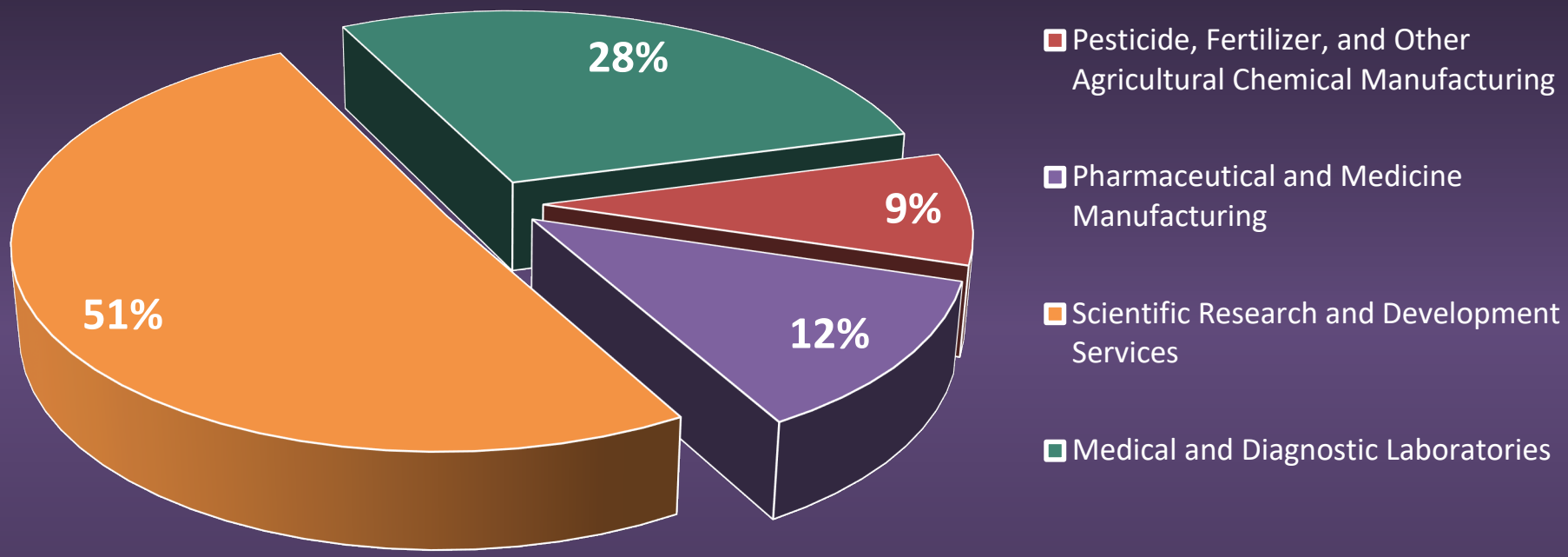
Accelerate Alabama Bioscience

Alabama Department of Labor

Labor Market Information Division

Alabama Bioscience Employment by Industry Sectors



Source: Quarterly Census of Employment and Wages, 2017 Annual Average

Alabama Bioscience Industry Overview

Sector	# of Companies	# Employed
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	28	1,080
Pharmaceutical and Medicine Manufacturing	42	1,470
Scientific Research and Development Services	338	6,177
Medical and Diagnostic Laboratories	503	3,426

Source: Quarterly Census of Employment and Wages, 2017 Annual Average

Alabama Department of Labor

Labor Market Information
James Henry, Division Director

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).

28 companies; 1,080 employed;
9% of Bioscience Industry Employment

# of Employees	% of Companies
1-49	79%
50-99	7%
100-249	11%
250+	4%

Source: Quarterly Census of Employment and Wages, 2017 annual average. *Note: Numbers may not equal 100% due to rounding.*

Top 5 Job Categories:

- 18% Chemical Equipment Operators and Tenders
- 16% Chemical Plant and System Operators
- 5% Mixing and Blending Machine Setters, Operators, and Tenders
- 4% Chemists
- 4% Inspectors, Testers, Sorters, Samplers, and Weighers

Source: 2018 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	*	$5,093	$5,428	*
2 – 3 Years	*	*	*	*
4 – 5 Years	102	$5,621	$5,141	*
6 – 10 Years	*	*	*	*
11+ Years	880	$7,011	$4,897	6.1%
All Firm Ages	1,028	$6,726	$4,787	5.9%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2017 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.

42 companies; 1,470 employed;
12% of Bioscience Industry Employment

# of Employees	% of Companies
1-49	90%
50-99	0%
100-249	5%
250+	5%

Source: Quarterly Census of Employment and Wages, 2017 annual average. *Note: Numbers may not equal 100% due to rounding.*

Top 5 Job Categories:

- 19% Mixing and Blending Machine Setters, Operators, and Tenders
- 10% Chemists
- 7% Inspectors, Testers, Sorters, Samplers, and Weighers
- 5% Chemical Equipment Operators and Tenders
- 4% Maintenance and Repair Workers, General

Source: 2018 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	*	*	*	*
2 – 3 Years	*	*	*	*
4 – 5 Years	47	$3,903	$3,207	11.4%
6 – 10 Years	57	$5,156	*	13.9%
11+ Years	1,420	$5,969	$4,417	7.7%
All Firm Ages	1,565	$5,931	$4,465	7.9%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2017 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.

338 companies; 6,177 employed;
51% of Bioscience Industry Employment

# of Employees	% of Companies
1-49	94%
50-99	3%
100-249	2%
250+	1%

Source: Quarterly Census of Employment and Wages, 2017 annual average. *Note: Numbers may not equal 100% due to rounding.*

Top 5 Job Categories:

- 10% Software Developers, Systems Software
- 6% General and Operations Managers
- 5% Software Developers, Applications
- 3% Operations Research Analysts
- 3% Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

Source: 2018 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	71	$5,938	*	18.8%
2 – 3 Years	67	$6,660	$6,241	15.1%
4 – 5 Years	116	$6,168	$4,707	7.2%
6 – 10 Years	658	$6,081	$5,230	5.4%
11+ Years	5,160	$7,638	$6,355	5.6%
All Firm Ages	6,073	$7,433	$6,172	5.9%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2017 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.

503 companies; 3,426 employed;
28% 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, 2017 annual average. *Note: Numbers may not equal 100% due to rounding.*

Top 5 Job Categories:

- 27% Phlebotomists
- 17% Medical and Clinical Laboratory Technologists
- 13% Medical and Clinical Laboratory Technicians
- 4% Couriers and Messengers
- 4% Customer Service Representatives

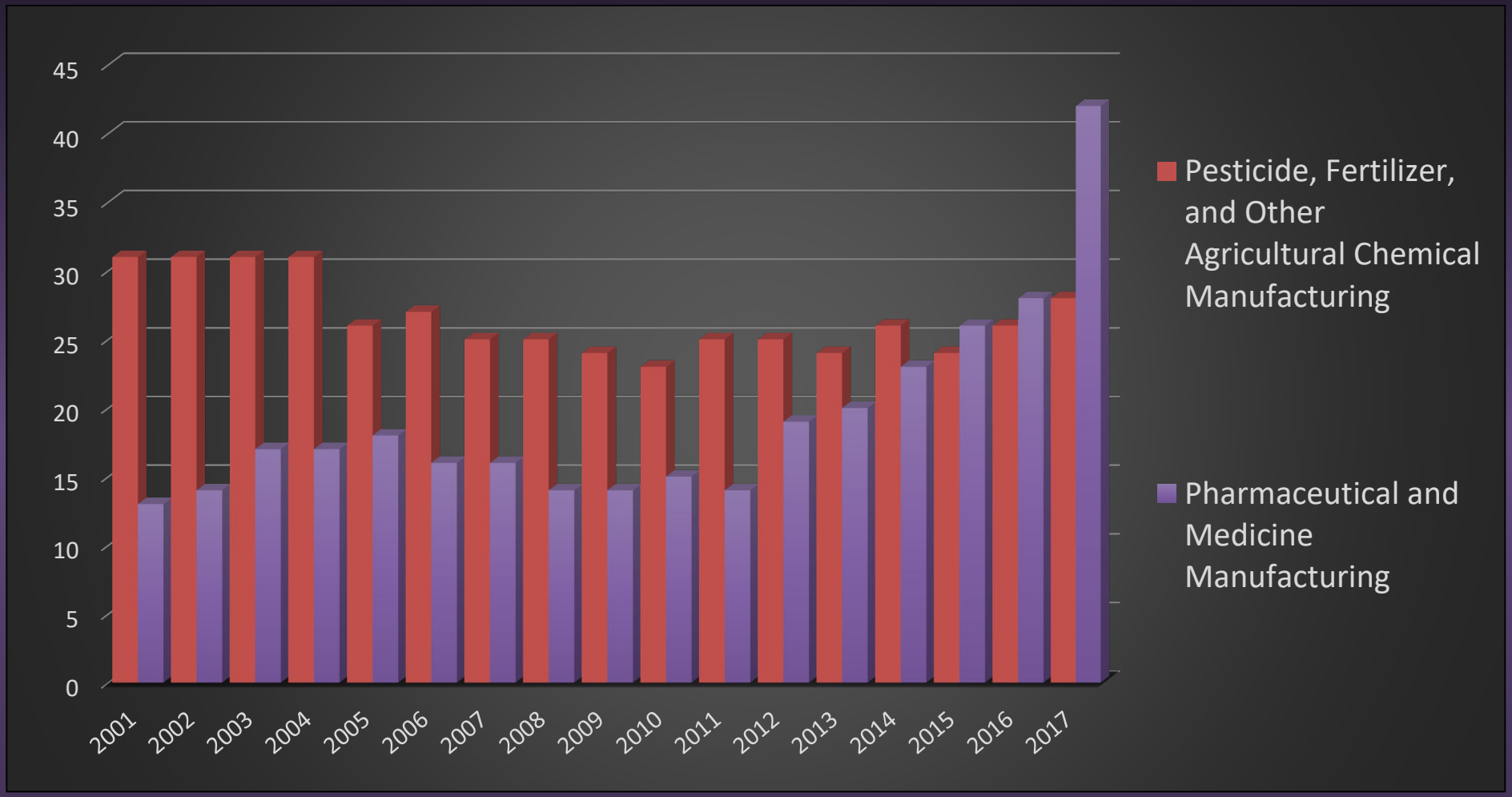
Source: 2018 Release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics.

Medical and Diagnostic Laboratories
Firm Age Workforce Indicators

Firm Age	Employment	Monthly Earnings	Monthly Earnings New Hires	Turnover
0 – 1 Year	73	$5,073	$4,286	19.3%
2 – 3 Years	225	$4,520	$3,459	13.1%
4 – 5 Years	159	$4,027	$3,241	13.8%
6 – 10 Years	157	$4,505	*	7.7%
11+ Years	3,020	$4,254	$3,021	5.8%
All Firm Ages	3,632	$4,289	$3,195	6.8%

Source: Local Employment Household Dynamics Partnership between Alabama Department of Labor, Labor Market Information Division, and the U.S. Census Bureau, LED Extraction Tool; 2017 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



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

Development of Alabama's Bioscience Industry by Company

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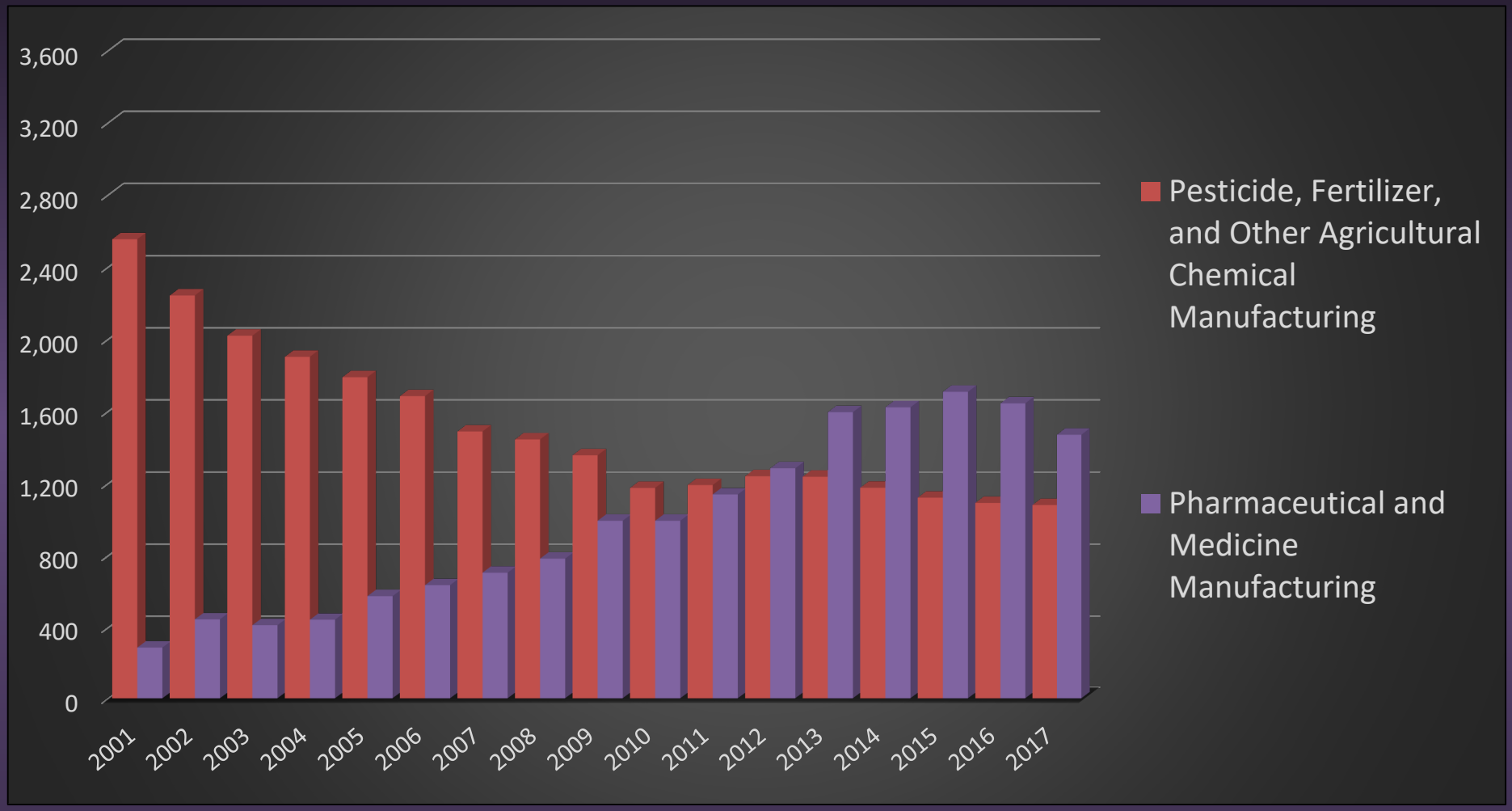
Development of Alabama's Bioscience Industry by Employment



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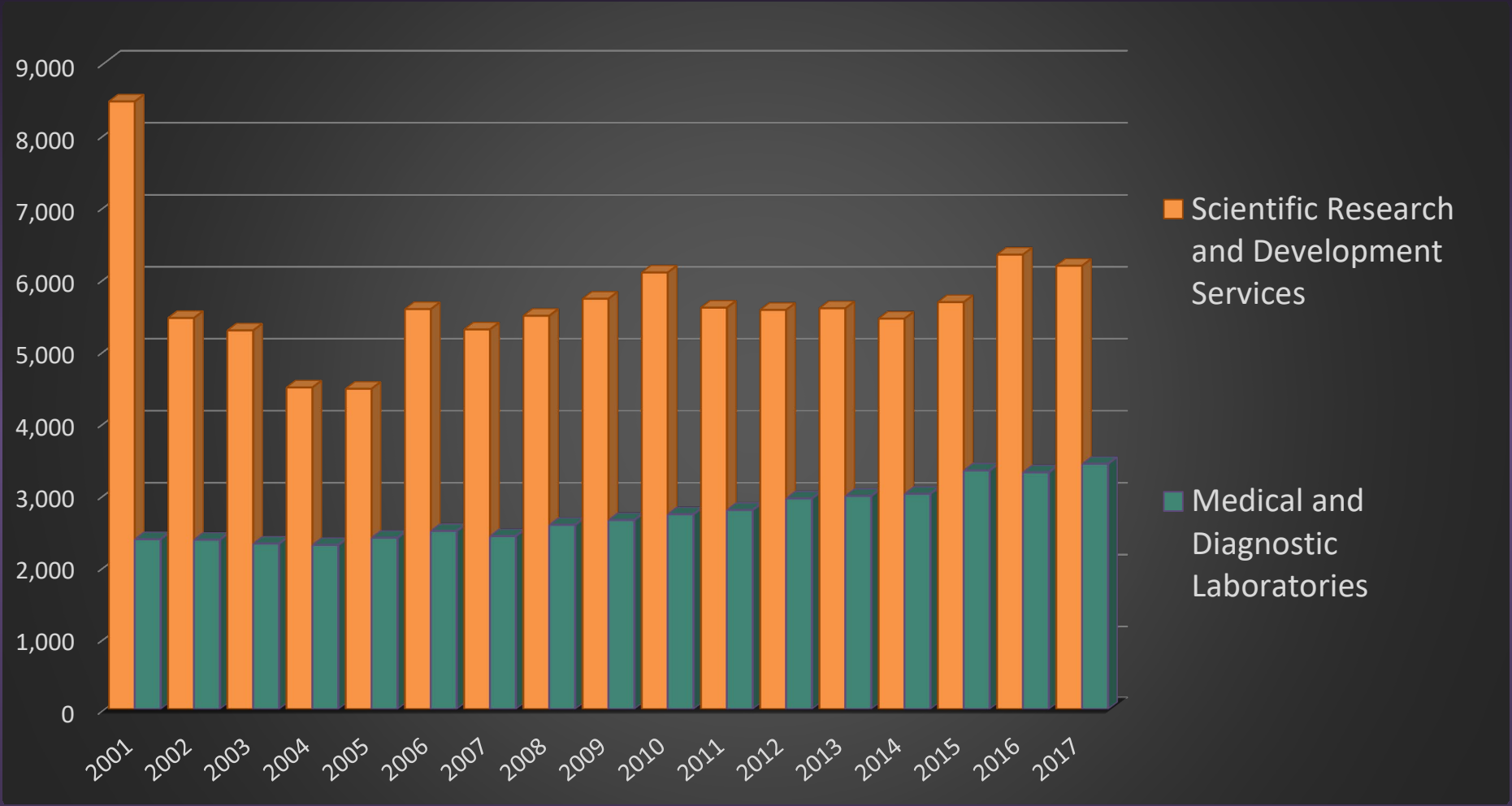
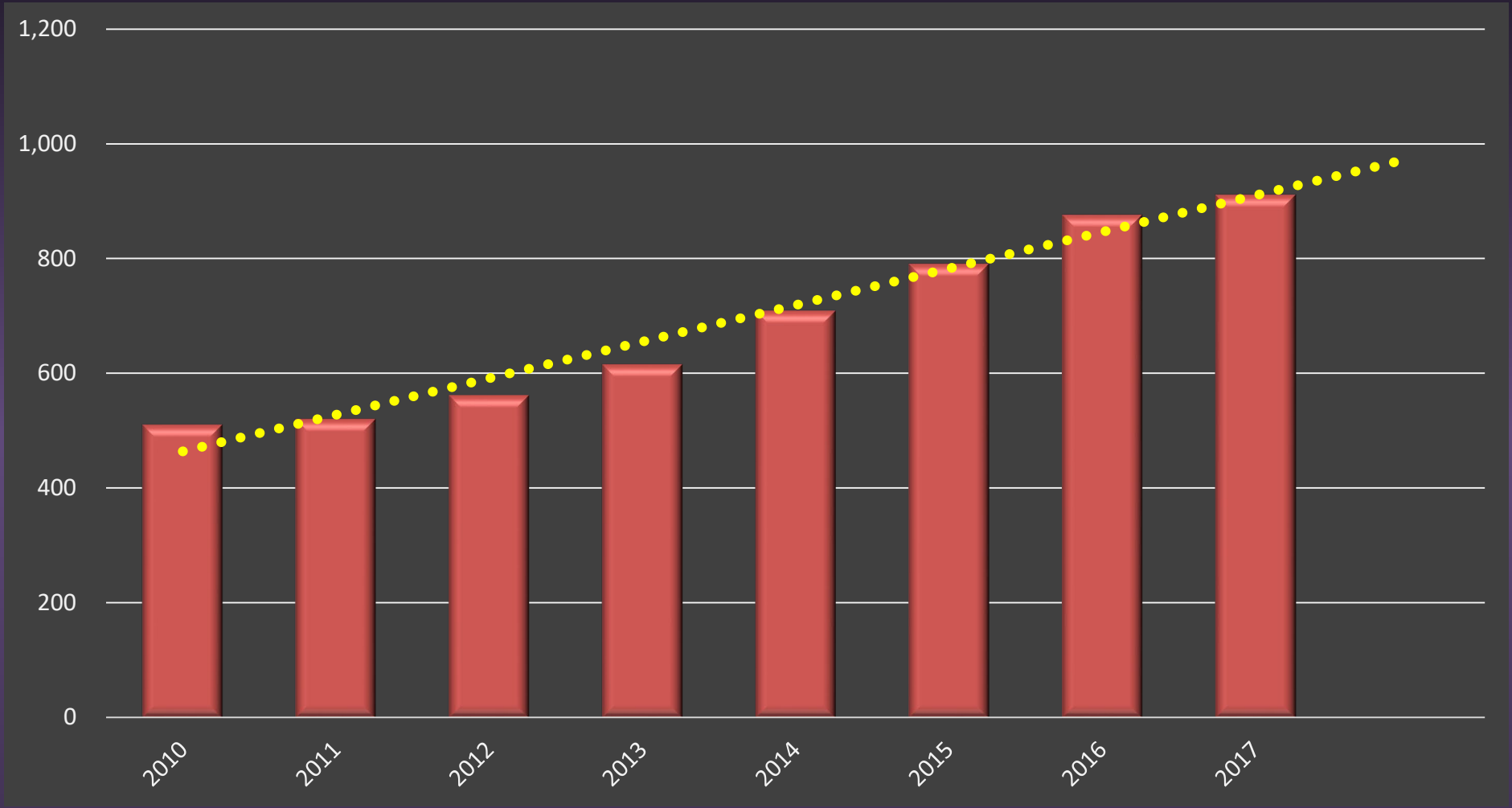


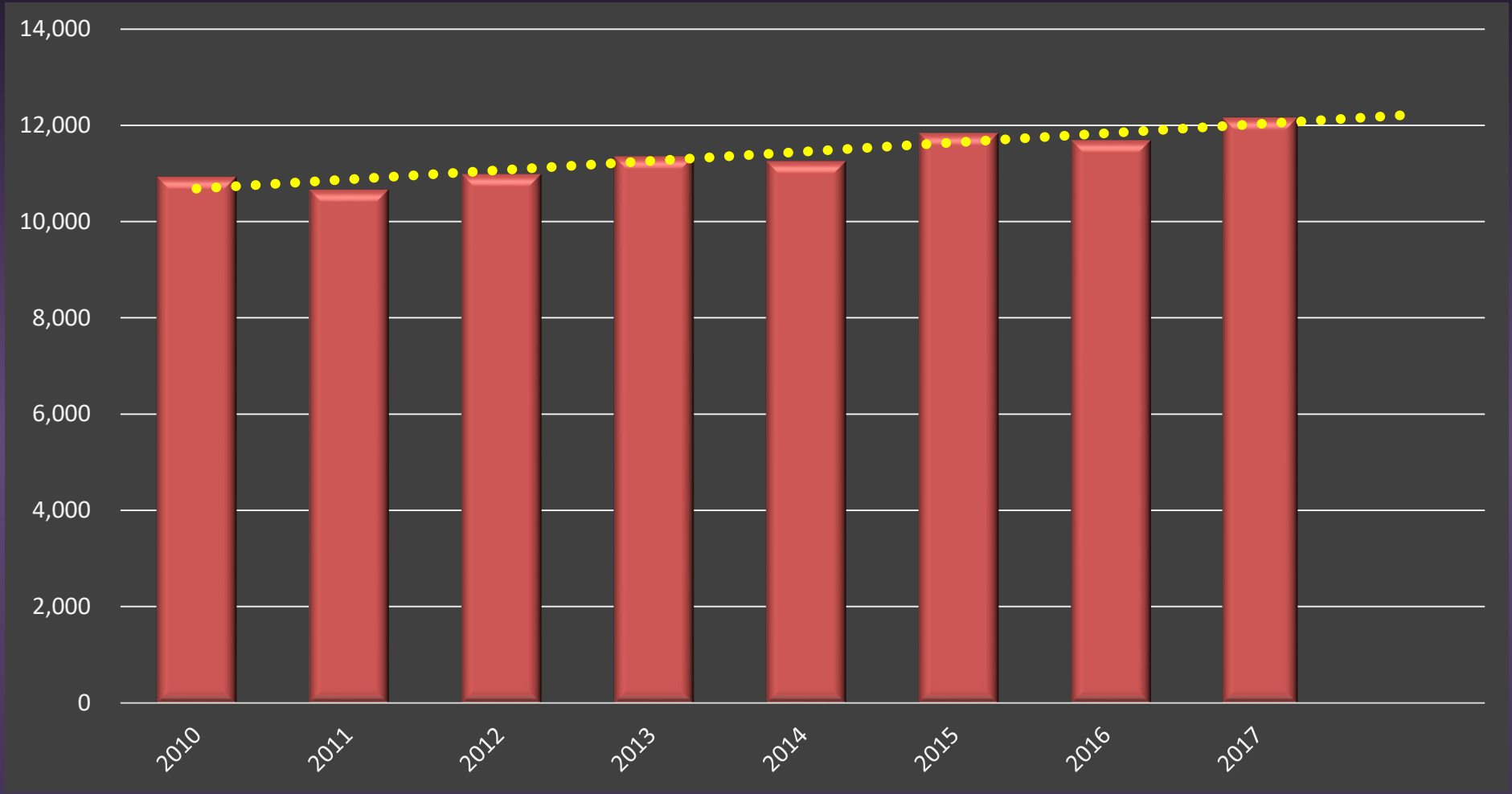
Source: Alabama Department of Labor, Quarterly Census of Employment and Wages.

Cluster Change Since 2010
Total Establishment



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

Cluster Change Since 2010
Total Employment



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

Top Occupations for Bioscience by Rounded Employment

Occupations	# of Jobs	% of Total
Clinical Laboratory Technologists and Technicians	1,040	9%
Phlebotomists	940	7%
Software Developers, Systems Software	670	5%
General and Operations Managers	480	4%
Software Developers, Applications	350	3%
Mixing and Blending Machine Setters, Operators, and Tenders	340	3%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	300	2%
Chemical Equipment Operators and Tenders	280	2%
Operations Research Analysts	230	2%
Remaining Occupations	20,470	64%

Source: 2018 release of the Occupational Employment Statistics (OES) Report in cooperation with the Bureau of Labor Statistics. Annual wage information rounded to the nearest whole dollar. *Note: Data reflects wages across all industries, not specifically to respective industry cluster.*

Wage Information
Top 10 by Rounded Occupational Employment

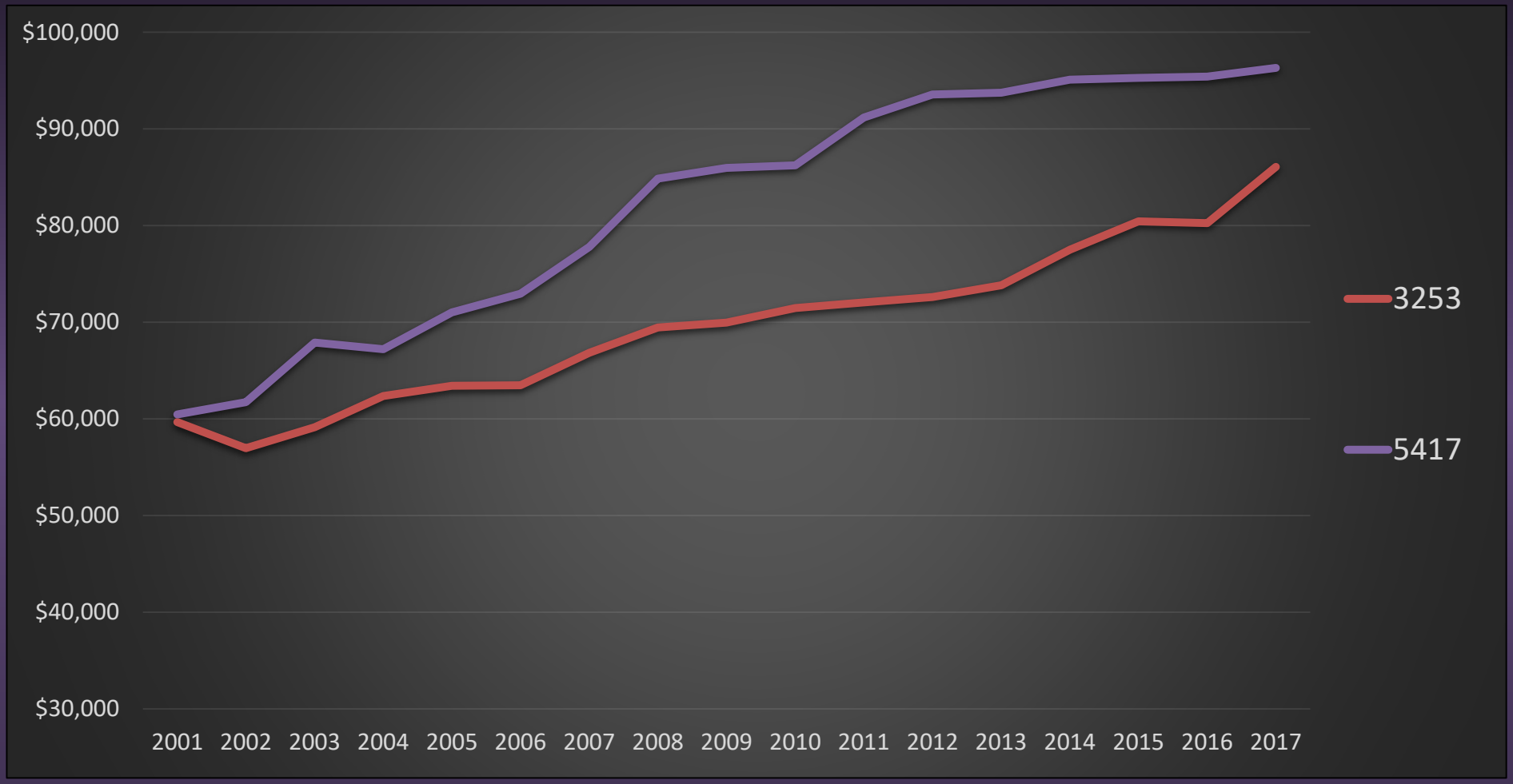
Occupation	Rounded Emp.	Mean Hourly	Mean Annual	Entry Hourly	Entry Annual	Experience Hourly	Experience Annual
Clinical Laboratory Technologists and Technicians	1,040	$22.94	$47,720	$14.43	$30,000	$27.20	$56,570
Phlebotomists	940	$15.10	$31,420	$11.77	$24,480	$16.77	$34,890
Software Developers, Systems Software	670	$50.91	$105,890	$33.19	$69,040	$59.77	$124,310
General and Operations Managers	480	$56.94	$118,440	$27.32	$56,820	$71.76	$149,250
Software Developers, Applications	350	$46.35	$96,400	$29.06	$60,440	$54.99	$114,380
Mixing and Blending Machine Setters, Operators, and Tenders	340	$18.57	$38,630	$11.71	$24,360	$22.00	$45,770
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	300	$17.15	$35,670	$12.27	$25,520	$19.59	$40,740
Chemical Equipment Operators and Tenders	280	$27.04	$56,240	$15.87	$33,020	$32.62	$67,860
Chemists	230	$36.65	$76,220	$22.17	$46,110	$43.88	$91,280
Operations Research Analysts	220	$42.97	$89,380	$25.53	$53,100	$51.70	$107,530

Source: 2018 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.*

Alabama Department of Labor

Labor Market Information
James Henry, Division Director

Wage Information
Total Wages by NAICS Code 2001-2017



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

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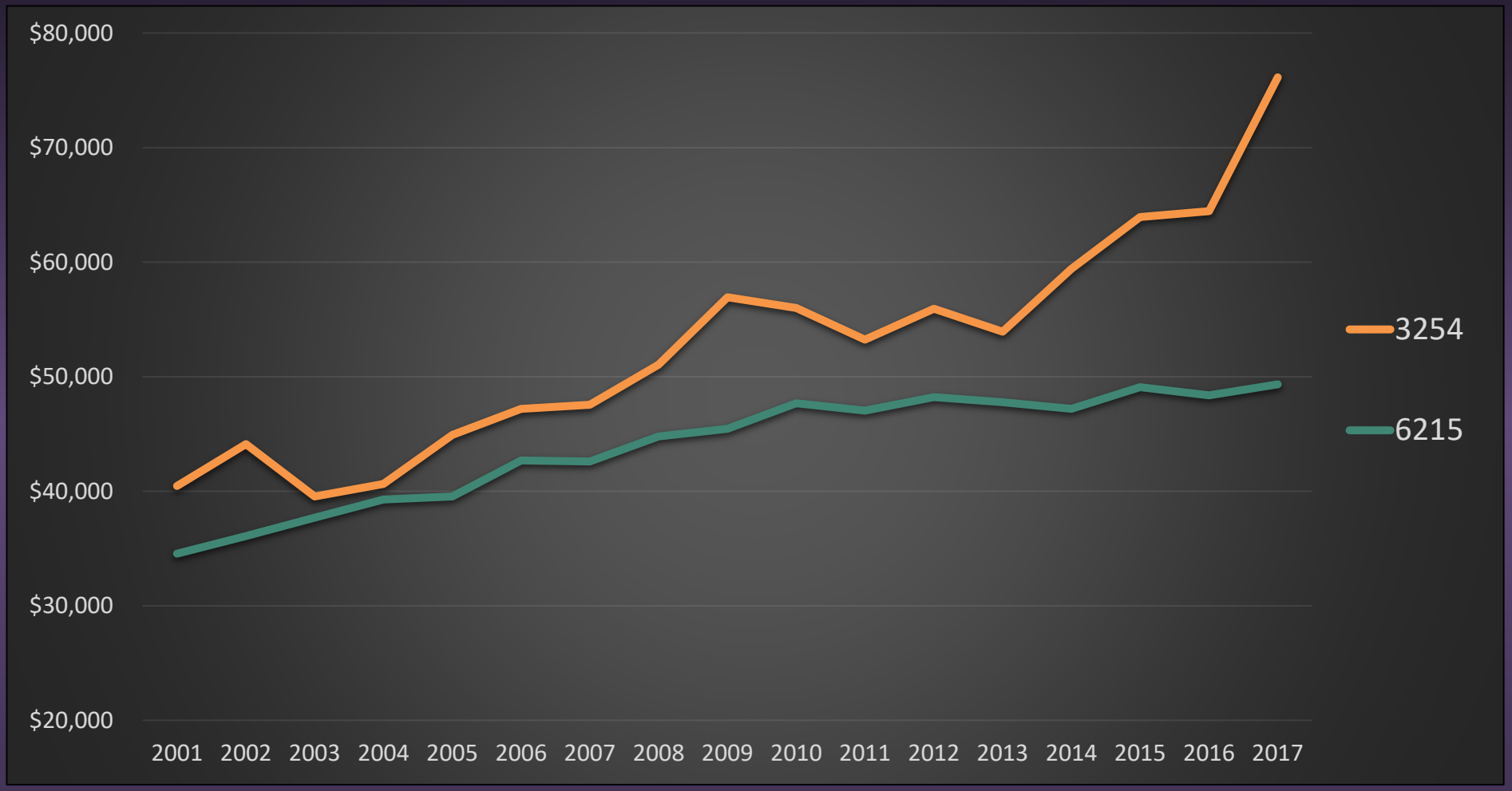

Source: Alabama Department of Labor, Quarterly Census of Employment and Wages

2017 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	5.9%	22	-3	$6,726	$4,787
3254	Pharmaceutical and Medicine Manufacturing	7.9%	34	-52	$5,931	$4,465
5417	Scientific Research and Development Services	5.9%	201	99	$7,433	$6,172
6215	Medical and Diagnostic Laboratories	6.8%	118	24	$4,289	$3,195

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.

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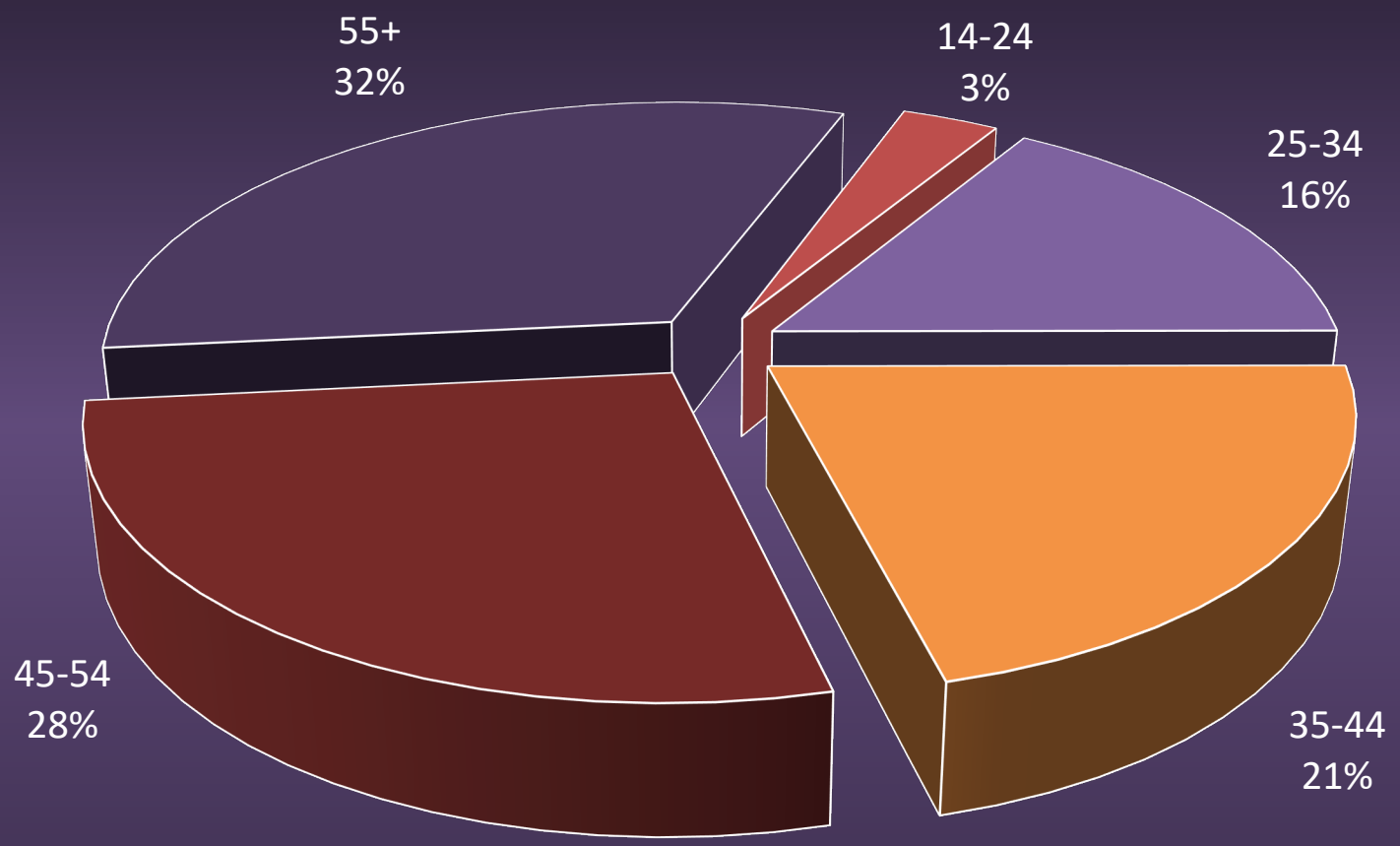
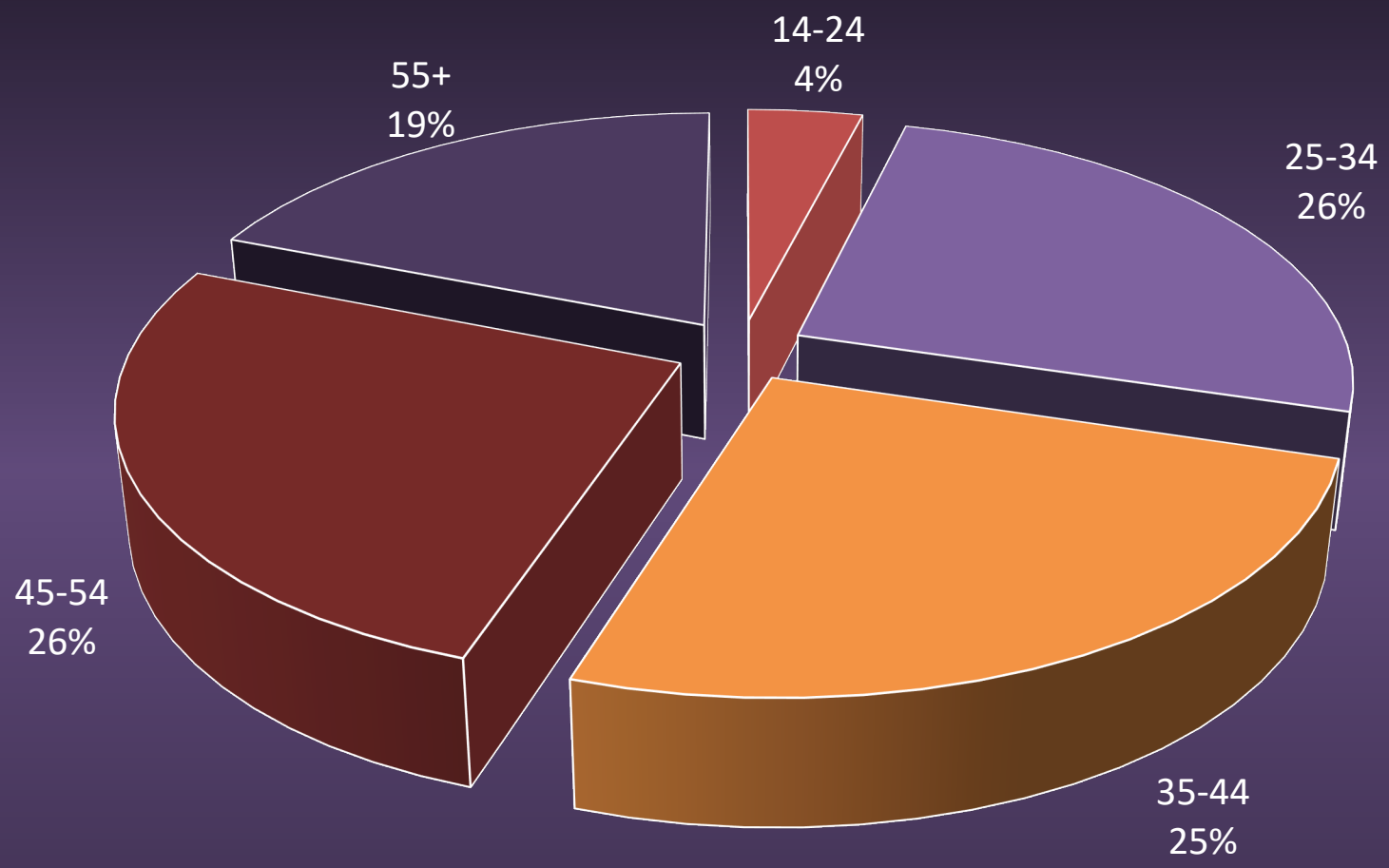
3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing

2017 Average Annual Employment by Age Group



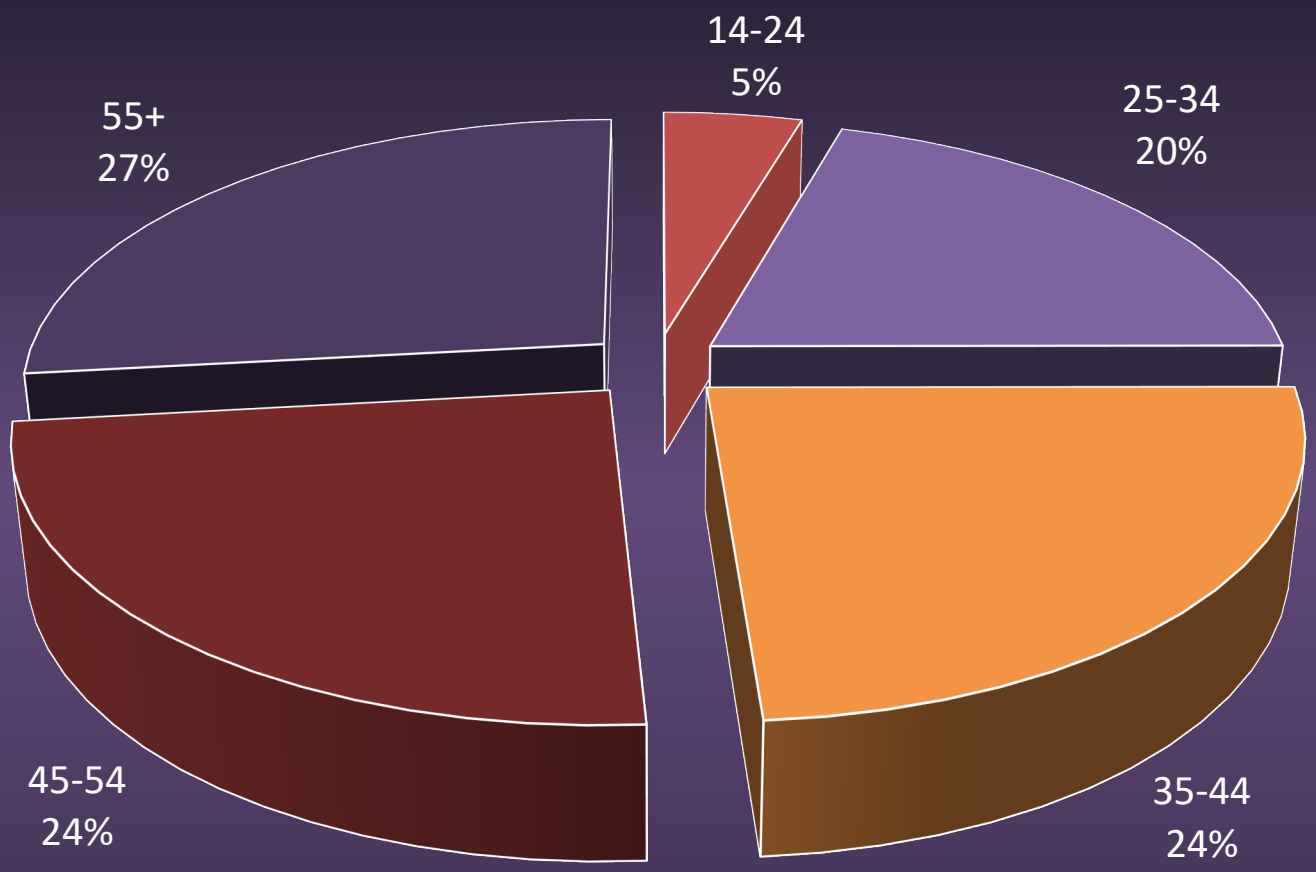
Source: Partnership between the Alabama Department of Labor, Labor Market Information Division and the U.S. Census Bureau, Longitudinal Employment-Household Dynamics (LEHD) Program, Quarterly Workforce Indicators (QWI) data.

3254 Pharmaceutical and Medicine Manufacturing
2017 Average Annual Employment by Age Group



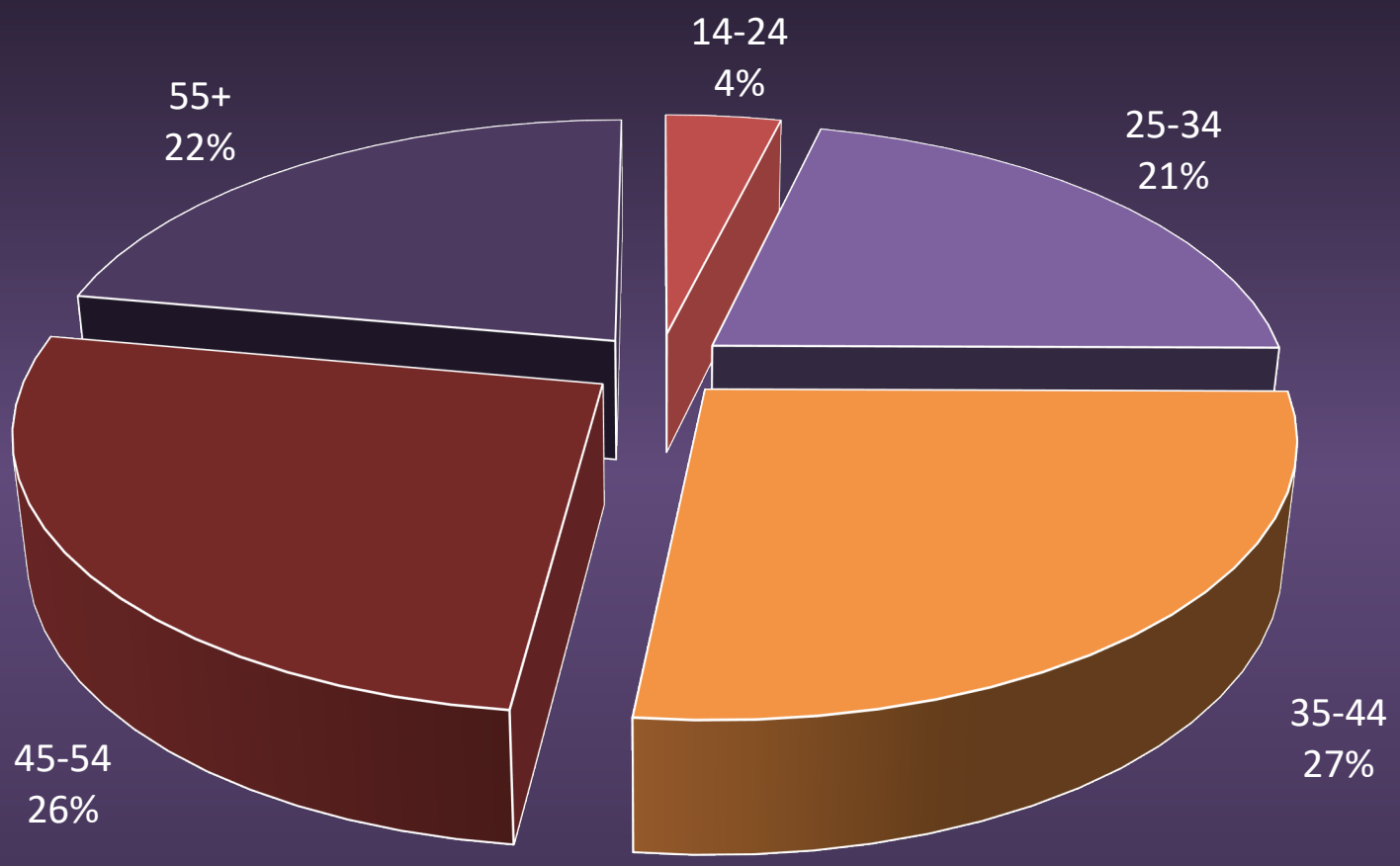
Source: Partnership between the Alabama Department of Labor, Labor Market Information Division and the U.S. Census Bureau, Longitudinal Employment-Household Dynamics (LEHD) Program, Quarterly Workforce Indicators (QWI) data.

5417 Scientific Research and Development Services
2017 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
2017 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
2016 – 2026 Industry Projections by NAICS Code

NAICS	Industry	2016	2026	Net Change	Percent Change	Average Annual Growth	U.S. Average Annual Growth	Location Quotient
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	1,090	990	-100	-9.17	-0.96	-1.45	2.06
3254	Pharmaceutical and Medicine Manufacturing	1,640	1,020	-620	-37.80	-4.64	-0.20	0.39
5417	Scientific Research and Development Services	6,330	7,500	1,170	18.48	1.71	1.24	0.63
6215	Medical and Diagnostic Laboratories	3,310	4,260	950	28.70	2.56	2.45	0.86

Source: 2016-2026 Industry Projections, produced by the Labor Market Information Division in cooperation with the Projections Managing Partnership (PMP).

Major Bioscience Regions

Bioscience Industry Maps:

Statewide
Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
Region 7