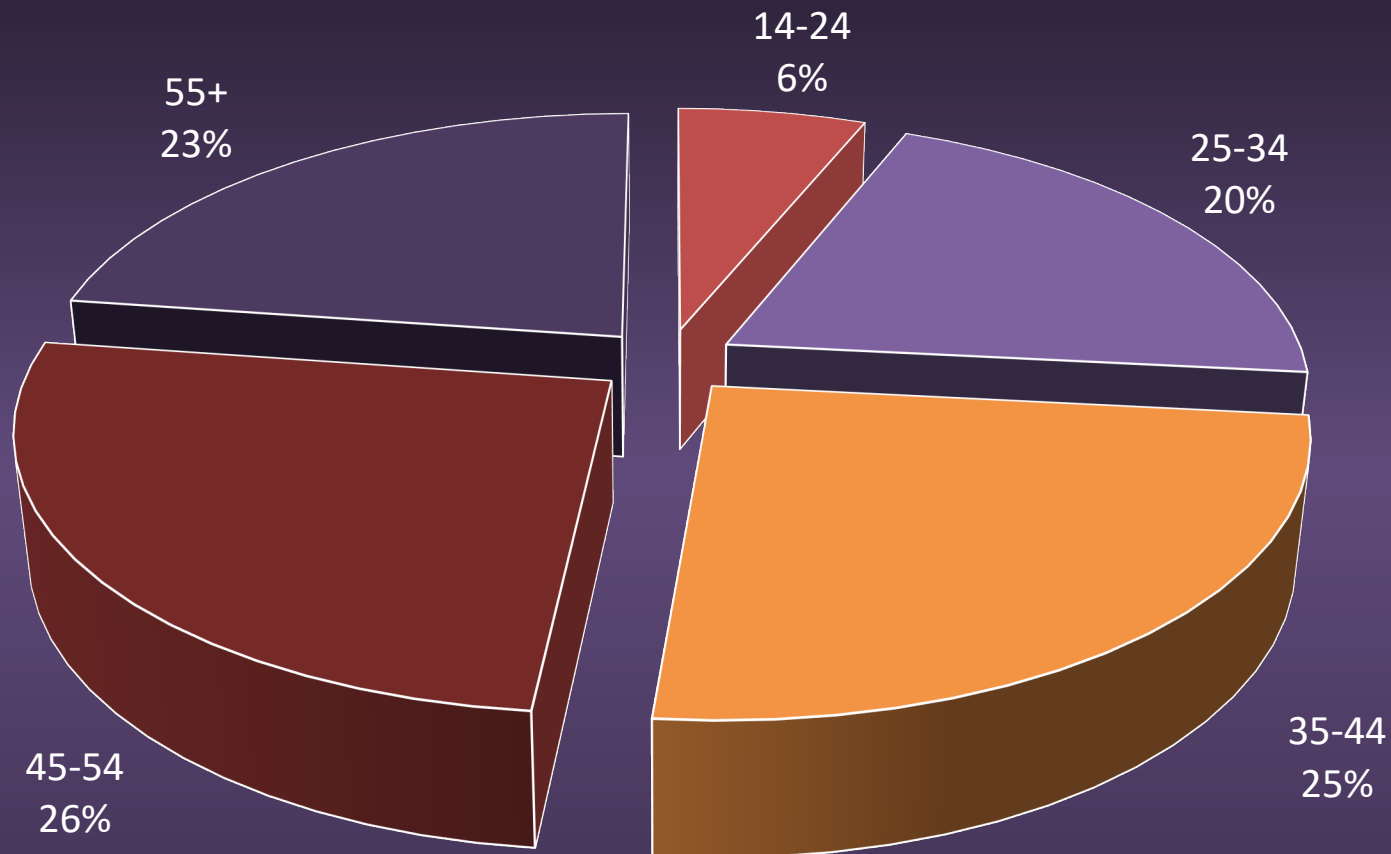
# 5417 Scientific Research and Development Services

## 2021 Average Annual Employment by Age Group



Source: Partnership between the Alabama Department of Labor, Labor Market Information Division and the U.S. Census Bureau, Longitudinal Employment-Household Dynamics (LEHD) Program, Quarterly Workforce Indicators (QWI) data.

# 6215 Medical and Diagnostic Laboratories 2021 Average Annual Employment by Age Group



Source: Partnership between the Alabama Department of Labor, Labor Market Information Division and the U.S. Census Bureau, Longitudinal Employment-Household Dynamics (LEHD) Program, Quarterly Workforce Indicators (QWI) data.

# 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
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	1,130	1,110	-20	-1.42%	-0.14%	*	*
3254	Pharmaceutical and Medicine Manufacturing	1,100	1,090	-10	-0.91%	-0.09%	0.55%	0.25
5417	Scientific Research and Development Services	8,380	9,230	850	10.11%	0.97%	0.62%	0.79
6215	Medical and Diagnostic Laboratories	3,420	4,010	590	17.44%	1.62%	2.12%	0.88

# Major Bioscience Regions

Bioscience Industry Maps:

[Statewide](#)

[Region 1](#)

[Region 2](#)

[Region 3](#)

[Region 4](#)

[Region 5](#)

[Region 6](#)

[Region 7](#)