Workforce Characteristics and Workforce Development in Ohio's Insurance Industry: 2023 Update

Bill LaFayette, Ph.D. Owner, Regionomics[®] LLC

March 27, 2023



4926 Crestbrook Drive, Lockbourne, OH 43137 www.regionomicsllc.com

Table of Contents

Summary of Major Findings	1
Introduction	2
Ohio's Insurance Industry	2
Insurance Employment at the County Level	7
Statewide Occupational Employment Distributions and Projections	9
Educational, Knowledge, Skill, and Ability Requirements of Insurance Occupations	13
Education and Training Needs	13
Knowledge, Skill, and Ability Needs	15
Knowledge	16
Skills	16
Abilities	17
Appendix	19

Table of Figures

Figure 1:	Ohio and U.S. Insurance and Ohio Total Gross Domestic Product, 2001-2021	3
Figure 2:	Ohio and U.S Insurance Employment Growth, 2001-2021	4
Figure 3:	Ohio and U.S Insurance Industry Segment Employment Growth, 2001-2021	5
Figure 4:	County Location Quotients for Insurance Carriers and Related Activities, 2021	8
Figure 5:	U.S. Participation Rates, Historical and Projected, 1947-2031	12

Table of Tables

Table 1: Employment, Growth, and Concentration of Ohio's Insurance Industry	6
Table 2: Level and Growth of Insurance Employment in High-Concentration Ohio Counties	9
Table 3: Insurance Industry Growth Projections, Ohio and U.S., 2021-2031	10
Table 4: Insurance Industry Projected Worker Needs 2021-2031	11
Table 5: Education, Experience and Training Needs for Insurance Occupations	14
Table A-1: Level and Growth of Insurance Employment in Ohio Counties	19
Table A-2: Occupational Growth and Replacement Needs, All Insurance Industries, by Total	
Need	21
Table A-3: Occupational Growth and Replacement Needs, Direct Life Insurance Carriers, by	
Total Need	24
Table A-4: Occupational Growth and Replacement Needs, Direct Health and Medical Insurance	
Carriers, by Total Need	25
Table A-5: Occupational Growth and Replacement Needs, Direct Insurance (Except Life, Health	
& Medical) Carriers, by Total Need	27
Table A-6: Occupational Growth and Replacement Needs, Insurance Agencies and Brokerages,	
by Total Need	29
Table A-7: Occupational Growth and Replacement Needs, Other Insurance Related Activities,	
by Total Need	31

Workforce Characteristics and Workforce Development in Ohio's Insurance Industry: 2023 Update

Bill LaFayette, Ph.D. Owner, Regionomics® LLC March 27, 2023

Summary of Major Findings

This report is an update and expansion of workforce studies completed in 2011, 2013, and 2016, and is produced for the Ohio Insurance Institute. The report analyzes historical and projected growth of Ohio's insurance employment, identifies the occupations most critical for the industry's continued growth, projects the number of workers needed to fill those positions in coming years, and assesses the education, training, and skills needed to perform those critical occupations successfully.

The key finding is that insurance industries in Ohio have a 10-year growth and replacement need of nearly **108,000** new workers, 97% of total current employment and triple the 29,000 projected in 2016. The vast majority of this need will arise not from new positions, but from vacancies in existing positions. The central driver is worker retirements, but because many of these workers are now in their 50s, the need for new workers is likely to be significantly backloaded.

Filling this need is likely to be quite difficult. Most industries face similar needs, and the future growth of Ohio's workforce is likely to be slow or negative. However, there are forces that could reduce the need, including the growing willingness of insured individuals to accept service from centralized call centers and efficiencies enabled by artificial intelligence and other technologies. These technologies are likely to cause shifts in occupational needs. These are not fully represented in the projections.

Employment in Ohio's insurance industries totaled 111,300 in 2021, an employment concentration 25% greater than average. Insurance carriers' 67,000 jobs represented a concentration 54.5% greater than average. Insurance activities contributed \$29.7 billion to Ohio gross domestic product in 2021. Ohio employment increased 17.5% between 2011 and 2021, versus 19.4% nationally. Carriers' growth was nearly triple the U.S. average, but agency employment was only half as fast – likely because of Ohio's slow population growth.

There are high insurance employment concentrations throughout Ohio, including in some smaller metropolitan areas and rural counties. Filling insurance needs in these counties may be more difficult than in the large cities because of the smaller labor pool.

Opportunities exist in insurance for individuals across educational attainment levels, from those without high school diplomas to those with advanced degrees. The largest need is for individuals with a high school diploma, a valuable selling point for those concerned about college costs and debt. There is also a substantial need that could be met by recent college graduates with limited work experience.

The most important knowledge, skills, and abilities of workers in the industry should be of value both to human resources staff and to those designing insurance training programs and college curricula. The highest-ranked attribute is the knowledge of effective customer and personal service. The ability to read and listen effectively and speak and write clearly are also important. A particularly important skill is critical thinking, which is needed across the economy and is less common than it should be.

Introduction

This report is an update and expansion of workforce studies completed in 2011, 2013, and 2016 for a task force of insurance industry executives representing companies throughout Ohio. The current study is produced for the Ohio Insurance Institute. As before, the industry, workforce professionals, and education and training providers need to understand the workforce needs of the industry in coming years and the training and skills that these professionals need in order to succeed. The purpose of this report is to analyze the growth of Ohio's insurance employment over the last 20 years and its geographic dispersion, to 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 to assess the education, training, knowledge, skills, and abilities required to perform insurance work successfully.

The principal finding is that Ohio's insurance industry will require nearly **108,000** new workers to fill positions coming open between 2021 and 2031 – whether newly created through growth or vacant as a result of employee turnover. This is more than triple the 29,000 estimated need between 2014 and 2024 and is nearly as large as the current industry employment. Although the industry is larger now than it was in 2014 and is expected to grow further, the vast majority of the need will arise from the aging workforce and the substantial and growing number of retirements over the next 10 years. The key point remains that if these positions are not filled, the growth and profitability of Ohio insurance companies will suffer. In the extreme case, Ohio might lose employers to other states that are able to offer a convincing argument that they are better equipped to provide a steady flow of talent. However, the rapid development of efficiency-augmenting technologies could be a worthwhile way to help meet the challenge.

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 \$756.6 billion gross domestic product (GDP), the net value of all goods and services produced in Ohio during the year. Private-sector insurance carriers and related activities in 2021 contributed \$29.7 billion to Ohio GDP – an impact 44% greater than would be expected in an economy Ohio's size. Figure 1 on the next page compares the growth of Ohio's insurance GDP to U.S. insurance GDP and total Ohio GDP beginning in 2001. The chart is on an index basis with all three series set to 100 in 2001. The result is cumulative percentage growth since 2001.

After slightly underperforming during the 2000s, Ohio insurance GDP soared 83% after inflation between 2013 and 2019, versus U.S. growth of 54%. Ohio's sharp increase left GDP more vulnerable than usual to the pandemic, though. Ohio GDP fell 16.6% in 2020 versus a decline of only 3.7% nationally. Nevertheless, Ohio insurance GDP slightly more than doubled between 2001 and 2021 as U.S. insurance GDP increased 84.5%, total Ohio GDP increased 25%, and total U.S. GDP increased 48%.



Figure 1: Ohio and U.S. Insurance and Ohio Total Gross Domestic Product, 2001-2021

Source: Regional Economic Accounts, U.S. Bureau of Economic Analysis.

Like GDP, insurance employment comprises a larger-than-average share of total Ohio employment. The 111,300 workers in the sector represent a concentration 25% greater than average. As charted in Figure 2, employment has grown faster than average since 2001, particularly since 2013. Ohio employment increased 19.2% between 2001 and 2021, while national growth was 10.9%.

Insurance carriers accounted for 67,000 of these jobs (60% of the total), while insurance agencies and brokerages supplied 28,600 (26%). The remaining 15,700 (14%) were in other insurance activities – claims adjusting, third-party administrators, actuarial services, non-government insurance exchanges, and insurance reporting services.

Carriers drive both total employment and its greater-than-average concentration. Carriers' employment is 54% greater than average. Other insurance activities' employment is 21% greater than average. In contrast, employment in agencies and brokerages has a concentration roughly equal to average. This is not surprising. Carriers and other activities can serve a national market, while the market of most agencies is limited to their community. This is especially relevant to a state such as Ohio where population growth is slow, and outside of Central Ohio, mostly negative.



Figure 2: Ohio and U.S Insurance Employment Growth, 2001-2021

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

Figure 3 compares trends since 2001 in Ohio and U.S. employment in the three primary segments of the insurance industry. Indexed carrier employment is in blue, brokerages' employment is in black, and employment in other insurance-related activities is in gray. The U.S. trends are the same colors but with dashed lines. The small other insurance-related activities segment was primarily responsible for the industry's recent growth. Other activities employment more than doubled, increasing 124%, or 8,700 positions – mostly since 2013. This segment with 14% of industry jobs was responsible for half of total insurance job growth.

Ohio carriers also outperformed their counterparts elsewhere, increasing 5.3% (3,350 jobs) since 2001 while declining 8.9% nationwide. Agencies performed better than carriers, but not as well in Ohio as agencies elsewhere. Employment in agencies nationwide increased 48% between 2001 and 2021, but 24% in Ohio. Again, Ohio's slow population growth was probably responsible.



Figure 3: Ohio and U.S Insurance Industry Segment Employment Growth, 2001-2021

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

The fact that Ohio's insurance carrier employment is greater than average, and its long-term growth is faster than average – as well as the fact that Ohio insurance carriers 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. This is 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.

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 an important factor. This advantage may be self-perpetuating. The workforce attracts carrier operations while the availability of many jobs among multiple employers attracts workforce.

Table 1 extends the earlier discussion with a detailed analysis of 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 industry titles that are subsets of the broader category. Insurance carriers and related activities is the

broad sector, which consists of the three primary subsectors: insurance carriers, insurance agencies and brokerages, and other activities. Insurance carriers in turn include two industry groups: direct life and health insurance carriers, and direct insurers, except life and health.

Percentage growth is computed over two periods: 2001-2021 and 2011-2021. The latter period measures growth from the insurance industry employment trough following the 2007-2009 recession and through the pandemic economic shock. The final column of Table 1 presents each component's location quotient (LQ), a measure of relative employment concentration. LQ is calculated by dividing the share of total payroll employment accounted for by the industry in Ohio by its employment share nationally. An LQ greater than one indicates an industry with greater-than-average concentrations of employment in Ohio. The overall LQ of 1.253 can be interpreted as a concentration of employment 25.3% higher than what would be expected in an economy Ohio's size.

	Ohio emp.	Change, 2001-21		21 Change, 2011-21		LQ**
Industry*	2021	Ohio	U.S.	Ohio	U.S.	2021
Insurance carriers and related activities	111,295	19.2%	15.5%	17.5%	19.4%	1.253
Insurance carriers	66,994	5.3%	-8.9%	8.4%	2.4%	1.545
Direct life & health insurance carriers	26,533	2.4%	-8.3%	13.5%	4.1%	1.150
Direct life insurance carriers	9,374	-31.3%	-33.2%	-7.5%	-13.9%	1.095
Direct health & medical ins. carriers	17,159	39.9%	17.5%	29.6%	18.7%	1.182
Direct insurers, except life and health	40,083	7.0%	-9.7%	5.2%	0.4%	2.077
Direct property & casualty insurers	37,837	11.8%	-11.1%	4.7%	-3.8%	2.339
Direct title insurance carriers	1,776	-46.5%	-12.0%	19.2%	27.8%	0.713
Other direct insurance carriers	469	55.8%	80.8%	-1.1%	33.9%	0.739
Reinsurance carriers	379	32.1%	-5.7%	16.6%	4.2%	0.379
Insurance agencies and brokerages	28,601	25.8%	48.3%	19.7%	40.1%	0.881
Other insurance related activities	15,701	124.3%	75.0%	74.0%	46.4%	1.211
Claims adjusting	1,197	1.7%	22.7%	-19.6%	16.3%	0.550
Third party admin. of insurance funds	11,405	124.6%	83.9%	74.9%	51.8%	1.506
All other insurance related activities	3,098	315.8%	112.2%	205.8%	61.1%	0.964

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

*Indented categories are subsets of the category 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.

The detailed segment employment changes in Table 1 give additional insight into the growth patterns charted in Figure 3. Most types of direct insurance carriers have outperformed the averages – including life insurance carriers, whose employment declined less than the national average. As noted earlier, insurance agencies and brokerages have been the one underperforming segment with a total employment increase around half the national average during both time periods – again, a function of slow population growth.

The bulk of the increase in other activities occurred in third-party administrator establishments, including pharmacy benefit managers. This large percentage growth coupled with a 1.5 LQ suggests that this too is a driver of the Ohio economy. The miscellaneous industry, all other insurance related activities, enjoyed a percentage increase even larger than third party administration – more than tripling its employment – although generating a smaller numerical increase. This category includes

establishments such as burial and funeral insurance carriers, home and product warranty providers, and pet insurance providers.

Turning to the other LQs, life and health insurers have an employment concentration 15% greater than average, with health and medical carriers 18.2% greater than average. The concentration of other direct insurers dominates the industry, with double the employment expected in an economy Ohio's size. This is driven by property and casualty carriers, whose employment is more than 2.3 times the national average.

Insurance Employment at the County Level

An important point for insurance industry workforce planning is that concentrated pockets of insurance employment exist throughout the state, including in a number of smaller metropolitan statistical areas (MSAs)¹ and rural counties. This is shown in Figure 4, which color-codes Ohio counties in terms of their overall insurance LQ. QCEW does not report insurance employment for 17 of Ohio's 88 counties, representing 1.0% of statewide employment.² Federal confidentiality restrictions require employment to be suppressed in cases where employment for any single business could be deduced either because of a very small 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. However, none of the omitted counties' estimated LQ is greater than 0.52. Another 13,861 jobs, 12.5% of the statewide total, are not assigned to any county by the QCEW.

Table 2 complements the information in Figure 4 by spotlighting employment and employment growth in the nine counties with LQ greater than the 1.253 state average – the counties colored dark blue in Figure 4. Also included are the statewide and U.S. totals. (All U.S. LQs are 1.00 by definition.) The 69,700 jobs in these nine counties account for 63% of total statewide insurance employment, or 72% of the jobs assigned to a county. 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 totals would be dominated by the large urban counties and some of the larger suburban 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. On the other hand, small MSA and rural counties (for instance, Clark, Crawford, and Van Wert in Table 2) have smaller total workforce and the smaller share of college graduates that is typical of the counties outside of Ohio's major metropolitan areas.

All counties in Table 2 were on the 2016 list, but that previous list also included Licking, Monroe, and Summit. The fact that these counties fell off the list indicates that their employment growth between 2015 (the reference year for the 2016 analysis) and 2021 was slower than the national average. Licking County's 2021 employment totaled 1,020, giving an LQ of 0.808. Employment declined 444 (30.3%) from its 2015 level. Monroe County had an estimated 54 jobs, down 29 (35%) from 2015. Monroe County's

 ¹ MSAs are federally designated areas consisting of one or more counties, anchored by an urbanized area with a of 50,000 or more. They are based on worker commuting patterns, so they represent default regional labor sheds.
 ² Ashland, Brown, Carroll, Champaign, Geauga, Hardin, Hocking, Jackson, Logan, Meigs, Monroe, Morgan, Perry, Pike, Seneca, Vinton, and Wyandot.

LQ was 1.089. Summit County employment totaled 5,125, with an LQ of 1.188. Employment in Summit County suffered a loss of 765 (13%) between 2015 and 2021.



Figure 4: County Location Quotients for Insurance Carriers and Related Activities, 2021



		Employmt.	Percentage change		LQ*
County	County seat	2021	2001-2021	2011-2021	2021
Butler	Hamilton	5,120	22.8%	-8.2%	2.012
Clark	Springfield	1,857	542.6%	-8.0%	2.414
Clermont	Batavia	1,406	16.9%	-7.2%	1.422
Crawford	Bucyrus	299	12.4%	12.0%	1.431
Cuyahoga	Cleveland	22,997	20.5%	26.6%	1.967
Delaware	Delaware	2,813	224.8%	-2.7%	1.870
Franklin	Columbus	23,121	-5.1%	8.2%	1.838
Hamilton	Cincinnati	11,623	-8.1%	12.8%	1.381
Van Wert	Van Wert	461	13.8%	7.2%	2.463
Ohio			-4.2%	9.9%	1.229
United States			-5.6%	10.2%	1.000

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

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

Additional details regarding county-level employment are in Appendix Table A-1. This table provides the same details as Table 2 for all 88 counties, to the extent that the necessary 2001 and 2011 employment totals are available to calculate percentage changes. The table also includes the estimated employment and LQs for counties for which the 2021 employment was suppressed.

Statewide Occupational Employment Distributions and Projections

The Bureau of Labor Statistics' (BLS) employment projections include national-level 2021 estimates and 2031 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 BLS. The insurance industries available in the projections 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. But because this is the only industry not available, an estimate of employment in each occupation in direct life insurance carriers is obtained by subtracting the sum of the occupational employment in other segments from that of the total insurance sector.

Making the reasonable assumption that the occupational distribution in Ohio companies collectively is typical of the national distribution, estimates of occupational employment in Ohio insurance companies in 2021 can be easily generated by multiplying the national percentage of employment in each occupation by the corresponding 2021 Ohio employment total for the industry.

The Ohio Labor Market Information Bureau provides 10-year industry growth projections for Ohio, but the most recent projections cover 2018-2028, and include only the overall insurance carriers and related activities subsector, insurance carriers and a combination of agencies and brokerages and other insurance-related activities. These projections are updated by relating them to the respective 2018-2028 and 2021-2031 U.S. projections. The resulting industry growth projections for Ohio are in Table 3. Please note that the total in Table 4 excludes the 379 employees in reinsurance carriers. This industry is not included in direct insurers except life and health and is not analyzed in the U.S. projections.

One striking finding from this analysis is the slow projected growth of the insurance sector at both the national and state levels. The 2016 version of this report found projected 2014-2024 Ohio employment growth of 8.6% based on the BLS projection of 10.5% for the U.S. The sharply lower 2021-2031 growth stems from U.S. growth far slower than that projected seven years ago. Actual national growth between 2014 and 2021 was only 1.4%, compared to Ohio growth of 11.1%.

As is evident from Figure 2, the U.S. employment trend was disrupted to a much greater degree than the Ohio trend by the COVID pandemic – in contrast to GDP, which fell more in Ohio than elsewhere. The far stronger Ohio growth over this period might suggest that the projections for state growth should likewise be stronger than average, but the counterargument is that the above-average Ohio growth is setting the state up for a future correction. If Ohio insurance employment continues to outperform, the estimated employment needs will be somewhat understated. However, the lion's share of the worker need is generated by turnover, which in these calculations depends on initial employment, not growth.

Industry*	2021	2031	Change	Ohio	U.S.
Insurance carriers and related activities**	110,918	113,202	2,284	2.1%	2.7%
Insurance carriers	66,994	67,280	286	0.4%	1.4%
Direct life, health & medical insurance carriers	26,533	27,184	651	2.5%	2.3%
Direct life insurance carriers	9,374	9,379	5	0.1%	0.1%
Direct health and medical insurance carriers	17,159	17,805	646	3.8%	3.8%
Direct insurance (except life, health & medical)					
carriers	40,083	40,096	13	0.0%	0.0%
Agencies, brokerages & other insurance-related					
activities	44,302	45,923	1,621	3.7%	4.3%
Insurance agencies and brokerages	28,601	29,342	741	2.6%	3.8%
Other insurance related activities	15,701	16,581	880	5.6%	5.6%

Table 3: Insurance Industry Growth Projections, Ohio and U.S., 2021-2031

*Indented categories are subsets of the category above. **Excluding reinsurance carriers. **Source**: Regionomics projections from 2018-2028 Employment Projections, Ohio Labor Market Information Bureau, and 2018-2028 and 2021-2031 Employment Projections, U.S. Bureau of Labor Statistics.

Although projected Ohio employment growth of insurance carrier industries is close to the national average, growth of the overall insurance carriers segment is one percentage point less than the U.S. average – 0.4% versus 1.4\%. This is because of the high concentration and slow growth of insurance carriers other than life, health, and medical carriers (primarily property and casualty carriers).

The net employment changes in Table 3 represent only a small portion of the total need for new employees, though. A much greater need is created through turnover in existing positions. The employment projections provide U.S. annual average openings for all occupations across all industries. Multiplying each occupation's annual openings by 10, subtracting the 10-year net change, and dividing the result by the 2021 employment total yields the 10-year turnover percentage projected for each occupation. This percentage multiplied by the derived 2021 occupational total gives the 10-year replacement need.³ The turnover need plus the growth need equals the total need.

³ This assumes that the turnover rate in a specific occupation in Ohio insurance industries statewide is equal to the national rate for that occupation across all industries. But because the average age of Ohioans is higher than the national average, this may be a slight understatement of Ohio retirement-driven turnover.

Appendix Table A-2 presents occupational growth and turnover needs for insurance industries in total. The "total, all occupations" line is the total need drawing from the total industry growth projections in Table 3, while the "total measured" line is the need calculated from the available occupations. These are 98% to 99% of the total need. To save space in Table A-2, only occupations with a total 10-year need of 100 or more are listed, but the analysis included all 179 available occupations. The following tables list needs for the five available industries and industry groups. Direct life insurance carriers are in Table A-3, direct health and medical carriers are in Table A-4, direct insurance (except life, health & medical) carriers are in Table A-5, insurance agencies and brokerages are in Table A-6, and other insurance related activities are in Table A-7. In these tables, occupations with a total need of 50 or more are listed. These growth and turnover needs are summarized in Table 4.

Industry	2021	2031	Growth	Turnover	Total need
Insurance carriers and related activities*	110,918	113,202	2,284	105,577	107,861
Direct life insurance carriers	9,374	9,379	5	8,749	8,754
Direct health and medical insurance carriers	17,159	17,805	646	16,548	17,193
Direct insurance (except life, health & medical)					
carriers	40,083	40,096	13	36,558	36,571
Insurance agencies and brokerages	28,601	29,342	741	28,785	29,526
Other insurance related activities	15,701	16,581	880	14,958	15,838

Table 4: Insurance Industry Projected Worker Needs 2021-2031

*Excluding reinsurance carriers.

Note: Because of the omission of small occupations in the raw data and rounding errors, industry-level turnover and total needs do not exactly sum to the all-industry totals.

The key finding of this analysis is that insurance industries in Ohio have a 10-year growth and replacement need of nearly **108,000** new workers, 97% of total current employment. This is triple the 29,000 projected in 2016. These two totals are not strictly comparable, though, because the current projections use a different, more direct, way of calculating turnover. Had that method been used in 2016, the projected need would actually have been less – 24,000 rather than 29,000.

Another point is that this is a net need in the sense that a worker leaving one insurance agency to take a comparable open position at an agency across town creates a need on the part of the first agency to advertise and recruit to fill its vacancy. But because the existing vacancy in the second agency is filled, the two changes cancel out.

It should also be remembered that this is a projection, not a forecast, and assumes a continuation of the status quo. It does not reflect economic changes, unanticipated technological changes, or workforce dynamics that could impact needs in total or in individual occupations. **Another point is that this need for new workers is likely to be significantly backloaded**. The key driver of the need is the retirement of workers now in their 50s. But the ultimate message of this analysis is that the upcoming workforce needs of the Ohio insurance industry will be substantial. Failing to satisfy these needs will challenge the ability of the industry to operate efficiently and satisfy the needs of its customers.

Unfortunately, the likelihood of filling this need is not great. This is because the scale of the need is not unique to insurance. The wave of retirements will affect all industries in coming years and will drive down the percentage of the adult population that is available for work. This is the continuation of a long-term trend.

Figure 5 graphs the labor force participation rate – people either working or actively looking for work as a percentage of all noninstitutionalized people 16 years and older – by gender beginning in 1947, together with BLS projections to 2031. The male participation rate has been steadily declining as life expectancy has increased and a greater percentage of men have lived long enough and amassed sufficient resources to retire. Meanwhile, only one-third of women were in the labor force in 1947. The influx of women into the labor force in the following decades increased the female participation rate to a peak of 60% in 2000. This offset the decline in the male rate, causing at first stability and then increases in the total participation rate. But then retirements began to reduce the female rate as they had the male rate. The participation rates stabilized in the mid to late 2010s in the strong economy during those years, but this was an anomaly. The impact of the COVID-19 pandemic is clearly visible in the sharp drop in the participation rate in 2020. But what is equally clear is that the failure of the participation rate to return to its pre-pandemic level more recently is consistent with the 20-year trend. BLS expects this trend to continue, leading to only 55.5% of adults working or looking for work in 2031 – a rate that will then be a 45-year low.





Dashed lines are BLS projections.

Source: Current Population Survey and Employment Projections, U.S. Bureau of Labor Statistics.

One technological advance that could reduce this need is the growing willingness of insured individuals to accept service from centralized call centers rather than face-to-face contact with agents. This will affect the need for customer service representatives and insurance sales agents. These are the two occupations with the greatest future need in Table A-2, together accounting for nearly 30% of the total need. There will be an increasing shift from sales agents to appropriately prepared customer service

representatives, but that shift will be far less than one to one because of the greater ability of the latter to meet the needs of a large number of customers. The growing effectiveness of technology and artificial intelligence could lead to a further reduction of the need for these workers and other occupations as well, such as claims adjusters, underwriters, actuaries, and clerical staff. An increased need for information technology workers to manage this technology would offset this reduction, but only to a small degree. Be that as it may, there will still be a pressing need to attract new entrants to the labor force and career changers to the insurance industry. Industry leaders should be attentive to the scale of the ongoing need, industry and technological developments that could cause shifts in the need, and the necessity of providing training and retraining to keep pace with changes in occupational emphasis.

Educational, Knowledge, Skill, and Ability Requirements of Insurance Occupations

As the preceding discussion has made clear, Ohio's insurance industry will need thousands of new workers over the coming decade. This requires workers with the appropriate educational background and skills to perform their jobs successfully. All employees will also need the flexibility to shift their work styles or transition into new occupations as needed. 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 firms elsewhere. Necessary tasks are not completed correctly, customers become dissatisfied, and revenues and profit decline. This section begins with a summary of the education and training needs of insurance occupations and concludes with a discussion of the knowledge, skills, and abilities necessary to perform the occupations identified in the analysis.

Education and Training Needs

Typical education and training requirements for all occupations are assigned by BLS in the Employment Projections database based on the typical path to entering the occupation. These assignments cover three dimensions:

- 1. The level of formal education that employers generally expect applicants to have.
- 2. Typical previous experience in related occupations that is required none, less than five years, or five years or more.
- 3. The typical training needed to gain the skills needed to perform duties of the occupation no on-the-job training; short-term on-the-job training (one month or less); moderate term on-the-job training (between one month and 12 months); long-term on-the-job training (more than 12 months); or an apprenticeship, internship, or residency.

Education and training assignments were collected for each of the 179 occupations identified in the employment projections, and the number of occupations and total need totaled across the three dimensions.⁴ Results are presented in Table 5. The key message is that opportunities exist in insurance for individuals across educational attainment levels. Although the sector requires some workers with advanced degrees (e.g., MBAs and JDs) the largest need – 60% – exists for individuals with a high school diploma. This is a valuable selling point as college costs mount and the return on that investment comes increasingly into question. At the same time, nearly 16% of the need – a projected 16,680 positions – is

⁴ Details for all occupations are available from the author upon request.

available to people with bachelor's degrees and neither experience nor training. This points out an opportunity for recent college graduates to begin an insurance career.

_	Number of	Occupational need,		
Education, experience, and training	occupations	2021	-2031	
No formal educational credential	6	369	0.3%	
No experience, short-term on-the-job training	6	369		
High school diploma or equivalent	61	63,604	59.7%	
No experience, no on-the-job training	2	436		
No experience, short-term on-the-job training	25	23,620		
No experience, moderate-term on-the-job training	21	27,265		
No experience, long-term on-the-job training	1	7,895		
Less than 5 years' experience, no on-the-job training	9	4,322		
Less than 5 years' experience, moderate-term on-the-job training	1	48		
5 years or more experience, no on-the-job training	1	5		
5 years or more experience, moderate-term on-the-job training	1	13		
Postsecondary nondegree award	6	715	0.7%	
No experience, no on-the-job training	4	225		
No experience, moderate-term on-the-job training	1	481		
5 years or more experience, moderate-term on-the-job training	1	8		
Some college, no degree	2	2,462	2.3%	
No experience, moderate-term on-the-job training	2	2,462		
Associate degree	6	913	0.9%	
No experience, no on-the-job training	5	738		
No experience, moderate-term on-the-job training	1	174		
Bachelor's degree	82	37,144	34.9%	
No experience, no on-the-job training	39	16,680		
No experience, moderate-term on-the-job training	6	4,749		
No experience, long-term on-the-job training	5	1,194		
No experience, internship/residency	1	4		
Less than 5 years' experience, no on-the-job training	15	6,805		
Less than 5 years' experience, short-term on-the-job training	1	44		
Less than 5 years' experience, moderate-term on-the-job training	1	12		
5 years or more experience, no on-the-job training	14	7,657		
Master's degree	11	494	0.5%	
No experience, no on-the-job training	8	157		
No experience, internship/residency	2	334		
5 years or more experience, no on-the-job training	1	3		
Doctoral or professional degree	5	771	0.7%	
No experience, no on-the-job training	3	766		
No experience, internship/residency	2	5		
Total	179	106,472	100.0%	

Table 5: Education, Experience and Training Needs for Insurance Occupations

Source: Analysis of Education and Training Assignments, Employment Projections, U.S. Bureau of Labor Statistics.

Knowledge, Skill, and Ability Needs

Education and training needs are only part of successfully meeting the needs for a productive insurance workforce. Success also depends on workers' knowledge, skills, and abilities (KSA). The following definitions for these three attributes are adapted from those on the career website, Indeed.com.⁵ **Knowledge** is the body of a worker's information needed to help him or her perform a specific job successfully. **Skills** build on knowledge. These consider the ability to manipulate things, data, people, and ideas to accomplish a task. Skills can be developed with practice or training. While technical skills are necessary, an important component of skills is "soft skills" – or what some prefer to call "work-ready skills." These are personality traits and personal attributes that help an individual relate to others and function effectively in the workplace. These include traits such as integrity, punctuality, empathy, oral and written communication, creativity, problem solving and critical thinking, and leadership. In conversations with business leaders over the years, the author has found that most leaders consider these skills at least as important as technical skills. Finally, **abilities** build on both knowledge and skills, and allow the individual to apply his or her knowledge and skills to accomplish the tasks required in the job.

Detailed KSA sets for more than 900 occupations are compiled in the publicly available O*NET application⁶, maintained for the U.S. Department of Labor's Employment and Training Administration. These were assembled for the 35 insurance occupations with the largest total need. (Because O*NET includes information on more specific sub-occupations for a few of the identified occupations, 41 occupations were represented in the analysis.) These occupations together have a 10-year need of 90,584, representing 85% of the total need across all identified insurance occupations.

O*NET surveys employers to determine the requirements for each occupation and ranks the importance of each KSA attribute from 0 to 100. The ranks of the 10 most important KSA elements for each of the 41 occupations were collected and a weighted average rank was calculated for each attribute, where the weights are the total 10-year growth and turnover needs for each of the 41 occupations. The following paragraphs present the weighted average rank and the O*NET definition for each of the most important KSA attributes.⁷ This information should be of value both to human resources staff and to those designing insurance training programs and college curricula.

Not surprisingly, the highest-ranked attribute of all is the knowledge of effective customer and personal service, which is the primary driver of the entire industry. The ability to read and listen effectively and speak and write clearly are also important. Another key skill is critical thinking, which O*NET defines as, "Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems." It is essentially thinking clearly and creatively. This is an important skill that has been identified time and time again in conversations with business leaders across industries – one that they argue is far less common than they would wish.

 ⁵ J. Herrity (2023). Knowledge, skills and abilities (KSA): Definitions and examples. *Indeed.com*. <u>https://www.indeed.com/career-advice/career-development/knowledge-skills-and-abilities</u>
 ⁶ O*NET OnLine. <u>https://www.onetonline.org</u>. The database also includes information on work activities,

geographical area-specific sources of training, interests, work values and styles, and more.

⁷ Complete occupation-specific details are available from the author upon request.

Knowledge

Customer and Personal Service (weighted average rank: 80.3). Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

English Language (weighted average rank: 74.1). Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

Administration and Management (weighted average rank: 56.3). Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

Mathematics (weighted average rank: 56.0). Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

Computers and Electronics (weighted average rank: 55.1). Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

Administrative (weighted average rank: 46.4). Knowledge of administrative and office procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and workplace terminology.

Sales and Marketing (weighted average rank: 37.2). Knowledge of principles and methods for showing, promoting, and selling products or services. This includes marketing strategy and tactics, product demonstration, sales techniques, and sales control systems.

Education and Training (weighted average rank: 34.5). Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.

Law and Government (weighted average rank: 31.9). Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.

Economics and Accounting (weighted average rank: 30.8). Knowledge of economic and accounting principles and practices, the financial markets, banking, and the analysis and reporting of financial data.

Skills

Reading Comprehension (weighted average rank: 69.2). Understanding written sentences and paragraphs in work-related documents.

Active Listening (weighted average rank: 69.1). Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Speaking (weighted average rank: 68.4). Talking to others to convey information effectively.

Critical Thinking (weighted average rank: 65.7). Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

Writing (weighted average rank: 43.0). Communicating effectively in writing as appropriate for the needs of the audience.

Complex Problem Solving (weighted average rank: 40.7). Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

Monitoring (weighted average rank: 35.7). Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

Time Management (weighted average rank: 34.7). Managing one's own time and the time of others.

Service Orientation (weighted average rank: 33.4). Actively looking for ways to help people.

Social Perceptiveness (weighted average rank: 31.0). Being aware of others' reactions and understanding why they react as they do.

Judgment and Decision Making (weighted average rank: 30.9). Considering the relative costs and benefits of potential actions to choose the most appropriate one.

Active Learning (weighted average rank: 26.0). Understanding the implications of new information for both current and future problem-solving and decision-making.

Coordination (weighted average rank: 22.8). Adjusting actions in relation to others' actions.

Persuasion (weighted average rank: 22.4). Persuading others to change their minds or behavior.

Negotiation (weighted average rank: 21.7). Bringing others together and trying to reconcile differences.

Abilities

Oral Comprehension (weighted average rank: 72.9). The ability to listen to and understand information and ideas presented through spoken words and sentences.

Written Comprehension (weighted average rank: 71.8). The ability to read and understand information and ideas presented in writing.

Oral Expression (weighted average rank: 71.7). The ability to communicate information and ideas in speaking so others will understand.

Written Expression (weighted average rank: 63.4). The ability to communicate information and ideas in writing so others will understand.

Speech Clarity (weighted average rank: 63.3). The ability to speak clearly so others can understand you.

Problem Sensitivity (weighted average rank: 62.1). The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem. [Other skills and abilities would presumably be brought to bear in solving the problem.]

Deductive Reasoning (weighted average rank: 59.0). The ability to apply general rules to specific problems to produce answers that make sense.

Near Vision (weighted average rank: 57.8). The ability to see details at close range (within a few feet of the observer).

Speech Recognition (weighted average rank: 48.9). The ability to identify and understand the speech of another person.

Inductive Reasoning (weighted average rank: 40.3). The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).

Information Ordering (weighted average rank: 32.3). The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).

Appendix

	Employment	Employment change		Location quotient
County	2021	2001-21	2011-21	2021
Adams	36	n/a	0.0%	0.351
Allen	341	-11.7%	-0.6%	0.417
Ashland	93	14.8%	-7.9%	0.293
Ashtabula	103	-40.1%	-27.5%	0.210
Athens	107	-22.5%	15.1%	0.314
Auglaize	87	-32.6%	-20.9%	0.248
Belmont	92	-75.9%	-75.9%	0.267
Brown	68	n/a	23.6%	0.523
Butler	5,120	22.8%	-8.2%	2.012
Carroll	29	n/a	26.1%	0.297
Champaign	37	-31.5%	-9.8%	0.219
Clark	1,857	542.6%	-8.0%	2.414
Clermont	1,406	16.9%	-7.2%	1.422
Clinton	36	n/a	-37.9%	0.118
Columbiana	189	-20.3%	0.0%	0.399
Coshocton	64	10.3%	1.6%	0.405
Crawford	299	12.4%	12.0%	1.431
Cuyahoga	22,997	20.5%	26.6%	1.967
Darke	142	-27.6%	-7.2%	0.467
Defiance	90	-17.4%	-6.3%	0.362
Delaware	2,813	224.8%	-2.7%	1.870
Erie	126	-45.7%	-21.3%	0.210
Fairfield	236	5.8%	13.5%	0.325
Fayette	33	-25.0%	-25.0%	0.185
Franklin	23,121	-5.1%	8.2%	1.838
Fulton	60	-31.8%	5.3%	0.200
Gallia	51	-17.7%	-7.3%	0.284
Geauga	241	1.3%	8.6%	0.412
Greene	286	51.3%	54.6%	0.225
Guernsey	38	-50.6%	-44.9%	0.160
Hamilton	11,623	-8.1%	12.8%	1.381
Hancock	145	-45.1%	-8.2%	0.194
Hardin	45	n/a	-4.3%	0.341
Harrison	21	75.0%	5.0%	0.372
Henry	78	n/a	-27.8%	0.451
Highland	53	n/a	-11.7%	0.302
Hocking	24	n/a	-44.2%	0.208
Holmes	109	n/a	43.4%	0.317
Huron	93	-21.8%	-20.5%	0.266
Jackson	39	n/a	-43.5%	0.234
Jefferson	69	-50.4%	-34.3%	0.199
Knox	94	23.7%	34.3%	0.284
Lake	511	-57.3%	-25.1%	0.328
Lawrence	87	26.1%	20.8%	0.379
Licking	1,020	-39.8%	-38.9%	0.808

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

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

	Employment Employment change		ent change	Location quotient
County	2021	2001-21	2011-21	2021
Logan	92	-58.0%	27.8%	0.297
Lorain	488	0.6%	15.4%	0.306
Lucas	2,165	-17.8%	-21.3%	0.658
Madison	63	n/a	16.7%	0.190
Mahoning	656	-56.6%	-40.8%	0.423
Marion	99	-8.3%	-21.4%	0.249
Medina	439	11.4%	65.0%	0.442
Meigs	21	-22.2%	90.9%	0.351
Mercer	291	20.2%	9.4%	0.888
Miami	219	-28.0%	-5.6%	0.321
Monroe	54	n/a	-58.1%	1.089
Montgomery	4,950	49.3%	59.1%	1.212
Morgan	0	-100.0%	-100.0%	0.000
Morrow	20	-16.7%	-13.0%	0.224
Muskingum	190	-5.5%	14.5%	0.335
Noble	12	20.0%	-33.3%	0.243
Ottawa	47	n/a	-38.2%	0.208
Paulding	31	n/a	10.7%	0.391
Perry	20	n/a	-45.9%	0.198
Pickaway	68	-46.0%	11.5%	0.281
Pike	21	n/a	-36.4%	0.129
Portage	191	28.2%	39.4%	0.216
Preble	41	n/a	-30.5%	0.220
Putnam	65	n/a	-9.7%	0.323
Richland	320	-41.9%	-3.9%	0.396
Ross	118	22.9%	4.4%	0.243
Sandusky	109	18.5%	-0.9%	0.260
Scioto	102	-67.1%	-34.6%	0.257
Seneca	146	41.7%	13.2%	0.465
Shelby	86	n/a	3.6%	0.191
Stark	1,982	-15.7%	-21.4%	0.768
Summit	5,125	12.6%	6.8%	1.188
Trumbull	382	-4.5%	1.6%	0.376
Tuscarawas	271	57.6%	54.0%	0.449
Union	119	-46.2%	16.7%	0.215
Van Wert	461	13.8%	7.2%	2.463
Vinton	0	n/a	-100.0%	0.000
Warren	2,117	61.1%	-18.2%	1.300
Washington	155	9.2%	-22.5%	0.378
Wayne	633	18.1%	14.9%	0.804
Williams	89	78.0%	45.9%	0.320
Wood	714	142.9%	110.0%	0.630
Wyandot	53	n/a	26.2%	0.333

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

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.

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Total, all occupations	110,918	113,202	2,284	105,577	107,861	97.2%
Total measured	107,008	109,109	2,100	104,318	106,472	97.2%
Customer service representatives	12,047	11,502	-545	16,620	16,075	133.4%
Insurance sales agents	15,113	16,020	907	14,272	15,179	100.4%
Insurance claims and policy processing clerks	8,591	8,177	-414	8,730	8,316	96.8%
Claims adjusters, examiners, and investigators	10,972	10,443	-529	8,424	7,895	72.0%
Insurance underwriters	5,187	4,905	-282	3,765	3,483	67.2%
General and operations managers	3,143	3,333	190	2,816	3,006	95.6%
First-line supervisors of office and administrative support workers	2,772	2,706	-67	2,959	2,892	104.3%
Software developers	2,759	3,331	572	2,057	2,630	95.3%
Management analysts	2,427	2,555	129	2,325	2,453	101.1%
Office clerks, general	2,059	1,972	-87	2,533	2,446	118.8%
Financial managers	2,191	2,532	342	1,768	2,110	96.3%
Secretaries and administrative assistants, except legal, medical, and						
executive	1,999	1,810	-189	2,233	2,045	102.3%
Bookkeeping, accounting, and auditing clerks	1,544	1,481	-64	1,857	1,793	116.1%
Accountants and auditors	1,848	1,959	110	1,635	1,745	94.4%
Market research analysts and marketing specialists	1,418	1,642	225	1,517	1,741	122.8%
Business operations specialists, all other	1,686	1,781	95	1,614	1,709	101.4%
Computer systems analysts	1,883	2,028	145	1,378	1,523	80.9%
Title examiners, abstractors, and searchers	1,340	1,393	54	1,287	1,341	100.1%
Registered nurses	1,782	1,979	197	1,045	1,242	69.7%
Computer and information systems managers	1,301	1,462	161	1,029	1,190	91.5%
Sales managers	909	960	51	765	816	89.8%
Managers, all other	935	990	55	754	809	86.5%
Human resources specialists	787	813	27	764	790	100.5%
Receptionists and information clerks	603	558	-46	825	780	129.2%
Training and development specialists	730	768	38	692	730	99.9%
Compliance officers	832	882	50	674	724	87.0%
Project management specialists	791	837	46	656	701	88.7%
Lawyers	1,030	1,221	191	503	694	67.4%
Financial and investment analysts	849	895	46	647	692	81.6%
Computer user support specialists	827	842	14	655	669	80.9%

Table A-2: Occupational Growth and Replacement Needs, All Insurance Industries, by Total Need

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
First-line supervisors of non-retail sales workers	666	695	30	609	639	96.0%
Actuaries	753	903	150	481	631	83.9%
Billing and posting clerks	566	539	-26	648	622	109.9%
Executive secretaries and executive administrative assistants	745	592	-153	771	618	82.9%
Paralegals and legal assistants	419	489	70	485	555	132.4%
Marketing managers	563	595	32	512	545	96.8%
Compensation, benefits, and job analysis specialists	566	606	40	486	526	92.9%
Loan interviewers and clerks	510	532	22	484	506	99.4%
Insurance appraisers, auto damage	718	672	-46	528	481	67.0%
Sales representatives of services, except advertising, insurance,						
financial services, and travel	398	426	28	442	471	118.1%
Software quality assurance analysts and testers	479	559	81	376	457	95.4%
Medical and health services managers	383	491	108	342	450	117.6%
Operations research analysts	446	540	94	337	431	96.7%
Network and computer systems administrators	613	615	2	419	421	68.6%
Data scientists	361	478	117	301	418	115.8%
Information security analysts	361	461	100	306	407	112.7%
Securities, commodities, and financial services sales agents	432	449	18	387	404	93.7%
Sales and related workers, all other	283	294	11	390	401	141.5%
Administrative services managers	438	461	22	374	396	90.4%
Computer occupations, all other	425	444	19	319	337	79.3%
Healthcare social workers	311	332	21	307	328	105.5%
Mail clerks and mail machine operators, except postal service	261	250	-12	331	319	122.2%
Personal financial advisors	350	370	20	269	289	82.6%
Financial risk specialists	327	346	19	268	288	88.1%
Bill and account collectors	258	245	-13	285	273	105.7%
Data entry keyers	309	229	-80	336	256	82.8%
Public relations specialists	239	258	20	217	237	99.1%
Financial specialists, all other	248	259	11	202	213	85.6%
Human resources managers	229	242	13	198	211	91.9%
Medical secretaries and administrative assistants	159	172	13	191	204	127.8%
Office and administrative support workers, all other	183	167	-16	209	193	105.6%
Computer network architects	298	302	4	188	193	64.7%

Table A-2: Occupational Growth and Replacement Needs, All Insurance Industries, by Total Need (cont.)

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Community health workers	148	166	18	172	190	127.7%
Chief executives	309	276	-33	215	182	58.9%
Computer network support specialists	207	217	10	165	174	84.1%
Financial examiners	193	199	6	168	174	90.5%
Retail salespersons	114	122	8	165	173	152.5%
Database administrators	225	238	13	158	171	76.1%
Medical records specialists	207	225	18	152	170	82.0%
Maintenance and repair workers, general	166	169	3	165	167	100.6%
Computer programmers	291	258	-33	190	157	53.8%
Payroll and timekeeping clerks	165	136	-30	170	140	84.7%
File clerks	139	112	-27	165	139	99.8%
Pharmacy technicians	129	139	10	119	129	100.3%
Production, planning, and expediting clerks	107	109	2	121	123	115.8%
Database architects	159	167	7	114	121	75.9%
Office machine operators, except computer	101	82	-19	140	121	119.3%
Buyers and purchasing agents	122	121	0	117	117	96.0%
Legal secretaries and administrative assistants	128	101	-27	143	116	90.8%
Health education specialists	94	105	10	105	116	122.6%
Security guards	81	81	0	114	113	139.8%
Janitors and cleaners, except maids and housekeeping cleaners	73	80	7	104	111	152.2%
Web and digital interface designers	99	120	21	89	110	110.8%
Human resources assistants, except payroll and timekeeping	99	92	-6	108	102	103.5%

 Table A-2: Occupational Growth and Replacement Needs, All Insurance Industries, by Total Need (cont.)

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Total, all occupations	9,374	9,379	5	8,749	8,754	93.4%
Total measured	9,295	9,354	59	8,675	8,734	94.0%
Customer service representatives	912	835	-77	1,258	1,182	129.6%
Insurance sales agents	902	917	15	852	867	96.1%
Insurance claims and policy processing clerks	539	493	-46	548	502	93.1%
Management analysts	416	424	8	399	407	97.6%
Software developers	350	409	59	261	320	91.4%
Financial managers	312	347	36	252	287	92.2%
Claims adjusters, examiners, and investigators	411	378	-33	316	283	68.7%
Business operations specialists, all other	289	291	3	276	279	96.6%
General and operations managers	286	291	5	256	262	91.4%
Insurance underwriters	335	324	-10	243	233	69.5%
First-line supervisors of office and administrative support workers	215	199	-15	229	214	99.6%
Market research analysts and marketing specialists	176	197	20	189	209	118.6%
Accountants and auditors	227	232	5	201	206	90.7%
Securities, commodities, and financial services sales agents	202	207	5	181	186	92.1%
Computer systems analysts	232	235	3	170	173	74.2%
Computer and information systems managers	189	204	15	150	165	87.2%
Actuaries	189	225	36	121	157	82.9%
Financial and investment analysts	194	199	5	148	153	78.8%
Data scientists	130	171	41	109	150	114.8%
Sales managers	166	171	5	140	145	87.2%
Office clerks, general	115	105	-10	141	131	114.1%
Project management specialists	148	151	3	123	125	84.6%
Bookkeeping, accounting, and auditing clerks	95	84	-10	114	103	109.4%
Secretaries and administrative assistants, except legal, medical, and						
executive	105	89	-15	117	102	97.1%
Sales and related workers, all other	66	69	3	91	94	141.5%
Training and development specialists	92	95	3	87	90	97.5%
Marketing managers	97	97	0	88	88	91.0%
Compliance officers	105	107	3	85	87	83.5%
Managers, all other	100	105	5	80	85	85.7%
Registered nurses	135	141	5	79	85	62.4%

Table A-3: Occupational Growth and Replacement Needs, Direct Life Insurance Carriers, by Total Need

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Human resources specialists	84	82	-3	82	79	94.1%
Executive secretaries and executive administrative assistants	95	72	-23	98	75	79.1%
Information security analysts	59	72	13	50	63	106.7%
Computer user support specialists	82	79	-3	65	62	76.0%
First-line supervisors of non-retail sales workers	59	64	5	54	59	100.2%

Table A-3: Occupational Growth and Replacement Needs, Direct Life Insurance Carriers, by Total Need (cont.)

Table A-4: Occupational Growth and Replacement Needs, Direct Health and Medical Insurance Carriers, by Total Need

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Total, all occupations	17,159	17,805	646	16,548	17,193	100.2%
Total measured	16,988	17,570	583	16,383	16,965	99.9%
Customer service representatives	2,721	2,610	-111	3,753	3,642	133.9%
Insurance claims and policy processing clerks	1,258	1,207	-51	1,279	1,228	97.6%
Insurance sales agents	772	823	51	729	780	101.1%
Management analysts	724	772	48	693	741	102.4%
Registered nurses	1,111	1,183	72	652	724	65.2%
Claims adjusters, examiners, and investigators	838	802	-36	643	607	72.5%
First-line supervisors of office and administrative support workers	529	504	-24	564	540	102.2%
Business operations specialists, all other	504	538	33	483	516	102.3%
Software developers	474	583	108	354	462	97.4%
Computer systems analysts	405	432	27	297	324	79.8%
Medical and health services managers	273	348	75	244	319	116.9%
Market research analysts and marketing specialists	252	294	42	270	312	123.6%
Accountants and auditors	270	288	18	239	257	95.1%
General and operations managers	261	276	15	234	249	95.4%
Managers, all other	264	279	15	213	228	86.3%
Project management specialists	249	267	18	207	225	90.1%
Computer and information systems managers	237	270	33	188	221	93.0%
Compliance officers	240	258	18	195	213	88.5%
Secretaries and administrative assistants, except legal, medical, and						
executive	204	186	-18	228	210	102.9%
Healthcare social workers	195	210	15	193	208	106.4%
Office clerks, general	174	165	-9	214	205	117.8%

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Financial managers	204	240	36	165	201	98.4%
Bookkeeping, accounting, and auditing clerks	159	153	-6	191	185	116.5%
Training and development specialists	177	189	12	168	180	101.5%
Community health workers	135	153	18	156	174	128.9%
Medical secretaries and administrative assistants	123	129	6	147	153	124.5%
Operations research analysts	150	183	33	114	147	97.6%
Human resources specialists	141	150	9	137	146	103.5%
Computer occupations, all other	162	174	12	122	134	82.3%
Sales managers	132	141	9	111	120	90.9%
Financial and investment analysts	141	150	9	108	117	82.6%
Executive secretaries and executive administrative assistants	138	111	-27	143	116	83.9%
Software quality assurance analysts and testers	123	141	18	97	115	93.2%
Marketing managers	108	117	9	98	107	99.3%
Billing and posting clerks	96	93	-3	110	107	111.5%
Medical records specialists	132	141	9	97	106	80.2%
Computer user support specialists	126	129	3	100	103	81.5%
Insurance underwriters	147	141	-6	107	101	68.5%
Actuaries	117	141	24	75	99	84.5%
Health education specialists	81	87	6	90	96	119.0%
Sales and related workers, all other	63	66	3	87	90	142.4%
Pharmacy technicians	90	96	6	83	89	98.9%
Administrative services managers	93	99	6	79	85	91.8%
Public relations specialists	87	93	6	79	85	97.8%
Network and computer systems administrators	117	120	3	80	83	70.9%
Information security analysts	72	90	18	61	79	110.0%
Compensation, benefits, and job analysis specialists	75	78	3	64	67	89.9%
First-line supervisors of non-retail sales workers	69	72	3	63	66	95.9%
Sales representatives of services, except advertising, insurance,						
financial services, and travel	51	54	3	57	60	116.9%
Payroll and timekeeping clerks	69	57	-12	71	59	85.2%
Bill and account collectors	48	45	-3	53	50	104.5%

Table A-4: Occupational Growth and Replacement Needs, Direct Health and Medical Insurance Carriers, by Total Need (cont.)

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Total, all occupations	40,083	40,096	13	36,558	36,571	91.2%
Total measured	39,420	39,375	-45	35,953	35,909	91.1%
Claims adjusters, examiners, and investigators	6,224	5,822	-402	4,778	4,376	70.3%
Customer service representatives	2,914	2,723	-191	4,020	3,829	131.4%
Insurance claims and policy processing clerks	3,450	3,227	-223	3,505	3,282	95.1%
Insurance sales agents	2,583	2,685	102	2,439	2,541	98.4%
Insurance underwriters	3,354	3,137	-217	2,435	2,218	66.1%
Title examiners, abstractors, and searchers	1,314	1,365	51	1,262	1,313	100.0%
Software developers	1,384	1,652	268	1,032	1,300	93.9%
Financial managers	1,090	1,250	159	880	1,040	95.3%
General and operations managers	1,027	1,071	45	920	965	94.0%
First-line supervisors of office and administrative support workers	956	893	-64	1,021	957	100.1%
Computer systems analysts	950	1,039	89	695	784	82.5%
Management analysts	727	752	26	696	722	99.3%
Office clerks, general	536	504	-32	659	627	117.1%
Accountants and auditors	657	682	26	581	606	92.3%
Computer and information systems managers	568	631	64	449	513	90.3%
Bookkeeping, accounting, and auditing clerks	440	414	-26	529	503	114.4%
Secretaries and administrative assistants, except legal, medical, and						
executive	497	440	-57	556	498	100.2%
Market research analysts and marketing specialists	402	459	57	430	487	121.3%
Loan interviewers and clerks	485	504	19	460	480	99.0%
Business operations specialists, all other	434	453	19	415	434	100.2%
Lawyers	650	765	115	318	432	66.5%
Paralegals and legal assistants	312	363	51	361	412	132.0%
Insurance appraisers, auto damage	574	536	-38	422	383	66.8%
Human resources specialists	306	312	6	297	304	99.2%
Managers, all other	357	370	13	288	301	84.2%
Computer user support specialists	376	376	0	298	298	79.2%
Receptionists and information clerks	204	191	-13	279	266	130.5%
Financial and investment analysts	332	344	13	253	265	80.0%
Training and development specialists	249	255	6	236	242	97.3%
Actuaries	261	312	51	167	218	83.5%

Table A-5: Occupational Growth and Replacement Needs, Direct Insurance (Except Life, Health & Medical) Carriers, by Total Need

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Information security analysts	185	236	51	157	208	112.6%
Operations research analysts	191	230	38	145	183	95.6%
Software quality assurance analysts and testers	198	223	26	155	181	91.5%
Executive secretaries and executive administrative assistants	210	166	-45	218	173	82.3%
Sales managers	198	204	6	166	173	87.3%
Mail clerks and mail machine operators, except postal service	140	134	-6	178	171	122.1%
Compliance officers	198	204	6	160	167	84.3%
Network and computer systems administrators	242	242	0	166	166	68.3%
Marketing managers	172	179	6	157	163	94.7%
Billing and posting clerks	153	140	-13	175	163	106.3%
Sales representatives of services, except advertising, insurance,						
financial services, and travel	134	140	6	149	155	115.8%
Project management specialists	172	179	6	143	149	86.6%
Data scientists	128	166	38	106	145	113.4%
Financial risk specialists	166	172	6	136	143	86.0%
Administrative services managers	153	159	6	131	137	89.5%
First-line supervisors of non-retail sales workers	147	147	0	134	134	91.5%
Financial specialists, all other	134	140	6	109	115	85.9%
Financial examiners	108	115	6	95	101	93.1%
Bill and account collectors	89	83	-6	99	92	103.6%
Maintenance and repair workers, general	89	89	0	88	88	99.1%
Legal secretaries and administrative assistants	96	77	-19	107	88	91.8%
Computer occupations, all other	115	115	0	86	86	74.9%
Office and administrative support workers, all other	83	70	-13	95	82	98.9%
Computer network support specialists	89	96	6	71	77	86.5%
Human resources managers	89	89	0	77	77	86.3%
Computer network architects	121	121	0	77	77	63.2%
Office machine operators, except computer	64	51	-13	88	75	118.2%
Security guards	51	51	0	71	71	139.9%
Public relations specialists	70	77	6	64	70	100.0%
Database administrators	96	96	0	67	67	70.4%
Computer programmers	121	108	-13	79	66	54.7%
Property appraisers and assessors	70	77	6	60	66	94.4%

Table A-5: Occupational Growth and Replacement Needs, Direct Insurance (Except Life, Health & Medical) Carriers, by Total Need (cont.)

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Data entry keyers	77	57	-19	83	64	83.7%
Sales and related workers, all other	45	45	0	61	61	137.6%
Web and digital interface designers	51	64	13	46	59	114.8%
Chief executives	102	89	-13	71	58	57.1%
Buyers and purchasing agents	57	57	0	55	55	96.2%
Compensation, benefits, and job analysis specialists	64	64	0	55	55	85.9%
Occupational health and safety specialists	51	51	0	53	53	104.7%

Table A-5: Occupational Growth and Replacement Needs, Direct Insurance (Except Life, Health & Medical) Carriers, by Total Need (cont.)

Table A-6: Occupational Growth and Replacement Needs, Insurance Agencies and Brokerages, by Total Need

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Total, all occupations	28,601	29,342	741	28,785	29,526	103.2%
Total measured	28,309	29,040	731	28,491	29,222	103.2%
Insurance sales agents	10,274	10,955	681	9,703	10,384	101.1%
Customer service representatives	3,682	3,534	-148	5,080	4,932	133.9%
Insurance claims and policy processing clerks	1,989	1,908	-80	2,021	1,940	97.6%
Office clerks, general	856	821	-35	1,053	1,018	118.9%
General and operations managers	960	1,023	63	860	923	96.1%
Secretaries and administrative assistants, except legal, medical, and						
executive	850	770	-80	950	870	102.3%
Insurance underwriters	1,080	1,036	-44	784	740	68.5%
Claims adjusters, examiners, and investigators	993	953	-40	762	722	72.7%
Bookkeeping, accounting, and auditing clerks	535	513	-22	644	621	116.1%
First-line supervisors of office and administrative support workers	548	558	10	585	595	108.5%
Market research analysts and marketing specialists	454	532	78	486	564	124.2%
Receptionists and information clerks	292	266	-26	399	374	128.0%
First-line supervisors of non-retail sales workers	360	382	22	330	351	97.5%
Accountants and auditors	347	369	22	307	329	94.7%
Financial managers	331	388	57	267	324	98.0%
Sales managers	337	359	22	284	306	90.6%
Management analysts	253	269	16	242	259	102.3%
Software developers	217	266	49	162	211	97.0%
Business operations specialists, all other	201	215	14	193	206	102.6%

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Information security analysts	185	236	51	157	208	112.6%
Operations research analysts	191	230	38	145	183	95.6%
Software quality assurance analysts and testers	198	223	26	155	181	91.5%
Executive secretaries and executive administrative assistants	210	166	-45	218	173	82.3%
Sales managers	198	204	6	166	173	87.3%
Mail clerks and mail machine operators, except postal service	140	134	-6	178	171	122.1%
Compliance officers	198	204	6	160	167	84.3%
Network and computer systems administrators	242	242	0	166	166	68.3%
Marketing managers	172	179	6	157	163	94.7%
Billing and posting clerks	153	140	-13	175	163	106.3%
Sales representatives of services, except advertising, insurance,						
financial services, and travel	134	140	6	149	155	115.8%
Project management specialists	172	179	6	143	149	86.6%
Data scientists	128	166	38	106	145	113.4%
Financial risk specialists	166	172	6	136	143	86.0%
Administrative services managers	153	159	6	131	137	89.5%
First-line supervisors of non-retail sales workers	147	147	0	134	134	91.5%
Financial specialists, all other	134	140	6	109	115	85.9%
Financial examiners	108	115	6	95	101	93.1%
Bill and account collectors	89	83	-6	99	92	103.6%
Maintenance and repair workers, general	89	89	0	88	88	99.1%
Legal secretaries and administrative assistants	96	77	-19	107	88	91.8%
Computer occupations, all other	115	115	0	86	86	74.9%
Office and administrative support workers, all other	83	70	-13	95	82	98.9%
Computer network support specialists	89	96	6	71	77	86.5%
Human resources managers	89	89	0	77	77	86.3%
Computer network architects	121	121	0	77	77	63.2%

Table A-6: Occupational Growth and Replacement Needs, Insurance Agencies and Brokerages, by Total Need (cont.)

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Total, all occupations	15,701	16,581	880	14,958	15,838	100.9%
Total measured	15,483	16,323	840	14,750	15,590	100.7%
Customer service representatives	1,818	1,800	-18	2,508	2,490	137.0%
Claims adjusters, examiners, and investigators	2,506	2,489	-18	1,924	1,907	76.1%
Insurance claims and policy processing clerks	1,355	1,342	-13	1,377	1,364	100.6%
General and operations managers	609	671	62	546	608	99.8%
Insurance sales agents	582	640	58	550	608	104.4%
First-line supervisors of office and administrative support workers	524	551	27	560	586	111.8%
Office clerks, general	378	378	0	465	465	123.0%
Registered nurses	449	569	120	263	383	85.4%
Bookkeeping, accounting, and auditing clerks	316	316	0	379	379	120.2%
Secretaries and administrative assistants, except legal, medical, and						
executive	342	324	-18	382	365	106.6%
Accountants and auditors	347	387	40	307	347	100.0%
Software developers	333	422	89	249	337	101.2%
Management analysts	307	338	31	294	325	105.9%
Business operations specialists, all other	258	284	27	247	274	106.1%
Financial managers	253	307	53	204	258	101.8%
Compensation, benefits, and job analysis specialists	267	293	27	229	256	95.9%
Billing and posting clerks	182	178	-4	209	204	112.2%
Insurance underwriters	271	267	-4	197	192	70.9%
Computer and information systems managers	178	209	31	141	172	96.6%
Market research analysts and marketing specialists	133	160	27	143	169	127.0%
Computer systems analysts	204	222	18	150	167	81.8%
Compliance officers	182	200	18	148	165	90.8%
Sales representatives of services, except advertising, insurance,						
financial services, and travel	116	129	13	128	142	122.6%
Project management specialists	147	160	13	122	135	92.0%
Human resources specialists	116	124	9	112	121	104.8%
Managers, all other	129	142	13	104	117	91.0%
Bill and account collectors	98	98	0	108	108	110.7%
Computer user support specialists	120	129	9	95	104	86.6%
Receptionists and information clerks	76	71	-4	103	99	130.9%

Table A-7: Occupational Growth and Replacement Needs, Other Insurance Related Activities, by Total Need

Occupation	2021	2031	Growth	Turnover	Total need	Pct. of 2021
Network and computer systems administrators	133	138	4	91	96	71.7%
Training and development specialists	89	98	9	84	93	104.7%
Financial and investment analysts	98	111	13	74	88	89.8%
Personal financial advisors	102	111	9	79	88	85.6%
Executive secretaries and executive administrative assistants	98	80	-18	101	83	85.3%
Medical and health services managers	67	89	22	60	82	122.7%
Lawyers	107	133	27	52	79	73.8%
Software quality assurance analysts and testers	76	93	18	59	77	102.1%
Sales managers	76	84	9	64	72	95.9%
Actuaries	84	102	18	54	72	85.0%
Data scientists	58	80	22	48	70	121.9%
Data entry keyers	80	62	-18	87	69	86.5%
Administrative services managers	76	80	4	64	69	91.2%
Marketing managers	62	71	9	57	66	105.3%
Insurance appraisers, auto damage	93	89	-4	69	64	68.7%
Mail clerks and mail machine operators, except postal service	49	49	0	62	62	126.7%
Medical records specialists	62	71	9	46	55	87.6%

 Table A-7: Occupational Growth and Replacement Needs, Other Insurance Related Activities, by Total Need