

**WORKFORCE CHARACTERISTICS AND WORKFORCE DEVELOPMENT
IN OHIO'S INSURANCE INDUSTRY: 2016 UPDATE**

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September 2 2016



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Summary

Ohio's insurance industry will require approximately **29,000** new workers to fill positions coming open between now and 2024 – whether newly created through growth or vacant as a result of employee turnover. If these positions are not filled, the growth of Ohio insurance companies will be suboptimal.

Private-sector insurance carriers and related activities in 2014 contributed \$20.8 billion to Ohio Gross Domestic Product (GDP), 39 percent more than would be expected in an economy Ohio's size. The 23.2 percent GDP growth in Ohio between 2010 and 2014 substantially exceeded the 13.5 percent national average.

There were more than 104,000 insurance industry jobs in Ohio in 2015 – an employment concentration 23 percent greater than average. Employment grew 9.9 percent between 2011 and 2015 – growth slightly less than the 10.2 percent national average. Ohio's annualized growth rate since 2011 has been a percentage point greater than the national average, however.

Not all components of the insurance industry have an above-average concentration in Ohio. Property and casualty insurers have twice the employment that would be expected, while life and health carriers' employment is only slightly above average.

Concentrated pockets of insurance employment exist throughout the state, including in a number of smaller metropolitan areas and rural counties. Employers in these counties may have significant problems finding qualified workers because of the smaller total workforce and the smaller share of college graduates that is common outside of Ohio's major metropolitan areas.

State and federal labor market data are used to generate distributions of employment by occupation, and specific employment needs in each occupation. Projected net growth represents only a portion of the total need for new employees. A substantial need is also created through turnover in existing positions. Backfilling existing positions generates 74 percent of the Ohio insurance industry's total need for workers through 2024.

The growth of Ohio's insurance industry requires a workforce with the appropriate skills to perform their jobs successfully. Without well-trained, appropriately skilled, efficient workers, Ohio insurance companies underperform, with negative implications for Ohio's economy overall. Education and skill needs are identified for 11 of the most common insurance occupations. Skill requirements are strikingly similar across the occupations. This means that career ladders could be devised to help workers accessing entry-level positions gain higher-level, better-paying jobs as their experience and training increases.

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Introduction

This report is an update and expansion of workforce analyses completed in May 2011 and May 2013 for a task force of insurance industry executives representing companies throughout Ohio. There is a need to understand the workforce needs of the industry in coming years and the skills that these professionals need in order to succeed. The purpose of this report is to provide an overview of the geographic dispersion of Ohio's insurance employment and its growth over the last 15 years, identify the occupations most critical for the industry's continued growth and the number of workers needed to fill those positions in coming years, and assess the knowledge, skills, and abilities required to perform those critical occupations successfully.

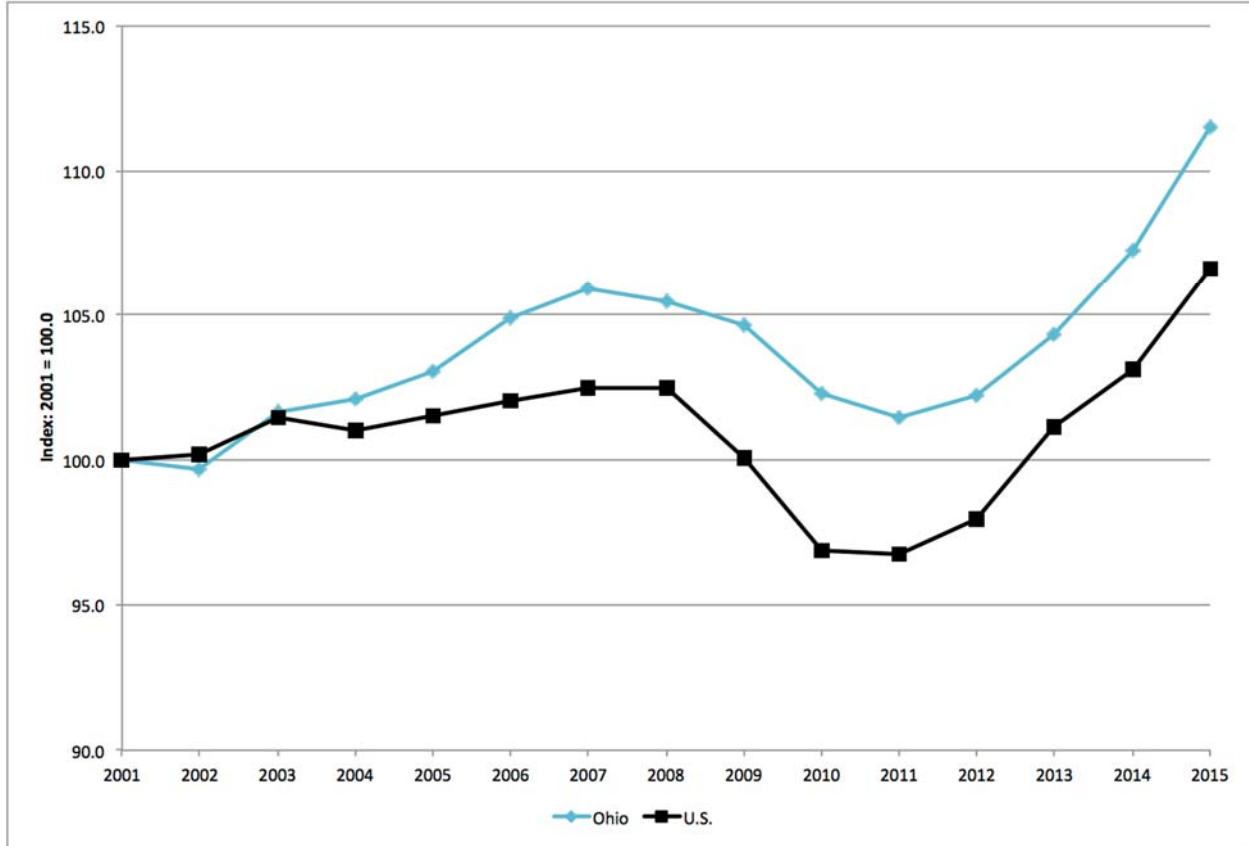
The principal finding is that Ohio's insurance industry will require 29,000 new workers to fill positions coming open between now and 2024 – whether newly created through growth or vacant as a result of employee turnover. This is more than the 26,000 requirement estimated in the 2013 report. As will be shown, however, the Ohio insurance industry is larger now than it was in 2011, the year on which the previous projection was based. (This turned out to be the year in which both national and statewide employment bottomed out.) The key point now, as it was then, is that if these positions are not filled, the growth of Ohio insurance companies will suffer. In the extreme case, Ohio might lose these companies to other states that are able to offer a convincing argument that they are better equipped to provide a steady flow of talent.

Ohio's Insurance industry

The size and importance of Ohio's insurance industry can be documented in several ways. One is the industry's contribution to the state's output, or Gross Domestic Product (GDP). Private-sector insurance carriers and related activities in 2014 contributed \$20.8 billion to Ohio GDP – an impact 39 percent greater than would be expected in an economy Ohio's size. Insurance-related GDP grew 23.2 percent after inflation between 2010 and 2014. Meanwhile, U.S. growth was 40 percent less (13.5 percent).

Insurance employment is also a larger-than-average share of total Ohio employment and has grown much faster than average over the past decade. There were more than 104,000 insurance industry jobs in Ohio in 2015 – an employment concentration 23 percent greater than average. As Figure 1 shows, insurance employment grew far faster than the U.S. average during the expansion of the last decade and declined at a slower-than-average rate during the recession. Employment grew 6.3 percent in Ohio between 2003 and 2007, compared to U.S. growth of 2.2 percent. Employment declined 4.2 percent between 2007 and 2011 in Ohio, while falling 5.6 percent nationwide.

Figure 1
Ohio and U.S Insurance Carriers and Related Activities Employment Growth, 2001-2015

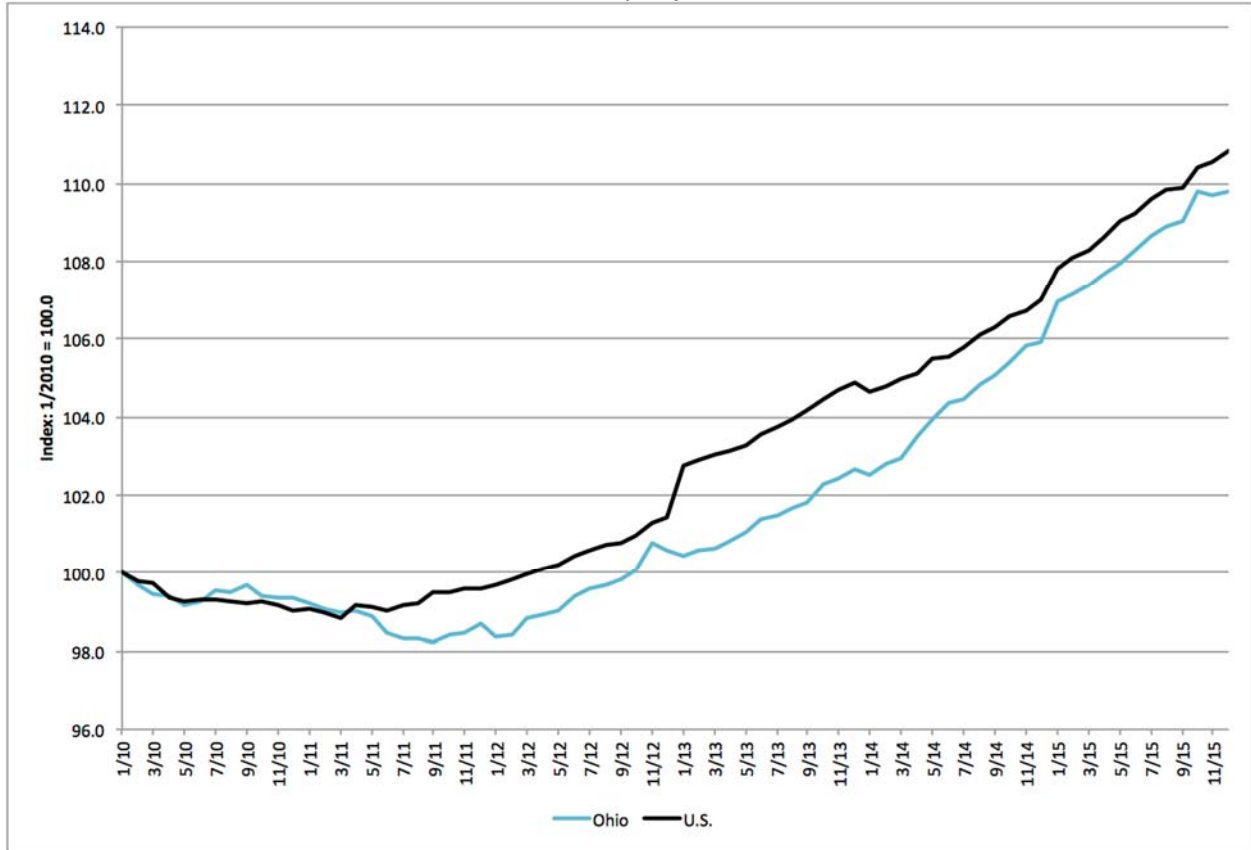


Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

Figure 1 shows a robust comeback from recession lows, but as Figure 2 demonstrates, this more recent news is actually somewhat mixed. This figure charts monthly national and state employment growth since January 2010, when overall employment started growing after the recession. Insurance employment recovery was somewhat delayed both nationally and in Ohio. U.S. employment continued to decline until March 2011, while Ohio’s insurance employment did not reach bottom until September of that year. Between these low points and December 2015, Ohio employment grew 11.8 percent and U.S. employment grew 12.2 percent. However, national employment has been growing six months longer. The monthly rate of Ohio insurance growth from its trough has been slightly faster than average. If Ohio insurance employment had turned in March 2011 rather than in September, its cumulative growth would have been 13.2 percent, a percentage point greater than average.¹

¹ The 2013 report provided a chart of monthly employment growth since the beginning of 2010 through March 2013, but the pattern of Ohio employment growth was vastly different from that shown in Figure 2. As the earlier report cautioned, the employment figures generating that chart were estimates subject to error. Figure 2 here uses the same data set as elsewhere in this report. This data set is less timely, but is a count of employment rather than an estimate.

Figure 2
Ohio and U.S. Insurance Carriers and Related Activities Employment Growth, Jan. 2010 – Dec. 2015
 Seasonally Adjusted



Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics. Seasonal adjustment by Regionomics.

The fact that Ohio’s insurance employment is greater than average and its long-term growth is faster than average – as well as the fact that Ohio insurance companies serve significant numbers of customers outside of Ohio – implies that it is an economic driver of the state’s economy. Economic drivers lead to the state’s economy performing better than it otherwise would. Further, because drivers serve customers outside of Ohio, they bring dollars into the state’s economy – the only way that household incomes can increase and Ohioans’ living standards can improve. For these reasons, economic drivers deserve special attention by economic developers and workforce developers alike. Another implication of the fact that the industry is larger and faster-growing than average is that the companies in the industry are more competitive than their counterparts elsewhere, likely because of some set of economic and/or environmental characteristics in Ohio that favor these companies. Determining the array of characteristics making Ohio insurance companies unusually successful is beyond the scope of this study, but doing so is an important task. Part of nurturing the growth of the drivers is caring for the underlying factors that make them successful in the first place. The availability and quality of the workforce is certainly one of those factors.

Table 1 analyzes the composition, growth, and relative strength of Ohio’s insurance industry. This is a nested classification, with successively more specific components a subset of the broader component above; this is indicated in the table by indenting the industries that are subsets of the broader category.

Insurance carriers and related activities is the broad category, which consists of two primary components: insurance carriers, and insurance agencies and brokerages and other activities. Insurance carriers in turn includes direct life and health insurance carriers; and direct insurers, except life and health.

The table compares Ohio to U.S. employment growth through the recession and recovery. Comparing 2007-2011 Ohio and U.S. growth, it is clear that the key reason for the smaller than average decline of insurance employment during the recession was health and medical insurance carriers, which enjoyed growth both through the recession and the recovery. Employment in this industry has increased fairly steadily since 2006. Since then, health insurance carriers have added 4,000 jobs (36.4 percent). Life insurance carriers' employment has been in a slow decline since at least 2001, both nationally and in Ohio. Insurance agency and brokerage employment declined more than average during the recession and has increased less than average subsequently. Unlike other insurance industries, these businesses are primarily locally-serving. Ohio's slow population growth is likely causing the below-average growth of this industry. In contrast, the tripling of employment in all other insurance industries resulted in a net gain of 2,100 jobs, almost entirely in 2013. This industry, as the name implies, is a catch-all, but it includes insurance exchanges, insurance coverage consulting services, and other businesses that became active with the implementation of the Affordable Care Act. (U.S. employment in this industry increased significantly in 2013 as well.)

The final column of Table 1 presents each component's Location Quotient (LQ). This is a measure of relative employment concentration, and is calculated by dividing the share of total payroll employment

Table 1
Employment, Growth, and Concentration of Ohio's Insurance Industry

Industry*	Ohio emp.	Change, 2007-11		Change, 2011-15		LQ**
	2015	Ohio	U.S.	Ohio	U.S.	2011
Insurance carriers and related activities	104,120	-4.2%	-5.4%	9.9%	10.2%	1.229
Insurance carriers	63,615	-3.6%	-6.8%	2.9%	1.5%	1.433
Direct life and health insurance carriers	24,385	3.7%	-5.5%	4.3%	0.7%	1.057
Direct life insurance carriers	9,334	-5.6%	-6.4%	-7.9%	-9.7%	1.006
Direct health & medical ins. carriers	15,051	12.1%	-4.7%	13.7%	9.2%	1.092
Direct insurers, except life and health	39,023	-7.6%	-8.4%	2.4%	2.7%	1.914
Direct property and casualty insurers	36,945	-4.6%	-4.3%	2.2%	2.0%	2.085
Direct title insurance carriers	1,455	-48.9%	-33.1%	-2.3%	6.9%	0.677
Other direct insurance carriers	623	4.4%	-2.7%	31.4%	7.7%	1.181
Reinsurance carriers	208	3.2%	-3.1%	-36.0%	-5.6%	0.222
Insurance agencies and brokerages and other activities	40,505	-5.4%	-3.5%	23.0%	21.8%	1.005
Insurance agencies and brokerages	27,120	-6.6%	-5.1%	13.5%	19.8%	0.946
Other insurance related activities	13,385	-2.1%	0.9%	48.3%	27.0%	1.152
Claims adjusting	1,744	27.7%	-6.0%	17.2%	9.6%	0.823
Third party admin. of insurance funds	8,503	-2.3%	3.2%	30.4%	29.3%	1.276
All other insurance related activities	3,138	-26.2%	2.0%	209.8%	37.7%	1.106

*Indented industries are subsets of the industry above.

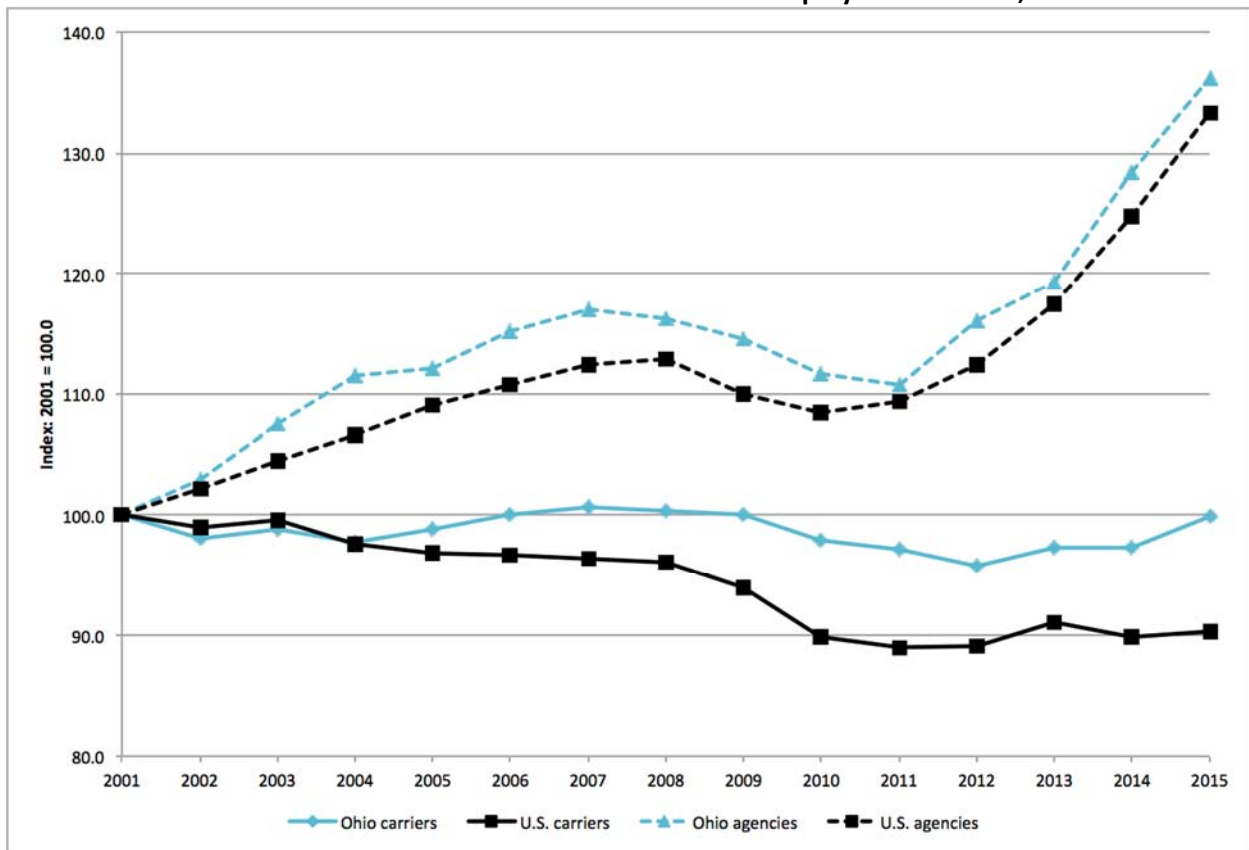
**LQ = Location quotient, the percentage of total Ohio employment in the industry divided by the percentage of U.S. employment in the industry. LQ greater than 1.0 implies a higher-than-average concentration of employment in the industry.

Source: Calculated from Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

accounted for by the industry in Ohio by its employment share nationally. LQs greater than one indicate industries with greater-than-average concentrations of employment in Ohio. (The overall LQ of 1.229 can be interpreted as a concentration of employment 22.9 percent higher than what would be expected in an economy Ohio's size.) Certain components are far more concentrated than are others; property and casualty insurers have twice the employment that would be expected, while life and health carriers' employment is only slightly greater than average. Agencies and brokerages are also below average, but that is to be expected. Because these are mostly locally-serving establishments, an LQ far greater than 1.0 would be a danger sign indicating overconcentration. However, one of the subcategories of other insurance-related activities that does have a somewhat high concentration is third party administration. Because this industry is a conduit between insurance companies and employers, access to the expertise of former insurance carrier employees that is available to these companies is likely a significant advantage that Ohio-based third-party administrators enjoy.

Figure 3 contrasts the 14-year employment trend in carriers and agencies, brokerages, and other activities – essentially disaggregating the trends in Figure 1. The latter industry group is responsible for the gains in insurance employment nationally and locally, but Ohio direct carriers have performed much better than their counterparts elsewhere.

Figure 3
Ohio and U.S. Insurance Carriers and Related Activities Employment Growth, 2001-2015



Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

number of employers or a single dominant employer in this or a related industry. Information from a different source (the Census Bureau’s County Business Patterns) is used to obtain estimates of these counties’ employment. These estimates are used to compute LQs. These LQs are shown in the map as well. Employment totals are for 2014 rather than 2015 and are sometimes less reliable than those for the counties whose employment counts are reported. However, none of the omitted counties’ LQs are greater than 0.45 except for Noble County, which has an estimated LQ of 0.63.

Table 2 presents employment and employment growth in the 12 counties with LQ greater than the 1.229 state average – the counties colored dark blue in Figure 3. These counties account for nearly three-quarters of statewide insurance employment. From a workforce planning standpoint, LQ is a more significant indicator of a county requiring workforce development focus than is its sheer number of jobs. A table of counties with the greatest employment size would be dominated by the large urban counties. These counties have large numbers of insurance workers, but they also have a large available workforce and are part of MSAs from which even more workers can be drawn. This is true of the suburban counties in Table 2 as well. On the other hand, small MSA and rural counties (for instance, Clark, Crawford, Monroe, and Van Wert in Table 2) have smaller total employment but may have even greater problems finding qualified workers because of the smaller total workforce and the smaller share of college graduates that is typical of the counties outside of Ohio’s major metropolitan areas.

Table 2
Level and Growth of Insurance Employment in High-Concentration Ohio Counties

County	County seat	Employmt.	Percentage change		LQ*
		2015	2007-2011	2011-2015	2015
Butler	Hamilton	5,597	-2.1%	0.4%	2.393
Clark	Springfield	2,357	12.8%	16.8%	3.012
Clermont	Batavia	1,508	-7.6%	-0.5%	1.627
Crawford	Bucyrus	304	-4.3%	13.9%	1.422
Cuyahoga	Cleveland	20,049	-12.5%	10.4%	1.743
Delaware	Delaware	3,468	21.0%	20.0%	2.549
Franklin	Columbus	23,804	-8.0%	11.4%	2.048
Hamilton	Cincinnati	11,603	-11.1%	12.6%	1.425
Licking	Newark	1,464	11.6%	-12.3%	1.711
Monroe	Woodsfield	83	n/a	-35.7%	1.785
Summit	Akron	5,878	1.8%	22.5%	1.383
Van Wert	Van Wert	409	-5.7%	-4.9%	2.352
Ohio			-4.2%	9.9%	1.229
United States			-5.6%	10.2%	1.000

Source: Calculated from U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

The counties in this list are the same as in the 2013 report with one exception: Warren County was on the earlier list but declined from a 2.205 LQ in 2011 to 1.227 in 2015 – essentially tying the state average. Employment declined by 859 jobs (33 percent) over that period. The data show that 616 of those jobs were lost between 2013 and 2014, but the precise source of this loss is unclear. There was no documented large layoff or business closure. Employers contemplating mass layoffs of 50 or more workers are required by federal law to inform the state (in Ohio, the Department of Job and Family Services) through a Worker Adjustment Retraining Notification (WARN). There was no such notification issued by any Warren County insurance business during the period. Industry-level insurance employment in Warren County is suppressed both in the Quarterly Census of Employment and Wages and in County Business Patterns.

Appendix A provides additional details regarding county-level employment. Table A-1 provides the same details as Table 1 for all 88 counties – to the extent that the necessary employment totals are available. The table also provides the estimated employment used to calculate LQs for counties for which the 2015 employment was suppressed. Table A-2 is a listing for all counties of the number of establishments by employment size from County Business Patterns.³ Table A-3 lists Ohio’s insurance establishments with employment of 250 or more from the Reference USA database. This database aims to list all public and private companies in the U.S. and Canada. Unlike its competitors’ data, which is based on credit reports and applications, Reference USA begins with telephone listings. The company is then contacted to verify the contact and industry information and provide employment totals, names of key personnel and other information.

Statewide Occupational Employment Distribution and Projection

A Bureau of Labor Statistics database, the Industry-Occupation Employment Matrix, provides national-level 2014 estimates and 2024 projections of the number of workers employed in specific occupations within a wide array of industries. Occupations are defined by the Standard Occupational Classification (SOC) system of the Bureau of Labor Statistics. The insurance industries available in the Employment Matrix include direct health and medical insurers; direct insurers, except life and health; insurance agencies and brokerages; and other insurance-related activities – but not direct life insurance carriers.⁴ If we assume that the occupational distribution in Ohio companies is typical of the national distribution, estimates of occupational employment in Ohio insurance companies in 2014 can be easily generated by multiplying the national percentage of employment in each occupation by the corresponding 2014 employment total for the industry. The Ohio Labor Market Information Bureau provides 10-year industry growth projections for Ohio. Combining these with the national Employment Matrix projections generates occupation-level employment projections for the state that incorporate both industry growth and anticipated shifts in demand for specific occupations by the insurance industry.

The net employment changes derived from these calculations represent only a portion of the total need for new employees, however. A substantial need is also created through turnover in existing positions. The U.S. employment projections provide 10-year replacement rates for all occupations (across all industries). Multiplying replacement rate by 2014 employment in that occupation gives the 10-year replacement need – assuming that turnover in a specific occupation in Ohio insurance companies is equal to the national rate for that occupation across all industries. The replacement need plus the growth need equals the total need. In most cases, the replacement need is larger than the growth need; in total, replacement needs account for 74 percent of the total workforce need.

Appendix B contains tables providing growth and replacement needs for insurance as a whole and for the 50 to 75 most prevalent occupations within each of the available industries. Tables B-1 and B-2 provide employment for the overall insurance sector, merged from the individual industry estimates. Table B-1 ranks occupations by total growth and replacement need, while Table B-2 categorizes occupations by SOC occupational groups. Although 50 to 75 occupations are analyzed for each industry, there is so much commonality among occupations in the industries that these merged lists contain only 98 occupations. Those 98 occupations account for 97 percent of total industry employment. The four

³ An establishment is a separate location at which business occurs. Most large companies operate from multiple locations. Each is counted as an establishment.

⁴ The previous projections, used in the 2013 report, omitted both life and health insurance carriers.

largest occupations in Table B-1 – insurance sales agents, customer service representatives, insurance claims processing clerks, and claims adjusters – together comprise nearly 44,000 jobs in Ohio, nearly half of total insurance-related employment statewide. But as Table B-2 makes clear, insurance jobs are distributed across many occupational groups. Table 3 emphasizes this by extracting the current and projected employment totals for each occupational group represented in Table B-2. There is a common misperception that insurance jobs are exclusively sales jobs, but business and financial professionals and administrative support workers each hold many more jobs in insurance companies than do salespeople.

Table 3
Current and Projected Insurance Employment Totals for Primary Occupational Groups

Occupational group	2014 empl.	2024 empl	Total need	Pct. of total
Total analyzed	88,297	94,943	25,816	100.0%
Management occupations	5,980	6,517	1,878	6.8%
Business and financial operations occupations	22,568	23,136	5,396	25.6%
Computer and mathematical occupations	6,045	6,946	1,858	6.8%
Life, physical, and social science occupations	27	33	11	0.0%
Community and social services occupations	126	152	54	0.1%
Legal occupations	1,949	1,964	389	2.2%
Arts, design, entertainment, sports, and media occupations	124	141	32	0.1%
Healthcare practitioners and technical occupations	1,212	1,479	546	1.4%
Protective service occupations	18	21	8	0.0%
Building and grounds cleaning and maintenance occupations	104	107	24	0.1%
Sales and related occupations	14,851	17,340	6,253	16.8%
Office and administrative support occupations	35,190	37,008	9,342	39.9%
Installation, maintenance, and repair occupations	104	101	24	0.1%

The following tables in Appendix B focus on the available insurance industries, all ranked by total growth and replacement need. Table B-3 shows direct health and medical carriers, while Table B-4 features direct insurers, except life and health. Insurance agencies and brokerages are in table B-5, and other insurance-related activities are in Table B-6. For the industry overall, four occupations – sales agents, claims adjusters, claims and policy processing clerks, and customer service representatives – together account for a need of nearly 10,900, more than half of the 19,600 total. Again, however, occupational needs for life insurers are not part of this overall need because this industry is not included in the Employment Matrix. In many respects the staffing pattern for life insurers likely resembles that of the direct health carriers in Table B-3, except perhaps for a greater concentration of actuarial and finance jobs.

Because life insurers are not represented in this analysis, the 26,583-employee need reported in Tables B-1 and B-2 understates the total industry-wide need. The total need can be roughly approximated by applying the projected national growth of health and medical carriers and that industry’s computed turnover rate to the 2014 Ohio employment of direct life carriers. (The national growth rate is used because this level of detail is not available in the Ohio projections.) These calculations and the resulting needs are summarized in Table 4.⁵ The result is a total need of roughly 29,000 new workers by 2024.

⁵ Observant readers will note a slight difference between total 2011 Ohio insurance employment in Table 4 and the total reported for all industries in Table 1. The Table 4 total does not include the 325 employees of reinsurance carriers; reinsurance is not part of any other industry and is not covered in the analysis.

Table 4
Occupational Growth and Replacement Needs, All Insurance Industries Including
Direct Life and Health Carriers

	2011	2020	Growth	Turnover	Total need	Pct. of 2011
Industries other than life carriers*	90,940	97,780	6,840	19,744	26,583	29.2%
Direct life insurance carriers	9,334	9,724	390	1,916	2,306	24.7%
Total industry	100,274	107,504	7,230	21,660	28,890	28.8%

*From Table A-4.

Skill Needs of Critical Insurance Occupations

The growth of Ohio’s insurance industry requires a workforce with the appropriate skills to perform their jobs successfully. Without well-trained, appropriately skilled, efficient workers, positions cannot be filled and when they are filled, those occupying those positions often underperform. As a result, the business fails to achieve its growth potential and is unable to compete successfully with more efficient competitors elsewhere. Necessary tasks are not completed correctly, customers become dissatisfied, and revenues and profit decline. Thus, it is important to develop an understanding of the knowledge, skills, and abilities necessary to perform the most common occupations identified in the analysis.

Skill needs are identified for the most common insurance occupations, not necessarily those with highest growth, because the skills needed by the current workforce are also important to analyze. Occupations are drawn primarily from the combined list in Table B-1, with a quick inspection of the individual industry lists to ensure that a critical occupation in one of these industries was not omitted. Education and training requirements for occupations are available both from the Bureau of Labor Statistics and the Occupational Information Network (O*NET). O*NET also provides a detailed prioritization of knowledge, skills, and abilities required to perform the job successfully – obtained from a survey of individuals employed in the occupation in question.

Ten occupations were selected, but two of these were subdivided into more detailed occupations by O*NET, so a total of 12 occupations are evaluated. These are:

- Insurance sales agents
- Customer service representatives
- Insurance claims clerks (subset of insurance claims and policy processing clerks)
- Insurance policy processing clerks (subset of insurance claims and policy processing clerks)
- Claims examiners, property and casualty insurance (subset of claims adjusters, examiners, and investigators)
- Insurance adjusters, examiners, and investigators (subset of claims adjusters, examiners, and investigators)
- Insurance underwriters
- Office clerks, general
- Secretaries and administrative assistants, except legal, medical, and executive
- First-line supervisors of office and administrative support workers
- General and operations managers
- Registered nurses

There are 57,466 positions in these occupations across the insurance industries, 65 percent of the insurance jobs analyzed.

The occupations are profiled below. The profiles begin with the SOC (or O*NET) definition of the occupation and then list their education requirements and most important skill needs. The BLS Employment Projections database – which includes the Industry-Occupation Employment Matrix underlying the needs analysis in this study – gives typical initial education or training requirements to enter the occupation, the amount of experience required in a related occupation, and the amount of on-the-job training required. The three most common levels of education attained by incumbents in the occupation are given in the O*NET database.

It is important to keep in mind that educational expectations for many occupations have increased over time, so the higher levels of education among incumbents may have become the general requirement for new hires. A striking insight that can be gained from the lists of knowledge, skills, and abilities is how much they have in common across the occupations. This means that career ladders could be devised to help workers accessing entry-level positions gain higher-level, better-paying jobs as their experience and training increases.

Insurance sales agents

SOC definition: “Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.”

Education/training characteristics:

- **Typical entry-level education:** High school diploma or equivalent.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Moderate-term on-the-job training.
- **Most common training/education levels:** Bachelor’s degree: 46%; High school diploma or equivalent: 33%; Post-secondary certificate: 7%.

Knowledge requirements (in order of importance)

Customer and personal service
Sales and marketing
English language
Economics and accounting
Clerical
Mathematics
Administration and management

Skill and ability requirements (in order of importance)

Active listening
Oral comprehension
Reading comprehension
Oral expression
Written comprehension
Written expression
Critical thinking
Persuasion
Service orientation
Time management

Customer service representatives

SOC definition: “Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints.”

Education/training characteristics:

- **Typical entry-level education:** High school diploma or equivalent.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Short-term on-the-job training.
- **Most common training/education levels:** High school diploma or equivalent: 67%; Bachelor’s degree: 16%; Some college, no degree: 6%.

Knowledge requirements (in order of importance)

Customer and personal service
English language
Clerical
Computers and electronics

Skill and ability requirements (in order of importance)

Oral comprehension
Oral expression
Active listening
Speech recognition
Service orientation

Insurance claims clerks (subset of insurance claims and policy processing clerks)

O*NET definition: "Obtain information from insured or designated persons for purpose of settling claim with insurance carrier."

Education/training characteristics:

- **Typical entry-level education:** High school diploma or equivalent.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Moderate-term on-the-job training.
- **Most common training/education levels:** High school diploma or equivalent: 45%; Associate degree: 20%; Some college, no degree: 17%.

Knowledge requirements (in order of importance)

Customer and personal service
English language
Clerical

Skill and ability requirements (in order of importance)

Oral comprehension
Oral expression
Written comprehension
Speech recognition
Active listening
Reading comprehension
Near vision

Insurance policy processing clerks (subset of insurance claims and policy processing clerks)

O*NET definition: "Process applications for, changes to, reinstatement of, and cancellation of insurance policies. Duties include reviewing insurance applications to ensure that all questions have been answered, compiling data on insurance policy changes, changing policy records to conform to insured party's specifications, compiling data on lapsed insurance policies to determine automatic reinstatement according to company policies, canceling insurance policies as requested by agents, and verifying the accuracy of insurance company records."

Education/training characteristics:

- **Typical entry-level education:** High school diploma or equivalent.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Moderate-term on-the-job training.
- **Most common training/education levels:** High school diploma or equivalent: 51%; Some college, no degree: 35%; Post-secondary certificate: 9%.

Knowledge requirements (in order of importance)

Customer and personal service
English language
Clerical
Administration and management
Computers and electronics

Skill and ability requirements (in order of importance)

Active listening
Oral comprehension
Oral expression
Written comprehension
Near vision
Speaking

Claims examiners, property and casualty insurance (subset of claims adjusters, examiners, and investigators)

O*NET definition: "Review settled insurance claims to determine that payments and settlements have been made in accordance with company practices and procedures. Report overpayments, underpayments, and other irregularities. Confer with legal counsel on claims requiring litigation."

Education/training characteristics:

- **Typical entry-level education:** Bachelor's degree.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Moderate-term on-the-job training.
- **Most common training/education levels:** Bachelor's degree: 69%; High school diploma or equivalent: 12%; Some college, no degree: 35%.

Knowledge requirements (in order of importance)

Customer and personal service
 English language
 Law and government
 Administration and management

Skill and ability requirements (in order of importance)

Oral comprehension
 Written comprehension
 Deductive reasoning
 Oral expression
 Writing
 Active listening
 Critical thinking
 Problem sensitivity

Insurance adjusters, examiners, and investigators (subset of claims adjusters, examiners, and investigators)

O*NET definition: "Investigate, analyze, and determine the extent of insurance company's liability concerning personal, casualty, or property loss or damages, and attempt to effect settlement with claimants. Correspond with or interview medical specialists, agents, witnesses, or claimants to compile information. Calculate benefit payments and approve payment of claims within a certain monetary limit."

Education/training characteristics:

- **Typical entry-level education:** Bachelor's degree.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Moderate-term on-the-job training.
- **Most common training/education levels:** Bachelor's degree: 35%; Post-secondary certificate: 25%; Post-baccalaureate certificate: 14%.

Knowledge requirements (in order of importance)

English language
 Customer and personal service
 Clerical
 Law and government
 Mathematics

Skill and ability requirements (in order of importance)

Oral comprehension
 Oral expression
 Written comprehension
 Deductive reasoning
 Active listening
 Critical thinking
 Reading comprehension
 Inductive reasoning

Insurance underwriters

SOC definition: "Review individual applications for insurance to evaluate degree of risk involved and determine acceptance of applications."

Education/training characteristics:

- **Typical entry-level education:** Bachelor's degree.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Moderate-term on-the-job training.
- **Most common training/education levels:** Bachelor's degree: 81%; Associate degree: 12%; High school diploma or equivalent: 4%.

Knowledge requirements (in order of importance)

Medicine and dentistry
 English language
 Customer and personal service
 Mathematics

Skill and ability requirements (in order of importance)

Written comprehension
 Oral comprehension
 Active listening
 Judgment and decision making
 Reading comprehension
 Inductive reasoning
 Oral expression
 Written expression
 Critical thinking

Office clerks, general

SOC definition: "Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing."

Education/training characteristics:

- **Typical entry-level education:** High school diploma or equivalent.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Short-term on-the-job training.
- **Most common training/education levels:** High school diploma or equivalent: 52%; Bachelor’s degree: 34%; Some college, no degree: 7%.

Knowledge requirements (in order of importance)

Clerical
Customer and personal service
English language

Skill and ability requirements (in order of importance)

Oral comprehension
Oral expression
Speech clarity
Active listening
Reading comprehension
Speaking

Secretaries and administrative assistants, except legal, medical, and executive

SOC definition: "Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers."

Education/training characteristics:

- **Typical entry-level education:** High school diploma or equivalent.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** Short-term on-the-job training.
- **Most common training/education levels:** High school diploma or equivalent: 39%; Associate degree: 37%; Some college, no degree: 14%.

Knowledge requirements (in order of importance)

Clerical
English language
Customer and personal service
Computers and electronics

Skill and ability requirements (in order of importance)

Oral comprehension
Near vision
Oral expression
Written comprehension
Written expression
Active listening
Reading comprehension
Speech clarity
Speech recognition

First-line supervisors of office and administrative support workers

SOC definition: "Directly supervise and coordinate the activities of clerical and administrative support workers."

Education/training characteristics:

- **Typical entry-level education:** High school diploma or equivalent.
- **Work experience in a related occupation:** Less than five years.
- **Typical on-the-job training:** None.
- **Most common training/education levels:** Bachelor’s degree: 45%; High school diploma or equivalent: 23%; Some college, no degree: 20%.

Knowledge requirements (in order of importance)

Administration and management
 Customer and personal service
 Clerical
 English language
 Computers and electronics
 Personnel and human resources

Skill and ability requirements (in order of importance)

Oral comprehension
 Oral expression
 Written comprehension
 Active listening
 Coordination
 Monitoring
 Written expression
 Reading comprehension
 Speech clarity
 Speech recognition
 Social perceptiveness
 Critical thinking
 Problem sensitivity

General and operations managers

SOC definition: “Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Excludes First-Line Supervisors.”

Education/training characteristics:

- **Typical entry-level education:** Bachelor’s degree.
- **Work experience in a related occupation:** Less than five years.
- **Typical on-the-job training:** None.
- **Most common training/education levels:** Associate degree: 32%; Bachelor’s degree: 27%; Some college, no degree: 11%.

Knowledge requirements (in order of importance)

Administration and management
 Customer and personal service
 Personnel and human resources
 Economics and accounting
 Mathematics

Skill and ability requirements (in order of importance)

Active listening
 Reading comprehension
 Speaking
 Oral comprehension
 Oral expression
 Problem sensitivity
 Written comprehension
 Critical thinking
 Speech clarity
 Monitoring

Registered nurses

SOC Definition: “Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes Clinical Nurse Specialists. Excludes ‘Nurse Anesthetists’ (29-1151), ‘Nurse Midwives’ (29-1161), and Nurse Practitioners’ (29-1171).”

Education/training characteristics:

- **Typical entry-level education:** Associate’s degree.
- **Work experience in a related occupation:** None.
- **Typical on-the-job training:** None.
- **Most common training/education levels (from O*NET):** Associate’s degree: 66%; Bachelor’s degree: 23%; Some college, no degree: 11%.

Knowledge requirements (in order of importance)

Medicine and dentistry
Customer and personal service
Psychology
English language
Educating and training others
Therapy and counseling

Skill and ability requirements (in order of importance)

Active listening
Social perceptiveness
Oral comprehension
Oral expression
Problem sensitivity
Service orientation

Potential Extensions of the Analysis

This analysis of Ohio's insurance industry and workforce needs is much more comprehensive than its two predecessors, but at least two possibilities for further work are possible. The first is to address the lack of occupational information for life insurance carriers by collecting occupational employment statistics from companies willing to participate. If these statistics are sufficiently detailed, this employment could be analyzed in much the same way as for the industries in this study. Projections for 2024 would likely not be possible except in a general sense, but current needs could be documented, as could replacement needs through 2024 by using the 10-year replacement rates for the relevant occupations.

A second possibility is to convene one or more focus groups of insurance executives, workforce developers, and institutions offering insurance education programs. The industry representatives would be asked to confirm or refute the findings of the occupational analysis and to comment on the most critical skill gaps that they are experiencing among applicants and incumbent workers. These focus groups are important for three reasons. First, the inherent limitations of workforce data and unique local characteristics mean that this skill analysis, based as it is on national-level statistics, is likely not to be entirely correct. Second, the lists of skills above are those that were needed historically. Industry leaders can offer insight into skills that will emerge in the future, and should thus be part of the preparation for these careers. Third, having both industry and academic leadership in the same room will help to establish and/or strengthen relationships between them. Not only will this reinforce the availability of nearby program graduates and strengthen talent pipelines, it will also help to form channels of communication between industry and the academic programs. The objective of aligning educational programs with the needs of the workplace will be successful in the long run only if academic leadership and staff maintain relationships with these industry leaders and receive ongoing information as those workplace needs evolve.

Appendix A

**Table A-1
Level and Growth of Insurance Employment in Ohio Counties**

County	Employment	Employment change		Location quotient
	2015	2007-2011	2011-2015	2015
Adams	38	n/a	5.6%	0.407
Allen	360	-14.0%	5.0%	0.447
Ashland	112	1.0%	10.9%	0.379
Ashtabula	152	-22.0%	7.0%	0.313
Athens	104	-19.1%	11.8%	0.313
Auglaize	96	-4.3%	-12.7%	0.285
Belmont	367	-5.2%	-3.9%	0.965
Brown	<i>55</i>	1.9%	0.0%	<i>0.431</i>
Butler	5,597	-2.1%	0.4%	2.393
Carroll	<i>24</i>	n/a	4.3%	<i>0.219</i>
Champaign	<i>39</i>	n/a	-4.9%	<i>0.228</i>
Clark	2,357	12.8%	16.8%	3.012
Clermont	1,508	-7.6%	-0.5%	1.627
Clinton	69	-23.7%	19.0%	0.268
Columbiana	200	-10.8%	5.8%	0.405
Coshocton	84	5.0%	33.3%	0.474
Crawford	304	-4.3%	13.9%	1.422
Cuyahoga	20,049	-12.5%	10.4%	1.743
Darke	162	-14.0%	5.9%	0.549
Defiance	90	0.0%	-6.3%	0.355
Delaware	3,468	21.0%	20.0%	2.549
Erie	113	1.9%	-29.4%	0.190
Fairfield	199	-21.2%	-4.3%	0.293
Fayette	43	-13.7%	-2.3%	0.236
Franklin	23,804	-8.0%	11.4%	2.048
Fulton	58	-43.0%	1.8%	0.196
Gallia	64	-16.7%	16.4%	0.365
Geauga	233	-12.9%	5.0%	0.425
Greene	203	-4.1%	9.7%	0.178
Guernsey	57	0.0%	-17.4%	0.227
Hamilton	11,603	-11.1%	12.6%	1.425
Hancock	151	-0.6%	-4.4%	0.210
Hardin	<i>40</i>	n/a	-14.9%	<i>0.297</i>
Harrison	18	25.0%	-10.0%	0.288
Henry	<i>53</i>	n/a	-50.9%	<i>0.299</i>
Highland	53	-25.9%	-11.7%	0.321
Hocking	<i>31</i>	n/a	-27.9%	<i>0.294</i>
Holmes	<i>75</i>	n/a	-1.3%	<i>0.243</i>
Huron	121	-15.8%	3.4%	0.370
Jackson	86	n/a	24.6%	0.517
Jefferson	95	-4.5%	-9.5%	0.283
Knox	80	1.4%	14.3%	0.243

Note: Estimated employments and location quotients are in red italics.

**Table A-1
Level and Growth of Insurance Employment in Ohio Counties (continued)**

County	Employment	Employment change		Location quotient
	2015	2007-2011	2011-2015	2015
Lake	467	-13.0%	-31.5%	0.306
Lawrence	98	-25.8%	36.1%	0.486
Licking	1,464	11.6%	-12.3%	1.711
Logan	68	0.0%	-5.6%	0.219
Lorain	663	-24.9%	56.7%	0.425
Lucas	2,521	-11.7%	-8.3%	0.753
Madison	52	-19.4%	-3.7%	0.205
Mahoning	793	-16.4%	-28.4%	0.504
Marion	82	5.0%	-34.9%	0.212
Medina	341	-7.3%	28.2%	0.359
Meigs	<i>10</i>	n/a	-9.1%	<i>0.175</i>
Mercer	276	7.7%	3.8%	0.881
Miami	216	-23.9%	-6.9%	0.332
Monroe	83	n/a	-35.7%	1.785
Montgomery	4,059	-5.1%	30.4%	1.011
Morgan	7	-12.5%	0.0%	0.164
Morrow	<i>8</i>	4.5%	-65.2%	<i>0.090</i>
Muskingum	176	-13.1%	6.0%	0.340
Noble	<i>32</i>	n/a	77.8%	<i>0.629</i>
Ottawa	<i>49</i>	n/a	-35.5%	<i>0.225</i>
Paulding	38	n/a	35.7%	0.488
Perry	<i>39</i>	n/a	5.4%	<i>0.437</i>
Pickaway	61	-21.8%	0.0%	0.275
Pike	<i>27</i>	n/a	-18.2%	<i>0.181</i>
Portage	136	-11.0%	-0.7%	0.155
Preble	56	n/a	-5.1%	0.333
Putnam	<i>57</i>	n/a	-20.8%	<i>0.306</i>
Richland	347	-13.1%	4.2%	0.426
Ross	96	-11.0%	-15.0%	0.215
Sandusky	120	-5.2%	9.1%	0.284
Scioto	273	-7.7%	75.0%	0.726
Seneca	<i>113</i>	11.2%	-12.4%	<i>0.368</i>
Shelby	80	-5.7%	-3.6%	0.182
Stark	2,278	-3.3%	-9.6%	0.895
Summit	5,878	1.8%	22.5%	1.383
Trumbull	418	-10.3%	11.2%	0.372
Tuscarawas	148	-1.1%	-15.9%	0.251
Union	101	-68.4%	-1.0%	0.202
Van Wert	409	-5.7%	-4.9%	2.352
Vinton	<i>8</i>	n/a	0.0%	<i>0.222</i>
Warren	1,730	35.2%	-33.2%	1.227
Washington	112	36.1%	-44.0%	0.276

Note: Estimated employments and location quotients are in red italics.

Table A-1
Level and Growth of Insurance Employment in Ohio Counties (continued)

County	Employment	Employment change		Location quotient
	2015	2007-2011	2011-2015	2015
Wayne	593	3.4%	7.6%	0.803
Williams	65	-7.6%	6.6%	0.233
Wood	406	11.1%	19.4%	0.399
Wyandot	<i>48</i>	n/a	14.3%	<i>0.334</i>

Note: Estimated employments and location quotients are in red italics.

Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics. Estimated employment by Regionomics from County Business Patterns, U.S. Census Bureau.

Table A-2
Insurance Carriers and Related Activities Establishment Counts by Employment Size
Ohio Counties, March 2014

County	Total	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1,000+
Ohio	7,078	5,061	1,078	427	259	104	66	36	29	18
Adams	8	5	2	1	0	0	0	0	0	0
Allen	62	44	12	3	2	1	0	0	0	0
Ashland	25	17	5	2	1	0	0	0	0	0
Ashtabula	69	55	14	0	0	0	0	0	0	0
Athens	18	10	5	3	0	0	0	0	0	0
Auglaize	32	24	6	2	0	0	0	0	0	0
Belmont	37	29	6	1	0	0	0	1	0	0
Brown	11	8	1	1	1	0	0	0	0	0
Butler	171	131	20	7	7	1	2	1	1	1
Carroll	12	10	2	0	0	0	0	0	0	0
Champaign	15	13	2	0	0	0	0	0	0	0
Clark	43	29	6	4	3	0	0	0	0	1
Clermont	86	64	11	7	3	0	0	0	0	1
Clinton	12	10	1	1	0	0	0	0	0	0
Columbiana	48	32	10	5	1	0	0	0	0	0
Coshocton	13	8	3	2	0	0	0	0	0	0
Crawford	29	21	7	0	0	0	1	0	0	0
Cuyahoga	1,234	890	135	86	57	33	19	7	3	4
Darke	30	22	6	1	1	0	0	0	0	0
Defiance	22	17	4	0	1	0	0	0	0	0
Delaware	139	85	26	9	8	6	4	1	0	0
Erie	43	33	8	1	1	0	0	0	0	0
Fairfield	66	46	17	3	0	0	0	0	0	0
Fayette	12	10	2	0	0	0	0	0	0	0
Franklin	781	486	136	60	45	14	15	10	10	5
Fulton	23	19	4	0	0	0	0	0	0	0
Gallia	14	8	5	0	1	0	0	0	0	0
Geauga	91	81	6	2	1	1	0	0	0	0
Greene	58	48	9	0	1	0	0	0	0	0
Guernsey	15	9	5	1	0	0	0	0	0	0
Hamilton	565	362	69	50	43	20	10	3	6	2

**Table A-2
Insurance Carriers and Related Activities Establishment Counts by Employment Size
Ohio Counties, March 2014 (continued)**

County	Total	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1,000+
Hardin	11	8	2	1	0	0	0	0	0	0
Harrison	4	3	1	0	0	0	0	0	0	0
Henry	13	9	3	1	0	0	0	0	0	0
Highland	14	7	7	0	0	0	0	0	0	0
Hocking	9	6	3	0	0	0	0	0	0	0
Holmes	7	2	4	0	1	0	0	0	0	0
Huron	26	15	8	3	0	0	0	0	0	0
Jackson	14	11	3	0	0	0	0	0	0	0
Jefferson	29	20	7	2	0	0	0	0	0	0
Knox	23	15	6	2	0	0	0	0	0	0
Lake	347	324	15	4	3	0	1	0	0	0
Lawrence	21	17	3	1	0	0	0	0	0	0
Licking	85	68	11	2	0	2	0	1	0	1
Logan	25	19	5	1	0	0	0	0	0	0
Lorain	109	82	17	7	1	1	0	1	0	0
Lucas	284	205	42	15	13	5	1	2	1	0
Madison	16	14	2	0	0	0	0	0	0	0
Mahoning	140	97	20	17	4	2	0	0	0	0
Marion	25	17	6	1	1	0	0	0	0	0
Medina	97	80	13	3	0	0	0	0	0	1
Meigs	4	3	1	0	0	0	0	0	0	0
Mercer	24	15	5	3	0	0	1	0	0	0
Miami	52	39	8	4	0	1	0	0	0	0
Monroe	7	4	2	0	0	1	0	0	0	0
Montgomery	262	181	50	17	8	2	1	2	0	1
Morgan	3	3	0	0	0	0	0	0	0	0
Morrow	8	8	0	0	0	0	0	0	0	0
Muskingum	44	30	10	4	0	0	0	0	0	0
Noble	4	2	1	0	1	0	0	0	0	0
Ottawa	19	14	5	0	0	0	0	0	0	0
Paulding	11	8	3	0	0	0	0	0	0	0
Perry	9	4	5	0	0	0	0	0	0	0
Pickaway	20	16	3	1	0	0	0	0	0	0
Pike	9	7	2	0	0	0	0	0	0	0
Portage	63	51	9	2	1	0	0	0	0	0
Preble	12	7	3	2	0	0	0	0	0	0
Putnam	19	14	4	1	0	0	0	0	0	0
Richland	72	48	14	9	1	0	0	0	0	0
Ross	27	17	9	1	0	0	0	0	0	0
Sandusky	31	22	7	2	0	0	0	0	0	0
Scioto	27	16	7	4	0	0	0	0	0	0
Seneca	30	23	5	1	1	0	0	0	0	0
Shelby	24	20	3	1	0	0	0	0	0	0
Stark	212	141	48	8	10	2	1	1	1	0

Table A-2
Insurance Carriers and Related Activities Establishment Counts by Employment Size
Ohio Counties, March 2014 (continued)

County	Total	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1,000+
Summit	420	309	58	18	18	8	4	3	2	0
Trumbull	99	77	15	6	1	0	0	0	0	0
Tuscarawas	40	29	8	3	0	0	0	0	0	0
Union	27	21	3	3	0	0	0	0	0	0
Van Wert	19	16	1	1	0	0	0	0	1	0
Vinton	2	1	1	0	0	0	0	0	0	0
Warren	104	84	10	5	1	1	1	0	2	0
Washington	28	17	7	1	3	0	0	0	0	0
Wayne	47	28	11	3	3	1	0	1	0	0
Williams	14	11	1	1	1	0	0	0	0	0
Wood	74	57	11	3	3	0	0	0	0	0
Wyandot	16	12	3	1	0	0	0	0	0	0
Unspecified	69	31	10	9	7	2	5	2	2	1

Source: County Business Patterns, U.S. Census Bureau.

Table A-3
Insurance Establishments in Ohio with 250 Employees or More

Company Name	City	County	Location employment
Nationwide Mutual Insurance Co	Columbus	Franklin	10,000
Progressive Corp	Mayfield Village	Cuyahoga	4,000
Summa Health System	Akron	Summit	2,500
American Financial Group Inc	Cincinnati	Hamilton	2,000
State Auto Financial Corp	Columbus	Franklin	2,000
Western & Southern Fnc'l Group	Cincinnati	Hamilton	2,000
Grange Insurance Co	Columbus	Franklin	1,500
Ohio Farmers Insurance Co	Westfield Center	Medina	1,500
Medical Mutual Of Ohio	Cleveland	Cuyahoga	1,430
Westfield Group	Westfield Center	Medina	1,350
Healthspan	Brooklyn Heights	Cuyahoga	1,200
Ohio Casualty	Fairfield	Butler	1,200
Ohio Casualty	Hamilton	Butler	1,100
Aetna	New Albany	Franklin	1,000
Grange Indemnity Insurance Co	Columbus	Franklin	1,000
Great American Life Insurance	Cincinnati	Hamilton	1,000
Trustgard Insurance Co	Columbus	Franklin	1,000
Great American Insurance Group	Cincinnati	Hamilton	900
State Automobile Mutual Ins Co	Columbus	Franklin	850
American Modern Ins Group Inc	Amelia	Clermont	825
Anthem Blue Cross Blue Shield	Ontario	Richland	800
Ohio National Financial Svc	Montgomery	Hamilton	800
American Family Home Insurance	Amelia	Clermont	750
Ameritas Life Insurance	Cincinnati	Hamilton	700
Care Source	Dayton	Montgomery	700
Great American Plan Admin Inc	Cincinnati	Hamilton	600

**Table A-3
Insurance Establishments in Ohio with 250 Employees or More (continued)**

Company Name	City	County	Location employment
Paramount Health Care Ins	Maumee	Lucas	600
Cigna	Westerville	Delaware	550
Cincinnati Insurance Co	Fairfield	Butler	500
Medical Mutual Of Ohio	Toledo	Lucas	500
Harrington Health	Westerville	Franklin	430
Sheakley Group Of Co	Cincinnati	Hamilton	400
York Claims Svc	Dublin	Franklin	400
AAA Allied Group Inc	Cincinnati	Hamilton	350
Paramount Health Care	Maumee	Lucas	350
Century Insurance Group	Westerville	Delaware	300
Comp Management Inc	Dublin	Franklin	300
Sedgwick Claims Management Svc	Solon	Cuyahoga	300
Summa Care	Akron	Summit	274
United Healthcare	West Chester	Butler	270
Western Reserve Group	Wooster	Wayne	260
Integrity Life Insurance Co	Cincinnati	Hamilton	256
AIG Insurance	Cleveland	Cuyahoga	250
Kaiser Permanente	Cleveland	Cuyahoga	250
Quantum Health	Columbus	Franklin	250

Source: Reference USA.

APPENDIX B

**Table B-1
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Total Need**

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Total, all occupations	90,940	97,780	6,840	19,744	26,583	29.2%
Total analyzed	88,297	94,943	6,646	19,170	25,816	29.2%
Insurance sales agents	13,313	15,688	2,375	3,501	5,876	44.1%
Customer service representatives	11,037	12,093	1,055	2,715	3,770	34.2%
Insurance claims and policy processing clerks	9,599	10,232	633	2,400	3,033	31.6%
Claims adjusters, examiners, and investigators	9,726	10,021	295	2,412	2,707	27.8%
Office clerks, general	2,869	2,993	124	620	744	25.9%
General and operations managers	1,861	2,014	153	471	624	33.5%
First-line supervisors of office and administrative support workers	2,507	2,686	179	378	558	22.3%
Accountants and auditors	1,315	1,429	115	351	466	35.4%
Registered nurses	994	1,208	213	235	448	45.1%
Secretaries and administrative assistants, except legal, medical, and executive	2,533	2,653	120	266	386	15.3%
Computer systems analysts	1,249	1,464	215	161	376	30.1%
Management analysts	1,332	1,520	188	185	373	28.0%
Business operations specialists, all other	1,559	1,731	172	185	358	23.0%
Software developers, applications	1,133	1,316	182	162	344	30.4%
Financial managers	1,050	1,090	40	249	289	27.5%
Insurance underwriters	4,021	3,535	-486	760	274	6.8%
Actuaries	449	558	109	133	242	53.9%
Computer and information systems managers	623	755	131	74	205	32.9%
Market research analysts and marketing specialists	742	858	116	88	205	27.6%
Managers, all other	645	704	59	143	202	31.3%
Billing and posting clerks	564	632	68	118	186	33.0%
Insurance appraisers, auto damage	762	742	-20	189	169	22.2%
Lawyers	744	805	61	109	169	22.7%
Financial analysts	604	643	40	124	164	27.1%
Training and development specialists	563	588	25	137	162	28.8%
Operations research analysts	309	410	100	55	155	50.2%
Sales managers	513	547	34	121	155	30.2%
Sales representatives, services, all other	487	531	45	104	148	30.4%

Table B-1
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Total Need (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Title examiners, abstractors, and searchers	983	915	-68	216	148	15.0%
Receptionists and information clerks	604	587	-17	162	145	24.1%
Computer user support specialists	630	685	54	81	136	21.5%
Office and administrative support workers, all other	371	400	30	100	130	35.0%
Compensation, benefits, and job analysis specialists	329	375	46	80	126	38.3%
Network and computer systems administrators	484	542	58	62	121	24.9%
First-line supervisors of non-retail sales workers	560	607	47	64	111	19.8%
Personal financial advisors	321	351	30	81	111	34.5%
Administrative services managers	371	407	36	69	105	28.4%
Human resources specialists	409	414	4	99	104	25.4%
Compliance officers	413	458	45	58	104	25.1%
Medical and health services managers	192	234	42	49	91	47.2%
Marketing managers	283	306	23	67	90	31.6%
Computer programmers	371	365	-6	91	86	23.1%
Database administrators	258	287	29	56	85	32.9%
Computer occupations, all other	283	314	30	37	67	23.6%
Paralegals and legal assistants	204	223	19	45	64	31.4%
Computer network architects	296	310	14	38	52	17.6%
Information and record clerks, all other	129	147	18	33	52	40.0%
Executive secretaries and executive administrative assistants	943	893	-50	99	49	5.2%
Securities, commodities, and financial services sales agents	176	194	17	30	48	27.0%
Web developers	107	140	32	14	46	42.9%
Statisticians	63	97	33	11	45	70.4%
Human resources managers	108	121	12	32	44	40.5%
Loan interviewers and clerks	412	390	-22	63	42	10.1%
Bill and account collectors	209	199	-10	51	41	19.8%
Bookkeeping, accounting, and auditing clerks	1,458	1,355	-102	143	40	2.8%
Medical records and health information technicians	84	105	21	19	39	46.9%
Data entry keyers	386	375	-11	49	38	10.0%
Interviewers, except eligibility and loan	98	114	16	22	38	39.1%
Chief executives	244	239	-6	42	36	14.7%
Software developers, systems software	153	167	14	22	36	23.4%
Information security analysts	99	122	23	13	36	35.9%

Table B-1
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Total Need (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Computer network support specialists	160	172	12	21	32	20.3%
Statistical assistants	171	134	-37	69	32	18.6%
Healthcare social workers	75	89	14	18	32	42.5%
Public relations specialists	124	141	17	15	32	25.6%
Loan officers	251	237	-14	42	28	11.1%
Maintenance and repair workers, general	104	101	-3	27	24	23.2%
Janitors and cleaners, except maids and housekeeping cleaners	104	107	3	21	24	23.0%
Pharmacists	46	57	11	11	22	47.4%
Retail salespersons	39	47	8	13	21	54.8%
Licensed practical and licensed vocational nurses	33	45	11	10	21	62.1%
Telemarketers	196	179	-17	36	19	9.9%
Training and development managers	51	55	4	15	19	36.7%
Financial specialists, all other	130	136	6	13	19	14.4%
Purchasing agents, except wholesale, retail, and farm products	36	45	8	10	18	50.0%
Dispatchers, except police, fire, and ambulance	95	90	-6	24	18	19.1%
Mail clerks and mail machine operators, except postal service	289	248	-41	59	18	6.2%
Sales representatives, wholesale and manufacturing, except technical and scientific products	56	62	6	12	17	30.7%
Public relations and fundraising managers	24	33	8	8	17	68.8%
File clerks	211	185	-26	42	17	7.9%
Financial clerks, all other	82	77	-6	22	16	20.0%
Pharmacy technicians	55	65	11	5	16	29.7%
Correspondence clerks	77	72	-5	21	16	20.4%
Health educators	33	42	8	7	15	44.3%
Sales and related workers, all other	24	33	8	3	12	48.6%
Clinical, counseling, and school psychologists	27	33	5	6	11	41.2%
Financial examiners	56	53	-3	14	11	19.6%
Legal secretaries	127	122	-5	13	8	6.3%
Private detectives and investigators	18	21	3	5	8	45.0%
Legal support workers, all other	18	21	3	4	7	40.8%
Community and social service specialists, all other	18	21	3	3	7	38.4%
Human resources assistants, except payroll and timekeeping	21	24	3	2	5	23.3%
Office machine operators, except computer	132	106	-26	30	4	3.4%

Table B-1
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Total Need (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Computer network support specialists	160	172	12	21	32	20.3%
Statistical assistants	171	134	-37	69	32	18.6%
Healthcare social workers	75	89	14	18	32	42.5%
Public relations specialists	124	141	17	15	32	25.6%
Loan officers	251	237	-14	42	28	11.1%

Table B-2
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Occupational Group

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Total, all occupations	90,940	97,780	6,840	19,744	26,583	29.2%
Total analyzed	88,297	94,943	6,646	19,170	25,816	29.2%
Management occupations	5,980	6,517	537	1,342	1,878	31.4%
Chief executives	244	239	-6	42	36	14.7%
General and operations managers	1,861	2,014	153	471	624	33.5%
Marketing managers	283	306	23	67	90	31.6%
Sales managers	513	547	34	121	155	30.2%
Public relations and fundraising managers	24	33	8	8	17	68.8%
Administrative services managers	371	407	36	69	105	28.4%
Computer and information systems managers	623	755	131	74	205	32.9%
Financial managers	1,050	1,090	40	249	289	27.5%
Compensation and benefits managers	13	13	-1	4	3	24.2%
Human resources managers	108	121	12	32	44	40.5%
Training and development managers	51	55	4	15	19	36.7%
Medical and health services managers	192	234	42	49	91	47.2%
Managers, all other	645	704	59	143	202	31.3%
Business and financial operations occupations	22,568	23,136	568	4,829	5,396	23.9%
Purchasing agents, except wholesale, retail, and farm products	36	45	8	10	18	50.0%
Claims adjusters, examiners, and investigators	9,726	10,021	295	2,412	2,707	27.8%
Insurance appraisers, auto damage	762	742	-20	189	169	22.2%
Compliance officers	413	458	45	58	104	25.1%
Human resources specialists	409	414	4	99	104	25.4%
Management analysts	1,332	1,520	188	185	373	28.0%
Compensation, benefits, and job analysis specialists	329	375	46	80	126	38.3%

Table B-2
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Occupational Group (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Training and development specialists	563	588	25	137	162	28.8%
Market research analysts and marketing specialists	742	858	116	88	205	27.6%
Business operations specialists, all other	1,559	1,731	172	185	358	23.0%
Accountants and auditors	1,315	1,429	115	351	466	35.4%
Financial analysts	604	643	40	124	164	27.1%
Personal financial advisors	321	351	30	81	111	34.5%
Insurance underwriters	4,021	3,535	-486	760	274	6.8%
Financial examiners	56	53	-3	14	11	19.6%
Loan officers	251	237	-14	42	28	11.1%
Financial specialists, all other	130	136	6	13	19	14.4%
Computer and mathematical occupations	6,045	6,946	901	957	1,858	30.7%
Computer systems analysts	1,249	1,464	215	161	376	30.1%
Information security analysts	99	122	23	13	36	35.9%
Computer programmers	371	365	-6	91	86	23.1%
Software developers, applications	1,133	1,316	182	162	344	30.4%
Software developers, systems software	153	167	14	22	36	23.4%
Web developers	107	140	32	14	46	42.9%
Database administrators	258	287	29	56	85	32.9%
Network and computer systems administrators	484	542	58	62	121	24.9%
Computer network architects	296	310	14	38	52	17.6%
Computer user support specialists	630	685	54	81	136	21.5%
Computer network support specialists	160	172	12	21	32	20.3%
Computer occupations, all other	283	314	30	37	67	23.6%
Actuaries	449	558	109	133	242	53.9%
Operations research analysts	309	410	100	55	155	50.2%
Statisticians	63	97	33	11	45	70.4%
Life, physical, and social science occupations	27	33	5	6	11	41.2%
Clinical, counseling, and school psychologists	27	33	5	6	11	41.2%
Community and social services occupations	126	152	25	28	54	42.4%
Healthcare social workers	75	89	14	18	32	42.5%
Health educators	33	42	8	7	15	44.3%
Community and social service specialists, all other	18	21	3	3	7	38.4%

Table B-2
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Occupational Group (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Legal occupations	1,949	1,964	15	374	389	19.9%
Lawyers	744	805	61	109	169	22.7%
Paralegals and legal assistants	204	223	19	45	64	31.4%
Title examiners, abstractors, and searchers	983	915	-68	216	148	15.0%
Legal support workers, all other	18	21	3	4	7	40.8%
Arts, design, entertainment, sports, and media occupations	124	141	17	15	32	25.6%
Public relations specialists	124	141	17	15	32	25.6%
Healthcare practitioners and technical occupations	1,212	1,479	267	279	546	45.1%
Pharmacists	46	57	11	11	22	47.4%
Registered nurses	994	1,208	213	235	448	45.1%
Pharmacy technicians	55	65	11	5	16	29.7%
Licensed practical and licensed vocational nurses	33	45	11	10	21	62.1%
Medical records and health information technicians	84	105	21	19	39	46.9%
Protective service occupations	18	21	3	5	8	45.0%
Private detectives and investigators	18	21	3	5	8	45.0%
Building and grounds cleaning and maintenance occupations	104	107	3	21	24	23.0%
Janitors and cleaners, except maids and housekeeping cleaners	104	107	3	21	24	23.0%
Sales and related occupations	14,851	17,340	2,489	3,764	6,253	42.1%
First-line supervisors of non-retail sales workers	560	607	47	64	111	19.8%
Retail salespersons	39	47	8	13	21	54.8%
Insurance sales agents	13,313	15,688	2,375	3,501	5,876	44.1%
Securities, commodities, and financial services sales agents	176	194	17	30	48	27.0%
Sales representatives, services, all other	487	531	45	104	148	30.4%
Sales representatives, wholesale and manufacturing, except technical and scientific products	56	62	6	12	17	30.7%
Telemarketers	196	179	-17	36	19	9.9%
Sales and related workers, all other	24	33	8	3	12	48.6%
Office and administrative support occupations	35,190	37,008	1,818	7,524	9,342	26.5%
First-line supervisors of office and administrative support workers	2,507	2,686	179	378	558	22.3%
Switchboard operators, including answering service	49	32	-17	6	-12	-23.4%
Bill and account collectors	209	199	-10	51	41	19.8%
Billing and posting clerks	564	632	68	118	186	33.0%
Bookkeeping, accounting, and auditing clerks	1,458	1,355	-102	143	40	2.8%

Table B-2
Occupational Growth and Replacement Needs, All Available Insurance Industries, by Occupational Group (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Payroll and timekeeping clerks	18	17	-1	5	4	21.8%
Financial clerks, all other	82	77	-6	22	16	20.0%
Correspondence clerks	77	72	-5	21	16	20.4%
Customer service representatives	11,037	12,093	1,055	2,715	3,770	34.2%
File clerks	211	185	-26	42	17	7.9%
Interviewers, except eligibility and loan	98	114	16	22	38	39.1%
Loan interviewers and clerks	412	390	-22	63	42	10.1%
Human resources assistants, except payroll and timekeeping	21	24	3	2	5	23.3%
Receptionists and information clerks	604	587	-17	162	145	24.1%
Information and record clerks, all other	129	147	18	33	52	40.0%
Dispatchers, except police, fire, and ambulance	95	90	-6	24	18	19.1%
Executive secretaries and executive administrative assistants	943	893	-50	99	49	5.2%
Legal secretaries	127	122	-5	13	8	6.3%
Secretaries and administrative assistants, except legal, medical, and executive	2,533	2,653	120	266	386	15.3%
Computer operators	105	77	-28	8	-20	-19.1%
Data entry keyers	386	375	-11	49	38	10.0%
Word processors and typists	96	76	-20	3	-17	-17.2%
Insurance claims and policy processing clerks	9,599	10,232	633	2,400	3,033	31.6%
Mail clerks and mail machine operators, except postal service	289	248	-41	59	18	6.2%
Office clerks, general	2,869	2,993	124	620	744	25.9%
Office machine operators, except computer	132	106	-26	30	4	3.4%
Statistical assistants	171	134	-37	69	32	18.6%
Office and administrative support workers, all other	371	400	30	100	130	35.0%
Installation, maintenance, and repair occupations	104	101	-3	27	24	23.2%
Maintenance and repair workers, general	104	101	-3	27	24	23.2%

**Table B-3
Occupational Growth and Replacement Needs, Direct Health and Medical Insurance Carriers**

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Total, all occupations	14,954	18,895	3,941	3,070	7,011	46.9%
Total analyzed	14,413	18,214	3,800	2,959	6,759	46.9%
Customer service representatives	2,332	2,901	569	574	1,143	49.0%
Insurance claims and policy processing clerks	1,588	1,979	390	397	788	49.6%
Claims adjusters, examiners, and investigators	777	967	190	193	382	49.2%
Insurance sales agents	589	806	217	155	372	63.2%
Registered nurses	708	881	173	167	340	48.1%
Management analysts	392	586	194	54	249	63.5%
Business operations specialists, all other	680	845	165	81	246	36.1%
Software developers, applications	337	524	187	48	235	69.7%
Computer systems analysts	480	646	166	62	228	47.5%
First-line supervisors of office and administrative support workers	471	586	115	71	187	39.6%
Accountants and auditors	310	387	77	83	160	51.6%
Computer and information systems managers	255	378	123	30	153	59.9%
Managers, all other	255	318	63	56	120	46.9%
General and operations managers	237	295	58	60	118	49.7%
Office clerks, general	292	345	54	63	117	40.0%
Operations research analysts	143	214	72	25	97	67.9%
Billing and posting clerks	170	211	41	36	77	45.1%
Medical and health services managers	152	187	36	38	74	48.8%
Financial managers	158	193	35	37	73	46.2%
Market research analysts and marketing specialists	149	199	51	18	68	45.9%
Financial analysts	155	190	36	32	67	43.6%
Insurance underwriters	203	232	29	38	67	33.0%
Network and computer systems administrators	131	179	48	17	65	49.6%
Secretaries and administrative assistants, except legal, medical, and executive	216	256	40	23	63	29.2%
Actuaries	85	122	37	25	62	73.2%
Training and development specialists	121	152	30	30	60	49.2%
Office and administrative support workers, all other	118	146	27	32	59	50.0%
Computer user support specialists	146	182	36	19	55	37.4%
Computer programmers	149	164	15	37	51	34.6%
Computer occupations, all other	143	176	33	18	51	35.9%

Table B-3
Occupational Growth and Replacement Needs, Direct Health and Medical Insurance Carriers (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Compliance officers	134	164	30	19	49	36.6%
Database administrators	97	122	25	21	46	47.0%
Human resources specialists	82	98	16	20	36	44.1%
Information security analysts	49	77	29	6	35	72.1%
Administrative services managers	85	104	19	16	35	41.2%
Executive secretaries and executive administrative assistants	191	205	14	20	34	17.8%
Statisticians	46	71	26	8	34	74.4%
Sales managers	73	89	16	17	34	46.1%
Marketing managers	70	86	16	16	33	47.1%
Computer network architects	79	101	22	10	32	41.0%
Sales representatives, services, all other	73	89	16	16	32	43.8%
Interviewers, except eligibility and loan	58	71	14	13	27	46.6%
Software developers, systems software	61	77	17	9	25	41.7%
Medical records and health information technicians	49	62	14	11	25	51.0%
Public relations specialists	67	83	17	8	24	36.6%
First-line supervisors of non-retail sales workers	67	83	17	8	24	36.2%
Information and record clerks, all other	52	62	11	13	24	46.7%
Bookkeeping, accounting, and auditing clerks	152	161	9	15	24	15.6%
Lawyers	43	60	17	6	23	54.6%
Healthcare social workers	49	60	11	12	23	46.6%
Pharmacists	46	57	11	11	22	47.4%
Licensed practical and licensed vocational nurses	33	45	11	10	21	62.1%
Web developers	36	51	14	5	19	51.7%
Purchasing agents, except wholesale, retail, and farm products	36	45	8	10	18	50.0%
Computer network support specialists	49	60	11	6	17	35.4%
Data entry keyers	76	83	7	10	17	22.4%
Public relations and fundraising managers	24	33	8	8	17	68.8%
Human resources managers	27	36	8	8	16	59.8%
Pharmacy technicians	55	65	11	5	16	29.7%
Health educators	33	42	8	7	15	44.3%
Compensation, benefits, and job analysis specialists	36	42	5	9	14	38.6%
Bill and account collectors	33	39	5	8	13	40.2%

Table B-3
Occupational Growth and Replacement Needs, Direct Health and Medical Insurance Carriers (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Chief executives	46	51	5	8	13	28.0%
Mail clerks and mail machine operators, except postal service	52	54	2	11	12	24.1%
Sales and related workers, all other	24	33	8	3	12	48.6%
Clinical, counseling, and school psychologists	27	33	5	6	11	41.2%
Financial specialists, all other	27	36	8	3	11	40.8%
Correspondence clerks	55	51	-4	15	11	19.6%
Receptionists and information clerks	30	33	2	8	11	34.7%
Maintenance and repair workers, general	21	24	3	6	8	38.2%
Office machine operators, except computer	36	36	-1	8	8	20.8%
Telemarketers	24	27	2	4	7	28.6%
Human resources assistants, except payroll and timekeeping	21	24	3	2	5	23.3%
File clerks	21	21	0	4	4	18.1%
Computer operators	27	24	-4	2	-1	-5.4%

Table B-4
Occupational Growth and Replacement Needs, Direct Insurers, except Life, Health, and Medical

Occupation	2011	2020	Growth	Turnover	Total need	Pct. of 2011
Total, all occupations	37,797	34,813	-2,984	8,105	5,121	13.5%
Total analyzed	36,833	33,931	-2,902	7,898	4,996	13.6%
Claims adjusters, examiners, and investigators	5,917	5,526	-391	1,467	1,077	18.2%
Insurance claims and policy processing clerks	4,300	4,017	-283	1,075	792	18.4%
Customer service representatives	3,539	3,300	-238	871	632	17.9%
Insurance sales agents	2,866	2,680	-187	754	567	19.8%
Title examiners, abstractors, and searchers	983	915	-68	216	148	15.0%
General and operations managers	666	620	-45	168	123	18.5%
Insurance appraisers, auto damage	647	608	-39	160	121	18.7%
Accountants and auditors	545	512	-34	146	112	20.5%
Lawyers	609	627	18	89	107	17.6%
Financial managers	596	556	-40	141	102	17.0%
First-line supervisors of office and administrative support workers	1,116	1,043	-74	169	95	8.5%
Computer systems analysts	571	576	5	74	79	13.8%
Office clerks, general	748	665	-83	162	78	10.5%
Actuaries	203	217	15	60	75	36.9%

Table B-4
Occupational Growth and Replacement Needs, Direct Insurers, except Life, Health, and Medical (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Management analysts	698	652	-45	97	52	7.4%
Training and development specialists	304	281	-23	74	51	16.8%
Managers, all other	292	275	-17	64	48	16.4%
Software developers, applications	609	569	-40	87	47	7.8%
Paralegals and legal assistants	178	185	8	39	47	26.5%
Financial analysts	292	275	-17	60	43	14.9%
Market research analysts and marketing specialists	330	333	3	39	42	12.8%
Sales managers	222	211	-11	52	41	18.7%
Insurance underwriters	3,069	2,526	-543	580	37	1.2%
Operations research analysts	127	141	14	23	36	28.7%
Business operations specialists, all other	602	563	-40	72	32	5.3%
Statistical assistants	171	134	-37	69	32	18.6%
Loan interviewers and clerks	381	352	-29	59	30	7.9%
Office and administrative support workers, all other	152	141	-11	41	29	19.4%
Sales representatives, services, all other	184	173	-11	39	28	15.2%
Marketing managers	133	128	-5	31	26	19.7%
Human resources specialists	190	166	-24	46	22	11.7%
Computer user support specialists	292	275	-17	38	21	7.2%
Administrative services managers	133	128	-5	25	20	14.8%
Human resources managers	63	64	1	19	19	30.1%
Billing and posting clerks	146	134	-12	30	19	13.0%
Loan officers	216	198	-17	36	18	8.6%
Dispatchers, except police, fire, and ambulance	95	90	-6	24	18	19.1%
Database administrators	108	102	-6	23	18	16.4%
Registered nurses	70	70	1	16	17	24.5%
Personal financial advisors	89	83	-6	22	17	18.8%
Financial clerks, all other	82	77	-6	22	16	20.0%
Maintenance and repair workers, general	82	77	-6	22	16	19.3%
Receptionists and information clerks	146	122	-24	39	15	10.2%
Information and record clerks, all other	51	51	0	13	13	26.6%
Network and computer systems administrators	190	179	-11	25	13	7.0%
Computer network architects	190	179	-11	25	13	7.0%

Table B-4
Occupational Growth and Replacement Needs, Direct Insurers, except Life, Health, and Medical (continued)

Occupation	2014	2024	Growth	Turnover	Total need	Pct. of 2014
Web developers	44	51	7	6	13	28.2%
Securities, commodities, and financial services sales agents	63	64	1	11	11	18.1%
Training and development managers	38	38	0	11	11	30.1%
First-line supervisors of non-retail sales workers	190	179	-11	22	11	5.6%
Computer and information systems managers	235	217	-17	28	11	4.5%
Computer occupations, all other	114	109	-5	15	9	8.2%
Computer programmers	133	109	-24	33	8	6.2%
Compliance officers	140	128	-12	20	8	5.8%
Legal secretaries	127	122	-5	13	8	6.3%
Public relations specialists	57	58	0	7	7	12.8%
Software developers, systems software	70	64	-6	10	4	6.0%
Janitors and cleaners, except maids and housekeeping cleaners	51	45	-6	10	4	8.1%
Computer network support specialists	76	70	-6	10	4	5.4%
Financial examiners	38	32	-6	9	3	8.5%
Financial specialists, all other	76	70	-6	8	2	2.7%
Bill and account collectors	82	64	-18	20	2	2.0%
Compensation, benefits, and job analysis specialists	57	45	-12	14	2	2.7%
Chief executives	76	64	-12	13	1	1.0%
Information security analysts	51	45	-6	7	1	1.1%
File clerks	82	64	-18	17	-2	-2.3%
Office machine operators, except computer	95	70	-25	22	-3	-3.2%
Telemarketers	44	32	-12	8	-4	-9.6%
Mail clerks and mail machine operators, except postal service	127	96	-31	26	-5	-4.0%
Secretaries and administrative assistants, except legal, medical, and executive	571	505	-65	60	-6	-1.0%
Data entry keyers	95	77	-18	12	-6	-6.6%
Computer operators	51	32	-19	4	-15	-29.5%
Word processors and typists	70	51	-19	2	-16	-23.2%
Executive secretaries and executive administrative assistants	355	288	-67	37	-30	-8.5%
Bookkeeping, accounting, and auditing clerks	431	345	-86	42	-44	-10.1%

**Table B-5
Occupational Growth and Replacement Needs, Insurance Agencies and Brokerages**

Occupation	2011	2020	Growth	Turnover	Total need	Pct. of 2011
Total, all occupations	25,081	28,944	3,863	5,745	9,608	38.3%
Total analyzed	24,426	28,223	3,797	5,595	9,392	38.5%
Insurance sales agents	9,339	11,596	2,257	2,456	4,713	50.5%
Customer service representatives	3,616	4,081	465	889	1,355	37.5%
Insurance claims and policy processing clerks	2,520	2,844	324	630	954	37.9%
Office clerks, general	1,293	1,385	92	279	371	28.7%
Secretaries and administrative assistants, except legal, medical, and executive	1,357	1,459	102	142	244	18.0%
General and operations managers	564	636	72	143	215	38.1%
Claims adjusters, examiners, and investigators	476	539	63	118	181	38.1%
First-line supervisors of office and administrative support workers	472	535	63	71	134	28.5%
Insurance underwriters	500	520	19	95	114	22.8%
Receptionists and information clerks	352	357	4	95	99	28.2%
Accountants and auditors	211	241	29	56	86	40.5%
First-line supervisors of non-retail sales workers	268	303	35	31	66	24.5%
Market research analysts and marketing specialists	183	225	42	22	64	34.7%
Personal financial advisors	148	167	19	37	56	37.8%
Sales managers	152	171	19	36	55	36.2%
Actuaries	81	109	28	24	52	63.7%
Financial managers	141	159	18	33	52	36.5%
Bookkeeping, accounting, and auditing clerks	578	555	-23	57	33	5.8%
Sales representatives, services, all other	88	101	13	19	32	35.8%
Billing and posting clerks	88	101	13	18	31	35.4%
Securities, commodities, and financial services sales agents	95	109	13	16	30	31.4%
Business operations specialists, all other	99	113	14	12	26	25.9%
Executive secretaries and executive administrative assistants	250	248	-2	26	24	9.7%
Human resources specialists	70	78	7	17	24	34.4%
Financial analysts	78	85	8	16	24	30.7%
Compensation, benefits, and job analysis specialists	67	74	7	16	23	34.4%
Computer user support specialists	78	89	12	10	22	28.0%
Retail salespersons	39	47	8	13	21	54.8%
Administrative services managers	60	70	10	11	21	35.3%
Marketing managers	49	58	9	12	20	41.5%

**Table B-5
Occupational Growth and Replacement Needs, Insurance Agencies and Brokerages (continued)**

Occupation	2011	2020	Growth	Turnover	Total need	Pct. of 2011
Janitors and cleaners, except maids and housekeeping cleaners	53	62	9	11	20	37.3%
Compliance officers	60	70	10	8	18	30.7%
Training and development specialists	53	58	5	13	18	34.4%
Sales representatives, wholesale and manufacturing, except technical and scientific products	56	62	6	12	17	30.7%
Computer systems analysts	56	66	10	7	17	29.9%
Telemarketers	127	120	-7	23	17	13.2%
Office and administrative support workers, all other	42	47	4	11	16	37.0%
Software developers, applications	46	54	8	7	15	32.9%
Computer and information systems managers	49	58	9	6	15	29.7%
Bill and account collectors	53	54	1	13	14	27.1%
Management analysts	56	62	6	8	14	24.0%
Network and computer systems administrators	56	62	6	7	13	23.0%
Lawyers	35	43	7	5	13	35.7%
Chief executives	74	74	0	13	12	16.6%
Managers, all other	32	35	3	7	10	32.2%
Data entry keyers	95	93	-2	12	10	10.6%
Loan officers	35	39	4	6	9	26.7%
File clerks	67	62	-5	13	9	12.8%
Mail clerks and mail machine operators, except postal service	35	31	-4	7	3	8.5%
Switchboard operators, including answering service	32	19	-12	4	-9	-27.0%

Table B-6
Occupational Growth and Replacement Needs, Other Insurance-Related Activities

Occupation	2011	2020	Growth	Turnover	Total need	Pct. of 2011
Total, all occupations	13,108	15,127	2,019	2,822	4,841	36.9%
Total analyzed	12,625	14,576	1,951	2,718	4,668	37.0%
Claims adjusters, examiners, and investigators	2,556	2,988	432	634	1,066	41.7%
Customer service representatives	1,550	1,810	259	381	641	41.3%
Insurance claims and policy processing clerks	1,192	1,393	202	298	499	41.9%
Insurance sales agents	518	606	88	136	224	43.2%
Office clerks, general	536	598	62	116	177	33.1%
General and operations managers	394	463	69	100	168	42.7%
First-line supervisors of office and administrative support workers	447	522	74	68	142	31.8%
Accountants and auditors	248	290	42	66	109	43.8%
Registered nurses	217	257	40	51	91	41.9%
Compensation, benefits, and job analysis specialists	168	215	46	41	87	51.8%
Secretaries and administrative assistants, except legal, medical, and executive	390	434	44	41	85	21.7%
Financial managers	155	181	26	37	63	40.4%
Billing and posting clerks	159	185	26	33	59	37.0%
Management analysts	186	219	33	26	59	31.5%
Sales representatives, services, all other	142	168	27	30	57	40.1%
Insurance underwriters	248	257	9	47	56	22.4%
Business operations specialists, all other	177	210	33	21	54	30.7%
Actuaries	80	109	30	24	53	66.9%
Computer systems analysts	142	177	35	18	53	37.6%
Insurance appraisers, auto damage	115	135	20	29	48	41.7%
Software developers, applications	142	168	27	20	47	33.1%
Computer user support specialists	115	139	24	15	39	33.5%
Personal financial advisors	84	101	17	21	38	45.1%
Training and development specialists	84	97	13	20	33	39.3%
Market research analysts and marketing specialists	80	101	21	9	31	38.6%
Administrative services managers	93	105	12	17	30	31.8%
Network and computer systems administrators	106	122	16	14	29	27.7%
Financial analysts	80	93	13	16	29	36.7%
Compliance officers	80	97	17	11	28	35.5%
Bookkeeping, accounting, and auditing clerks	297	295	-2	29	27	9.1%

Table B-6
Occupational Growth and Replacement Needs, Other Insurance-Related Activities (continued)

Occupation	2011	2020	Growth	Turnover	Total need	Pct. of 2011
Computer and information systems managers	84	101	17	10	27	31.8%
Lawyers	58	76	18	8	27	46.2%
Computer programmers	89	93	4	22	26	29.1%
Office and administrative support workers, all other	58	67	10	15	25	43.8%
Sales managers	66	76	9	16	25	37.6%
Managers, all other	66	76	9	15	24	36.1%
Operations research analysts	40	55	15	7	22	55.0%
Database administrators	53	63	10	11	21	40.3%
Human resources specialists	66	72	5	16	21	32.0%
Receptionists and information clerks	75	76	0	20	21	27.5%
Executive secretaries and executive administrative assistants	146	152	5	15	21	14.2%
Data entry keyers	120	122	2	15	18	14.8%
Paralegals and legal assistants	27	38	11	6	17	64.5%
Medical and health services managers	40	46	6	10	17	41.4%
Web developers	27	38	11	3	15	55.4%
Medical records and health information technicians	35	42	7	8	15	41.2%
Information and record clerks, all other	27	34	7	7	14	52.4%
Bill and account collectors	40	42	2	10	12	30.0%
Loan interviewers and clerks	31	38	7	5	12	37.6%
Interviewers, except eligibility and loan	40	42	2	9	11	28.4%
Computer network support specialists	35	42	7	5	11	31.7%
First-line supervisors of non-retail sales workers	35	42	7	4	11	30.3%
Statisticians	18	25	8	3	11	60.1%
Chief executives	49	51	2	8	10	20.7%
Marketing managers	31	34	3	7	10	32.2%
Healthcare social workers	27	29	3	6	9	34.9%
Human resources managers	18	21	3	5	8	48.0%
Private detectives and investigators	18	21	3	5	8	45.0%
Financial examiners	18	21	3	4	8	43.3%
Training and development managers	13	17	4	4	7	55.9%
Mail clerks and mail machine operators, except postal service	75	67	-8	15	7	9.8%
Legal support workers, all other	18	21	3	4	7	40.8%

Table B-6
Occupational Growth and Replacement Needs, Other Insurance-Related Activities (continued)

Occupation	2011	2020	Growth	Turnover	Total need	Pct. of 2011
Community and social service specialists, all other	18	21	3	3	7	38.4%
Securities, commodities, and financial services sales agents	18	21	3	3	6	36.0%
Computer network architects	27	29	3	3	6	23.7%
Computer occupations, all other	27	29	3	3	6	23.7%
Software developers, systems software	22	25	3	3	6	28.3%
File clerks	40	38	-2	8	6	15.1%
Financial specialists, all other	27	29	3	3	6	21.0%
Correspondence clerks	22	21	-1	6	5	22.1%
Payroll and timekeeping clerks	18	17	-1	5	4	21.8%
Compensation and benefits managers	13	13	-1	4	3	24.2%
Word processors and typists	27	25	-1	1	0	-1.5%
Switchboard operators, including answering service	18	13	-5	2	-3	-16.9%
Computer operators	27	21	-6	2	-4	-13.3%