

MISSOURI

MIDDLE-SKILL

OCCUPATIONAL REPORT



Department of Economic Development



OVERVIEW

The Missouri Department of Economic Development- Missouri Economic Research and Information Center (MERIC), has released this publication to provide information regarding opportunities in middle-skills occupations across Missouri, as well as in the St. Louis and Kansas City Workforce Investment Areas (WIAs). Middle-skill occupations are most frequently defined as jobs that require some education beyond high school but less than a bachelor's degree.¹

This report provides information about the number of middle-skill occupations within Missouri and the St. Louis and Kansas City WIAs and why these jobs are important to the state's labor market. As these occupations make up 43.7% of the total employment of Missouri's labor force, many industries face the challenge of finding enough skilled staff for these jobs. This can create stifled economic growth for the state and regions that serve these industries. This report also aims to look at how the employment market will continue to demand a steady supply of middle-skill workers with the upcoming retirements of the baby-boomer population.

The classification of a middle-skill occupation in this report was determined using the BLS education cluster classification for occupations along with the 2009-2011 Missouri, St. Louis WIA, and Kansas City WIA short-term occupational employment projections.² Educational clusters that make up a middle-skill occupation are Moderate-Term On-the-Job Training, Long-term On-the-Job training, Work Experience in a Related Occupation, Postsecondary Vocational Awards, and Associate's Degrees. Most of these trainings and degrees take roughly one year to complete, but no more than four years to attain.

MISSOURI'S MIDDLE-SKILL OCCUPATIONS

Middle-skill occupations constitute a large number of jobs in Missouri's labor market. Over 43% of jobs fall into this category statewide, as compared with 43% and 32% for the St. Louis and Kansas City WIAs. Low-skill occupations in Missouri make up roughly 36%, while the high-skill occupations consist of 20% of Missouri labor force.

Despite decreasing industry employment in many sectors across the state, some occupations are still witnessing growth. Job openings are identified as "Growth" or "Replacement" openings. Growth openings are new jobs that are added to the economy, while replacement openings are vacancies that are created by worker mobility or retirements, but are not new jobs. Twenty-three percent of Missouri's middle-skill occupations have some growth openings between 2009 and 2011.

Missouri's middle-skill occupations with the highest individual employment are registered nurses, nursing aides and orderlies, customer service representatives, and pharmacy technician. All of these occupations employed a workforce greater than 10,000 in 2009. Health care professions classified as middle-skill occupations have the highest aggregate employment in Missouri and the metro WIAs. The industry had slightly less than 166,800 employees in 2009 and is expected to grow to over 169,000 by 2011 with 2,572 growth openings.

In 2008, there were an estimated 356,700 students enrolled in Missouri's public and private universities and degree granting institutions. Over 26% of those students were enrolled in certificate and Associate's degree institutions. The number of enrollees increased by almost 7,000 students, or 8%, from 2005 until 2008. This shows that there is an increasing demand for education and training within Missouri that would be needed for many middle-skill occupations.³

EMPLOYMENT OPENINGS BY EDUCATIONAL LEVEL AND LOCATION—2009-2011

SKILL & EDUCATIONAL LEVEL	MISSOURI				ST. LOUIS WIA				KANSAS CITY WIA			
	EMPLOYMENT		OPENINGS		EMPLOYMENT		OPENINGS		EMPLOYMENT		OPENINGS	
	2009	2011	TOTAL	GROWTH	2009	2011	TOTAL	GROWTH	2009	2011	TOTAL	GROWTH
Low Skill Jobs	1,023,850	1,018,120	67,692	6,384	381,303	379,396	25,857	3,109	191,984	192,042	13,701	2,196
Short-Term On-the-Job Training	1,023,850	1,018,120	67,692	6,384	381,303	379,396	25,857	3,109	191,984	192,042	13,701	2,196
Middle Skill Jobs	1,250,865	1,228,116	52,673	6,286	464,256	459,403	21,714	4,492	241,410	240,785	11,629	2,638
Moderate-Term On-the-Job Training	528,104	514,057	21,178	1,946	192,349	188,661	8,370	1,360	99,834	99,039	4,417	768
Long-Term On-the-Job Training	200,694	194,386	8,823	769	75,246	74,394	3,858	839	40,325	39,826	1,949	326
Work Experience in a Related Field	223,013	219,965	8,880	372	82,997	82,041	3,509	356	42,947	42,844	1,960	325
Postsecondary Vocational Award	172,869	171,955	7,625	1,303	64,432	64,100	3,207	834	32,670	32,836	1,772	564
Associates Degree	126,185	127,753	6,167	1,896	49,232	50,207	2,770	1,103	25,634	26,240	1,531	655
High-Skill Jobs	589,747	592,204	30,323	6,866	226,649	228,631	12,647	3,676	309,956	121,675	6,288	2,239
Bachelor's Degree	362,168	364,127	18,897	4,610	140,057	141,601	8,095	2,611	75,379	76,037	4,150	1,201
Bachelor's Degree + Work Exp.	104,113	102,952	5,116	376	40,769	40,373	2,022	177	210,296	21,174	1,302	355
Masters Degree	50,577	51,269	2,604	747	17,992	18,408	1,080	421	9,828	10,011	205	569
Doctoral Degree	36,835	37,691	2,129	858	13,568	13,867	774	303	6,683	6,615	256	19
First Professional Degree	36,054	36,165	1,577	275	14,263	14,382	676	164	7,770	7,838	375	95
Total Jobs	2,864,462	2,838,440	150,688	19,536	1,072,208	1,067,430	60,218	11,277	743,350	554,502	31,618	7,073

¹ Harry Holzer and Robert Lerman, "America's Forgotten Middle-Skill Jobs: Education and Training Requirements in the Next Decade and Beyond," The Workforce Alliance (2007).

² 2009-2011 Missouri, St. Louis WIA and Kansas City WIA Short-term Occupational Employment. (2009) MERIC.

³ Missouri Department of Higher Education. (2010). Total Headcount Enrollment at Public Institutions, Fall 1981, Fall 2003 - Fall 2008 (Table 49).

EMPLOYMENT PROJECTIONS

MISSOURI

In the 2009 to 2011 employment estimates, middle-skill occupations had decreased by 1.1 percent. However, when looking at more recent projections that take into account the economic recession; the projected growth rate for 2009 to 2011 has decreased slightly to a loss of 1.8%. This is due in large part to the economic recession that started in late 2007. However, middle-skill occupations still made up over a quarter of employment in 2009 with over 1,250,865 employees out of the 2.86 million total jobs in Missouri. These numbers are projected to sink to slightly more than 1,228,116 by 2011.

The state is estimated to have close to 52,673 job openings in middle-skill occupations from 2009 to 2011, with over 6,286 of those jobs attributed to growth. Most of these growth openings are for occupations that required either Associate's Degrees or Post-secondary Vocational Awards.

TOP OCCUPATIONAL DEMAND FOR MISSOURI—2009-2011				
EDUCATIONAL LEVEL	EMPLOYMENT		OPENINGS	
	2009	2011	TOTAL	GROWTH
Associate's Degree				
Registered Nurses	61,472	62,767	3,050	1,295
Dental Hygienists	2,398	2,478	166	80
Paralegals and Legal Assistants	4,817	4,885	157	68
Medical Records and Health Information Technicians	4,552	4,614	226	62
Computer Specialists, All Other	4,148	4,200	216	52
Radiologic Technologists and Technicians	5,463	5,512	170	49
Respiratory Therapists	2,802	2,847	131	45
Postsecondary Vocational Award				
Nursing Aides, Orderlies, and Attendants	40,051	40,613	1,222	562
Licensed Practical and Licensed Vocational Nurses	18,634	18,910	1,428	276
Preschool Teachers, Except Special Education	9,579	9,733	512	154
Fitness Trainers and Aerobics Instructors	4,301	4,415	271	114
Telecommunications Equipment Installers and Repairers, Except Line Installers	5,448	5,498	248	50
Surgical Technologists	1,761	1,803	117	42
Electronic Home Entertainment Equipment Installers and Repairers	781	807	49	26
Work Experience in a Related Field				
Self-Enrichment Education Teachers	5,613	5,863	409	250
First-Line Supervisors/Managers of Food Preparation and Serving Workers	13,376	13,460	302	84
Private Detectives and Investigators	1,149	1,167	55	18
Graders and Sorters, Agricultural Products	225	234	18	9
Agricultural Inspectors	415	421	21	6
Emergency Management Specialists	313	318	17	5
Industrial Production Managers	2,099	1,945	143	0
Long-Term On-the-Job Training				
Cooks, Restaurant	22,094	22,321	1,488	227
Compliance Officers, Except Agriculture, Construction, Health & Safety, & Trans.	4,542	4,742	265	200
Claims Adjusters, Examiners, and Investigators	7,221	7,337	469	116
Coaches and Scouts	2,158	2,223	144	65
Water and Liquid Waste Treatment Plant and System Operators	2,548	2,579	133	31
Butchers and Meat Cutters	2,531	2,557	187	26
Electrical Power-Line Installers and Repairers	3,534	3,553	247	19
Moderate-Term On-the-Job Training				
Customer Service Representatives	40,594	41,069	2,979	475
Pharmacy Technicians	10,349	10,748	841	399
Medical Secretaries	19,039	19,384	863	345
Medical Assistants	8,286	8,535	405	249
Dental Assistants	5,092	5,264	336	172
Bus Drivers, School	10,316	10,376	366	60
Social and Human Service Assistants	2,704	2,752	154	48

Source: 2009-2011 Missouri Short-term Employment Projections: MERIC

Source: 2009-2011 Missouri Short-term Employment Projections: MERIC

ST. LOUIS WIA

In the St. Louis 2009 to 2011 projections, middle-skill occupations had decreased by -0.83% however; the total growth rate in St. Louis for 2009 to 2011 has also slowed to a loss of 0.4% despite the affects of the recession. The middle-skill occupations still made up a large portion of employment in 2009 with over 464,256 employees out of the 1.07 million in the St. Louis work force. These numbers are projected to shrink to slightly less than 460,000 by 2011.

The St. Louis WIA is estimated to exceed 21,000 job openings in middle-skill occupations from 2009 to 2011, with almost 4,492 of those jobs attributed to growth. Most of these growth openings are for occupations that required either Associate's Degree or Moderate-Term On-the-Job Training.

TOP OCCUPATIONAL DEMAND FOR ST. LOUIS—2009-2011				
EDUCATIONAL LEVEL	EMPLOYMENT		OPENINGS	
	2009	2011	TOTAL	GROWTH
Associate's Degree				
Registered Nurses	23,243	24,012	1,433	769
Radiologic Technologists and Technicians	2,109	2,150	88	41
Medical Records and Health Information Technicians	1,754	1,794	103	40
Dental Hygienists	951	988	71	37
Paralegals and Legal Assistants	2,056	2,092	74	36
Respiratory Therapists	1,082	1,116	67	34
Medical and Clinical Laboratory Technicians	1,314	1,334	63	20
Postsecondary Vocational Award				
Nursing Aides, Orderlies, and Attendants	13,994	14,338	575	344
Licensed Practical and Licensed Vocational Nurses	6,790	6,950	580	160
Fitness Trainers and Aerobics Instructors	1,847	1,938	158	91
Emergency Medical Technicians and Paramedics	2,742	2,798	155	56
Preschool Teachers, Except Special Education	3,598	3,636	173	38
Telecommunications Equipment Installers and Repairers, Except Line Installers	2,410	2,438	116	28
Surgical Technologists	683	708	54	25
Work Experience in a Related Field				
Self-Enrichment Education Teachers	1,991	2,098	164	107
First-Line Supervisors/Managers of Food Preparation and Serving Workers	5,187	5,262	160	75
Executive Secretaries and Administrative Assistants	9,161	9,221	309	60
Detectives and Criminal Investigators	602	623	40	21
Construction and Building Inspectors	832	846	44	14
First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	414	427	56	13
First-Line Supervisors/Managers of Personal Service Workers	1,216	1,228	74	12
Long-Term On-the-Job Training				
Claims Adjusters, Examiners, and Investigators	2,598	2,782	311	184
Cooks, Restaurant	8,750	8,910	660	160
Police and Sheriff's Patrol Officers	4,025	4,150	315	125
Fire Fighters	1,946	2,048	212	102
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	1,649	1,734	109	85
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,718	1,765	94	47
Water and Liquid Waste Treatment Plant and System Operators	872	916	79	44
Moderate-Term On-the-Job Training				
Customer Service Representatives	16,457	16,766	1,324	309
Medical Secretaries	7,451	7,631	383	180
Insurance Claims and Policy Processing Clerks	2,200	2,370	217	170
Pharmacy Technicians	3,793	3,918	287	125
Medical Assistants	3,254	3,369	176	115
Dental Assistants	2,019	2,098	144	79
Bus Drivers, School	3,852	3,929	191	77

Source: 2009-2011 St. Louis WIA Short-term Employment Projections: MERIC

Source: 2009-2011 Missouri Short-term Employment Projections: MERIC

KANSAS CITY WIA

In the Kansas City WIA 2009 to 2011 projections, middle-skill occupations had decreased by 0.45% however; in spite of the economic decline, the growth rate for 2009 to 2011 has only slightly decreased by .03% in total employment. The middle-skill occupations still made up a large sector of the employment in 2009 with over 241,410 employees of the 554,080 in the Kansas City WIA work force. By 2011 these numbers are projected to be slightly more than 240,700.

The Kansas City WIA is estimated to have over 6,287 job openings in middle-skill occupations from 2009 to 2011, with slightly less than 6,110 of those jobs attributed to growth openings. Most of the growth openings in Kansas City are in occupations that required either Associate's Degrees or Work Experience in a Related Occupation.

TOP OCCUPATIONAL DEMAND FOR KANSAS CITY—2009-2011				
EDUCATIONAL LEVEL	EMPLOYMENT		OPENINGS	
	2009	2011	TOTAL	GROWTH
Associate's Degree				
Registered Nurses	11,541	11,975	764	434
Computer Support Specialists	2,693	2,740	192	47
Radiologic Technologists and Technicians	1,037	1,062	48	25
Medical Records and Health Information Technicians	866	889	54	23
Respiratory Therapists	528	546	34	18
Paralegals and Legal Assistants	1,345	1,358	38	13
Dental Hygienists	448	461	29	13
Postsecondary Vocational Award				
Nursing Aides, Orderlies, and Attendants	6,671	6,976	415	305
Licensed Practical and Licensed Vocational Nurses	3,323	3,434	316	111
Preschool Teachers, Except Special Education	1,862	1,907	115	45
Telecommunications Equipment Installers and Repairers, Except Line Installers	1,224	1,259	80	35
Surgical Technologists	328	341	27	13
Emergency Medical Technicians and Paramedics	1,452	1,462	62	10
Psychiatric Technicians	423	432	27	9
Work Experience in a Related Field				
First-Line Supervisors/Managers of Retail Sales Workers	4,663	4,791	317	128
Executive Secretaries and Administrative Assistants	4,724	4,778	183	54
Self-Enrichment Education Teachers	1,147	1,194	80	47
First-Line Supervisors/Managers of Office and Administrative Support Workers	4,700	4,741	231	41
Managers, All Other	1,705	1,720	97	15
Detectives and Criminal Investigators	446	455	23	9
Private Detectives and Investigators	216	224	15	8
Long-Term On-the-Job Training				
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	1,151	1,216	81	65
Claims Adjusters, Examiners, and Investigators	1,845	1,875	120	30
Fire Fighters	1,123	1,152	93	29
Musicians and Singers	1,327	1,354	76	27
Athletes and Sports Competitors	251	270	28	19
Telecommunications Line Installers and Repairers	1,079	1,098	48	19
Water and Liquid Waste Treatment Plant and System Operators	503	520	37	17
Moderate-Term On-the-Job Training				
Customer Service Representatives	8,265	8,436	681	171
Truck Drivers, Heavy and Tractor-Trailer	6,751	6,879	348	128
Pharmacy Technicians	2,125	2,248	214	123
Medical Secretaries	3,733	3,810	179	77
Medical Assistants	1,549	1,608	88	59
Cooks, Institution and Cafeteria	1,659	1,687	123	28
Dental Assistants	961	988	58	27

Source: 2009-2011 Kansas City WIA Short-term Employment Projections: MERIC

Source: 2009-2011 Missouri Short-term Employment Projections: MERIC

MIDDLE-SKILL AVERAGE WAGES

There is still a high employer demand for individuals in the labor force with middle-skills, with many of these jobs paying higher than average wages. All middle-skill occupations have a varied average wage. The Missouri middle-skill occupation with the highest wages earn over \$100,000, while the lowest paid middle-skill occupation pays an average just over \$18,000. On average, occupations that require Work Experience in a Related Occupation have the highest average wages, followed closely by an Associate's Degree. These higher wages are usually attributed to the growing number of positions that include managers, supervisors, and technicians.

AVERAGE WAGES OF MIDDLE-SKILL OCCUPATIONS—2009			
EDUCATIONAL LEVEL	MISSOURI	ST. LOUIS	KANSAS CITY
Associate's Degree	\$50,771	\$51,976	\$53,671
Postsecondary Vocational Award	\$31,470	\$34,814	\$34,022
Work Experience in a Related Field	\$55,539	\$56,522	\$52,382
Moderate-Term On-the-Job Training	\$33,408	\$35,776	\$34,663
Long-Term On-the-Job Training	\$42,510	\$47,678	\$45,669

In Missouri, the 2009 average occupational wage was \$38,835, while the average wage for the state's middle-skill jobs averages slightly over \$39,500. Most middle-skill occupations require little training to attain, but their average wage is almost \$14,000 greater than the average wage of low-skill occupations. The average wage for middle-skill occupations in the St. Louis and Kansas City WIAs was higher still at \$42,624 for St. Louis and \$41,000 for Kansas City.

CONCLUSION

Missouri, St. Louis, and Kansas City WIA data presented in this report suggest that middle-skill occupations are still alive and thriving even in the current economy. They continue to make up a large share of employment in Missouri and the metro WIAs. As the economy begins to recover, more Americans will need the education and training required for employment in the new middle-skill growth occupations. These jobs provide a unique opportunity for Missourians, as employees can gain the skills and training for these careers in a shorter period of time with above average wages for many of the occupations.

Missouri has a network of 12 community college districts with 19 campuses that serve the state. These training facilities offer the work force the education they need to gain employment in growing middle-skill occupations. These middle-skill occupations not only employ a large portion of Missouri's labor force, but they also support the necessary high-skill occupations. Health aid professionals support doctors and surgeons, construction workers and electricians can carry out the plans of architects and engineers, and educational administrators make it possible for teachers and professors to educate the future workforce.

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