

Labor Market Insights for Healthcare Workers:

Akron MSA



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Research provided by
Shanahan Resources, Inc.

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Summary

The purpose of this brief report is to provide ConxusNEO with in-depth insights into the labor market demand for healthcare workers in the Akron MSA. The most recent data was used: Online job postings within the Akron MSA during the last 365 days dating back to July 2016.

A direct investigation of jobs employers post online provides a more complete picture of jobs in demand as they emerge and change. The source is Burning Glass which identifies employers with high demand for workers and occupations with the most openings, revealing details about employers' demand for skills and credentials.¹

Most employees working in the combined Summit and Portage area, defined as the Akron Metropolitan Statistical Area (MSA), also live in the MSA. It is also true that employed residents of the MSA mostly work within the MSA. For that reason, the focus of this report is on the Akron MSA.

Highlights of this report include:

Basic industry facts

- Summit County is where 92% of all healthcare organizations are located.
- Healthcare organizations are grouped into three industry segments: Hospitals; Medical Offices and Centers for out-patient care; and Long-term Residential Care facilities. These are very different in terms of their workforce needs for healthcare workers.
- In 2016 over 42,000 workers were employed in the MSA in the healthcare sector. This does not include healthcare workers employed by other industries although the number is relatively small. Modest job growth is expected of 10% by 2022.
- The Akron MSA does attract patients from other areas in special cases due to specialized services such as trauma care and mental health services.

Basic facts about occupations of healthcare workers now employed and job ads

- Only 13,540 workers (or 32%) have a Bachelors or more; These are Healthcare Professionals and Technical occupations plus a few managerial ones.
- Most work in occupations where less than half have a Bachelors or more.
- ✓ Aside from LPNs, EMTs, Respiratory Therapists, and Medical Records Information Technicians, most of this group of jobs are Healthcare Support or Office Support.

¹ Burning Glass has compiled a database of over 150 million job listings, updated daily from roughly 40,000 websites nation-wide. The database includes listings from major job boards, newspapers, government agencies, and a broad array of small, medium, and large employers—so long as they are placed online. The sites captured include a strong representation of the small businesses driving economic recovery; 51 percent of sites mined produce 20 or fewer jobs. Most sites are employer sites. Also, Burning Glass leverages patented text mining to code 70-plus data elements to render detailed skills-level intelligence on who is hiring and where, what jobs are in demand, and what skills and credentials employers now require for those jobs.

- ✓ For nurses, 42% have an Associate degree.
 - ✓ For Occupational and Physical Therapists and Physician Assistants, however, most workers have a Bachelors.
- Over 7,200 healthcare jobs were posted in the last 365 days, one posting for every 5.5 workers employed in 2016. These were for a wide-ranging array of occupations.
 - Nursing and related occupations provided over half of the jobs for healthcare workers and dominate recent job postings too.
 - Specific occupations with heavy emphasis in job posting activity are: *Nurse Practitioners*; *RNs*; and *Occupational Therapists* and had a posting for every 2 workers employed in 2016. Several others had ratios of number of current workers to recent job postings between two and three to one: *Medical and Health Services Managers*; *Physical Therapists*; and *Medical and Clinical Laboratory workers*.
 - *Summa Health Systems*; *Akron Children's Hospital*; *Western Reserve*; and *HCR Manorcare* are the employers with the most ads for healthcare workers most recently. *Cleveland Clinic* and *University Hospitals* rank fifth and sixth in job postings. Demand from these employers when combined significantly set the tone in the Akron labor market.

The healthcare sector is a major source of middle-skill jobs in today's labor market

- The healthcare sector provides wide-ranging employment opportunities for young and transitioning workers seeking career employment and living wages. There are far more ads for positions requiring a college Certificate or Associate degree than those requiring a Bachelors.
- Most of this is due to the RN ads in which only 29% are recruiting for a Bachelors in nursing.
- Hospital differ from the other healthcare industry segments in the stated preference for Bachelors' degrees: For nurses, 59% of their ads seek a Bachelors in nursing.
- There were 597 ads among the over 7,000 for healthcare workers that simply seek appropriate healthcare technical training beyond a high school credential (and passing requisite certification) for specific occupations. Most are healthcare support or Office support occupations within healthcare organizations. *Nursing Assistants* and *Patient Service Reps* tops this list. These can be pre-entry jobs as a possible on-ramp to any of the middle-skill healthcare jobs in demand.

Healthcare informatics

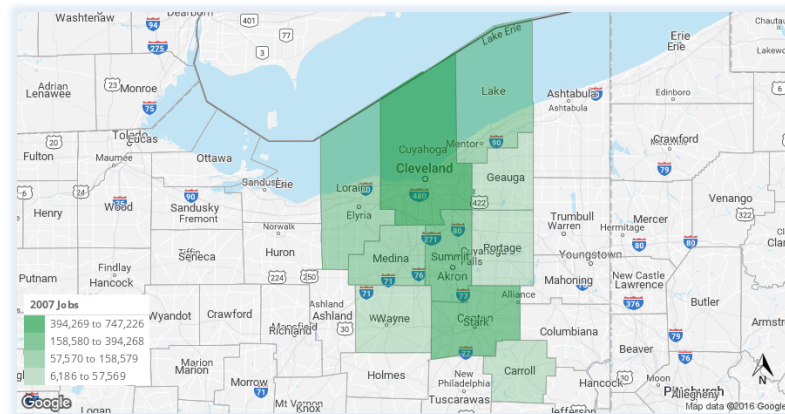
- Recently evidence in job ads of employer demand for health informatics dropped significantly. Demand peaked in 2015 and now is seen in only one in eleven job ads for healthcare workers.

Healthcare Labor Market Update

Generally speaking, working residents of Summit County can feasibly commute to most jobs in the combined economic region of Cleveland, Akron and Canton MSAs plus Wayne County. Wayne County is added to the overall region because of the significant numbers of workers who commute into the larger region, as well as residents of the larger region that commute to work at several major employers in Wayne County.

Many workplaces located in any of these surrounding counties can be a feasible commute to work and back by personal automobile. It is not surprising then to know that 27% of workers living in Summit County go to work in another county, despite the large and diverse job base of Summit.

Workers residing in any of the ten counties routinely commute to work in a county other than the one where they live. Likewise, employers routinely recruit for new hires outside of the county where they are located. The Cleveland, Akron and Canton areas are overlapping, interdependent labor markets. They form a region in which almost all residents live and work in the 10-county region.



While interdependent, average wages do vary across these three MSAs based on specific demand and supply conditions. To some extent, then, they operate independently of each other.

Fact is: Most employees working at workplace in the combined Summit and Portage area, defined as the Akron Metropolitan Statistical Area (MSA), also live in the MSA. It is also true that employed residents of the MSA mostly work within the MSA. For that reason, the focus of this report is on the Akron MSA. Healthcare industry sector and healthcare workers employed are shown for the Akron MSA, rather than the broader region.

I. Role of Healthcare in Akron MSA

The healthcare industry is comprised of three main sources of healthcare service industries: Hospitals; Offices of doctors and clinics where medical treatment is offered to patients on an out-patient basis; and Long-term Residential Care facilities. Job growth across and within these industries has not been the same. Some segments are creating more jobs; others are growing jobs at a faster pace. Some segments bring significant income into the region's economy by

providing patient care to customers not residing in NEO. Employers demand for and available supply of workers differ among these three industry segments.

Whether people travel from elsewhere in Ohio, other states, or around the globe, the Cleveland Clinic and to a lesser extent University Hospitals help the region grow just as manufacturers do. In Akron, certainly Children's Hospital serves special needs of children and young people far beyond Summit County. Hospitals and certain specialized medical services in Summit serve a broader region mostly south of Akron.

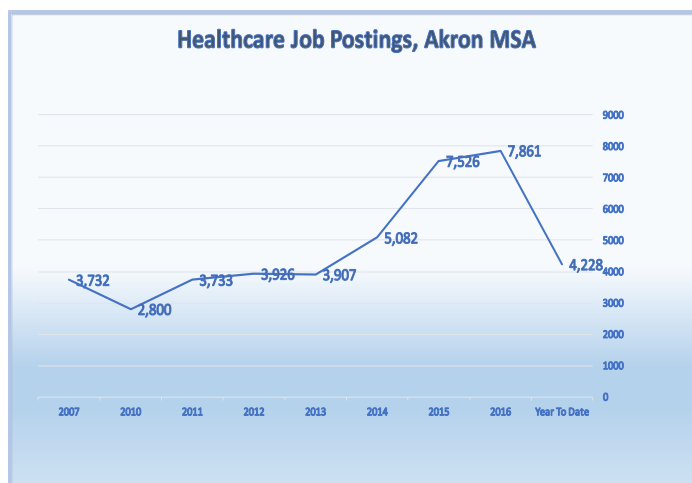
Ninety-two of every one hundred jobs in the Healthcare industry are in Summit County. Portage county residents needing healthcare services rely heavily on Summit providers. As a share of all

Akron MSA: County of Location of Jobs in Healthcare Industry 2016				
County Name	2016 Jobs	Percent of Total	Avg. Earnings Per Job	2016 Location Quotient
Summit County	39,310	92.0%	\$60,997	1.38
Portage County	3,429	8.0%	\$45,860	0.54
MSA	42,738	100.0%	\$59,782	
EMSI Analyst				

jobs in Portage, the healthcare system is only half the size expected given its population base. If Portage were more remotely located, likely it would have a larger base of providers, especially hospitals and specialists working out of offices or out-patient centers.²

Industry trends since the recession

The recovery of the healthcare industry, based on total job ads active during each year, started to bounce back in 2011 and has increased modestly each year. Based on total ads posted during the first half of 2017, the MSA is on pace for yet another year of positive gain in jobs posted for healthcare professional and technical workers plus healthcare support workers.



Jobs in Healthcare Industries

Hospitals; Offices of Physicians and Others; and Long-term Residential Care, in that order, generate the most jobs in the Akron's healthcare industry sector. This is all jobs, not just workers

² This is evident when using the Location Quotient (LQ). The LQ is calculated by taking a specific industry's total jobs expressed as a percent of all jobs in the region, and divide that percentage by that specific industry's total jobs expressed as percent of all jobs for the nation. This ratio provides an index of the importance of an industry within a region when compared to its importance in the nation.

directly involved in the delivery of patient care. It includes receptionists, secretaries, IT professionals, maintenance workers, etc.

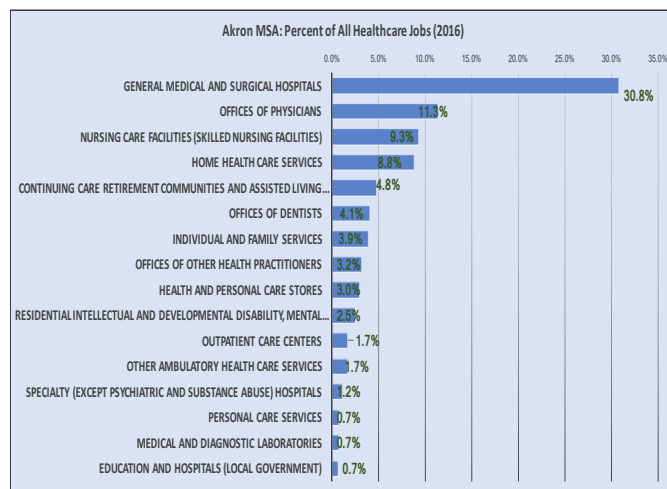
Typically, healthcare services develop within a local area to meet the needs of residents. In some cases, though, especially for advanced health services and specialized care, patients are drawn from surrounding areas.

Akron MSA: Breaking Down the Healthcare Industry 2016 to 2022							
NAICS	Description	2016 Jobs	2022 Jobs	2016 - 2022 Change	2015 - 2022 % Change	Avg. Earnings Per Job	2016 Location Quotient
Physician Offices							
621111	Offices of Physicians (except Mental Health Specialists)	6,043	6,602	558	9%	\$101,608	1.08
621210	Offices of Dentists	2,027	2,139	112	6%	\$62,103	0.95
621340	Offices of Physical, Occupational and Speech Therapists, and	507	428	(79)	(16%)	\$46,383	0.60
621320	Offices of Optometrists	404	454	50	12%	\$58,036	1.31
621310	Offices of Chiropractors	359	407	48	13%	\$45,447	1.05
621330	Offices of Mental Health Practitioners (except Physicians)	345	347	2	1%	\$45,482	1.37
621399	Offices of All Other Miscellaneous Health Practitioners	323	388	66	20%	\$37,517	0.96
621391	Offices of Podiatrists	108	122	13	12%	\$56,206	1.34
621112	Offices of Physicians, Mental Health Specialists	69	57	(12)	(18%)	\$77,269	0.47
		10,185	10,944	758			
Other Medical Facilities							
621420	Outpatient Mental Health and Substance Abuse Centers	914	1,059	145	16%	\$43,619	1.77
621492	Kidney Dialysis Centers	303	362	59	19%	\$58,187	1.09
621493	Freestanding Ambulatory Surgical and Emergency Centers	218	236	19	9%	\$166,375	0.68
621491	HMO Medical Centers	95	65	(30)	(32%)	\$39,923	0.24
621498	All Other Outpatient Care Centers	38	29	(9)	(24%)	\$36,305	0.11
621410	Family Planning Centers	25	34	8	32%	\$39,854	0.46
		1,594	1,785	191			
Labs and Diagnostic							
621511	Medical Laboratories	253	290	37	15%	\$49,838	0.57
621512	Diagnostic Imaging Centers	150	179	29	19%	\$92,825	0.87
Other Supportive Services							
621610	Home Health Care Services	3,851	5,011	1,161	30%	\$31,588	1.21
621910	Ambulance Services	600	680	79	13%	\$33,855	1.51
621991	Blood and Organ Banks	140	166	26	19%	\$38,361	0.88
621999	All Other Miscellaneous Ambulatory Health Care Services	84	67	(17)	(20%)	\$54,231	0.52
Hospitals							
622110	General Medical and Surgical Hospitals	15,449	16,085	635	4%	\$70,472	1.51
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals	565	590	25	4%	\$54,671	1.13
		16,014	16,674	660			
Long term Residential Care							
623110	Nursing Care Facilities (Skilled Nursing Facilities)	4,522	4,806	284	6%	\$35,101	1.23
623210	Residential Intellectual and Developmental Disability Facilities	1,499	1,695	196	13%	\$25,744	1.68
623220	Residential Mental Health and Substance Abuse Facilities	345	442	97	28%	\$37,049	0.70
623311	Continuing Care Retirement Communities	2,430	2,903	474	19%	\$29,874	2.30
623312	Assisted Living Facilities for the Elderly	679	836	157	23%	\$27,191	0.73
623990	Other Residential Care Facilities	392	407	15	4%	\$34,247	1.06
	Total all industries	42,738	46,886	4,148	10%	\$59,782	

Based on greater than average number of jobs in healthcare within the MSA:

- It appears that mental health services are serving a larger region than the MSA.
- Hospitals in Summit County are attracting patients that live outside the MSA.

These conclusions are based on the calculation of a Location



Quotient.³ In both cases, the location quotient is larger than 1.25. In the table, General Medical and Surgical Hospitals have a quotient of 1.51. This means that for NE Ohio, jobs in this industry are 51% larger than the nation. This is highly unusual except for regions with nationally and internationally known hospitals that attract patients into their regions. For out-patient mental health clinics, the quotient is 1.77. For offices of mental health practitioners, it is 1.37. The increased level of these services strongly suggests that patients are being attracted into the area from smaller counties to the south that lack these services.

Hospitals accounted for 37% of all jobs and 31% of healthcare workers employed in the Akron MSA healthcare sector.

There are five and a half jobs in 2016 for every job posting (5.5:1) during the last 365 days. This is relatively high level of postings when compared to other occupational groups or industry sectors. The healthcare sector has:

- An expected rate of increase in total jobs of only 10% over the next six-years (2022)
- Only an average churn rate for healthcare workers in general (workers changing employers during a year's time);
- No major concerns of current workers retiring out of the workforce in the next few years.

It is very unlikely that this number of postings is a reliable indicator of actual hires employers make.

The healthcare industry has a reputation for continuous postings online across the spectrum of healthcare jobs, especially for nursing-related positions. The labor market for healthcare workers in general is competitive and the search to add or replace workers is very active, especially for selected professional and technical workers.

Akron MSA: Top Occupations with 100+ Job Postings from Healthcare Industry 2016				
Category:		Demand and Employment		
Source:		Burning Glass	BLS/OES,	Ratio of Employed to Posts
SOC Code (ONET-6)	Occupation Title	Number of Job Postings	Number Employed 2016	
29-1141	Registered Nurses	3,550	7,260	2.0
29-2061	Licensed Practical and Licensed Vocational Nurses	535	2,400	4.5
29-1069	Physicians and Surgeons, All Other	504	1,580	3.1
11-9111	Medical and Health Services	353	920	2.6
31-1014	Nursing Assistants	310	3,610	11.6
29-1171	Nurse Practitioners	224	400	1.8
29-1063	Internists, General	205	N/A	-
29-1123	Physical Therapists	202	480	2.4
31-9092	Medical Assistants	152	1,270	8.4
43-4051	Customer Service Representatives	147	5,340	36.3
29-1122	Occupational Therapists	127	260	2.0
29-1062	Family and General Practitioners	123	280	2.3
39-9021	Personal Care Aides	115	1,280	11.1
29-2012	Medical and Clinical Laboratory	106	260	2.5
31-1011	Home Health Aides	100	3,750	37.5
Total		7,735	42,360	5.5
Source: Labor Insight Jobs (Burning Glass Technologies)				

³ The location quotient (LQ) is determined by taking a specific industry's total jobs expressed as a percent of all jobs in the area, and then divide that figure by that industry's total jobs expressed as a percent of all jobs at the nationally level. This ratio provides an index of the relative importance of an industry within an area compared to its importance in the national economy.

Healthcare occupations with most ads relative to workers already employed

The occupations most intensely posted are highlighted in the following table. *Nurse Practitioners*; *RNs*; and *Occupational Therapists* had a posting for every 2 workers employed in 2016. Several others had ratios of number of current workers to recent job postings between two and three to one: *Medical and Health Services Managers*; *Physical Therapists*; and *Medical and Clinical Laboratory workers*. *Home Health Aides* and *Customer Service Reps* had the least number of ads in ratio to the employed workforce.

This ratio is used as an indication of the intensity that employers are seeking to hire in these occupations.

II. Demand for healthcare workers last 365 days

Jobs in real-time demand by the Healthcare Industry

Total postings in the last 365 days (dating back to July 2016) for the Akron MSA for occupations directly or indirectly related to delivery of health services were 7,295.

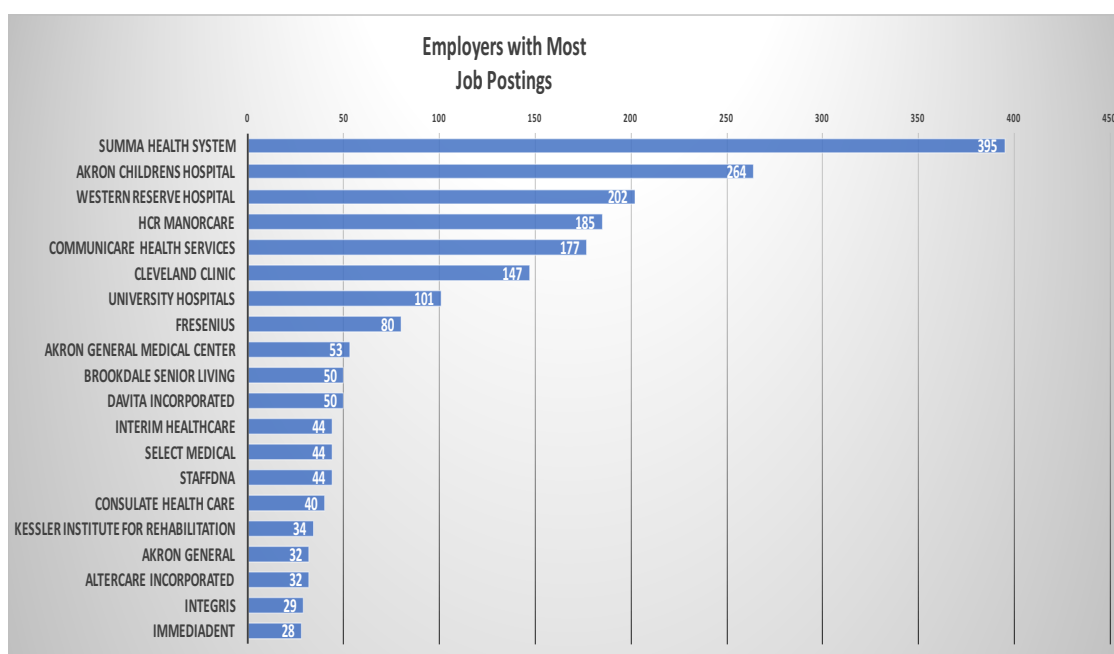
Akron MSA: Healthcare Occupations with Most Job Postings Last 365 Days					
BGTOCC	Job Postings		BGTOCC	Job Postings	
Managers/Administrators	#	Total	Medical Technologists/ Technicians	#	Total
Nursing Manager / Supervisor	119		Laboratory Technician	57	
Healthcare Administrator	84		Dialysis Technician	44	
Director of Nursing	65		EMT / Paramedic	40	
Medical Director	40		Radiology Technician	38	
Nursing Home / Home Health	31		Surgical Technician / Technologist	30	
	339	4.6%	Laboratory Technologist	29	
IT			Dental Hygienist	26	
Clinical Data Systems Specialist /	21		Pharmacy Technician	25	
			Ultrasound Technologist / Sonographer	21	
Scientist			Technologist	14	
Psychologist	23		Health Technician / Technologist (Other)	13	
				337	4.6%
Physician and Assistant			Healthcare Support Staff		
Physician	646		Nursing Assistant	253	
Physician Assistant	87		Medical Assistant	159	
	733	10.0%	Home Health Aide	111	
Therapists			Dental Assistant	66	
Physical Therapist	187		Phlebotomist	40	
Respiratory Therapist	100		Physical Therapy Assistant	32	
Occupational Therapist	86		Dietary Aide	32	
Speech Language Pathologist	75		Occupational Therapy Assistant	21	
	448	6.1%	Sterile Processing Technician	20	
Other Physician-related			Occupational Therapy Aide	11	
Dentist / Orthodontist /	58			745	10.2%
Pharmacist / Pharmacy Director	22		Other Support Staff		
	80	1.1%	Registrar / Patient Service	117	
Nursing			Medical Secretary	80	
Registered Nurse	2,995		Medical Coder	24	
Licensed Practical / Vocational	488		Medical Biller	19	
Intensive / Critical Care Nurse	482			240	3.3%
Nurse Practitioner	228				
Clinical Case Manager	116				
Nurse Anesthetist	20				
	4,329	59.3%			
Source: Labor Insight Jobs (Burning Glass Technologies)			Total Postings	7,295	100.0%

By far the largest number of job postings has been for nursing and related occupations (59% of all job ads), as shown in the table. Numerous openings existed for jobs ranging from healthcare support staff (10%); physicians and assistants (10%); to Therapists and Medical Technologists/Technicians (6% and 5%, respectively).

These ads span dozens of specific employers' workforce needs and career options for the area's young and transitioning adults considering a career in healthcare.

Employers with the most postings

Summa Health Systems had the most online ads for workers (395) during the last 365 days, dating back to last July. This is followed by Akron Children's and Western Reserve with 264 and 202, respectively. Akron locations for Cleveland Clinic and University Hospitals postings rank sixth and seventh in terms of job postings.



These top employers have sufficient need to hire new workers that, together, they represent buyer power in the Akron area labor market for healthcare workers. Much like the Clinic and UH in the Cleveland market, together these employers influence market conditions relative to skills and abilities and education requirements. None of them alone has such influence, but when combining their demand, they benchmark labor market conditions in some cases.

Mean salary for healthcare occupations with most postings

Salary information is seldom included in job ads. This explains why so few occupations had sufficient data to provide reliable estimates of mean starting salaries. The BLS estimates are based on several databases but can overstate estimates of what new hires can expect to earn. They are mean figures for all current workers no matter how long they have worked in the position. However, where data from both sources exist, they do not differ greatly. These figures can be better evaluated by employers actively hiring.

Working on a full-time basis, most job openings in *Healthcare Support* may not enable workers to earn a living wage. Mean salaries below mid-thirties likely equates to less than \$17 hourly.

Akron MSA: Mean Salary for Healthcare Jobs with Most ob Postings from Healthcare Industry 2016			
Category:		Salary	
Source:		Burning Glass	BLS/OES, 2016
SOC Code (ONET-6)	Occupation Title	Mean Advertised Salary	Mean Salary
Managers			
11-9111	Medical and Health Services	N/A	\$101,950
11-9199	Managers, All Other	N/A	\$117,700
Physicians and Assistants			
29-1021	Dentists, General	N/A	\$196,970
29-1062	Family and General Practitioners	NA	\$177,170
29-1063	Internists, General	N/A	\$159,390
29-1066	Psychiatrists	N/A	\$222,100
29-1067	Surgeons	N/A	\$207,030
29-1069	Physicians and Surgeons, All Other	NA	\$221,260
29-1071	Physician Assistants	N/A	\$89,980
Therapists			
29-1122	Occupational Therapists	N/A	\$84,210
29-1123	Physical Therapists	NA	\$86,510
29-1126	Respiratory Therapists	\$69,680	\$51,920
29-1127	Speech-Language Pathologists	N/A	\$78,510
Nursing			
29-1141	Registered Nurses	\$67,770	\$66,080
29-1171	Nurse Practitioners	\$137,248	\$93,110
29-2061	Licensed Practical and Licensed Vocational Nurses	\$37,782	\$40,700
Technicians			
29-2012	Medical and Clinical Laboratory	\$59,006	\$43,930
29-2041	Emergency Medical Technicians and Paramedics	N/A	\$28,440
29-2071	Medical Records and Health Information Technicians	\$28,567	\$35,850
Healthcare Support			
31-1011	Home Health Aides	NA	\$21,350
31-1014	Nursing Assistants	NA	\$25,320
31-9091	Dental Assistants	N/A	\$36,700
31-9092	Medical Assistants	N/A	\$28,290
39-9021	Personal Care Aides	\$24,007	\$22,250
39-9032	Recreation Workers	N/A	\$23,550
43-4051	Customer Service Representatives	\$27,625	\$35,330
43-6013	Medical Secretaries	\$24,626	\$31,730
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical,	N/A	\$35,570
Total			
Source: Labor Insight Jobs (Burning Glass Technologies)			

Education of healthcare workers employed in Akron MSA

Occupations in the top half of the table are filled with workers that predominately *have a Bachelors*. All occupations are held by workers where 50% or more of them have the degree. Most of these jobs are filled with workers that have a Bachelors, more than 90% for most of these occupations.

However, only fifty-seven percent of RNs employed in 2016 are estimated to have a Bachelors.

Middle-skill and below occupations (shown in the bottom half of the table) are held by workers *less than a Bachelors*. The majority of these workers has only some college or an Associate degree.

Aside from LPNs, EMTs, Respiratory Therapists, and Medical Records Information Technicians, most of this group of jobs are Healthcare Support or Office Support. These workers often have no more a high school credential and any needed certification for the job.

Many of these workers, no matter the occupation, have been employed for years and were hired when very different demands were placed on these positions.

What level of education do employers now require when hiring for these jobs?

Coming out of the recession, nationally there is evidence that employers in general have engaged in a practice of 'up-credentialing' when hiring. They are said to be doing this to take advantage of a loose labor market where the employer can 'pick and choose'. Regardless, what preferences are employers currently stipulating in recent job ads? For example, are employers showing a clear preference for a Bachelors in nursing?

LEVEL OF EDUCATION BY OCCUPATION ADVERTISED BY EMPLOYERS AS MINIMALLY ACCEPTED

The healthcare sector provides wide-ranging employment opportunities: 2,700 ads stipulate that an Associate or less of postsecondary education is minimally acceptable. Only 1,767 ads stipulate Bachelors as required or preferred.

Category:		Education level of employed individuals			
Source:		BLS/OES,	ACS, 2014		
SOC Code (ONET-6)	Occupation Title	Number Employed 2016	% with a high school diploma or less	% with Some College or an Associate's	% with a Bachelor's or higher
29-1063	Internists, General	N/A	0%	0%	99%
29-1062	Family and General Practitioners	280	0%	0%	99%
29-1067	Surgeons	310	0%	0%	99%
29-1066	Psychiatrists	130	0%	0%	99%
29-1069	Physicians and Surgeons, All Other	1,580	0%	0%	99%
29-1021	Dentists, General	230	0%	0%	99%
29-1171	Nurse Practitioners	400	1%	2%	98%
29-1127	Speech-Language Pathologists	270	1%	1%	98%
29-1122	Occupational Therapists	260	1%	9%	91%
29-1123	Physical Therapists	480	2%	7%	91%
21-1029	Social Workers, All Other	240	7%	16%	78%
29-1071	Physician Assistants	130	5%	19%	76%
11-9111	Medical and Health Services Managers	920	10%	28%	62%
29-1141	Registered Nurses	7,260	1%	42%	57%
11-9199	Managers, All Other	790	17%	28%	55%
29-2012	Medical and Clinical Laboratory	260	12%	37%	51%
		13,540			
29-2061	Licensed Practical and Licensed	2,400	21%	74%	5%
29-2041	Emergency Medical Technicians and	690	16%	69%	16%
29-1126	Respiratory Therapists	410	2%	68%	29%
31-9092	Medical Assistants	1,270	25%	65%	10%
31-9091	Dental Assistants	630	32%	59%	9%
29-2071	Medical Records and Health Information Technicians	490	26%	54%	19%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and	5,370	31%	49%	20%
43-6013	Medical Secretaries	2,710	31%	49%	20%
43-4051	Customer Service Representatives	5,340	33%	46%	22%
31-1014	Nursing Assistants	3,610	47%	44%	9%
31-1011	Home Health Aides	3,750	47%	44%	9%
39-9032	Recreation Workers	870	21%	39%	40%
39-9021	Personal Care Aides	1,280	51%	37%	12%
		28,820			
	Total	42,360			

Source: Labor Insight Jobs (Burning Glass Technologies)

The primary reason for this tilt toward less than a Bachelors is traced to ads for RNs. More than twice as many ads for Associates than Bachelors as the minimum credential needed when applying: 2,390 ads in comparison to 1,189 requiring a Bachelors. This is evident from the

Akron MSA: Posts for Healthcare Positions by Level of Education Last 365 Days					
BGTOCC			BGTOCC		
Level of Education Advertised in Ads	Job Postings Bachelors +	Associates	Level of Education Advertised in Ads	Job Postings Bachelors +	Associates
Management			Technologists/Technicians		
Healthcare Administrator	60	10	Laboratory Technologist	29	8
Nursing Manager / Supervisor	49	54	Laboratory Technician	15	12
Director of Nursing	40	23	Dental Hygienist	3	-
Medical Director	25	-	Cardiovascular Technician /	3	2
Nursing Home / Home Health Administrator	17	2	Ultrasound Technologist /	3	1
Laboratory Manager	8	-	Mental Health / Psychiatric	1	-
Director of Rehabilitation	2	-	Licensed Practical / Vocational Nurse	1	90
	201	89	EMT / Paramedic	-	3
IT			Nutrition / Dietetic Technician	-	1
Clinical Data Systems Specialist / Manager	8	7	Pharmacy Technician	-	1
Scientist			Surgical Technician / Technologist	-	3
Psychologist	20	-		55	113
Physician & Related			Health Informatics		
Physician	75	-	Clinical Analyst / Clinical		
Dentist / Orthodontist / Prosthodontist	34	-	Documentation and Improvement	7	2
Physician Assistant	17	-	Medical Coder	6	15
Dietitian / Nutritionist	12	-	Medical Biller	3	3
Pharmacist / Pharmacy Director	7	-	Medical Records Clerk / Technician	2	1
	145	-	Medical Records / Coding Supervisor	2	2
Therapists			Health Information Technician /	-	1
Physical Therapist	24	-	Cancer Registrar	-	3
Speech Language Pathologist	24	-	Health Information Manager / Director	-	23
Occupational Therapist	21	-		20	23
Respiratory Therapist	-	5	Other		
	69	0	Athletic Trainer	4	-
Nursing			Health Technician / Technologist	2	1
Registered Nurse	858	2,059	Telemetry Technician	1	1
Intensive / Critical Care Nurse	184	265	Radiology Technician	-	12
Nurse Practitioner	79	-		7	2
Clinical Case Manager	43	65	Support Workers		
Nurse Anesthetist	16	-	Registrar / Patient Service	13	17
Clinical Nurse Educator	5	1	Patient Advocate / Navigator	8	1
Midwife / Nurse Midwife	3	-	Medical Secretary	2	3
Clinical Nurse Specialist	1	-	Physical Therapy Assistant	-	3
	1,189	2,390	Medical Assistant	-	10
			Biomedical Equipment Technician	-	8
				23	21
			Total Ads	1,767	2,700

Source: Labor Insight Jobs (Burning Glass Technologies)

number of occupations that only had ads for one level of education.

SUPPORTIVE OCCUPATIONS REQUIRING ONLY TECHNICAL TRAINING AND HIGH SCHOOL CREDENTIAL

There were 597 ads among the over 7,000 for healthcare workers that simply seek appropriate healthcare technical training beyond a high school credential (and passing requisite certification) for specific occupations. Most are healthcare support or Office support occupations within healthcare organizations.

Akron MSA: Top Healthcare Posts Advertising for High School or Vocational Training Program Last 365 Days		
BGTOCC Code	BGTOCC	Job Postings
31101400	Nursing Assistant	107
43405103	Registrar / Patient Service Representative	102
43601300	Medical Secretary	62
31909200	Medical Assistant	60
31101100	Home Health Aide	43
31909100	Dental Assistant	39
29209991	Dialysis Technician	38
31909700	Phlebotomist	37
31909300	Sterile Processing Technician	20
29205200	Pharmacy Technician	18
29206100	Licensed Practical / Vocational Nurse	18
29207191	Medical Coder	16
29204100	EMT / Paramedic	14
29201200	Laboratory Technician	13
29205500	Surgical Technician / Technologist	10
	Total	597

Source: Labor Insight Jobs (Burning Glass Technologies)

- Nursing Assistants
- Patient Services Representatives
- Medical Secretaries
- Medical Assistants
- Etc.

While many of these jobs may not offer full-time employment, or pay a living wage, they can be considered pre-entry jobs that provide an on-ramp to a career in healthcare as they acquire industry knowledge and skills through job experience and additional education.

HEALTHCARE CERTIFICATIONS APPEARING IN ADS FOR HEALTHCARE WORKERS

Certifications included in ads for all healthcare occupations are numerous. Most are specific to occupations and job responsibilities dealing with patient care. These appear in the most ads which are distinguished by level of education minimally required. Rarely was an ad without at least one certification mentioned.

Of course, RN licensure is first and is required by law. The others are either not unique to the occupation, or are specifically related to the occupation; Nurse Practitioner, for example.

Akron MSA: Top Certifications for Healthcare Positions by Level of Education Last 365 Days		
Level of Education Advertised in Ads	Bachelors +	Less Than Bachelors
Total Ads	1,765	2,687
Certifications	Job Postings	
REGISTERED NURSE	1,085	2,341
NURSING SPECIALTY CERTIFICATION	378	985
ADVANCED CARDIAC LIFE SUPPORT (ACLS) CERTIFICATION	339	920
FIRST AID CPR AED	157	216
CRITICAL CARE REGISTERED NURSE (CCRN)	77	377
NURSE PRACTITIONER	74	-
BASIC CARDIAC LIFE SUPPORT CERTIFICATION	69	136
AMERICAN HEART ASSOCIATION CERTIFICATE	43	7
ADVANCED PRACTICE NURSE	40	-
CERTIFIED DIALYSIS NURSE	36	37
CERTIFIED NEPHROLOGY NURSE	36	37
ACUTE CARE NURSE PRACTITIONER	21	36
Source: Labor Insight Jobs (Burning Glass Technologies)		

Hospitals differ from rest of healthcare sector

Hospitals, though, appear to differ from the rest of the healthcare sector in terms of a preference for Bachelors. For RNs, 59% of hospital ads require or prefer a Bachelors in nursing degree. This is nearly exactly the percentage of currently employed RNs with that degree.

The caveat on these data is that information in the ads often do not allow Burning Glass to assign ads to hospitals. It is not possible to determine how many more ads were from Hospitals. However, given that the largest hospitals appear as the top employers with job ads, these data appear to have minimal bias.

Akron MSA: Hospital Ads for All Healthcare Workers & RNs Last 365 Days		
Education	All Jobs*	RNs**
Total Postings	1610	294
High school or vocational training	36.61%	1.05%
Associate's degree	24.21%	43.55%
Bachelor's degree	36.22%	58.89%
Master's degree	10.63%	4.18%
Doctoral degree	8.56%	1.05%
Source: Labor Insight Jobs (Burning Glass Technologies)		
* 53% of all ads do not reveal industry name		
** 73% of all ads do not reveal industry name		

Health Informatics: Special Topic

Health informatics focuses on electronic health records (EHR), health information exchange (HIE) standards and portable medical data collection devices. Medical Assistant tops the list of postings. Beginning about ten years ago, major changes were launched in the computerization of patient and related information and creation of networked systems for sharing information among providers, insurers, etc. This new field of health informatics became a major topic in workforce development: how would the healthcare industry respond to this new challenge and what impact would it have on occupations and skills employers seek in the labor market?

In a report released in 2012 by Burning Glass, dramatic increases were noted in the demand for informatics skill sets from 2007 to 2011. The report concluded:

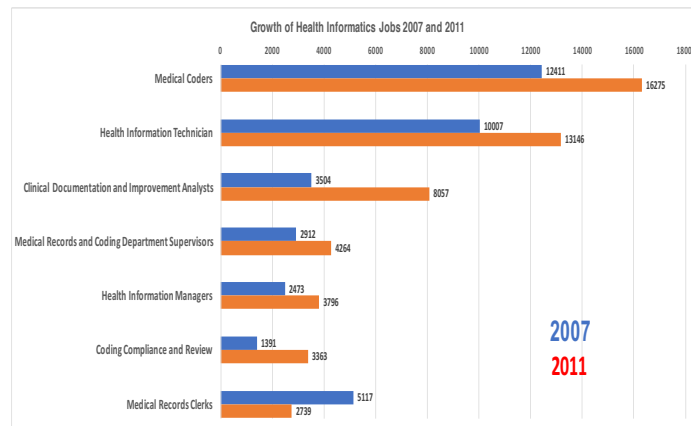
“Health informatics is one of those emerging opportunities, both for individuals hoping to improve their career prospects and for educational institutions seeking to offer them the training and credentials they need to succeed. The career-ladder aspect of health informatics lends itself to mini-certifications (or building-block courses) in information processing for clinicians and to courses in clinical and health finance issues for IT workers. Such modular course offerings could be put together in various ways, depending on the skills and background of students and trainees, to create efficient pathways to certification.”⁴

HISTORY OF DEMAND FOR HEALTH INFORMATICS KNOWLEDGE AND SKILLS IN AKRON MSA

Akron MSA: Known Posts from Hospitals for Healthcare Positions by Level of Education Last 365 Days		
BGTOCC	Job Postings	
Level of Education Advertised in Ads	Bachelors +	Less Than Bachelors
Total Ads	507	238
Registered Nurse	179	119
Healthcare Administrator	33	-
Physician	30	-
Intensive / Critical Care Nurse	27	17
Laboratory Technologist	26	6
Nurse Practitioner	26	-
Nursing Manager / Supervisor	19	6
Clinical Case Manager	16	2
Physician Assistant	13	-
Registrar / Patient Service	12	16
Laboratory Technician	11	11
Medical Director	11	-
Psychologist	10	-
Dietitian / Nutritionist	8	-
Patient Advocate / Navigator	8	-
Director of Nursing	6	-
Medical Coder	4	15
Medical Assistant	-	9
Sub Total Ads	439	201
Source: Labor Insight Jobs (Burning Glass Technologies)		

⁴ Jobs for the Future & Burning Glass; *A Growing Jobs Sector: Health Informatics*, 2012, p 10.

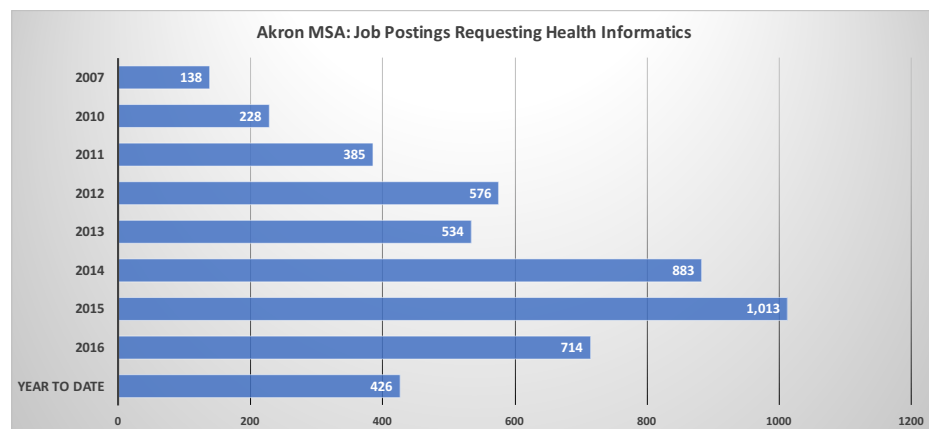
In the Akron MSA labor market for healthcare workers during the same period, dramatic increases occurred. By 2015, over 1,000 ads included references to health informatics. Education and training providers responded by creating Certificate or Associate degree programs specifically to provide technician-level workers to help build and access these new systems within employer organizations. BLS and Burning Glass responded by creating a new occupational title for these IT workers specifically to work in the healthcare environment.



Since then, job ads requesting these skills, and job ads for the new occupations have dropped dramatically. This is a nation, not just local change.

Locally, in the last 365 days:

- Only one in eleven postings for



healthcare professional/ technical or support workers include health informatics knowledge or skill sets as needed for the jobs posted.

- So far during 2017 demand for these skill sets up slightly over last year, but likely to still be below the high in 2015.

What is most striking in the Akron MSA about the occupations in which informatics is included is the wide range of occupations impacted. The occupations where job duties would include responsibility over patient information, its security and the new systems to maintain, protect and share patient information have the fewest job postings in the table. The only occupations specifically charged with these responsibilities, Clinical Data Systems Specialist, has only 18 posts in the last 365 days.

Top specialized skills listed in all ads that include health informatics as part of job responsibilities are: Medical Coding and Patient Care. This is further evidence that increasingly nurses and others delivering patient care need to understand and use new networks and data systems that track and share patient information.

In terms of IT skills, Microsoft applications top the list along with ICD-9 CM Coding (International Classification of Diseases, 9th Revision, Clinical Modification). The need to hire healthcare workers and the related need for healthcare organizations to hire large numbers in other occupations is among the largest in the region.

These skills are more toward what you would expect in job postings for support positions noted above.

Akron MSA: Top Occupations Requesting Health Informatics Skill Set

Clinical Informatics; Health Information Management and Security; Medical Billing and Coding; Medical Records OR Health Informatics OR Health Care Informatics

702 Posts Last 365 Days

BGTOCC	Job Postings
Registered Nurse	72
Physician	64
Nurse Practitioner	45
Medical Assistant	32
Registrar / Patient Service	31
Medical Secretary	30
Office / Administrative Assistant	23
Licensed Practical / Vocational Nurse	20
Clinical Data Systems Specialist /	18
Dental Hygienist	17
Dental Assistant	16
Systems Analyst	15
Medical Coder	14
Healthcare Administrator	13
Medical Biller	13
Billing Clerk / Specialist	10
Clinical Analyst / Clinical Documentation and Improvement	10

Source: Labor Insight Jobs (Burning Glass Technologies)

According to a recent national survey:

“MGMA polled 1,037 medical group leaders and 47 percent said their organization offers a mix of in-house and outsourced cybersecurity needs. Of the respondents, 31 percent noted that their organization manages cybersecurity needs in-house, and 21 percent noted that their organization outsources cybersecurity needs... one of the reasons many participants cited using a mix of in-house and outsourced resources is that their internal staff does not have the capability to do everything. For larger organizations, security is more likely to be managed entirely in-house. Many respondents whose organizations manage all cybersecurity needs in-house said they were part of a hospital system or other large organization.”⁵

Except for the Cleveland Clinic⁶, the need to educate current and future healthcare workers to handle the

Akron MSA: Top Computer and IT Skills for Ads Requesting Health Informatics

Total Ads is 702	
Skills	Job Postings
Microsoft Excel	71
Microsoft Office	71
ICD-9-CM Coding	58
Microsoft Sharepoint	53
Microsoft Word	44
ICD-10	43
Word Processing	24
Epic Systems	19
Microsoft Windows	18
Practice Management Software	15
Microsoft Outlook	10
Pointclickcare	10
EPIC software	9

Source: Labor Insight Jobs (Burning Glass Technologies)

⁵ www.healthcare-informatics.com; Heather Landi, “Survey: 47 Percent of Healthcare Orgs Outsourcing Some of their Cybersecurity Needs”; July 24, 2017

responsibilities of sophisticated informatics does not appear to be having the impact on the internal workforce organization as originally thought. Only a discussion with healthcare leaders in the Akron MSA can add further insight into these findings.

While informatics skills appear in ads for new hires in healthcare, it is possible that healthcare employers are emphasizing upskilling of current workers. Whatever the case, this remains an important topic for discussion and clarification with the larger organizations in the Akron area.

⁶ Shanahan, J; *Labor Market Analytics to Inform Northeast Ohio Workforce Regional Plan* required under WIOA. This report was completed under contract to the five WIOA Workforce Boards in northeast Ohio. 2016