Appendices

Appendix 1: In-demand Occupations in the Nashville Economic Market Area, by Required Education

Appendix 2: Nashville Area's Fastest Growing Career Pathways and Related Occupations

Appendix 1: In-Demand Occupations in the Greater Nashville Area, by Education Required (500+ new and replacement jobs between 2009 and 2019)							
SOC Code	Description	Nashville Area Estimated 2009 Jobs	Average Annual Growth Rate 2009-19	Jobs to be filled (New and Replacement) as a % of 2009 Workforce	Total Demand 2009-19 (New & Replacement Jobs)	Education Level	Education Band
25-1099	Postsecondary teachers	7,654	1.4%	33%	2,494	Doctoral degree	Advanced Degree
29-1069	Physicians & surgeons	4,667	2.2%	43%	1,994	First professional degree	
23-1011	Lawyers	3,875	3.0%	53%	2,065	First professional degree	
21-2011	Clergy	2,817	1.5%	36%	1,016	Master's degree	
29-1051	Pharmacists	1,598	3.1%	58%	925	First professional degree	
21-1012	Educational, vocational, & school counselors	1,479	1.3%	34%	501	Master's degree	
21-1023	Mental health & substance abuse social workers	962	2.3%	52%	501	Master's degree	
11-1021	General & operations managers	14,480	0.6%	37%	5,339	Degree + work exp.	4-Year College Degree
13-2011	Accountants & auditors	9,504	2.8%	50%	4,786	Bachelor's degree	
11-1011	Chief executives	9,433	1.4%	44%	4,176	Degree + work exp.	
25-2021	Elementary school teachers, except special education	8,969	1.4%	38%	3,401	Bachelor's degree	
11-9141	Property, real estate, & community association managers	8,638	3.1%	53%	4,541	Bachelor's degree	
13-1111	Management analysts	5,939	2.9%	52%	3,085	Degree + work exp.	
11-3031	Financial managers	5,646	1.9%	40%	2,269	Degree + work exp.	
11-9021	Construction managers	5,361	1.2%	26%	1,390	Bachelor's degree	
41-3021	Insurance sales agents	5,326	0.9%	36%	1,904	Bachelor's degree	
25-2031	Secondary school teachers, except special & vocational education	4,768	0.8%	38%	1,834	Bachelor's degree	
13-2052	Personal financial advisors	4,723	3.2%	53%	2,524	Bachelor's degree	
27-3043	Writers & authors	4,587	1.7%	41%	1,880	Bachelor's degree	
13-1199	Business operation specialists, all other	4,296	1.7%	41%	1,770	Bachelor's degree	
25-2022	Middle school teachers, except special & vocational education	3,675	1.4%	38%	1,387	Bachelor's degree	
41-3031	Securities, commodities, & financial services sales agents	3,640	2.9%	67%	2,451	Bachelor's degree	
11-2022	Sales managers	3,070	2.0%	45%	1,370	Degree + work exp.	
15-1021	Computer programmers	2,932	0.7%	28%	810	Bachelor's degree	
15-1071	Network & computer systems administrators	2,841	2.9%	50%	1,427	Bachelor's degree	
15-1051	Computer systems analysts	2,747	2.7%	53%	1,450	Bachelor's degree	
27-2041	Music directors & composers	2,638	1.5%	38%	999	Degree + work exp.	
25-3099	Teachers & instructors, all other	2,397	2.0%	38%	903	Bachelor's degree	

SOC Code	Description	Nashville Area Estimated 2009 Jobs	Average Annual Growth Rate 2009-19	Jobs to be filled (New and Replacement) as a % of 2009 Workforce	Total Demand 2009-19 (New & Replacement Jobs)	Education Level	Education Band
11-3011	Administrative services managers	2,395	1.8%	42%	997	Degree + work exp.	4-Year College Degree
13-2051	Financial analysts	2,247	3.2%	58%	1,299	Bachelor's degree	
13-2072	Loan officers	2,174	1.6%	30%	654	Bachelor's degree	
11-9111	Medical & health services managers	2,110	2.3%	45%	957	Degree + work exp.	
15-1031	Computer software engineers, applications	2,083	3.5%	50%	1,049	Bachelor's degree	
11-3021	Computer & information systems managers	2,048	2.5%	45%	923	Degree + work exp.	
21-1021	Child, family, & school social workers	1,909	1.6%	43%	816	Bachelor's degree	
15-1081	Network systems & data communications analysts	1,786	3.5%	59%	1,057	Bachelor's degree	
11-2021	Marketing managers	1,603	2.0%	44%	713	Degree + work exp.	
13-1073	Training & development specialists	1,602	2.7%	58%	926	Bachelor's degree	
27-1024	Graphic designers	1,585	0.9%	42%	664	Bachelor's degree	
25-2012	Kindergarten teachers, except special education	1,488	1.4%	35%	523	Bachelor's degree	
11-9032	Education administrators, elementary & secondary school	1,462	0.8%	39%	577	Degree + work exp.	
27-1014	Multi-media artists & animators	1,309	1.6%	41%	539	Bachelor's degree	
25-2041	Special education teachers, preschool, kindergarten, & elementary school	1,299	1.8%	45%	587	Bachelor's degree	
27-1011	Art directors	1,281	1.7%	42%	541	Degree + work exp.	
11-9151	Social & community service managers	1,240	1.8%	43%	531	Bachelor's degree	
27-3031	Public relations specialists	1,175	2.4%	51%	596	Bachelor's degree	
13-1071	Employment, recruitment, & placement specialists	1,068	2.2%	53%	566	Bachelor's degree	
29-1111	Registered nurses	16,346	3.0%	52%	8,472	Associate's degree	Tech-Some Post
41-9022	Real estate sales agents	13,137	3.4%	56%	7,350	Postsecondary vocational award	
31-1012	Nursing aides, orderlies, & attendants	7,061	2.7%	40%	2,839	Postsecondary vocational award	
29-2061	Licensed practical & licensed vocational nurses	6,128	2.5%	60%	3,651	Postsecondary vocational award	
49-3023	Automotive service technicians & mechanics	5,140	0.7%	31%	1,604	Postsecondary vocational award	
15-1041	Computer support specialists	3,396	2.0%	50%	1,705	Associate's degree	
25-2011	Preschool teachers, except special education	3,300	2.6%	50%	1,649	Postsecondary vocational award	
39-5012	Hairdressers, hairstylists, & cosmetologists	2,985	0.3%	23%	697	Postsecondary vocational award	

SOC Code	Description	Nashville Area Estimated 2009 Jobs	Average Annual Growth Rate 2009-19	Jobs to be filled (New and Replacement) as a % of 2009 Workforce	Total Demand 2009-19 (New & Replacement Jobs)	Education Level	Education Band
13-2021	Appraisers & assessors of real estate	2,739	3.3%	57%	1,563	Postsecondary vocational award	Tech-Some Post
49-3031	Bus & truck mechanics & diesel engine specialists	2,210	0.3%	32%	714	Postsecondary vocational award	
43-6013	Medical secretaries	2,058	2.6%	44%	899	Postsecondary vocational award	
29-2041	Emergency medical technicians & paramedics	1,560	1.7%	39%	614	Postsecondary vocational award	
29-2034	Radiologic technologists & technicians	1,407	2.8%	47%	657	Associate's degree	
43-6012	Legal secretaries	1,371	3.5%	55%	750	Postsecondary vocational award	
39-9031	Fitness trainers & aerobics instructors	1,301	2.7%	49%	635	Postsecondary vocational award	
29-2012	Medical & clinical laboratory technicians	1,289	2.9%	53%	685	Associate's degree	
23-2011	Paralegals & legal assistants	1,196	5.5%	82%	981	Associate's degree	
15-1099	Computer specialists, all other	1,060	2.3%	48%	504	Associate's degree	
29-2055	Surgical technologists	1,032	3.5%	67%	690	Postsecondary vocational award	
29-2021	Dental hygienists	907	4.2%	72%	651	Associate's degree	
41-1011	First-line supervisors/managers of retail sales workers	15,911	1.2%	34%	5,454	Work exp. in a related field	Long-Term Training/Experience
41-9021	Real estate brokers	12,946	3.4%	56%	7,223	Work exp. in a related field	
43-1011	First-line supervisors/managers of office & administrative support workers	12,110	1.8%	43%	5,179	Work exp. in a related field	
11-9199	Managers, all other	10,695	1.8%	46%	4,949	Work exp. in a related field	
11-9012	Farmers & ranchers	9,161	-4.6%	6%	518	Long-term OJT	
47-2031	Carpenters	8,347	0.8%	26%	2,179	Long-term OJT	
35-2014	Cooks, restaurant	6,427	1.5%	43%	2,778	Long-term OJT	
47-1011	First-line supervisors/managers of construction trades & extraction workers	6,064	1.4%	39%	2,367	Work exp. in a related field	
41-1012	First-line supervisors/managers of non-retail sales workers	5,940	1.1%	35%	2,098	Work exp. in a related field	
27-4021	Photographers	5,252	1.4%	37%	1,935	Long-term OJT	
35-1012	First-line supervisors/managers of food preparation & serving workers	5,127	0.3%	17%	882	Work exp. in a related field	
11-9051	Food service managers	4,794	1.6%	38%	1,844	Work exp. in a related field	

SOC Code	Description	Nashville Area Estimated 2009 Jobs	Average Annual Growth Rate 2009-19	Jobs to be filled (New and Replacement) as a % of 2009 Workforce	Total Demand 2009-19 (New & Replacement Jobs)	Education Level	Education Band
51-1011	First-line supervisors/managers of production & operating workers	4,783	-0.9%	17%	796	Work exp. in a related field	Long-Term Training/Experience
27-2042	Musicians & singers	4,319	-0.2%	25%	1,060	Long-term OJT	
47-2111	Electricians	4,230	2.4%	54%	2,279	Long-term OJT	
33-3051	Police & sheriff's patrol officers	3,304	1.1%	38%	1,258	Long-term OJT	
49-1011	First-line supervisors/managers of mechanics, installers, & repairers	3,225	0.9%	38%	1,224	Work exp. in a related field	
13-1031	Claims adjusters, examiners, & investigators	3,133	1.3%	40%	1,268	Long-term OJT	
51-4121	Welders, cutters, solderers, & brazers	2,630	-0.3%	38%	990	Long-term OJT	
37-1011	First-line supervisors/managers of housekeeping & janitorial workers	2,628	1.8%	31%	813	Work exp. in a related field	
47-2152	Plumbers, pipefitters, & steamfitters	2,411	2.3%	49%	1,185	Long-term OJT	
27-2022	Coaches & scouts	2,176	2.5%	47%	1,020	Long-term OJT	
49-9021	Heating, air conditioning, & refrigeration mechanics & installers	2,141	2.9%	52%	1,121	Long-term OJT	
25-3021	Self-enrichment education teachers	2,072	3.0%	50%	1,041	Work exp. in a related field	
27-2099	Entertainers & performers, sports & related workers, all other	1,908	-0.6%	29%	560	Long-term OJT	
33-2011	Fire fighters	1,778	1.9%	52%	933	Long-term OJT	
49-2022	Telecommunications equipment installers & repairers, except line installers	1,497	-0.6%	36%	537	Long-term OJT	
49-9051	Electrical power-line installers & repairers	1,374	1.1%	50%	691	Long-term OJT	
27-1019	Artists & related workers, all other	1,353	1.7%	42%	574	Long-term OJT	
39-1021	First-line supervisors/managers of personal service workers	1,335	1.1%	41%	544	Work exp. in a related field	
27-1012	Craft artists	1,267	1.7%	42%	534	Long-term OJT	
27-1013	Fine artists, including painters, sculptors, & illustrators	1,208	1.7%	43%	518	Long-term OJT	
13-1023	Purchasing agents, except wholesale, retail, & farm products	1,203	2.0%	50%	596	Work exp. in a related field	
49-3021	Automotive body & related repairers	1,175	0.8%	43%	511	Long-term OJT	
13-1041	Compliance officers, except agriculture, construction, health & safety, & transportation	1,171	3.8%	57%	664	Long-term OJT	
13-1051	Cost estimators	1,001	2.5%	53%	535	Work exp. in a related field	

SOC Code	Description	Nashville Area Estimated 2009 Jobs	Average Annual Growth Rate 2009-19	Jobs to be filled (New and Replacement) as a % of 2009 Workforce	Total Demand 2009-19 (New & Replacement Jobs)	Education Level	Education Band
43-4051	Customer service representatives	20,797	2.4%	60%	12,453	Moderate-term OJT	Moderate Training
53-3032	Truck drivers, heavy & tractor-trailer	14,178	0.7%	30%	4,188	Moderate-term OJT	
43-6014	Secretaries, except legal, medical, & executive	12,305	1.0%	25%	3,070	Moderate-term OJT	
43-3031	Bookkeeping, accounting, & auditing clerks	11,656	1.7%	31%	3,645	Moderate-term OJT	
51-2092	Team assemblers	11,085	-1.0%	31%	3,401	Moderate-term OJT	
43-6011	Executive secretaries & administrative assistants	10,743	1.6%	32%	3,419	Moderate-term OJT	
49-9042	Maintenance & repair workers, general	10,263	1.1%	28%	2,916	Moderate-term OJT	
41-4012	Sales representatives, wholesale & manufacturing, except technical & scientific products	7,910	0.8%	33%	2,634	Moderate-term OJT	
47-2061	Construction laborers	7,839	1.7%	29%	2,300	Moderate-term OJT	
41-4011	Sales representatives, wholesale & manufacturing, technical & scientific products	5,145	1.4%	39%	2,027	Moderate-term OJT	
51-2099	Assemblers & fabricators, all other	4,638	-0.9%	28%	1,303	Moderate-term OJT	
41-3099	Sales representatives, services, all other	4,391	1.7%	45%	1,961	Moderate-term OJT	
35-2012	Cooks, institution & cafeteria	4,143	1.1%	38%	1,594	Moderate-term OJT	
51-9061	Inspectors, testers, sorters, samplers, & weighers	3,266	-0.8%	22%	724	Moderate-term OJT	
51-9199	Production workers, all other	3,245	-0.6%	34%	1,091	Moderate-term OJT	
43-3021	Billing & posting clerks & machine operators	3,108	2.5%	45%	1,393	Moderate-term OJT	
47-2141	Painters, construction & maintenance	2,902	0.7%	29%	845	Moderate-term OJT	
31-9092	Medical assistants	2,690	3.3%	50%	1,350	Moderate-term OJT	
29-2052	Pharmacy technicians	2,371	3.9%	73%	1,726	Moderate-term OJT	
33-3012	Correctional officers & jailers	2,365	1.2%	36%	853	Moderate-term OJT	
43-9021	Data entry keyers	2,130	1.0%	33%	697	Moderate-term OJT	
47-2073	Operating engineers & other construction equipment operators	1,977	1.3%	35%	693	Moderate-term OJT	

SOC Code	Description	Nashville Area Estimated 2009 Jobs	Average Annual Growth Rate 2009-19	Jobs to be filled (New and Replacement) as a % of 2009 Workforce	Total Demand 2009-19 (New & Replacement Jobs)	Education Level	Education Band
41-9099	Sales & related workers, all other	1,938	1.6%	40%	779	Moderate-term OJT	Moderate Training
31-9091	Dental assistants	1,913	4.2%	71%	1,350	Moderate-term OJT	
41-2022	Parts salespersons	1,828	1.4%	51%	929	Moderate-term OJT	
51-6011	Laundry & dry-cleaning workers	1,613	1.1%	33%	528	Moderate-term OJT	
47-2051	Cement masons & concrete finishers	1,309	2.2%	53%	695	Moderate-term OJT	
41-2031	Retail salespersons	32,047	1.7%	47%	15,098	Short-term OJT	Short-Term Training
43-9061	Office clerks, general	21,466	1.6%	32%	6,764	Short-term OJT	
53-7062	Laborers & freight, stock, & material movers, hand	20,832	-0.1%	41%	8,460	Short-term OJT	
35-3021	Combined food preparation & serving workers, including fast food	18,008	-0.4%	27%	4,783	Short-term OJT	
35-3031	Waiters & waitresses	17,615	1.3%	72%	12,599	Short-term OJT	
41-2011	Cashiers, except gaming	17,041	0.2%	50%	8,541	Short-term OJT	
37-2012	Maids & housekeeping cleaners	15,510	1.8%	38%	5,850	Short-term OJT	
43-5081	Stock clerks & order fillers	15,203	1.3%	38%	5,785	Short-term OJT	
39-9011	Child care workers	11,110	2.2%	54%	5,996	Short-term OJT	
37-2011	Janitors & cleaners, except maids & housekeeping cleaners	10,555	-0.1%	26%	2,731	Short-term OJT	
25-9041	Teacher assistants	7,483	1.1%	33%	2,498	Short-term OJT	
33-9032	Security guards	6,277	1.9%	42%	2,636	Short-term OJT	
53-3033	Truck drivers, light or delivery services	5,989	1.0%	30%	1,826	Short-term OJT	
43-4171	Receptionists & information clerks	5,531	1.7%	46%	2,562	Short-term OJT	
41-9091	Door-to-door sales workers, news & street vendors, & related workers	5,222	-0.3%	20%	1,063	Short-term OJT	
39-9021	Personal & home care aides	5,185	3.5%	54%	2,812	Short-term OJT	
53-7064	Packers & packagers, hand	5,014	-1.0%	23%	1,154	Short-term OJT	
53-7051	Industrial truck & tractor operators	5,010	-0.1%	38%	1,908	Short-term OJT	
43-5071	Shipping, receiving, & traffic clerks	4,998	-0.3%	31%	1,533	Short-term OJT	
37-3011	Landscaping & groundskeeping workers	4,849	1.9%	34%	1,625	Short-term OJT	
53-3031	Driver/sales workers	4,816	-0.6%	22%	1,047	Short-term OJT	
35-2021	Food preparation workers	4,289	0.3%	43%	1,849	Short-term OJT	
31-1011	Home health aides	4,190	3.6%	53%	2,212	Short-term OJT	
37-2019	Building cleaning workers, all other	4,078	2.7%	50%	2,046	Short-term OJT	
43-3071	Tellers	3,505	-0.9%	48%	1,680	Short-term OJT	
51-9198	Helpers--Production workers	3,406	-0.9%	28%	947	Short-term OJT	

SOC Code	Description	Nashville Area Estimated 2009 Jobs	Average Annual Growth Rate 2009-19	Jobs to be filled (New and Replacement) as a % of 2009 Workforce	Total Demand 2009-19 (New & Replacement Jobs)	Education Level	Education Band
35-9021	Dishwashers	3,349	1.8%	62%	2,089	Short-term OJT	Short-Term Training
43-3011	Bill & account collectors	3,188	4.0%	67%	2,126	Short-term OJT	
35-9031	Hosts & hostesses, restaurant, lounge, & coffee shop	3,045	1.5%	87%	2,654	Short-term OJT	
53-3022	Bus drivers, school	2,913	0.3%	23%	682	Short-term OJT	
41-2021	Counter & rental clerks	2,777	0.9%	38%	1,045	Short-term OJT	
43-5061	Production, planning, & expediting clerks	2,251	0.5%	33%	751	Short-term OJT	
41-9041	Telemarketers	2,247	0.8%	45%	1,004	Short-term OJT	
53-7061	Cleaners of vehicles & equipment	2,169	0.3%	49%	1,061	Short-term OJT	
35-9011	Dining room & cafeteria attendants & bartender helpers	2,132	1.0%	56%	1,202	Short-term OJT	
35-3022	Counter attendants, cafeteria, food concession, & coffee shop	2,010	-0.9%	74%	1,492	Short-term OJT	
35-3011	Bartenders	1,971	1.4%	52%	1,026	Short-term OJT	
39-2021	Nonfarm animal caretakers	1,934	0.0%	27%	521	Short-term OJT	
43-5021	Couriers & messengers	1,933	2.5%	53%	1,029	Short-term OJT	
43-5052	Postal service mail carriers	1,776	1.1%	46%	824	Short-term OJT	
39-9032	Recreation workers	1,718	2.4%	45%	768	Short-term OJT	
53-3041	Taxi drivers & chauffeurs	1,657	2.8%	49%	818	Short-term OJT	
43-4081	Hotel, motel, & resort desk clerks	1,647	1.4%	52%	857	Short-term OJT	
43-4111	Interviewers, except eligibility & loan	1,517	2.4%	50%	764	Short-term OJT	
45-209A	Miscellaneous agricultural workers	1,443	0.2%	38%	549	Short-term OJT	
37-3013	Tree trimmers & pruners	1,351	2.5%	41%	548	Short-term OJT	
51-3022	Meat, poultry, & fish cutters & trimmers	985	1.9%	55%	542	Short-term OJT	
49-9098	Helpers--Installation, maintenance, & repair workers	908	1.4%	64%	585	Short-term OJT	
39-3091	Amusement & recreation attendants	840	1.7%	71%	593	Short-term OJT	
47-3013	Helpers, electricians	805	4.5%	79%	638	Short-term OJT	

Appendix 2: Nashville Area's Fastest Growing Career Pathways and Related Occupations							
Pathway Group							
Career Pathway							
Minimum Education Requirement							
Occupations	**2009 Jobs**	**2019 Jobs**	**Change**	**% Change**	**Current Hourly Earnings**	**LQ**	**Annual Openings 2009-2019**
Agriculture, Food & Natural Resources	120,820	130,411	9,591	7.94%	$21.56	0.95	4,319
Animal Systems Pathway	49,550	50,704	1,154	2.33%	$18.19	0.88	1,486
Associate's degree	436	634	198	45.41%	$13.33	0.96	31
Veterinary technologists and technicians (SOC 29-2056)	436	634	198	45.41%	$13.33	0.96	31
Bachelor's degree	131	170	39	29.77%	$27.22	0.42	8
Animal scientists (SOC 19-1011)	16	20	4	25.00%	$18.65	0.58	1
Biological scientists, all other (SOC 19-1029)	87	116	29	33.33%	$31.49	0.49	6
Zoologists and wildlife biologists (SOC 19-1023)	29	35	6	20.69%	$18.85	0.26	2
Degree plus work experience	2,218	1,564	(654)	(29.49%)	$11.15	0.54	42
Farm, ranch, and other agricultural managers (SOC 11-9011)	2,218	1,564	(654)	(29.49%)	$11.15	0.54	42
Doctoral degree	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
First professional degree	335	463	128	38.21%	$30.08	0.76	19
Veterinarians (SOC 29-1131)	335	463	128	38.21%	$30.08	0.76	19
Long-term on-the-job training	9,161	5,705	(3,456)	(37.73%)	$7.26	0.65	52
Farmers and ranchers (SOC 11-9012)	9,161	5,705	(3,456)	(37.73%)	$7.26	0.65	52
Moderate-term on-the-job training	9,536	11,114	1,578	16.55%	$21.65	1.23	399
Sales representatives, services, all other (SOC 41-3099)	4,391	5,203	812	18.49%	$19.23	0.96	196
Sales representatives, wholesale and manufacturing, technical and scientific products (SOC 41-4011)	5,145	5,911	766	14.89%	$23.72	1.61	203
Short-term on-the-job training	4,087	4,316	229	5.60%	$13.84	0.51	137
Animal breeders (SOC 45-2021)	39	29	(10)	(25.64%)	$8.48	0.49	1
Miscellaneous agricultural workers (SOC 45-209A)	1,443	1,469	26	1.80%	$10.72	0.28	55
Nonfarm animal caretakers (SOC 39-2021)	1,934	1,942	8	0.41%	$17.01	0.76	52
Veterinary assistants and laboratory animal caretakers (SOC 31-9096)	671	876	205	30.55%	$11.93	1.40	29
Work experience in a related field	15,991	17,942	1,951	12.20%	$16.92	1.13	549
Agricultural inspectors (SOC 45-2011)	60	76	16	26.67%	$20.66	0.69	3
First-line supervisors/managers of retail sales workers (SOC 41-1011)	15,911	17,847	1,936	12.17%	$16.90	1.14	545
Purchasing agents and buyers, farm products (SOC 13-1021)	20	20	0	0.00%	$21.00	0.21	1

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Food Products and Processing Systems Pathway	20,246	22,870	2,624	12.96%	$25.93	0.92	739
Bachelor's degree	1,734	1,998	264	15.22%	$32.85	0.80	81
Agricultural engineers (SOC 17-2021)	13	16	3	23.08%	$33.80	0.87	1
Dietitians and nutritionists (SOC 29-1031)	404	491	87	21.53%	$28.83	0.97	22
Environmental engineers (SOC 17-2081)	288	369	81	28.13%	$34.73	0.90	15
Food scientists and technologists (SOC 19-1012)	25	31	6	24.00%	$20.49	0.32	2
Industrial engineers (SOC 17-2112)	1,005	1,091	86	8.56%	$34.27	0.75	42
Doctoral degree	7,844	9,045	1,201	15.31%	$32.11	0.76	260
Biochemists and biophysicists (SOC 19-1021)	11	14	3	27.27%	$20.80	0.07	1
Medical scientists, except epidemiologists (SOC 19-1042)	98	138	40	40.82%	$21.00	0.15	6
Microbiologists (SOC 19-1022)	81	98	17	20.99%	$21.56	0.77	4
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Long-term on-the-job training	618	625	7	1.13%	$14.74	0.77	24
Butchers and meat cutters (SOC 51-3021)	618	625	7	1.13%	$14.74	0.77	24
Moderate-term on-the-job training	5,212	5,993	781	14.98%	$23.60	1.38	206
Sales representatives, wholesale and manufacturing, technical and scientific products (SOC 41-4011)	5,145	5,911	766	14.89%	$23.72	1.61	203
Slaughterers and meat packers (SOC 51-3023)	67	82	15	22.39%	$14.52	0.12	4
Short-term on-the-job training	1,828	2,116	288	15.75%	$10.62	0.97	88
Food and tobacco roasting, baking, and drying machine operators and tenders (SOC 51-3091)	83	81	(2)	(2.41%)	$14.16	0.80	3
Food batchmakers (SOC 51-3092)	649	729	80	12.33%	$10.08	1.03	26
Food cooking machine operators and tenders (SOC 51-3093)	110	118	8	7.27%	$9.40	0.50	4
Meat, poultry, and fish cutters and trimmers (SOC 51-3022)	985	1,189	204	20.71%	$10.82	1.04	54
Work experience in a related field	3,009	3,093	84	2.79%	$21.68	1.03	80
Agricultural inspectors (SOC 45-2011)	60	76	16	26.67%	$20.66	0.69	3
First-line supervisors/managers of helpers, laborers, and material movers, hand (SOC 53-1021)	1,704	1,811	107	6.28%	$20.18	1.55	48
First-line supervisors/managers of transportation and material-moving machine and vehicle operators (SOC 53-1031)	1,115	1,073	(42)	(3.77%)	$24.29	0.84	24
Purchasing agents and buyers, farm products (SOC 13-1021)	20	20	0	0.00%	$21.00	0.21	1
Supervisors, farming, fishing, and forestry workers (SOC 45-1099)	109	114	5	4.59%	$19.46	0.30	4

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Natural Resources Systems Pathway	24,074	25,437	1,363	5.66%	$30.98	0.98	917
Associate's degree	411	497	86	20.92%	$19.08	0.42	24
Biological technicians (SOC 19-4021)	165	200	35	21.21%	$15.14	0.36	9
Environmental science and protection technicians, including health (SOC 19-4091)	95	119	24	25.26%	$20.89	0.47	7
Fish and game wardens (SOC 33-3031)	84	94	10	11.90%	$28.76	1.85	3
Forest and conservation technicians (SOC 19-4093)	60	76	16	26.67%	$13.69	0.33	4
Geological and petroleum technicians (SOC 19-4041)	7	8	1	14.29%	$20.67	0.09	0
Bachelor's degree	1,358	1,614	256	18.85%	$22.75	1.11	58
Cartographers and photogrammetrists (SOC 17-1021)	53	62	9	16.98%	$22.72	0.52	2
Conservation scientists (SOC 19-1031)	43	51	8	18.60%	$18.28	0.30	1
Mining and geological engineers, including mining safety engineers (SOC 17-2151)	23	26	3	13.04%	$26.09	0.24	1
Social and community service managers (SOC 11-9151)	1,240	1,476	236	19.03%	$22.85	1.39	53
Degree plus work experience	16,790	16,974	184	1.10%	$34.90	1.13	581
Farm, ranch, and other agricultural managers (SOC 11-9011)	2,218	1,564	(654)	(29.49%)	$11.15	0.54	42
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Natural sciences managers (SOC 11-9121)	92	114	22	23.91%	$36.73	0.36	5
Doctoral degree	98	138	40	40.82%	$21.00	0.15	6
Medical scientists, except epidemiologists (SOC 19-1042)	98	138	40	40.82%	$21.00	0.15	6
Master's degree	566	703	137	24.20%	$25.99	0.56	31
Environmental scientists and specialists, including health (SOC 19-2041)	423	527	104	24.59%	$26.34	0.69	23
Geoscientists, except hydrologists and geographers (SOC 19-2042)	96	118	22	22.92%	$24.31	0.35	5
Hydrologists (SOC 19-2043)	47	57	10	21.28%	$26.26	0.35	2
Moderate-term on-the-job training	2,862	3,430	568	19.85%	$16.84	0.77	127
Excavating and loading machine and dragline operators (SOC 53-7032)	323	371	48	14.86%	$17.30	0.84	15
Fallers (SOC 45-4021)	43	39	(4)	(9.30%)	$26.43	0.33	1
Fishers and related fishing workers (SOC 45-3011)	173	230	57	32.95%	$7.65	0.46	10
Hazardous materials removal workers (SOC 47-4041)	253	459	206	81.42%	$14.38	1.55	28
Logging equipment operators (SOC 45-4022)	49	42	(7)	(14.29%)	$25.89	0.17	1
Log graders and scalers (SOC 45-4023)	44	39	(5)	(11.36%)	$27.17	0.41	1
Operating engineers and other construction equipment operators (SOC 47-2073)	1,977	2,250	273	13.81%	$17.37	0.82	69
Short-term on-the-job training	386	539	153	39.64%	$16.22	2.42	32
Sailors and marine oilers (SOC 53-5011)	386	539	153	39.64%	$16.22	2.42	32
Work experience in a related field	1,604	1,543	(61)	(3.80%)	$31.47	1.03	58
Industrial production managers (SOC 11-3051)	785	693	(92)	(11.72%)	$34.82	0.81	30
Transportation, storage, and distribution managers (SOC 11-3071)	819	850	31	3.79%	$28.28	1.33	28

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Plant Systems Pathway	50,968	52,686	1,718	3.37%	$19.78	0.85	1,642
Associate's degree	225	276	51	22.67%	$14.75	0.35	14
Biological technicians (SOC 19-4021)	165	200	35	21.21%	$15.14	0.36	9
Forest and conservation technicians (SOC 19-4093)	60	76	16	26.67%	$13.69	0.33	4
Bachelor's degree	6,103	7,714	1,611	26.40%	$20.64	0.80	324
Biological scientists, all other (SOC 19-1029)	87	116	29	33.33%	$31.49	0.49	6
Farm and home management advisors (SOC 25-9021)	87	95	8	9.20%	$18.81	0.91	3
Foresters (SOC 19-1032)	60	71	11	18.33%	$15.73	0.60	2
Loan officers (SOC 13-2072)	2,174	2,542	368	16.93%	$25.63	1.15	65
Securities, commodities, and financial services sales agents (SOC 41-3031)	3,640	4,825	1,185	32.55%	$17.42	0.72	245
Soil and plant Scientists (SOC 19-1013)	25	31	6	24.00%	$20.43	0.29	1
Zoologists and wildlife biologists (SOC 19-1023)	29	35	6	20.69%	$18.85	0.26	2
Degree plus work experience	2,650	1,899	(751)	(28.34%)	$11.65	0.59	55
Farm, ranch, and other agricultural managers (SOC 11-9011)	2,218	1,564	(654)	(29.49%)	$11.15	0.54	42
Reporters and correspondents (SOC 27-3022)	433	335	(98)	(22.63%)	$14.24	1.02	12
Doctoral degree	7,747	8,907	1,160	14.97%	$32.25	0.81	254
Biochemists and biophysicists (SOC 19-1021)	11	14	3	27.27%	$20.80	0.07	1
Microbiologists (SOC 19-1022)	81	98	17	20.99%	$21.56	0.77	4
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Long-term on-the-job training	9,161	5,705	(3,456)	(37.73%)	$7.26	0.65	52
Farmers and ranchers (SOC 11-9012)	9,161	5,705	(3,456)	(37.73%)	$7.26	0.65	52
Moderate-term on-the-job training	5,145	5,911	766	14.89%	$23.72	1.61	203
Sales representatives, wholesale and manufacturing, technical and scientific products (SOC 41-4011)	5,145	5,911	766	14.89%	$23.72	1.61	203
Short-term on-the-job training	2,793	3,197	404	14.46%	$12.32	0.51	110
Miscellaneous agricultural workers (SOC 45-209A)	1,443	1,469	26	1.80%	$10.72	0.28	55
Tree trimmers and pruners (SOC 37-3013)	1,351	1,727	376	27.83%	$14.02	1.61	55
Work experience in a related field	17,143	19,077	1,934	11.28%	$21.31	1.02	631
First-line supervisors/managers of landscaping, lawn service, and groundskeeping workers (SOC 37-1012)	847	1,035	188	22.20%	$15.82	0.91	29
First-line supervisors/managers of production and operating workers (SOC 51-1011)	4,783	4,388	(395)	(8.26%)	$23.49	1.16	80
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Transportation, storage, and distribution managers (SOC 11-3071)	819	850	31	3.79%	$28.28	1.33	28
Power Structural and Technical Systems Pathway	25,893	29,067	3,174	12.26%	$23.06	0.84	1,008
Associate's degree	4,332	5,071	739	17.06%	$20.34	0.93	201
Broadcast technicians (SOC 27-4012)	281	266	(15)	(5.34%)	$13.61	1.16	9
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Electrical and electronic engineering technicians (SOC 17-3023)	553	555	2	0.36%	$26.46	0.59	14
Environmental science and protection technicians, including health (SOC 19-4091)	95	119	24	25.26%	$20.89	0.47	7
Geological and petroleum technicians (SOC 19-4041)	7	8	1	14.29%	$20.67	0.09	0
Bachelor's degree	3,484	4,509	1,025	29.42%	$28.33	0.89	178

Pathway Group / Career Pathway / Minimum Education Requirement / Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Database administrators (SOC 15-1061)	650	833	183	28.15%	$31.81	0.99	30
Farm and home management advisors (SOC 25-9021)	87	95	8	9.20%	$18.81	0.91	3
Doctoral degree	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Long-term on-the-job training	5,873	5,738	(135)	(2.30%)	$17.78	0.98	185
Audio and video equipment technicians (SOC 27-4011)	463	487	24	5.18%	$14.45	1.26	18
Machinists (SOC 51-4041)	2,141	1,920	(221)	(10.32%)	$20.43	0.83	40
Water and liquid waste treatment plant and system operators (SOC 51-8031)	639	781	142	22.22%	$17.90	0.93	28
Welders, cutters, solderers, and brazers (SOC 51-4121)	2,630	2,551	(79)	(3.00%)	$16.18	1.08	99
Moderate-term on-the-job training	1,947	2,237	290	14.89%	$10.90	1.65	99
Parts salespersons (SOC 41-2022)	1,828	2,094	266	14.55%	$10.91	1.60	93
Radio operators (SOC 27-4013)	119	144	25	21.01%	$10.62	3.54	6
Postsecondary vocational award	1,161	1,248	87	7.49%	$16.93	1.24	41
Mobile heavy equipment mechanics, except engines (SOC 49-3042)	734	845	111	15.12%	$17.88	0.98	28
Sound engineering technicians (SOC 27-4014)	427	402	(25)	(5.85%)	$15.26	2.87	14
Short-term on-the-job training	1,443	1,469	26	1.80%	$10.72	0.28	55
Miscellaneous agricultural workers (SOC 45-209A)	1,443	1,469	26	1.80%	$10.72	0.28	55
Architecture & Construction	82,534	94,888	12,354	14.97%	$23.14	0.99	3,075
Construction Pathway	61,466	70,938	9,472	15.41%	$23.19	1.02	2,330
Bachelor's degree	8,061	9,367	1,306	16.20%	$24.19	1.02	265
Civil engineers (SOC 17-2051)	1,097	1,204	107	9.75%	$31.34	0.53	33
Construction managers (SOC 11-9021)	5,361	6,066	705	13.15%	$23.60	1.16	139
Training and development specialists (SOC 13-1073)	1,602	2,096	494	30.84%	$21.37	1.23	93
Degree plus work experience	6,336	7,498	1,162	18.34%	$34.65	1.23	267
Engineering managers (SOC 11-9041)	876	887	11	1.26%	$39.12	0.75	24
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Purchasing managers (SOC 11-3061)	428	471	43	10.05%	$34.03	1.13	18
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Training and development managers (SOC 11-3042)	359	452	93	25.91%	$27.79	1.84	17
Long-term on-the-job training	19,026	22,370	3,344	17.58%	$19.97	1.01	755
Brickmasons and blockmasons (SOC 47-2021)	732	845	113	15.44%	$22.60	1.00	33
Carpenters (SOC 47-2031)	8,347	9,058	711	8.52%	$20.87	0.92	218
Electricians (SOC 47-2111)	4,230	5,351	1,121	26.50%	$19.33	1.14	228
Glaziers (SOC 47-2121)	660	699	39	5.91%	$14.52	1.96	31
Heating, air conditioning, and refrigeration mechanics and installers (SOC 49-9021)	2,141	2,854	713	33.30%	$19.38	1.19	112
Plasterers and stucco masons (SOC 47-2161)	188	192	4	2.13%	$18.56	0.68	5
Plumbers, pipefitters, and steamfitters (SOC 47-2152)	2,411	3,025	614	25.47%	$19.72	0.93	119
Structural iron and steel workers (SOC 47-2221)	316	346	30	9.49%	$16.85	0.71	10
Moderate-term on-the-job training	20,430	22,790	2,360	11.55%	$22.07	1.01	732
Cement masons and concrete finishers (SOC 47-2051)	1,309	1,630	321	24.52%	$16.14	1.36	70
Floor sanders and finishers (SOC 47-2043)	260	290	30	11.54%	$20.95	1.25	11
Operating engineers and other construction equipment operators (SOC 47-2073)	1,977	2,250	273	13.81%	$17.37	0.82	69

Pathway Group / Career Pathway / Minimum Education Requirement / Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Painters, construction and maintenance (SOC 47-2141)	2,902	3,106	204	7.03%	$20.64	0.92	85
Roofers (SOC 47-2181)	928	1,039	111	11.96%	$20.47	0.95	32
Sales representatives, wholesale and manufacturing, except technical and scientific products (SOC 41-4012)	7,910	8,564	654	8.27%	$23.81	0.84	263
Sales representatives, wholesale and manufacturing, technical and scientific products (SOC 41-4011)	5,145	5,911	766	14.89%	$23.72	1.61	203
Work experience in a related field	7,612	8,913	1,301	17.09%	$23.32	0.92	311
Construction and building inspectors (SOC 47-4011)	548	626	78	14.23%	$21.22	0.71	20
Cost estimators (SOC 13-1051)	1,001	1,285	284	28.37%	$24.06	0.80	54
First-line supervisors/managers of construction trades and extraction workers (SOC 47-1011)	6,064	7,002	938	15.47%	$23.39	0.97	237
Design/Pre-construction Pathway	10,811	12,005	1,194	11.04%	$29.71	0.81	368
Associate's degree	600	701	101	16.83%	$18.47	0.97	29
Interior designers (SOC 27-1025)	600	701	101	16.83%	$18.47	0.97	29
Bachelor's degree	6,977	7,446	469	6.72%	$29.17	0.73	210
Architects, except landscape and naval (SOC 17-1011)	686	687	1	0.15%	$34.01	0.68	18
Civil engineers (SOC 17-2051)	1,097	1,204	107	9.75%	$31.34	0.53	33
Computer programmers (SOC 15-1021)	2,932	3,133	201	6.86%	$26.69	1.12	81
Electrical engineers (SOC 17-2071)	314	317	3	0.96%	$36.73	0.33	9
Environmental engineers (SOC 17-2081)	288	369	81	28.13%	$34.73	0.90	15
Landscape architects (SOC 17-1012)	284	307	23	8.10%	$27.51	0.74	8
Mechanical engineers (SOC 17-2141)	750	753	3	0.40%	$36.45	0.49	25
Surveyors (SOC 17-1022)	359	351	(8)	(2.23%)	$15.27	0.94	11
Technical writers (SOC 27-3042)	267	324	57	21.35%	$20.78	0.75	10
Degree plus work experience	2,048	2,618	570	27.83%	$39.18	1.18	92
Computer and information systems managers (SOC 11-3021)	2,048	2,618	570	27.83%	$39.18	1.18	92
Long-term on-the-job training	30	25	(5)	(16.67%)	$19.02	0.61	1
Model makers, wood (SOC 51-7031)	30	25	(5)	(16.67%)	$19.02	0.61	1
Master's degree	119	138	19	15.97%	$24.09	0.48	4
Urban and regional planners (SOC 19-3051)	119	138	19	15.97%	$24.09	0.48	4
Moderate-term on-the-job training	134	119	(15)	(11.19%)	$15.47	2.62	2
Model makers, metal and plastic (SOC 51-4061)	134	119	(15)	(11.19%)	$15.47	2.62	2
Postsecondary vocational award	355	331	(24)	(6.76%)	$24.71	0.70	9
Mechanical drafters (SOC 17-3013)	355	331	(24)	(6.76%)	$24.71	0.70	9
Work experience in a related field	548	626	78	14.23%	$21.22	0.71	20
Construction and building inspectors (SOC 47-4011)	548	626	78	14.23%	$21.22	0.71	20
Maintenance/Operations Pathway	46,052	53,387	7,335	15.93%	$20.06	0.97	1,692
Associate's degree	636	725	89	13.99%	$22.47	0.94	23
Civil engineering technicians (SOC 17-3022)	425	454	29	6.82%	$22.95	0.76	12
Environmental engineering technicians (SOC 17-3025)	212	271	59	27.83%	$21.52	1.58	10
Bachelor's degree	7,224	8,152	928	12.85%	$25.76	0.89	201
Civil engineers (SOC 17-2051)	1,097	1,204	107	9.75%	$31.34	0.53	33
Construction managers (SOC 11-9021)	5,361	6,066	705	13.15%	$23.60	1.16	139
Engineers, all other (SOC 17-2199)	477	512	35	7.34%	$31.16	0.42	15
Environmental engineers (SOC 17-2081)	288	369	81	28.13%	$34.73	0.90	15
Degree plus work experience	2,395	2,866	471	19.67%	$26.85	1.63	100

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Administrative services managers (SOC 11-3011)	2,395	2,866	471	19.67%	$26.85	1.63	100
Long-term on-the-job training	19,026	22,370	3,344	17.58%	$19.97	1.01	755
Brickmasons and blockmasons (SOC 47-2021)	732	845	113	15.44%	$22.60	1.00	33
Carpenters (SOC 47-2031)	8,347	9,058	711	8.52%	$20.87	0.92	218
Electricians (SOC 47-2111)	4,230	5,351	1,121	26.50%	$19.33	1.14	228
Glaziers (SOC 47-2121)	660	699	39	5.91%	$14.52	1.96	31
Heating, air conditioning, and refrigeration mechanics and installers (SOC 49-9021)	2,141	2,854	713	33.30%	$19.38	1.19	112
Plasterers and stucco masons (SOC 47-2161)	188	192	4	2.13%	$18.56	0.68	5
Plumbers, pipefitters, and steamfitters (SOC 47-2152)	2,411	3,025	614	25.47%	$19.72	0.93	119
Structural iron and steel workers (SOC 47-2221)	316	346	30	9.49%	$16.85	0.71	10
Moderate-term on-the-job training	8,464	9,517	1,053	12.44%	$18.44	0.96	309
Cement masons and concrete finishers (SOC 47-2051)	1,309	1,630	321	24.52%	$16.14	1.36	70
Construction and related workers, all other (SOC 47-4099)	158	177	19	12.03%	$20.33	0.50	8
Floor sanders and finishers (SOC 47-2043)	260	290	30	11.54%	$20.95	1.25	11
Highway maintenance workers (SOC 47-4051)	929	1,024	95	10.23%	$14.36	1.11	36
Operating engineers and other construction equipment operators (SOC 47-2073)	1,977	2,250	273	13.81%	$17.37	0.82	69
Painters, construction and maintenance (SOC 47-2141)	2,902	3,106	204	7.03%	$20.64	0.92	85
Roofers (SOC 47-2181)	928	1,039	111	11.96%	$20.47	0.95	32
Short-term on-the-job training	7,099	8,213	1,114	15.69%	$13.62	0.91	238
Landscaping and groundskeeping workers (SOC 37-3011)	4,849	5,844	995	20.52%	$11.74	0.80	162
Production, planning, and expediting clerks (SOC 43-5061)	2,251	2,369	118	5.24%	$17.74	1.35	75
Work experience in a related field	1,209	1,544	335	27.71%	$22.82	0.76	66
Cost estimators (SOC 13-1051)	1,001	1,285	284	28.37%	$24.06	0.80	54
First-line supervisors/managers, protective service workers, all other (SOC 33-1099)	208	259	51	24.52%	$17.21	0.61	13
Arts, A/V Technology & Communications	62,746	68,921	6,175	9.84%	$23.51	1.16	2,315
Audio and Video Technologies Pathway	7,657	8,860	1,203	15.71%	$17.64	1.13	348
Associate's degree	3,396	4,123	727	21.41%	$19.90	1.05	170
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Bachelor's degree	3,372	3,848	476	14.12%	$16.06	1.13	146
Commercial and industrial designers (SOC 27-1021)	478	585	107	22.38%	$19.04	1.03	26
Graphic designers (SOC 27-1024)	1,585	1,731	146	9.21%	$17.90	0.93	66
Multi-media artists and animators (SOC 27-1014)	1,309	1,532	223	17.04%	$12.70	1.56	54
Long-term on-the-job training	463	487	24	5.18%	$14.45	1.26	18
Audio and video equipment technicians (SOC 27-4011)	463	487	24	5.18%	$14.45	1.26	18
Postsecondary vocational award	427	402	(25)	(5.85%)	$15.26	2.87	14
Sound engineering technicians (SOC 27-4014)	427	402	(25)	(5.85%)	$15.26	2.87	14
Journalism and Broadcasting Pathway	22,004	23,544	1,540	7.00%	$29.46	1.37	820
Associate's degree	281	266	(15)	(5.34%)	$13.61	1.16	9
Broadcast technicians (SOC 27-4012)	281	266	(15)	(5.34%)	$13.61	1.16	9
Bachelor's degree	5,580	6,459	879	15.75%	$11.91	1.64	222
Editors (SOC 27-3041)	993	1,038	45	4.53%	$15.08	0.99	34
Writers and authors (SOC 27-3043)	4,587	5,421	834	18.18%	$11.23	1.87	188

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Degree plus work experience	15,093	15,834	741	4.91%	$37.43	1.29	554
Broadcast news analysts (SOC 27-3021)	180	203	23	12.78%	$15.05	1.60	7
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Reporters and correspondents (SOC 27-3022)	433	335	(98)	(22.63%)	$14.24	1.02	12
Long-term on-the-job training	1,051	985	(66)	(6.28%)	$12.33	1.38	36
Audio and video equipment technicians (SOC 27-4011)	463	487	24	5.18%	$14.45	1.26	18
Radio and television announcers (SOC 27-3011)	587	498	(89)	(15.16%)	$10.63	1.51	18
Performing Arts Pathway	26,773	29,754	2,981	11.13%	$20.04	1.20	920
Associate's degree	533	616	83	15.57%	$22.77	1.33	25
Fashion designers (SOC 27-1022)	533	616	83	15.57%	$22.77	1.33	25
Bachelor's degree	6,168	7,153	985	15.97%	$12.55	1.57	251
Editors (SOC 27-3041)	993	1,038	45	4.53%	$15.08	0.99	34
Film and video editors (SOC 27-4032)	182	185	3	1.65%	$15.02	0.96	6
Set and exhibit designers (SOC 27-1027)	406	510	104	25.62%	$20.04	1.20	23
Writers and authors (SOC 27-3043)	4,587	5,421	834	18.18%	$11.23	1.87	188
Degree plus work experience	3,759	4,288	529	14.07%	$11.68	1.67	148
Music directors and composers (SOC 27-2041)	2,638	3,073	435	16.49%	$10.15	1.90	100
Producers and directors (SOC 27-2012)	1,121	1,215	94	8.39%	$15.33	1.28	48
Doctoral degree	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Long-term on-the-job training	5,412	5,459	47	0.87%	$16.16	1.97	153
Actors (SOC 27-2011)	861	993	132	15.33%	$8.19	1.37	36
Dancers (SOC 27-2031)	232	223	(9)	(3.88%)	$10.66	1.56	11
Musicians and singers (SOC 27-2042)	4,319	4,242	(77)	(1.78%)	$18.05	2.23	106
Moderate-term on-the-job training	3,157	3,350	193	6.11%	$20.11	0.94	92
Camera operators, television, video, and motion picture (SOC 27-4031)	254	244	(10)	(3.94%)	$14.28	1.30	7
Painters, construction and maintenance (SOC 47-2141)	2,902	3,106	204	7.03%	$20.64	0.92	85
Postsecondary vocational award	91	93	2	2.20%	$18.26	0.86	2
Makeup artists, theatrical and performance (SOC 39-5091)	91	93	2	2.20%	$18.26	0.86	2
Printing Technologies Pathway	4,010	3,662	(348)	(8.68%)	$18.49	1.04	119
Bachelor's degree	1,585	1,731	146	9.21%	$17.90	0.93	66
Graphic designers (SOC 27-1024)	1,585	1,731	146	9.21%	$17.90	0.93	66
Moderate-term on-the-job training	1,740	1,352	(388)	(22.30%)	$19.03	1.29	40
Printing machine operators (SOC 51-5023)	1,740	1,352	(388)	(22.30%)	$19.03	1.29	40
Postsecondary vocational award	685	580	(105)	(15.33%)	$18.52	0.95	13
Desktop publishers (SOC 43-9031)	324	333	9	2.78%	$19.33	0.98	8
Prepress technicians and workers (SOC 51-5022)	361	247	(114)	(31.58%)	$17.77	0.90	5
Telecommunications Technologies Pathway	2,798	3,484	686	24.52%	$23.67	0.69	133
Associate's degree	553	555	2	0.36%	$26.46	0.59	14
Electrical and electronic engineering technicians (SOC 17-3023)	553	555	2	0.36%	$26.46	0.59	14
Bachelor's degree	1,786	2,509	723	40.48%	$23.09	0.82	106
Network systems and data communications analysts (SOC 15-1081)	1,786	2,509	723	40.48%	$23.09	0.82	106
Long-term on-the-job training	459	420	(39)	(8.50%)	$22.63	0.40	13

Pathway Group / Career Pathway / Minimum Education Requirement / Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Telecommunications line installers and repairers (SOC 49-9052)	459	420	(39)	(8.50%)	$22.63	0.40	13
Visual Arts Pathway	11,036	12,757	1,721	15.59%	$16.68	1.15	451
Associate's degree	1,133	1,317	184	16.24%	$20.51	1.11	54
Fashion designers (SOC 27-1022)	533	616	83	15.57%	$22.77	1.33	25
Interior designers (SOC 27-1025)	600	701	101	16.83%	$18.47	0.97	29
Bachelor's degree	3,372	3,848	476	14.12%	$16.06	1.13	146
Commercial and industrial designers (SOC 27-1021)	478	585	107	22.38%	$19.04	1.03	26
Graphic designers (SOC 27-1024)	1,585	1,731	146	9.21%	$17.90	0.93	66
Multi-media artists and animators (SOC 27-1014)	1,309	1,532	223	17.04%	$12.70	1.56	54
Long-term on-the-job training	6,459	7,488	1,029	15.93%	$16.29	1.17	245
Fine artists, including painters, sculptors, and illustrators (SOC 27-1013)	1,208	1,435	227	18.79%	$11.38	1.75	52
Photographers (SOC 27-4021)	5,252	6,053	801	15.25%	$17.40	1.08	193
Master's degree	73	104	31	42.47%	$20.25	1.26	5
Curators (SOC 25-4012)	73	104	31	42.47%	$20.25	1.26	5
Business, Management & Administration	315,004	373,241	58,237	18.49%	$17.62	1.14	13,945
Administrative and Information Support Pathway	83,393	98,877	15,484	18.57%	$14.78	1.23	3,670
Associate's degree	1,196	2,038	842	70.40%	$19.26	1.02	98
Paralegals and legal assistants (SOC 23-2011)	1,196	2,038	842	70.40%	$19.26	1.02	98
Moderate-term on-the-job training	38,870	47,616	8,746	22.50%	$15.08	1.33	1,847
Computer operators (SOC 43-9011)	777	757	(20)	(2.57%)	$17.22	1.43	11
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Data entry keyers (SOC 43-9021)	2,130	2,352	222	10.42%	$12.40	1.26	70
Dispatchers, except police, fire, and ambulance (SOC 43-5032)	1,096	1,089	(7)	(0.64%)	$16.11	0.95	30
Executive secretaries and administrative assistants (SOC 43-6011)	10,743	12,579	1,836	17.09%	$17.12	1.17	342
Medical assistants (SOC 31-9092)	2,690	3,735	1,045	38.85%	$14.13	0.90	135
Word processors and typists (SOC 43-9022)	637	720	83	13.03%	$17.21	0.70	14
Postsecondary vocational award	2,439	3,211	772	31.65%	$19.12	0.83	113
Court reporters (SOC 23-2091)	154	183	29	18.83%	$29.04	0.56	5
Desktop publishers (SOC 43-9031)	324	333	9	2.78%	$19.33	0.98	8
Legal secretaries (SOC 43-6012)	1,371	1,930	559	40.77%	$18.39	0.76	75
Medical transcriptionists (SOC 31-9094)	589	765	176	29.88%	$18.16	1.17	24
Short-term on-the-job training	28,778	31,605	2,827	9.82%	$11.33	1.15	1,095
Communications equipment operators, all other (SOC 43-2099)	15	14	(1)	(6.67%)	$16.24	0.94	0
Library assistants, clerical (SOC 43-4121)	588	654	66	11.22%	$12.15	0.81	31
Order clerks (SOC 43-4151)	1,138	912	(226)	(19.86%)	$13.82	0.86	37
Receptionists and information clerks (SOC 43-4171)	5,531	6,548	1,017	18.39%	$12.09	0.83	256
Shipping, receiving, and traffic clerks (SOC 43-5071)	4,998	4,868	(130)	(2.60%)	$12.96	1.17	153
Stock clerks and order fillers (SOC 43-5081)	15,203	17,313	2,110	13.88%	$10.36	1.38	579
Switchboard operators, including answering service (SOC 43-2011)	1,190	1,187	(3)	(0.25%)	$10.69	1.44	33
Telephone operators (SOC 43-2021)	116	108	(8)	(6.90%)	$11.53	0.85	4
Work experience in a related field	12,110	14,407	2,297	18.97%	$20.66	1.33	518

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
First-line supervisors/managers of office and administrative support workers (SOC 43-1011)	12,110	14,407	2,297	18.97%	$20.66	1.33	518
Business Analysis Pathway	24,699	28,768	4,069	16.47%	$33.20	1.02	1,075
Bachelor's degree	3,852	5,004	1,152	29.91%	$26.91	0.75	205
Budget analysts (SOC 13-2031)	281	344	63	22.42%	$28.75	0.77	11
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Market research analysts (SOC 19-3021)	824	1,081	257	31.19%	$23.30	0.51	49
Degree plus work experience	20,419	23,190	2,771	13.57%	$34.59	1.10	842
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Management analysts (SOC 13-1111)	5,939	7,894	1,955	32.92%	$25.36	0.85	309
Master's degree	428	573	145	33.88%	$25.22	1.19	27
Operations research analysts (SOC 15-2031)	428	573	145	33.88%	$25.22	1.19	27
Business Financial Management and Accounting Pathway	82,639	101,599	18,960	22.94%	$21.67	1.20	3,871
Bachelor's degree	9,785	12,918	3,133	32.02%	$22.09	1.04	490
Accountants and auditors (SOC 13-2011)	9,504	12,574	3,070	32.30%	$21.89	1.05	479
Budget analysts (SOC 13-2031)	281	344	63	22.42%	$28.75	0.77	11
Degree plus work experience	21,017	25,499	4,482	21.33%	$34.07	1.08	953
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Financial managers (SOC 11-3031)	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Management analysts (SOC 13-1111)	5,939	7,894	1,955	32.92%	$25.36	0.85	309
Long-term on-the-job training	3,133	3,575	442	14.11%	$23.87	1.77	127
Claims adjusters, examiners, and investigators (SOC 13-1031)	3,133	3,575	442	14.11%	$23.87	1.77	127
Moderate-term on-the-job training	36,595	45,200	8,605	23.51%	$14.71	1.25	1,784
Billing and posting clerks and machine operators (SOC 43-3021)	3,108	3,965	857	27.57%	$14.93	1.09	139
Bookkeeping, accounting, and auditing clerks (SOC 43-3031)	11,656	13,745	2,089	17.92%	$15.25	0.92	365
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Payroll and timekeeping clerks (SOC 43-3051)	1,033	1,105	72	6.97%	$17.61	0.96	34
Work experience in a related field	12,110	14,407	2,297	18.97%	$20.66	1.33	518
First-line supervisors/managers of office and administrative support workers (SOC 43-1011)	12,110	14,407	2,297	18.97%	$20.66	1.33	518
Human Resources Pathway	23,340	28,738	5,398	23.13%	$22.12	0.96	1,134
Bachelor's degree	7,572	9,691	2,119	27.98%	$24.27	0.89	405
Compensation, benefits, and job analysis specialists (SOC 13-1072)	802	1,062	260	32.42%	$27.10	1.07	48
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Employment, recruitment, and placement specialists (SOC 13-1071)	1,068	1,330	262	24.53%	$18.15	0.77	57
Human resources, training, and labor relations specialists, all other (SOC 13-1079)	987	1,197	210	21.28%	$25.93	0.66	48
Meeting and convention planners (SOC 13-1121)	366	427	61	16.67%	$17.95	0.74	14
Training and development specialists (SOC 13-1073)	1,602	2,096	494	30.84%	$21.37	1.23	93
Degree plus work experience	1,287	1,580	293	22.77%	$28.86	1.58	58
Compensation and benefits managers (SOC 11-3041)	519	633	114	21.97%	$25.47	2.22	23
Human resources managers, all other (SOC 11-3049)	409	494	85	20.78%	$34.09	1.05	18

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Training and development managers (SOC 11-3042)	359	452	93	25.91%	$27.79	1.84	17
Long-term on-the-job training	2,068	2,775	707	34.19%	$19.30	0.89	105
Compliance officers, except agriculture, construction, health and safety, and transportation (SOC 13-1041)	1,171	1,706	535	45.69%	$19.00	0.84	66
Interpreters and translators (SOC 27-3091)	897	1,069	172	19.18%	$19.69	0.97	39
Master's degree	495	642	147	29.70%	$37.18	0.85	30
Industrial-organizational psychologists (SOC 19-3032)	495	642	147	29.70%	$37.18	0.85	30
Short-term on-the-job training	1,223	1,246	23	1.88%	$16.39	1.29	41
Human resources assistants, except payroll and timekeeping (SOC 43-4161)	1,223	1,246	23	1.88%	$16.39	1.29	41
Work experience in a related field	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Management Pathway	56,323	65,662	9,339	16.58%	$31.45	1.12	2,430
Bachelor's degree	2,343	2,974	631	26.93%	$21.59	0.79	122
Compensation, benefits, and job analysis specialists (SOC 13-1072)	802	1,062	260	32.42%	$27.10	1.07	48
Meeting and convention planners (SOC 13-1121)	366	427	61	16.67%	$17.95	0.74	14
Public relations specialists (SOC 27-3031)	1,175	1,485	310	26.38%	$18.96	0.67	60
Degree plus work experience	42,499	49,192	6,693	15.75%	$34.79	1.20	1,783
Administrative services managers (SOC 11-3011)	2,395	2,866	471	19.67%	$26.85	1.63	100
Agents and business managers of artists, performers, and athletes (SOC 13-1011)	983	1,084	101	10.27%	$17.99	2.83	35
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Compensation and benefits managers (SOC 11-3041)	519	633	114	21.97%	$25.47	2.22	23
Financial managers (SOC 11-3031)	5,646	6,786	1,140	20.19%	$33.40	1.33	227
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Management analysts (SOC 13-1111)	5,939	7,894	1,955	32.92%	$25.36	0.85	309
Medical and health services managers (SOC 11-9111)	2,110	2,659	549	26.02%	$38.14	1.15	96
Public relations managers (SOC 11-2031)	567	684	117	20.63%	$29.74	1.61	26
Purchasing managers (SOC 11-3061)	428	471	43	10.05%	$34.03	1.13	18
Work experience in a related field	11,480	13,497	2,017	17.57%	$21.24	0.96	525
Industrial production managers (SOC 11-3051)	785	693	(92)	(11.72%)	$34.82	0.81	30
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Marketing and Communications Pathway	176,638	207,044	30,406	17.21%	$15.20	1.18	8,100
Bachelor's degree	22,747	27,980	5,233	23.01%	$13.70	1.07	1,040
Graphic designers (SOC 27-1024)	1,585	1,731	146	9.21%	$17.90	0.93	66
Insurance sales agents (SOC 41-3021)	5,326	5,816	490	9.20%	$17.20	1.12	190
Logisticians (SOC 13-1081)	398	520	122	30.65%	$27.46	0.70	21
Market research analysts (SOC 19-3021)	824	1,081	257	31.19%	$23.30	0.51	49
Property, real estate, and community association managers (SOC 11-9141)	8,638	11,675	3,037	35.16%	$9.47	1.10	454
Public relations specialists (SOC 27-3031)	1,175	1,485	310	26.38%	$18.96	0.67	60
Sales engineers (SOC 41-9031)	214	250	36	16.82%	$31.52	0.53	12
Writers and authors (SOC 27-3043)	4,587	5,421	834	18.18%	$11.23	1.87	188
Degree plus work experience	21,802	23,929	2,127	9.76%	$35.74	1.27	839
Advertising and promotions managers (SOC 11-2011)	400	429	29	7.25%	$24.79	1.32	13
Art directors (SOC 27-1011)	1,281	1,515	234	18.27%	$12.10	1.54	54

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Engineering managers (SOC 11-9041)	876	887	11	1.26%	$39.12	0.75	24
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Natural sciences managers (SOC 11-9121)	92	114	22	23.91%	$36.73	0.36	5
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Moderate-term on-the-job training	35,500	42,661	7,161	20.17%	$17.75	1.31	1,769
Advertising sales agents (SOC 41-3011)	947	1,055	108	11.40%	$18.60	0.74	31
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Demonstrators and product promoters (SOC 41-9011)	701	747	46	6.56%	$10.31	0.92	26
Sales representatives, wholesale and manufacturing, except technical and scientific products (SOC 41-4012)	7,910	8,564	654	8.27%	$23.81	0.84	263
Sales representatives, wholesale and manufacturing, technical and scientific products (SOC 41-4011)	5,145	5,911	766	14.89%	$23.72	1.61	203
Postsecondary vocational award	13,137	18,313	5,176	39.40%	$8.03	1.07	735
Real estate sales agents (SOC 41-9022)	13,137	18,313	5,176	39.40%	$8.03	1.07	735
Short-term on-the-job training	69,727	75,289	5,562	7.98%	$10.65	1.20	2,968
Counter and rental clerks (SOC 41-2021)	2,777	3,045	268	9.65%	$9.51	1.12	105
Counter attendants, cafeteria, food concession, and coffee shop (SOC 35-3022)	2,010	1,832	(178)	(8.86%)	$8.23	0.55	149
Driver/sales workers (SOC 53-3031)	4,816	4,552	(264)	(5.48%)	$14.65	1.07	105
Laborers and freight, stock, and material movers, hand (SOC 53-7062)	20,832	20,589	(243)	(1.17%)	$10.93	1.48	846
Retail salespersons (SOC 41-2031)	32,047	37,979	5,932	18.51%	$9.71	1.16	1,510
Shipping, receiving, and traffic clerks (SOC 43-5071)	4,998	4,868	(130)	(2.60%)	$12.96	1.17	153
Telemarketers (SOC 41-9041)	2,247	2,424	177	7.88%	$11.81	1.33	100
Work experience in a related field	13,725	18,872	5,147	37.50%	$8.84	1.09	750
Real estate brokers (SOC 41-9021)	12,946	18,026	5,080	39.24%	$8.08	1.10	722
Wholesale and retail buyers, except farm products (SOC 13-1022)	778	847	69	8.87%	$21.61	0.87	28
Education & Training	67,860	80,092	12,232	18.03%	$20.56	0.86	2,842
Administration and Administrative Support Pathway	3,111	3,503	392	12.60%	$33.25	0.81	132
Degree plus work experience	2,649	2,925	276	10.42%	$34.71	0.94	110
Education administrators, elementary and secondary school (SOC 11-9032)	1,462	1,589	127	8.69%	$44.08	0.94	58
Education administrators, postsecondary (SOC 11-9033)	701	733	32	4.56%	$30.89	0.86	25
Education administrators, preschool and child care center/program (SOC 11-9031)	486	603	117	24.07%	$12.41	1.05	27
Master's degree	462	578	116	25.11%	$25.00	0.48	23
Instructional coordinators (SOC 25-9031)	359	454	95	26.46%	$25.73	0.43	18
Statisticians (SOC 15-2041)	103	124	21	20.39%	$22.41	0.80	5
Support Services Pathway	7,479	8,908	1,429	19.11%	$20.52	0.71	301
Bachelor's degree	4,306	5,156	850	19.74%	$16.07	0.65	172
Child, family, and school social workers (SOC 21-1021)	1,909	2,231	322	16.87%	$16.86	1.04	82
Teachers and instructors, all other (SOC 25-3099)	2,397	2,925	528	22.03%	$15.45	0.50	90
Doctoral degree	931	1,162	231	24.81%	$33.10	0.80	50
Clinical, counseling, and school psychologists (SOC 19-3031)	931	1,162	231	24.81%	$33.10	0.80	50

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Master's degree	2,242	2,590	348	15.52%	$23.86	0.82	80
Educational, vocational, and school counselors (SOC 21-1012)	1,479	1,675	196	13.25%	$21.54	0.84	50
Speech-language pathologists (SOC 29-1127)	763	915	152	19.92%	$28.35	0.79	30
Teaching/Training Pathway	57,756	68,284	10,528	18.23%	$19.82	0.88	2,435
Bachelor's degree	21,597	24,806	3,209	14.86%	$27.33	0.82	866
Elementary school teachers, except special education (SOC 25-2021)	8,969	10,306	1,337	14.91%	$28.28	0.86	340
Middle school teachers, except special and vocational education (SOC 25-2022)	3,675	4,217	542	14.75%	$26.90	0.82	139
Secondary school teachers, except special and vocational education (SOC 25-2031)	4,768	5,169	401	8.41%	$27.52	0.66	183
Special education teachers, middle school (SOC 25-2042)	604	709	105	17.38%	$28.81	0.90	26
Special education teachers, preschool, kindergarten, and elementary school (SOC 25-2041)	1,299	1,546	247	19.01%	$28.05	0.87	59
Special education teachers, secondary school (SOC 25-2043)	679	764	85	12.52%	$27.05	0.71	26
Training and development specialists (SOC 13-1073)	1,602	2,096	494	30.84%	$21.37	1.23	93
Degree plus work experience	1,416	1,635	219	15.47%	$20.71	1.06	63
Education administrators, preschool and child care center/program (SOC 11-9031)	486	603	117	24.07%	$12.41	1.05	27
Vocational education teachers, middle school (SOC 25-2023)	184	217	33	17.93%	$16.60	0.84	8
Vocational education teachers, secondary school (SOC 25-2032)	746	815	69	9.25%	$27.24	1.15	29
Doctoral degree	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Long-term on-the-job training	2,176	2,777	601	27.62%	$15.76	1.55	102
Coaches and scouts (SOC 27-2022)	2,176	2,777	601	27.62%	$15.76	1.55	102
Postsecondary vocational award	4,601	5,953	1,352	29.38%	$9.97	0.98	228
Fitness trainers and aerobics instructors (SOC 39-9031)	1,301	1,692	391	30.05%	$11.52	0.72	64
Preschool teachers, except special education (SOC 25-2011)	3,300	4,261	961	29.12%	$9.36	1.14	165
Short-term on-the-job training	20,312	24,318	4,006	19.72%	$9.77	0.90	926
Child care workers (SOC 39-9011)	11,110	13,794	2,684	24.16%	$7.82	0.94	600
Recreation workers (SOC 39-9032)	1,718	2,168	450	26.19%	$8.79	0.83	77
Teacher assistants (SOC 25-9041)	7,483	8,357	874	11.68%	$12.93	0.86	250
Finance	92,959	115,667	22,708	24.43%	$20.45	1.08	4,607
Banking and Related Services Pathway	73,169	92,226	19,057	26.05%	$20.45	1.10	3,707
Associate's degree	3,396	4,123	727	21.41%	$19.90	1.05	170
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Bachelor's degree	30,917	40,297	9,380	30.34%	$24.46	0.91	1,470
Accountants and auditors (SOC 13-2011)	9,504	12,574	3,070	32.30%	$21.89	1.05	479
Computer programmers (SOC 15-1021)	2,932	3,133	201	6.86%	$26.69	1.12	81
Computer software engineers, applications (SOC 15-1031)	2,083	2,945	862	41.38%	$34.28	0.68	105

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Computer software engineers, systems software (SOC 15-1032)	1,030	1,364	334	32.43%	$32.68	0.41	45
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Credit analysts (SOC 13-2041)	448	564	116	25.89%	$28.40	1.18	20
Database administrators (SOC 15-1061)	650	833	183	28.15%	$31.81	0.99	30
Loan officers (SOC 13-2072)	2,174	2,542	368	16.93%	$25.63	1.15	65
Network and computer systems administrators (SOC 15-1071)	2,841	3,769	928	32.66%	$29.92	1.39	143
Network systems and data communications analysts (SOC 15-1081)	1,786	2,509	723	40.48%	$23.09	0.82	106
Personal financial advisors (SOC 13-2052)	4,723	6,485	1,762	37.31%	$14.93	0.76	252
Degree plus work experience	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Financial managers (SOC 11-3031)	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Long-term on-the-job training	1,171	1,706	535	45.69%	$19.00	0.84	66
Compliance officers, except agriculture, construction, health and safety, and transportation (SOC 13-1041)	1,171	1,706	535	45.69%	$19.00	0.84	66
Moderate-term on-the-job training	24,197	30,087	5,890	24.34%	$14.42	1.55	1,345
Computer operators (SOC 43-9011)	777	757	(20)	(2.57%)	$17.22	1.43	11
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Data entry keyers (SOC 43-9021)	2,130	2,352	222	10.42%	$12.40	1.26	70
Title examiners, abstractors, and searchers (SOC 23-2093)	492	594	102	20.73%	$26.70	1.09	18
Short-term on-the-job training	7,844	9,226	1,382	17.62%	$14.73	1.04	428
Bill and account collectors (SOC 43-3011)	3,188	4,704	1,516	47.55%	$15.31	1.53	213
Credit authorizers, checkers, and clerks (SOC 43-4041)	383	418	35	9.14%	$16.56	1.12	15
Loan interviewers and clerks (SOC 43-4131)	767	887	120	15.65%	$20.60	0.64	32
Tellers (SOC 43-3071)	3,505	3,218	(287)	(8.19%)	$12.63	0.79	168
Business Financial Management Pathway	17,806	22,944	5,138	28.86%	$25.40	1.07	861
Bachelor's degree	12,135	16,125	3,990	32.88%	$21.71	0.99	632
Accountants and auditors (SOC 13-2011)	9,504	12,574	3,070	32.30%	$21.89	1.05	479
Financial analysts (SOC 13-2051)	2,247	3,068	821	36.54%	$20.42	0.82	130
Tax examiners, collectors, and revenue agents (SOC 13-2081)	384	482	98	25.52%	$24.58	1.01	24
Degree plus work experience	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Financial managers (SOC 11-3031)	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Master's degree	26	32	6	23.08%	$24.19	0.29	1
Economists (SOC 19-3011)	26	32	6	23.08%	$24.19	0.29	1
Financial and Investment Planning Pathway	15,197	19,486	4,289	28.22%	$22.47	0.90	772
Bachelor's degree	8,363	11,310	2,947	35.24%	$16.01	0.74	497
Personal financial advisors (SOC 13-2052)	4,723	6,485	1,762	37.31%	$14.93	0.76	252
Securities, commodities, and financial services sales agents (SOC 41-3031)	3,640	4,825	1,185	32.55%	$17.42	0.72	245
Degree plus work experience	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Financial managers (SOC 11-3031)	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Moderate-term on-the-job training	1,189	1,390	201	16.90%	$14.07	1.18	48
Brokerage clerks (SOC 43-4011)	222	248	26	11.71%	$18.19	0.68	12
Tax preparers (SOC 13-2082)	966	1,142	176	18.22%	$13.14	1.41	36

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Insurance Services Pathway	33,101	40,028	6,927	20.93%	$16.97	1.44	1,698
Bachelor's degree	6,025	6,531	506	8.40%	$18.48	1.12	218
Insurance sales agents (SOC 41-3021)	5,326	5,816	490	9.20%	$17.20	1.12	190
Insurance underwriters (SOC 13-2053)	698	714	16	2.29%	$28.19	1.12	28
Degree plus work experience	1,672	2,029	357	21.35%	$32.74	1.19	75
Actuaries (SOC 15-2011)	68	83	15	22.06%	$25.24	0.57	4
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Long-term on-the-job training	3,416	3,886	470	13.76%	$23.42	1.72	138
Claims adjusters, examiners, and investigators (SOC 13-1031)	3,133	3,575	442	14.11%	$23.87	1.77	127
Insurance appraisers, auto damage (SOC 13-1032)	283	310	27	9.54%	$18.32	1.29	11
Moderate-term on-the-job training	21,989	27,583	5,594	25.44%	$14.41	1.53	1,267
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Insurance claims and policy processing clerks (SOC 43-9041)	1,192	1,198	6	0.50%	$17.55	0.73	22
Government & Public Administration	59,253	72,899	13,646	23.03%	$23.53	0.88	2,744
Foreign Service Career Pathway	20,128	23,623	3,495	17.36%	$29.43	1.06	913
Degree plus work experience	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Work experience in a related field	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Governance (Legislators and general government executives and staff) Career Pathway	12,469	14,212	1,743	13.98%	$34.22	1.02	533
Bachelor's degree	1,356	1,703	347	25.59%	$19.93	0.63	66
Legal support workers, all other (SOC 23-2099)	181	218	37	20.44%	$26.36	0.46	7
Public relations specialists (SOC 27-3031)	1,175	1,485	310	26.38%	$18.96	0.67	60
Degree plus work experience	10,127	11,540	1,413	13.95%	$37.90	1.22	441
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Legislators (SOC 11-1031)	694	721	27	3.89%	$10.28	1.81	23
Short-term on-the-job training	986	969	(17)	(1.72%)	$16.46	0.56	26
Office and administrative support workers, all other (SOC 43-9199)	986	969	(17)	(1.72%)	$16.46	0.56	26
National Security Career Pathway	6,273	6,262	(11)	(0.18%)	$10.62	0.50	157
N/A	6,257	6,241	(16)	(0.26%)	$10.55	0.50	156
Military Occupations (SOC 55-9999)	6,257	6,241	(16)	(0.26%)	$10.55	0.50	156
Doctoral degree	16	20	4	25.00%	$38.15	0.82	1
Mathematicians (SOC 15-2021)	16	20	4	25.00%	$38.15	0.82	1
Planning Career Pathway	27,973	33,888	5,915	21.15%	$27.67	1.00	1,312
Degree plus work experience	15,372	18,712	3,340	21.73%	$34.32	1.02	726
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Management analysts (SOC 13-1111)	5,939	7,894	1,955	32.92%	$25.36	0.85	309
Master's degree	145	171	26	17.93%	$24.11	0.43	6
Economists (SOC 19-3011)	26	32	6	23.08%	$24.19	0.29	1
Urban and regional planners (SOC 19-3051)	119	138	19	15.97%	$24.09	0.48	4
Moderate-term on-the-job training	123	137	14	11.38%	$15.73	1.26	4
Statistical assistants (SOC 43-9111)	123	137	14	11.38%	$15.73	1.26	4
Short-term on-the-job training	1,517	1,915	398	26.24%	$15.30	1.10	76

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Interviewers, except eligibility and loan (SOC 43-4111)	1,517	1,915	398	26.24%	$15.30	1.10	76
Work experience in a related field	10,816	12,955	2,139	19.78%	$20.30	0.97	501
Emergency management specialists (SOC 13-1061)	121	150	29	23.97%	$23.22	1.19	6
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Public and Nonprofit Management and Administration Career Pathway	21,423	25,010	3,587	16.74%	$28.44	1.07	960
Degree plus work experience	10,127	11,540	1,413	13.95%	$37.90	1.22	441
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Legislators (SOC 11-1031)	694	721	27	3.89%	$10.28	1.81	23
Short-term on-the-job training	601	666	65	10.82%	$16.37	0.82	24
Court, municipal, and license clerks (SOC 43-4031)	601	666	65	10.82%	$16.37	0.82	24
Work experience in a related field	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Regulation Career Pathway	12,054	14,400	2,346	19.46%	$35.96	1.09	557
Bachelor's degree	379	576	197	51.98%	$30.60	1.91	27
Financial examiners (SOC 13-2061)	379	576	197	51.98%	$30.60	1.91	27
Degree plus work experience	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Long-term on-the-job training	1,171	1,706	535	45.69%	$19.00	0.84	66
Compliance officers, except agriculture, construction, health and safety, and transportation (SOC 13-1041)	1,171	1,706	535	45.69%	$19.00	0.84	66
Work experience in a related field	1,071	1,299	228	21.29%	$22.57	0.70	47
Construction and building inspectors (SOC 47-4011)	548	626	78	14.23%	$21.22	0.71	20
Detectives and criminal investigators (SOC 33-3021)	428	555	127	29.67%	$25.50	0.69	22
Transportation inspectors (SOC 53-6051)	96	117	21	21.88%	$16.70	0.64	4
Revenue and Taxation Career Pathway	28,208	35,960	7,752	27.48%	$28.86	1.02	1,414
Bachelor's degree	12,135	16,125	3,990	32.88%	$21.71	0.99	632
Accountants and auditors (SOC 13-2011)	9,504	12,574	3,070	32.30%	$21.89	1.05	479
Financial analysts (SOC 13-2051)	2,247	3,068	821	36.54%	$20.42	0.82	130
Tax examiners, collectors, and revenue agents (SOC 13-2081)	384	482	98	25.52%	$24.58	1.01	24
Degree plus work experience	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
First professional degree	3,875	5,184	1,309	33.78%	$38.65	0.82	207
Lawyers (SOC 23-1011)	3,875	5,184	1,309	33.78%	$38.65	0.82	207
Master's degree	26	32	6	23.08%	$24.19	0.29	1
Economists (SOC 19-3011)	26	32	6	23.08%	$24.19	0.29	1
Postsecondary vocational award	2,739	3,799	1,060	38.70%	$9.18	1.02	156
Appraisers and assessors of real estate (SOC 13-2021)	2,739	3,799	1,060	38.70%	$9.18	1.02	156
Health Science	127,292	164,037	36,745	28.87%	$23.97	1.03	6,549
Biotechnology Research and Development	4,671	5,706	1,035	22.16%	$20.82	0.75	236
Associate's degree	3,561	4,323	762	21.40%	$19.68	0.96	180
Biological technicians (SOC 19-4021)	165	200	35	21.21%	$15.14	0.36	9
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Bachelor's degree	331	411	80	24.17%	$29.37	0.56	19
Biological scientists, all other (SOC 19-1029)	87	116	29	33.33%	$31.49	0.49	6

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Occupational health and safety specialists (SOC 29-9011)	216	261	45	20.83%	$29.92	0.71	12
Zoologists and wildlife biologists (SOC 19-1023)	29	35	6	20.69%	$18.85	0.26	2
Doctoral degree	459	576	117	25.49%	$23.10	0.33	23
Biochemists and biophysicists (SOC 19-1021)	11	14	3	27.27%	$20.80	0.07	1
Computer and information scientists, research (SOC 15-1011)	268	326	58	21.64%	$24.47	0.67	12
Medical scientists, except epidemiologists (SOC 19-1042)	98	138	40	40.82%	$21.00	0.15	6
Microbiologists (SOC 19-1022)	81	98	17	20.99%	$21.56	0.77	4
Master's degree	103	124	21	20.39%	$22.41	0.80	5
Statisticians (SOC 15-2041)	103	124	21	20.39%	$22.41	0.80	5
Postsecondary vocational award	41	52	11	26.83%	$21.11	0.64	2
Occupational health and safety technicians (SOC 29-9012)	41	52	11	26.83%	$21.11	0.64	2
Short-term on-the-job training	176	220	44	25.00%	$20.79	0.53	6
Medical equipment preparers (SOC 31-9093)	176	220	44	25.00%	$20.79	0.53	6
Diagnostics Services Pathway	12,082	15,433	3,351	27.74%	$51.34	0.92	548
Associate's degree	3,249	4,310	1,061	32.66%	$23.03	1.20	160
Cardiovascular technologists and technicians (SOC 29-2031)	95	128	33	34.74%	$27.28	0.34	5
Diagnostic medical sonographers (SOC 29-2032)	240	317	77	32.08%	$32.05	0.83	11
Medical and clinical laboratory technicians (SOC 29-2012)	1,289	1,723	434	33.67%	$17.30	1.55	69
Nuclear medicine technologists (SOC 29-2033)	219	283	64	29.22%	$30.43	1.73	10
Radiologic technologists and technicians (SOC 29-2034)	1,407	1,857	450	31.98%	$25.32	1.20	66
Bachelor's degree	1,381	1,774	393	28.46%	$28.18	0.93	73
Biological scientists, all other (SOC 19-1029)	87	116	29	33.33%	$31.49	0.49	6
Dietitians and nutritionists (SOC 29-1031)	404	491	87	21.53%	$28.83	0.97	22
Medical and clinical laboratory technologists (SOC 29-2011)	890	1,167	277	31.12%	$27.56	1.00	45
Doctoral degree	98	138	40	40.82%	$21.00	0.15	6
Medical scientists, except epidemiologists (SOC 19-1042)	98	138	40	40.82%	$21.00	0.15	6
First professional degree	4,667	5,810	1,143	24.49%	$91.81	0.88	199
Physicians and surgeons (SOC 29-1069)	4,667	5,810	1,143	24.49%	$91.81	0.88	199
Master's degree	1,324	1,608	284	21.45%	$39.11	0.94	47
Physical therapists (SOC 29-1123)	1,324	1,608	284	21.45%	$39.11	0.94	47
Postsecondary vocational award	379	502	123	32.45%	$30.09	0.77	20
Healthcare technologists and technicians, all other (SOC 29-2099)	379	502	123	32.45%	$30.09	0.77	20
Short-term on-the-job training	983	1,291	308	31.33%	$16.09	0.87	42
Healthcare support workers, all other (SOC 31-9099)	983	1,291	308	31.33%	$16.09	0.87	42
Health Informatics Pathway	53,793	67,784	13,991	26.01%	$18.28	1.13	2,810
Associate's degree	646	845	199	30.80%	$15.86	0.67	33
Medical records and health information technicians (SOC 29-2071)	646	845	199	30.80%	$15.86	0.67	33

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Bachelor's degree	3,076	3,692	616	20.03%	$19.31	0.85	139
Child, family, and school social workers (SOC 21-1021)	1,909	2,231	322	16.87%	$16.86	1.04	82
Legal support workers, all other (SOC 23-2099)	181	218	37	20.44%	$26.36	0.46	7
Medical and public health social workers (SOC 21-1022)	641	820	179	27.93%	$23.29	0.73	34
Social workers, all other (SOC 21-1029)	346	423	77	22.25%	$21.79	0.66	17
Degree plus work experience	8,048	10,552	2,504	31.11%	$28.78	0.91	404
Management analysts (SOC 13-1111)	5,939	7,894	1,955	32.92%	$25.36	0.85	309
Medical and health services managers (SOC 11-9111)	2,110	2,659	549	26.02%	$38.14	1.15	96
Master's degree	2,626	3,126	500	19.04%	$20.04	1.08	118
Epidemiologists (SOC 19-1041)	25	30	5	20.00%	$23.48	0.62	1
Health educators (SOC 21-1091)	635	781	146	22.99%	$18.00	1.64	28
Librarians (SOC 25-4021)	933	1,012	79	8.47%	$24.02	0.95	33
Mental health and substance abuse social workers (SOC 21-1023)	962	1,209	247	25.68%	$16.91	1.14	50
Social scientists and related workers, all other (SOC 19-3099)	72	93	21	29.17%	$27.53	0.39	6
Moderate-term on-the-job training	26,595	34,085	7,490	28.16%	$14.30	1.41	1,520
Billing and posting clerks and machine operators (SOC 43-3021)	3,108	3,965	857	27.57%	$14.93	1.09	139
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Medical assistants (SOC 31-9092)	2,690	3,735	1,045	38.85%	$14.13	0.90	135
Postsecondary vocational award	589	765	176	29.88%	$18.16	1.17	24
Medical transcriptionists (SOC 31-9094)	589	765	176	29.88%	$18.16	1.17	24
Short-term on-the-job training	1,517	1,915	398	26.24%	$15.30	1.10	76
Interviewers, except eligibility and loan (SOC 43-4111)	1,517	1,915	398	26.24%	$15.30	1.10	76
Work experience in a related field	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Support Services Pathway	6,023	7,338	1,315	21.83%	$24.75	1.14	277
Associate's degree	1,761	2,314	553	31.40%	$17.77	1.11	95
Biological technicians (SOC 19-4021)	165	200	35	21.21%	$15.14	0.36	9
Environmental engineering technicians (SOC 17-3025)	212	271	59	27.83%	$21.52	1.58	10
Environmental science and protection technicians, including health (SOC 19-4091)	95	119	24	25.26%	$20.89	0.47	7
Medical and clinical laboratory technicians (SOC 29-2012)	1,289	1,723	434	33.67%	$17.30	1.55	69
Bachelor's degree	524	663	139	26.53%	$32.48	0.71	28
Biomedical engineers (SOC 17-2031)	20	34	14	70.00%	$28.55	0.21	2
Environmental engineers (SOC 17-2081)	288	369	81	28.13%	$34.73	0.90	15
Occupational health and safety specialists (SOC 29-9011)	216	261	45	20.83%	$29.92	0.71	12
Degree plus work experience	2,395	2,866	471	19.67%	$26.85	1.63	100
Administrative services managers (SOC 11-3011)	2,395	2,866	471	19.67%	$26.85	1.63	100
Long-term on-the-job training	102	117	15	14.71%	$23.97	0.47	3
Stationary engineers and boiler operators (SOC 51-8021)	102	117	15	14.71%	$23.97	0.47	3
Master's degree	423	527	104	24.59%	$26.34	0.69	23
Environmental scientists and specialists, including health (SOC 19-2041)	423	527	104	24.59%	$26.34	0.69	23

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Work experience in a related field	819	850	31	3.79%	$28.28	1.33	28
Transportation, storage, and distribution managers (SOC 11-3071)	819	850	31	3.79%	$28.28	1.33	28
Therapeutic Services Pathway	61,663	81,859	20,196	32.75%	$28.55	0.97	3,183
Associate's degree	18,240	24,405	6,165	33.80%	$28.03	1.10	946
Occupational therapist assistants (SOC 31-2011)	253	306	53	20.95%	$21.98	1.44	10
Physical therapist assistants (SOC 31-2021)	457	549	92	20.13%	$23.79	1.06	17
Radiation therapists (SOC 29-1124)	75	105	30	40.00%	$31.01	0.86	4
Registered nurses (SOC 29-1111)	16,346	21,907	5,561	34.02%	$28.76	1.11	847
Respiratory therapists (SOC 29-1126)	674	903	229	33.98%	$24.49	1.13	36
Veterinary technologists and technicians (SOC 29-2056)	436	634	198	45.41%	$13.33	0.96	31
Bachelor's degree	1,663	2,255	592	35.60%	$34.25	1.06	99
Athletic trainers (SOC 29-9091)	103	137	34	33.01%	$26.69	0.98	7
Dietitians and nutritionists (SOC 29-1031)	404	491	87	21.53%	$28.83	0.97	22
Health diagnosing and treating practitioners, all other (SOC 29-1199)	339	440	101	29.79%	$33.72	0.67	16
Physician assistants (SOC 29-1071)	724	1,071	347	47.93%	$40.92	1.58	48
Recreational therapists (SOC 29-1125)	93	116	23	24.73%	$15.44	0.75	6
Doctoral degree	931	1,162	231	24.81%	$33.10	0.80	50
Clinical, counseling, and school psychologists (SOC 19-3031)	931	1,162	231	24.81%	$33.10	0.80	50
First professional degree	7,790	9,927	2,137	27.43%	$77.07	0.87	373
Audiologists (SOC 29-1121)	155	193	38	24.52%	$28.48	1.25	7
Chiropractors (SOC 29-1011)	213	276	63	29.58%	$57.64	0.58	11
Dentists, all other specialists (SOC 29-1029)	64	76	12	18.75%	$78.16	0.63	3
Dentists, general (SOC 29-1021)	271	351	80	29.52%	$73.29	0.49	16
Optometrists (SOC 29-1041)	243	296	53	21.81%	$58.80	0.75	14
Oral and maxillofacial surgeons (SOC 29-1022)	88	109	21	23.86%	$84.09	0.87	5
Orthodontists (SOC 29-1023)	97	120	23	23.71%	$87.84	0.96	5
Pharmacists (SOC 29-1051)	1,598	2,161	563	35.23%	$54.20	1.07	92
Physicians and surgeons (SOC 29-1069)	4,667	5,810	1,143	24.49%	$91.81	0.88	199
Prosthodontists (SOC 29-1024)	59	70	11	18.64%	$75.08	0.77	2
Veterinarians (SOC 29-1131)	335	463	128	38.21%	$30.08	0.76	19
Long-term on-the-job training	1,419	1,997	578	40.73%	$18.49	0.86	76
Compliance officers, except agriculture, construction, health and safety, and transportation (SOC 13-1041)	1,171	1,706	535	45.69%	$19.00	0.84	66
Dental laboratory technicians (SOC 51-9081)	248	291	43	17.34%	$15.97	0.98	9
Master's degree	3,788	4,686	898	23.71%	$36.35	0.88	167
Industrial-organizational psychologists (SOC 19-3032)	495	642	147	29.70%	$37.18	0.85	30
Occupational therapists (SOC 29-1122)	668	818	150	22.46%	$34.84	0.94	28
Physical therapists (SOC 29-1123)	1,324	1,608	284	21.45%	$39.11	0.94	47
Psychologists, all other (SOC 19-3039)	538	702	164	30.48%	$41.94	0.86	32
Speech-language pathologists (SOC 29-1127)	763	915	152	19.92%	$28.35	0.79	30
Moderate-term on-the-job training	7,155	10,325	3,170	44.30%	$14.55	1.09	450
Dental assistants (SOC 31-9091)	1,913	2,892	979	51.18%	$16.22	1.18	135
Medical assistants (SOC 31-9092)	2,690	3,735	1,045	38.85%	$14.13	0.90	135
Ophthalmic laboratory technicians (SOC 51-9083)	181	216	35	19.34%	$12.65	0.92	7

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Pharmacy technicians (SOC 29-2052)	2,371	3,482	1,111	46.86%	$13.82	1.32	173
Postsecondary vocational award	16,259	20,859	4,600	28.29%	$15.44	1.05	793
Emergency medical technicians and paramedics (SOC 29-2041)	1,560	1,843	283	18.14%	$13.87	1.26	61
Licensed practical and licensed vocational nurses (SOC 29-2061)	6,128	7,835	1,707	27.86%	$18.60	1.41	365
Massage therapists (SOC 31-9011)	477	539	62	13.00%	$24.76	0.61	13
Nursing aides, orderlies, and attendants (SOC 31-1012)	7,061	9,185	2,124	30.08%	$11.90	0.82	284
Surgical technologists (SOC 29-2055)	1,032	1,456	424	41.09%	$19.13	2.06	69
Short-term on-the-job training	4,417	6,245	1,828	41.39%	$10.52	0.62	230
Home health aides (SOC 31-1011)	4,190	5,969	1,779	42.46%	$10.34	0.62	221
Occupational therapist aides (SOC 31-2012)	54	68	14	25.93%	$15.26	1.03	2
Physical therapist aides (SOC 31-2022)	173	209	36	20.81%	$13.33	0.56	7
Hospitality & Tourism	195,151	222,290	27,139	13.91%	$17.48	1.05	8,155
Lodging Pathway	106,088	120,622	14,534	13.70%	$20.35	1.12	3,882
Degree plus work experience	29,873	33,383	3,510	11.75%	$37.82	1.28	1,218
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Compensation and benefits managers (SOC 11-3041)	519	633	114	21.97%	$25.47	2.22	23
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Human resources managers, all other (SOC 11-3049)	409	494	85	20.78%	$34.09	1.05	18
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Training and development managers (SOC 11-3042)	359	452	93	25.91%	$27.79	1.84	17
Moderate-term on-the-job training	23,676	27,194	3,518	14.86%	$15.31	1.04	715
Bookkeeping, accounting, and auditing clerks (SOC 43-3031)	11,656	13,745	2,089	17.92%	$15.25	0.92	365
Concierges (SOC 39-6012)	145	162	17	11.72%	$10.30	1.12	6
Laundry and dry-cleaning workers (SOC 51-6011)	1,613	1,806	193	11.97%	$10.38	1.02	53
Maintenance and repair workers, general (SOC 49-9042)	10,263	11,482	1,219	11.88%	$16.21	1.22	292
Short-term on-the-job training	31,985	35,720	3,735	11.68%	$8.76	0.97	1,125
Baggage porters and bellhops (SOC 39-6011)	290	312	22	7.59%	$7.69	0.92	11
Hotel, motel, and resort desk clerks (SOC 43-4081)	1,647	1,893	246	14.94%	$9.78	1.20	86
Janitors and cleaners, except maids and housekeeping cleaners (SOC 37-2011)	10,555	10,461	(94)	(0.89%)	$9.14	0.72	273
Maids and housekeeping cleaners (SOC 37-2012)	15,510	18,540	3,030	19.54%	$7.95	1.19	585
Parking lot attendants (SOC 53-6021)	833	879	46	5.52%	$8.51	1.02	36
Switchboard operators, including answering service (SOC 43-2011)	1,190	1,187	(3)	(0.25%)	$10.69	1.44	33
Taxi drivers and chauffeurs (SOC 53-3041)	1,657	2,178	521	31.44%	$12.02	0.82	82
Ushers, lobby attendants, and ticket takers (SOC 39-3031)	303	269	(34)	(11.22%)	$9.34	0.37	20
Work experience in a related field	20,554	24,326	3,772	18.35%	$19.02	1.29	824
First-line supervisors/managers, protective service workers, all other (SOC 33-1099)	208	259	51	24.52%	$17.21	0.61	13
First-line supervisors/managers of housekeeping and janitorial workers (SOC 37-1011)	2,628	3,129	501	19.06%	$13.17	1.01	81

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
First-line supervisors/managers of office and administrative support workers (SOC 43-1011)	12,110	14,407	2,297	18.97%	$20.66	1.33	518
Food service managers (SOC 11-9051)	4,794	5,642	848	17.69%	$18.23	1.61	184
Lodging managers (SOC 11-9081)	814	889	75	9.21%	$18.30	0.95	28
Recreation, Amusements and Attractions Pathway	53,103	60,136	7,033	13.24%	$23.63	1.03	2,006
Bachelor's degree	3,169	3,861	692	21.84%	$16.32	0.57	128
Meeting and convention planners (SOC 13-1121)	366	427	61	16.67%	$17.95	0.74	14
Set and exhibit designers (SOC 27-1027)	406	510	104	25.62%	$20.04	1.20	23
Teachers and instructors, all other (SOC 25-3099)	2,397	2,925	528	22.03%	$15.45	0.50	90
Degree plus work experience	17,549	19,037	1,488	8.48%	$37.79	1.31	671
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Long-term on-the-job training	3,304	3,680	376	11.38%	$22.23	0.87	126
Police and sheriff's patrol officers (SOC 33-3051)	3,304	3,680	376	11.38%	$22.23	0.87	126
Master's degree	106	150	44	41.51%	$19.08	0.91	8
Curators (SOC 25-4012)	73	104	31	42.47%	$20.25	1.26	5
Museum Technicians and Conservators (SOC 25-4013)	33	46	13	39.39%	$16.54	0.55	2
Moderate-term on-the-job training	15,392	17,494	2,102	13.66%	$16.93	1.10	514
Animal trainers (SOC 39-2011)	515	523	8	1.55%	$13.04	0.72	14
Gaming surveillance officers and gaming investigators (SOC 33-9031)	148	194	46	31.08%	$14.33	0.70	8
Maintenance and repair workers, general (SOC 49-9042)	10,263	11,482	1,219	11.88%	$16.21	1.22	292
Sales representatives, services, all other (SOC 41-3099)	4,391	5,203	812	18.49%	$19.23	0.96	196
Travel guides (SOC 39-6022)	75	92	17	22.67%	$11.37	0.71	5
Postsecondary vocational award	1,508	1,953	445	29.51%	$11.04	0.61	76
Fitness trainers and aerobics instructors (SOC 39-9031)	1,301	1,692	391	30.05%	$11.52	0.72	64
Gaming dealers (SOC 39-3011)	77	100	23	29.87%	$8.74	0.16	6
Slot key persons (SOC 39-1012)	129	160	31	24.03%	$7.52	0.64	6
Short-term on-the-job training	5,024	5,303	279	5.55%	$15.97	0.87	186
Amusement and recreation attendants (SOC 39-3091)	840	991	151	17.98%	$8.94	0.55	59
Nonfarm animal caretakers (SOC 39-2021)	1,934	1,942	8	0.41%	$17.01	0.76	52
Production, planning, and expediting clerks (SOC 43-5061)	2,251	2,369	118	5.24%	$17.74	1.35	75
Work experience in a related field	7,052	8,658	1,606	22.77%	$15.59	1.21	298
Food service managers (SOC 11-9051)	4,794	5,642	848	17.69%	$18.23	1.61	184
Gaming managers (SOC 11-9071)	39	49	10	25.64%	$7.54	0.65	2
Gaming supervisors (SOC 39-1011)	147	182	35	23.81%	$9.41	0.55	7
Self-enrichment education teachers (SOC 25-3021)	2,072	2,784	712	34.36%	$10.34	0.86	104
Restaurants and Food and Beverage Services Pathway	68,989	76,705	7,716	11.18%	$20.39	1.14	3,467
Degree plus work experience	23,913	26,115	2,202	9.21%	$38.99	1.25	952
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Long-term on-the-job training	6,823	7,865	1,042	15.27%	$10.88	1.11	293
Bakers (SOC 51-3011)	396	439	43	10.86%	$10.59	0.44	16
Cooks, restaurant (SOC 35-2014)	6,427	7,426	999	15.54%	$10.90	1.22	278
Moderate-term on-the-job training	104	96	(8)	(7.69%)	$19.55	0.37	2

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders (SOC 51-9012)	104	96	(8)	(7.69%)	$19.55	0.37	2
Short-term on-the-job training	27,613	30,993	3,380	12.24%	$8.54	1.08	1,932
Bartenders (SOC 35-3011)	1,971	2,262	291	14.76%	$9.02	0.66	103
Counter attendants, cafeteria, food concession, and coffee shop (SOC 35-3022)	2,010	1,832	(178)	(8.86%)	$8.23	0.55	149
Dining room and cafeteria attendants and bartender helpers (SOC 35-9011)	2,132	2,345	213	9.99%	$7.93	0.88	120
Food preparation and serving related workers, all other (SOC 35-9099)	332	319	(13)	(3.92%)	$9.68	1.02	18
Food servers, nonrestaurant (SOC 35-3041)	507	580	73	14.40%	$11.48	0.44	17
Hosts and hostesses, restaurant, lounge, and coffee shop (SOC 35-9031)	3,045	3,523	478	15.70%	$8.79	1.58	265
Waiters and waitresses (SOC 35-3031)	17,615	20,132	2,517	14.29%	$8.44	1.32	1,260
Work experience in a related field	10,537	11,637	1,100	10.44%	$15.70	1.13	288
Chefs and head cooks (SOC 35-1011)	615	693	78	12.68%	$16.78	0.88	15
First-line supervisors/managers of food preparation and serving workers (SOC 35-1012)	5,127	5,301	174	3.39%	$13.20	0.89	88
Food service managers (SOC 11-9051)	4,794	5,642	848	17.69%	$18.23	1.61	184
Travel and Tourism Pathway	42,831	49,770	6,939	16.20%	$24.86	1.11	1,729
Bachelor's degree	1,606	1,903	297	18.49%	$21.73	1.16	68
Meeting and convention planners (SOC 13-1121)	366	427	61	16.67%	$17.95	0.74	14
Social and community service managers (SOC 11-9151)	1,240	1,476	236	19.03%	$22.85	1.39	53
Degree plus work experience	15,626	18,150	2,524	16.15%	$36.13	1.24	687
Advertising and promotions managers (SOC 11-2011)	400	429	29	7.25%	$24.79	1.32	13
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Producers and directors (SOC 27-2012)	1,121	1,215	94	8.39%	$15.33	1.28	48
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Long-term on-the-job training	897	1,069	172	19.18%	$19.69	0.97	39
Interpreters and translators (SOC 27-3091)	897	1,069	172	19.18%	$19.69	0.97	39
Moderate-term on-the-job training	12,181	14,218	2,037	16.72%	$16.86	1.13	398
Bus drivers, transit and intercity (SOC 53-3021)	1,111	1,218	107	9.63%	$15.93	0.91	33
Executive secretaries and administrative assistants (SOC 43-6011)	10,743	12,579	1,836	17.09%	$17.12	1.17	342
Tour guides and escorts (SOC 39-6021)	253	330	77	30.43%	$11.56	1.02	18
Travel guides (SOC 39-6022)	75	92	17	22.67%	$11.37	0.71	5
Postsecondary vocational award	629	428	(201)	(31.96%)	$19.29	0.59	9
Travel agents (SOC 41-3041)	629	428	(201)	(31.96%)	$19.29	0.59	9
Short-term on-the-job training	1,196	1,198	2	0.17%	$11.45	1.01	34
Reservation and transportation ticket agents and travel clerks (SOC 43-4181)	1,055	1,037	(18)	(1.71%)	$11.85	1.01	28
Transportation attendants, except flight attendants and baggage porters (SOC 39-6032)	141	161	20	14.18%	$8.57	1.01	5
Work experience in a related field	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Human Services	135,798	165,796	29,998	22.09%	$16.51	0.99	6,400

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Consumer Services Career Pathway	81,150	99,913	18,763	23.12%	$18.87	1.09	3,975
Associate's degree	646	845	199	30.80%	$15.86	0.67	33
Medical records and health information technicians (SOC 29-2071)	646	845	199	30.80%	$15.86	0.67	33
Bachelor's degree	24,346	31,434	7,088	29.11%	$14.78	0.90	1,254
Compensation, benefits, and job analysis specialists (SOC 13-1072)	802	1,062	260	32.42%	$27.10	1.07	48
Insurance sales agents (SOC 41-3021)	5,326	5,816	490	9.20%	$17.20	1.12	190
Legal support workers, all other (SOC 23-2099)	181	218	37	20.44%	$26.36	0.46	7
Loan counselors (SOC 13-2071)	212	273	61	28.77%	$40.02	0.66	9
Market research analysts (SOC 19-3021)	824	1,081	257	31.19%	$23.30	0.51	49
Personal financial advisors (SOC 13-2052)	4,723	6,485	1,762	37.31%	$14.93	0.76	252
Property, real estate, and community association managers (SOC 11-9141)	8,638	11,675	3,037	35.16%	$9.47	1.10	454
Securities, commodities, and financial services sales agents (SOC 41-3031)	3,640	4,825	1,185	32.55%	$17.42	0.72	245
Degree plus work experience	9,115	10,956	1,841	20.20%	$33.61	1.34	377
Advertising and promotions managers (SOC 11-2011)	400	429	29	7.25%	$24.79	1.32	13
Financial managers (SOC 11-3031)	5,646	6,786	1,140	20.19%	$33.40	1.33	227
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Moderate-term on-the-job training	33,852	40,860	7,008	20.70%	$17.87	1.35	1,711
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Sales representatives, wholesale and manufacturing, except technical and scientific products (SOC 41-4012)	7,910	8,564	654	8.27%	$23.81	0.84	263
Sales representatives, wholesale and manufacturing, technical and scientific products (SOC 41-4011)	5,145	5,911	766	14.89%	$23.72	1.61	203
Short-term on-the-job training	1,718	2,168	450	26.19%	$8.79	0.83	77
Recreation workers (SOC 39-9032)	1,718	2,168	450	26.19%	$8.79	0.83	77
Work experience in a related field	11,473	13,651	2,178	18.98%	$20.36	0.97	523
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Wholesale and retail buyers, except farm products (SOC 13-1022)	778	847	69	8.87%	$21.61	0.87	28
Counseling and Mental Health Services Career Pathway	5,860	7,049	1,189	20.29%	$22.19	0.87	260
Bachelor's degree	404	491	87	21.53%	$28.83	0.97	22
Dietitians and nutritionists (SOC 29-1031)	404	491	87	21.53%	$28.83	0.97	22
Doctoral degree	931	1,162	231	24.81%	$33.10	0.80	50
Clinical, counseling, and school psychologists (SOC 19-3031)	931	1,162	231	24.81%	$33.10	0.80	50
Master's degree	4,525	5,396	871	19.25%	$19.33	0.87	188
Counselors, all other (SOC 21-1019)	368	438	70	19.02%	$16.13	1.20	15
Educational, vocational, and school counselors (SOC 21-1012)	1,479	1,675	196	13.25%	$21.54	0.84	50
Industrial-organizational psychologists (SOC 19-3032)	495	642	147	29.70%	$37.18	0.85	30
Marriage and family therapists (SOC 21-1013)	237	289	52	21.94%	$16.12	0.87	10
Mental health counselors (SOC 21-1014)	635	819	184	28.98%	$15.71	0.84	32
Rehabilitation counselors (SOC 21-1015)	940	1,064	124	13.19%	$11.57	1.08	33
Sociologists (SOC 19-3041)	11	12	1	9.09%	$21.48	0.29	0

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Substance abuse and behavioral disorder counselors (SOC 21-1011)	361	458	97	26.87%	$17.22	0.62	17
Early Childhood Development and Services Career Pathway	25,751	31,343	5,592	21.72%	$10.80	0.93	1,204
Bachelor's degree	1,299	1,546	247	19.01%	$28.05	0.87	59
Special education teachers, preschool, kindergarten, and elementary school (SOC 25-2041)	1,299	1,546	247	19.01%	$28.05	0.87	59
Degree plus work experience	486	603	117	24.07%	$12.41	1.05	27
Education administrators, preschool and child care center/program (SOC 11-9031)	486	603	117	24.07%	$12.41	1.05	27
Postsecondary vocational award	3,300	4,261	961	29.12%	$9.36	1.14	165
Preschool teachers, except special education (SOC 25-2011)	3,300	4,261	961	29.12%	$9.36	1.14	165
Short-term on-the-job training	18,594	22,150	3,556	19.12%	$9.86	0.91	849
Child care workers (SOC 39-9011)	11,110	13,794	2,684	24.16%	$7.82	0.94	600
Teacher assistants (SOC 25-9041)	7,483	8,357	874	11.68%	$12.93	0.86	250
Work experience in a related field	2,072	2,784	712	34.36%	$10.34	0.86	104
Self-enrichment education teachers (SOC 25-3021)	2,072	2,784	712	34.36%	$10.34	0.86	104
Family and Community Services Career Pathway	15,213	17,698	2,485	16.33%	$13.71	0.91	599
Bachelor's degree	4,858	5,776	918	18.90%	$17.25	1.11	209
Child, family, and school social workers (SOC 21-1021)	1,909	2,231	322	16.87%	$16.86	1.04	82
Directors, religious activities and education (SOC 21-2021)	1,068	1,248	180	16.85%	$8.04	1.40	40
Medical and public health social workers (SOC 21-1022)	641	820	179	27.93%	$23.29	0.73	34
Social and community service managers (SOC 11-9151)	1,240	1,476	236	19.03%	$22.85	1.39	53
Master's degree	5,236	5,997	761	14.53%	$12.45	1.13	185
Clergy (SOC 21-2011)	2,817	3,258	441	15.65%	$8.10	1.41	102
Educational, vocational, and school counselors (SOC 21-1012)	1,479	1,675	196	13.25%	$21.54	0.84	50
Rehabilitation counselors (SOC 21-1015)	940	1,064	124	13.19%	$11.57	1.08	33
Moderate-term on-the-job training	1,787	2,058	271	15.17%	$10.94	0.65	80
Residential advisors (SOC 39-9041)	875	934	59	6.74%	$9.81	2.29	39
Social and human service assistants (SOC 21-1093)	912	1,124	212	23.25%	$12.01	0.41	41
Short-term on-the-job training	3,211	3,717	506	15.76%	$11.54	0.66	119
Food servers, nonrestaurant (SOC 35-3041)	507	580	73	14.40%	$11.48	0.44	17
Office and administrative support workers, all other (SOC 43-9199)	986	969	(17)	(1.72%)	$16.46	0.56	26
Recreation workers (SOC 39-9032)	1,718	2,168	450	26.19%	$8.79	0.83	77
Work experience in a related field	121	150	29	23.97%	$23.22	1.19	6
Emergency management specialists (SOC 13-1061)	121	150	29	23.97%	$23.22	1.19	6
Personal Care Services Career Pathway	11,961	14,700	2,739	22.90%	$13.07	0.72	523
Associate's degree	201	143	(58)	(28.86%)	$22.09	0.70	5
Funeral directors (SOC 11-9061)	201	143	(58)	(28.86%)	$22.09	0.70	5
Postsecondary vocational award	5,362	5,928	566	10.56%	$17.05	0.68	162
Barbers (SOC 39-5011)	257	249	(8)	(3.11%)	$22.96	0.74	5
Embalmers (SOC 39-4011)	31	20	(11)	(35.48%)	$17.03	0.36	1
Fitness trainers and aerobics instructors (SOC 39-9031)	1,301	1,692	391	30.05%	$11.52	0.72	64

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Hairdressers, hairstylists, and cosmetologists (SOC 39-5012)	2,985	3,088	103	3.45%	$17.65	0.72	70
Manicurists and pedicurists (SOC 39-5092)	148	151	3	2.03%	$15.01	0.31	3
Massage therapists (SOC 31-9011)	477	539	62	13.00%	$24.76	0.61	13
Skin care specialists (SOC 39-5094)	164	189	25	15.24%	$20.87	0.53	5
Short-term on-the-job training	6,397	8,629	2,232	34.89%	$9.57	0.76	356
Amusement and recreation attendants (SOC 39-3091)	840	991	151	17.98%	$8.94	0.55	59
Funeral attendants (SOC 39-4021)	245	191	(54)	(22.04%)	$10.50	0.79	13
Personal and home care aides (SOC 39-9021)	5,185	7,320	2,135	41.18%	$9.46	0.80	281
Shampooers (SOC 39-5093)	127	127	0	0.00%	$17.10	0.60	2
Information Technology	28,667	35,386	6,719	23.44%	$25.98	0.96	1,304
Information Support Services Pathway	21,257	27,287	6,030	28.37%	$28.08	0.91	1,037
Associate's degree	4,456	5,456	1,000	22.44%	$21.86	0.97	221
Computer specialists, all other (SOC 15-1099)	1,060	1,334	274	25.85%	$28.06	0.80	50
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Bachelor's degree	12,397	16,361	3,964	31.98%	$28.18	0.83	617
Computer software engineers, applications (SOC 15-1031)	2,083	2,945	862	41.38%	$34.28	0.68	105
Computer software engineers, systems software (SOC 15-1032)	1,030	1,364	334	32.43%	$32.68	0.41	45
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Database administrators (SOC 15-1061)	650	833	183	28.15%	$31.81	0.99	30
Editors (SOC 27-3041)	993	1,038	45	4.53%	$15.08	0.99	34
Network and computer systems administrators (SOC 15-1071)	2,841	3,769	928	32.66%	$29.92	1.39	143
Network systems and data communications analysts (SOC 15-1081)	1,786	2,509	723	40.48%	$23.09	0.82	106
Technical writers (SOC 27-3042)	267	324	57	21.35%	$20.78	0.75	10
Degree plus work experience	3,651	4,565	914	25.03%	$36.50	1.21	164
Computer and information systems managers (SOC 11-3021)	2,048	2,618	570	27.83%	$39.18	1.18	92
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Master's degree	428	573	145	33.88%	$25.22	1.19	27
Operations research analysts (SOC 15-2031)	428	573	145	33.88%	$25.22	1.19	27
Postsecondary vocational award	324	333	9	2.78%	$19.33	0.98	8
Desktop publishers (SOC 43-9031)	324	333	9	2.78%	$19.33	0.98	8
Interactive Media Pathway	9,669	12,002	2,333	24.13%	$23.96	1.03	444
Bachelor's degree	8,085	10,301	2,216	27.41%	$25.67	1.00	378
Computer software engineers, applications (SOC 15-1031)	2,083	2,945	862	41.38%	$34.28	0.68	105
Graphic designers (SOC 27-1024)	1,585	1,731	146	9.21%	$17.90	0.93	66
Multi-media artists and animators (SOC 27-1014)	1,309	1,532	223	17.04%	$12.70	1.56	54
Network and computer systems administrators (SOC 15-1071)	2,841	3,769	928	32.66%	$29.92	1.39	143
Technical writers (SOC 27-3042)	267	324	57	21.35%	$20.78	0.75	10
Degree plus work experience	1,121	1,215	94	8.39%	$15.33	1.28	48
Producers and directors (SOC 27-2012)	1,121	1,215	94	8.39%	$15.33	1.28	48

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Long-term on-the-job training	463	487	24	5.18%	$14.45	1.26	18
Audio and video equipment technicians (SOC 27-4011)	463	487	24	5.18%	$14.45	1.26	18
Network Systems Pathway	11,800	15,344	3,544	30.03%	$25.76	0.90	608
Associate's degree	3,396	4,123	727	21.41%	$19.90	1.05	170
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Bachelor's degree	8,404	11,221	2,817	33.52%	$28.11	0.85	438
Computer software engineers, systems software (SOC 15-1032)	1,030	1,364	334	32.43%	$32.68	0.41	45
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Network and computer systems administrators (SOC 15-1071)	2,841	3,769	928	32.66%	$29.92	1.39	143
Network systems and data communications analysts (SOC 15-1081)	1,786	2,509	723	40.48%	$23.09	0.82	106
Programming and Software Development Pathway	19,290	24,613	5,323	27.59%	$28.24	0.91	914
Associate's degree	3,396	4,123	727	21.41%	$19.90	1.05	170
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Bachelor's degree	13,418	17,299	3,881	28.92%	$28.77	0.85	624
Computer programmers (SOC 15-1021)	2,932	3,133	201	6.86%	$26.69	1.12	81
Computer software engineers, applications (SOC 15-1031)	2,083	2,945	862	41.38%	$34.28	0.68	105
Computer software engineers, systems software (SOC 15-1032)	1,030	1,364	334	32.43%	$32.68	0.41	45
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Network and computer systems administrators (SOC 15-1071)	2,841	3,769	928	32.66%	$29.92	1.39	143
Network systems and data communications analysts (SOC 15-1081)	1,786	2,509	723	40.48%	$23.09	0.82	106
Degree plus work experience	2,048	2,618	570	27.83%	$39.18	1.18	92
Computer and information systems managers (SOC 11-3021)	2,048	2,618	570	27.83%	$39.18	1.18	92
Master's degree	428	573	145	33.88%	$25.22	1.19	27
Operations research analysts (SOC 15-2031)	428	573	145	33.88%	$25.22	1.19	27
Law, Public Safety, Corrections & Security	41,551	51,004	9,453	22.75%	$30.91	0.89	1,864
Correction Services Pathway	11,539	13,332	1,793	15.54%	$26.85	0.83	405
Bachelor's degree	1,028	1,257	229	22.28%	$19.10	0.95	47
Probation officers and correctional treatment specialists (SOC 21-1092)	682	834	152	22.29%	$17.72	1.23	30
Social workers, all other (SOC 21-1029)	346	423	77	22.25%	$21.79	0.66	17
Doctoral degree	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Master's degree	361	458	97	26.87%	$17.22	0.62	17
Substance abuse and behavioral disorder counselors (SOC 21-1011)	361	458	97	26.87%	$17.22	0.62	17
Moderate-term on-the-job training	2,365	2,675	310	13.11%	$13.97	0.86	85
Correctional officers and jailers (SOC 33-3012)	2,365	2,675	310	13.11%	$13.97	0.86	85
Work experience in a related field	131	147	16	12.21%	$21.59	0.48	6

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
First-line supervisors/managers of correctional officers (SOC 33-1011)	131	147	16	12.21%	$21.59	0.48	6
Emergency and Fire Management Services Pathway	4,968	6,074	1,106	22.26%	$19.42	1.10	250
Long-term on-the-job training	1,778	2,153	375	21.09%	$23.23	0.96	93
Fire fighters (SOC 33-2011)	1,778	2,153	375	21.09%	$23.23	0.96	93
Moderate-term on-the-job training	970	1,328	358	36.91%	$15.05	1.33	59
Hazardous materials removal workers (SOC 47-4041)	253	459	206	81.42%	$14.38	1.55	28
Police, fire, and ambulance dispatchers (SOC 43-5031)	717	869	152	21.20%	$15.30	1.24	30
Postsecondary vocational award	1,560	1,843	283	18.14%	$13.87	1.26	61
Emergency medical technicians and paramedics (SOC 29-2041)	1,560	1,843	283	18.14%	$13.87	1.26	61
Work experience in a related field	660	749	89	13.48%	$29.01	0.90	37
Emergency management specialists (SOC 13-1061)	121	150	29	23.97%	$23.22	1.19	6
First-line supervisors/managers of correctional officers (SOC 33-1011)	131	147	16	12.21%	$21.59	0.48	6
First-line supervisors/managers of fire fighting and prevention workers (SOC 33-1021)	386	427	41	10.62%	$34.33	1.12	24
Forest fire inspectors and prevention specialists (SOC 33-2022)	23	26	3	13.04%	$13.05	1.74	1
Law Enforcement Services Pathway	6,109	7,099	990	16.21%	$21.12	0.76	273
Associate's degree	211	244	33	15.64%	$23.14	0.41	11
Fish and game wardens (SOC 33-3031)	84	94	10	11.90%	$28.76	1.85	3
Forensic science technicians (SOC 19-4092)	45	55	10	22.22%	$18.59	0.51	3
Life, physical, and social science technicians, all other (SOC 19-4099)	82	96	14	17.07%	$19.88	0.22	5
Bachelor's degree	111	118	7	6.31%	$28.80	0.21	5
Airline pilots, copilots, and flight engineers (SOC 53-2011)	111	118	7	6.31%	$28.80	0.21	5
Long-term on-the-job training	3,305	3,681	376	11.38%	$22.23	0.86	126
Police and sheriff's patrol officers (SOC 33-3051)	3,304	3,680	376	11.38%	$22.23	0.87	126
Transit and railroad police (SOC 33-3052)	1	1	0	0.00%	$16.29	0.03	0
Moderate-term on-the-job training	995	1,205	210	21.11%	$15.02	1.01	43
Animal control workers (SOC 33-9011)	86	93	7	8.14%	$13.98	0.90	3
Bailiffs (SOC 33-3011)	44	49	5	11.36%	$15.06	0.44	2
Gaming surveillance officers and gaming investigators (SOC 33-9031)	148	194	46	31.08%	$14.33	0.70	8
Police, fire, and ambulance dispatchers (SOC 43-5031)	717	869	152	21.20%	$15.30	1.24	30
Short-term on-the-job training	241	277	36	14.94%	$10.98	0.43	20
Protective service workers, all other (SOC 33-9099)	241	277	36	14.94%	$10.98	0.43	20
Work experience in a related field	1,246	1,573	327	26.24%	$24.02	0.77	68
Detectives and criminal investigators (SOC 33-3021)	428	555	127	29.67%	$25.50	0.69	22
First-line supervisors/managers of police and detectives (SOC 33-1012)	401	450	49	12.22%	$33.38	0.69	23
Private detectives and investigators (SOC 33-9021)	418	569	151	36.12%	$14.02	0.98	24
Legal Services Pathway	5,367	7,571	2,204	41.07%	$33.70	0.84	315
Associate's degree	1,196	2,038	842	70.40%	$19.26	1.02	98
Paralegals and legal assistants (SOC 23-2011)	1,196	2,038	842	70.40%	$19.26	1.02	98

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Bachelor's degree	183	225	42	22.95%	$25.88	0.53	7
Law clerks (SOC 23-2092)	183	225	42	22.95%	$25.88	0.53	7
Degree plus work experience	113	123	10	8.85%	$34.18	0.50	3
Administrative law judges, adjudicators, and hearing officers (SOC 23-1021)	69	79	10	14.49%	$24.19	0.90	2
Judges, magistrate judges, and magistrates (SOC 23-1023)	44	44	0	0.00%	$50.23	0.28	1
First professional degree	3,875	5,184	1,309	33.78%	$38.65	0.82	207
Lawyers (SOC 23-1011)	3,875	5,184	1,309	33.78%	$38.65	0.82	207
Security and Protective Services Pathway	14,983	18,707	3,724	24.85%	$39.30	0.99	689
Bachelor's degree	2,841	3,769	928	32.66%	$29.92	1.39	143
Network and computer systems administrators (SOC 15-1071)	2,841	3,769	928	32.66%	$29.92	1.39	143
First professional degree	4,667	5,810	1,143	24.49%	$91.81	0.88	199
Physicians and surgeons (SOC 29-1069)	4,667	5,810	1,143	24.49%	$91.81	0.88	199
Moderate-term on-the-job training	148	194	46	31.08%	$14.33	0.70	8
Gaming surveillance officers and gaming investigators (SOC 33-9031)	148	194	46	31.08%	$14.33	0.70	8
Short-term on-the-job training	6,701	8,106	1,405	20.97%	$9.93	0.97	302
Lifeguards, ski patrol, and other recreational protective service workers (SOC 33-9092)	424	519	95	22.41%	$8.41	0.63	39
Security guards (SOC 33-9032)	6,277	7,587	1,310	20.87%	$10.03	1.00	264
Work experience in a related field	626	828	202	32.27%	$15.07	0.82	37
First-line supervisors/managers, protective service workers, all other (SOC 33-1099)	208	259	51	24.52%	$17.21	0.61	13
Private detectives and investigators (SOC 33-9021)	418	569	151	36.12%	$14.02	0.98	24
Manufacturing	47,452	51,059	3,607	7.60%	$20.38	0.98	1,596
Electromechanical Installation and Maintenance Pathway	16,014	18,473	2,459	15.36%	$20.83	0.93	680
Associate's degree	983	1,095	112	11.39%	$22.57	0.64	36
Electrical and electronic engineering technicians (SOC 17-3023)	553	555	2	0.36%	$26.46	0.59	14
Engineering technicians, except drafters, all other (SOC 17-3029)	169	186	17	10.06%	$18.62	0.40	5
Medical equipment repairers (SOC 49-9062)	261	355	94	36.02%	$17.16	1.09	17
Long-term on-the-job training	1,993	1,941	(52)	(2.61%)	$24.86	0.89	71
Home appliance repairers (SOC 49-9031)	266	278	12	4.51%	$17.70	0.57	6
Musical instrument repairers and tuners (SOC 49-9063)	91	102	11	12.09%	$14.61	1.14	4
Nuclear power reactor operators (SOC 51-8011)	11	14	3	27.27%	$25.09	0.32	1
Power distributors and dispatchers (SOC 51-8012)	13	16	3	23.08%	$25.36	0.22	1
Power plant operators (SOC 51-8013)	58	63	5	8.62%	$26.70	0.27	3
Telecommunications equipment installers and repairers, except line installers (SOC 49-2022)	1,497	1,411	(86)	(5.74%)	$27.01	1.18	54
Watch repairers (SOC 49-9064)	57	58	1	1.75%	$17.04	0.85	2
Moderate-term on-the-job training	413	423	10	2.42%	$22.50	0.89	12
Camera and photographic equipment repairers (SOC 49-9061)	81	79	(2)	(2.47%)	$17.47	1.07	3

Pathway Group / Career Pathway / Minimum Education Requirement / Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Control and valve installers and repairers, except mechanical door (SOC 49-9012)	224	226	2	0.89%	$25.08	0.86	4
Precision instrument and equipment repairers, all other (SOC 49-9069)	107	119	12	11.21%	$20.89	0.84	4
Postsecondary vocational award	1,930	2,209	279	14.46%	$18.67	0.92	67
Computer, automated teller, and office machine repairers (SOC 49-2011)	882	923	41	4.65%	$19.08	0.94	24
Electrical and electronics repairers, commercial and industrial equipment (SOC 49-2094)	410	475	65	15.85%	$20.58	1.02	14
Electronic home entertainment equipment installers and repairers (SOC 49-2097)	285	347	62	21.75%	$18.31	0.92	12
Security and fire alarm systems installers (SOC 49-2098)	353	465	112	31.73%	$15.76	0.79	18
Work experience in a related field	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Precision Metal Production Pathway	13,526	12,735	(791)	(5.85%)	$20.28	1.10	343
Long-term on-the-job training	4,371	4,335	(36)	(0.82%)	$17.89	1.13	150
Sheet metal workers (SOC 47-2211)	1,010	1,135	125	12.38%	$18.13	1.09	41
Tool and die makers (SOC 51-4111)	731	649	(82)	(11.22%)	$23.78	1.53	10
Welders, cutters, solderers, and brazers (SOC 51-4121)	2,630	2,551	(79)	(3.00%)	$16.18	1.08	99
Moderate-term on-the-job training	3,588	3,319	(269)	(7.50%)	$15.70	1.08	83
Inspectors, testers, sorters, samplers, and weighers (SOC 51-9061)	3,266	3,018	(248)	(7.59%)	$15.30	1.12	72
Welding, soldering, and brazing machine setters, operators, and tenders (SOC 51-4122)	322	301	(21)	(6.52%)	$19.84	0.78	11
Work experience in a related field	5,568	5,081	(487)	(8.75%)	$25.08	1.09	110
First-line supervisors/managers of production and operating workers (SOC 51-1011)	4,783	4,388	(395)	(8.26%)	$23.49	1.16	80
Industrial production managers (SOC 11-3051)	785	693	(92)	(11.72%)	$34.82	0.81	30
Precision Technology Processes Pathway	6,127	5,788	(339)	(5.53%)	$23.02	1.03	118
Associate's degree	891	914	23	2.58%	$24.62	0.67	25
Electrical and electronic engineering technicians (SOC 17-3023)	553	555	2	0.36%	$26.46	0.59	14
Industrial engineering technicians (SOC 17-3026)	337	359	22	6.53%	$21.64	0.83	11
Long-term on-the-job training	129	141	12	9.30%	$17.52	0.93	4
Medical appliance technicians (SOC 51-9082)	100	114	14	14.00%	$17.18	1.01	4
Patternmakers, wood (SOC 51-7032)	29	26	(3)	(10.34%)	$18.75	0.68	1
Moderate-term on-the-job training	325	344	19	5.85%	$13.98	1.10	9
Model makers, metal and plastic (SOC 51-4061)	134	119	(15)	(11.19%)	$15.47	2.62	2
Ophthalmic laboratory technicians (SOC 51-9083)	181	216	35	19.34%	$12.65	0.92	7
Patternmakers, metal and plastic (SOC 51-4062)	9	9	0	0.00%	$19.23	0.28	0
Work experience in a related field	4,783	4,388	(395)	(8.26%)	$23.49	1.16	80
First-line supervisors/managers of production and operating workers (SOC 51-1011)	4,783	4,388	(395)	(8.26%)	$23.49	1.16	80
Production Design, Operations, and Maintenance Pathway	17,906	19,699	1,793	10.01%	$20.79	0.96	579
Bachelor's degree	1,774	1,865	91	5.13%	$35.18	0.59	68
Industrial engineers (SOC 17-2112)	1,005	1,091	86	8.56%	$34.27	0.75	42
Materials engineers (SOC 17-2131)	20	21	1	5.00%	$33.90	0.14	1

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Mechanical engineers (SOC 17-2141)	750	753	3	0.40%	$36.45	0.49	25
Degree plus work experience	1,287	1,580	293	22.77%	$28.86	1.58	58
Compensation and benefits managers (SOC 11-3041)	519	633	114	21.97%	$25.47	2.22	23
Human resources managers, all other (SOC 11-3049)	409	494	85	20.78%	$34.09	1.05	18
Training and development managers (SOC 11-3042)	359	452	93	25.91%	$27.79	1.84	17
Long-term on-the-job training	1,652	1,778	126	7.63%	$22.77	0.77	50
Boilermakers (SOC 47-2011)	40	50	10	25.00%	$22.69	0.30	2
Industrial machinery mechanics (SOC 49-9041)	1,287	1,392	105	8.16%	$22.38	0.74	37
Millwrights (SOC 49-9044)	324	336	12	3.70%	$24.36	1.27	11
Moderate-term on-the-job training	10,964	12,072	1,108	10.11%	$16.14	1.14	307
Extruding and drawing machine setters, operators, and tenders, metal and plastic (SOC 51-4021)	400	342	(58)	(14.50%)	$16.86	0.71	9
Maintenance and repair workers, general (SOC 49-9042)	10,263	11,482	1,219	11.88%	$16.21	1.22	292
Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic (SOC 51-4072)	301	248	(53)	(17.61%)	$12.75	0.33	7
Short-term on-the-job training	239	241	2	0.84%	$16.41	0.56	5
Maintenance workers, machinery (SOC 49-9043)	239	241	2	0.84%	$16.41	0.56	5
Work experience in a related field	1,988	2,165	177	8.90%	$27.50	0.74	90
Industrial production managers (SOC 11-3051)	785	693	(92)	(11.72%)	$34.82	0.81	30
Purchasing agents, except wholesale, retail, and farm products (SOC 13-1023)	1,203	1,472	269	22.36%	$22.88	0.71	60
Marketing, Sales & Service	223,203	259,381	36,178	16.21%	$13.60	1.15	9,905
Buying and Merchandising Pathway	79,762	91,501	11,739	14.72%	$11.74	1.18	3,557
Moderate-term on-the-job training	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Short-term on-the-job training	58,965	65,116	6,151	10.43%	$10.84	1.06	2,311
Cashiers, except gaming (SOC 41-2011)	17,041	17,359	318	1.87%	$8.44	0.78	854
Counter and rental clerks (SOC 41-2021)	2,777	3,045	268	9.65%	$9.51	1.12	105
Office clerks, general (SOC 43-9061)	21,466	25,048	3,582	16.69%	$13.05	1.20	676
Order clerks (SOC 43-4151)	1,138	912	(226)	(19.86%)	$13.82	0.86	37
Parking lot attendants (SOC 53-6021)	833	879	46	5.52%	$8.51	1.02	36
Procurement clerks (SOC 43-3061)	325	379	54	16.62%	$17.28	0.73	15
Service station attendants (SOC 53-6031)	181	180	(1)	(0.55%)	$17.08	0.36	9
Stock clerks and order fillers (SOC 43-5081)	15,203	17,313	2,110	13.88%	$10.36	1.38	579
Distribution and Logistics Pathway	38,730	37,765	(965)	(2.49%)	$12.21	1.29	1,322
Short-term on-the-job training	37,911	36,915	(996)	(2.63%)	$11.86	1.29	1,294
Driver/sales workers (SOC 53-3031)	4,816	4,552	(264)	(5.48%)	$14.65	1.07	105
Laborers and freight, stock, and material movers, hand (SOC 53-7062)	20,832	20,589	(243)	(1.17%)	$10.93	1.48	846
Packers and packagers, hand (SOC 53-7064)	5,014	4,537	(477)	(9.51%)	$9.38	1.03	115
Production, planning, and expediting clerks (SOC 43-5061)	2,251	2,369	118	5.24%	$17.74	1.35	75
Shipping, receiving, and traffic clerks (SOC 43-5071)	4,998	4,868	(130)	(2.60%)	$12.96	1.17	153
Work experience in a related field	819	850	31	3.79%	$28.28	1.33	28
Transportation, storage, and distribution managers (SOC 11-3071)	819	850	31	3.79%	$28.28	1.33	28
E-Marketing Pathway	1,603	1,947	344	21.46%	$33.05	1.25	71

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Degree plus work experience	1,603	1,947	344	21.46%	$33.05	1.25	71
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Management and Entrepreneurship Pathway	23,571	29,081	5,510	23.38%	$27.17	1.18	1,111
Bachelor's degree	8,638	11,675	3,037	35.16%	$9.47	1.10	454
Property, real estate, and community association managers (SOC 11-9141)	8,638	11,675	3,037	35.16%	$9.47	1.10	454
Degree plus work experience	14,934	17,406	2,472	16.55%	$37.62	1.24	657
Advertising and promotions managers (SOC 11-2011)	400	429	29	7.25%	$24.79	1.32	13
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Purchasing managers (SOC 11-3061)	428	471	43	10.05%	$34.03	1.13	18
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Marketing Communication and Promotion Pathway	3,261	3,452	191	5.86%	$17.10	0.74	128
Bachelor's degree	1,175	1,485	310	26.38%	$18.96	0.67	60
Public relations specialists (SOC 27-3031)	1,175	1,485	310	26.38%	$18.96	0.67	60
Moderate-term on-the-job training	947	1,055	108	11.40%	$18.60	0.74	31
Advertising sales agents (SOC 41-3011)	947	1,055	108	11.40%	$18.60	0.74	31
Short-term on-the-job training	1,138	912	(226)	(19.86%)	$13.82	0.86	37
Order clerks (SOC 43-4151)	1,138	912	(226)	(19.86%)	$13.82	0.86	37
Marketing Information and Research Pathway	2,428	3,027	599	24.67%	$29.72	0.83	120
Bachelor's degree	824	1,081	257	31.19%	$23.30	0.51	49
Market research analysts (SOC 19-3021)	824	1,081	257	31.19%	$23.30	0.51	49
Degree plus work experience	1,603	1,947	344	21.46%	$33.05	1.25	71
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Professional Sales and Marketing Pathway	79,139	98,467	19,328	24.42%	$11.95	1.09	3,807
Associate's degree	1,133	1,317	184	16.24%	$20.51	1.11	54
Fashion designers (SOC 27-1022)	533	616	83	15.57%	$22.77	1.33	25
Interior designers (SOC 27-1025)	600	701	101	16.83%	$18.47	0.97	29
Bachelor's degree	214	250	36	16.82%	$31.52	0.53	12
Sales engineers (SOC 41-9031)	214	250	36	16.82%	$31.52	0.53	12
Moderate-term on-the-job training	16,145	17,937	1,792	11.10%	$22.04	1.01	590
Advertising sales agents (SOC 41-3011)	947	1,055	108	11.40%	$18.60	0.74	31
Demonstrators and product promoters (SOC 41-9011)	701	747	46	6.56%	$10.31	0.92	26
Floral designers (SOC 27-1023)	575	634	59	10.26%	$15.88	0.94	24
Merchandise displayers and window trimmers (SOC 27-1026)	576	706	130	22.57%	$15.67	0.90	31
Models (SOC 41-9012)	291	321	30	10.31%	$8.87	1.24	11
Sales representatives, wholesale and manufacturing, except technical and scientific products (SOC 41-4012)	7,910	8,564	654	8.27%	$23.81	0.84	263
Sales representatives, wholesale and manufacturing, technical and scientific products (SOC 41-4011)	5,145	5,911	766	14.89%	$23.72	1.61	203
Postsecondary vocational award	15,876	22,112	6,236	39.28%	$8.23	1.06	891
Appraisers and assessors of real estate (SOC 13-2021)	2,739	3,799	1,060	38.70%	$9.18	1.02	156
Real estate sales agents (SOC 41-9022)	13,137	18,313	5,176	39.40%	$8.03	1.07	735
Short-term on-the-job training	32,047	37,979	5,932	18.51%	$9.71	1.16	1,510
Retail salespersons (SOC 41-2031)	32,047	37,979	5,932	18.51%	$9.71	1.16	1,510
Work experience in a related field	13,725	18,872	5,147	37.50%	$8.84	1.09	750

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Real estate brokers (SOC 41-9021)	12,946	18,026	5,080	39.24%	$8.08	1.10	722
Wholesale and retail buyers, except farm products (SOC 13-1022)	778	847	69	8.87%	$21.61	0.87	28
Science, Technology, Engineering & Mathematics	56,650	64,918	8,268	14.59%	$30.56	0.88	2,255
Engineering and Technology Pathway	5,327	5,509	182	3.42%	$31.13	0.61	181
Associate's degree	834	821	(13)	(1.56%)	$22.10	0.70	23
Broadcast technicians (SOC 27-4012)	281	266	(15)	(5.34%)	$13.61	1.16	9
Electrical and electronic engineering technicians (SOC 17-3023)	553	555	2	0.36%	$26.46	0.59	14
Bachelor's degree	3,712	3,954	242	6.52%	$35.55	0.54	135
Aerospace engineers (SOC 17-2011)	81	83	2	2.47%	$37.78	0.17	2
Electrical engineers (SOC 17-2071)	314	317	3	0.96%	$36.73	0.33	9
Electronics engineers, except computer (SOC 17-2072)	686	706	20	2.92%	$39.80	0.81	22
Engineers, all other (SOC 17-2199)	477	512	35	7.34%	$31.16	0.42	15
Environmental engineers (SOC 17-2081)	288	369	81	28.13%	$34.73	0.90	15
Health and safety engineers, except mining safety engineers and inspectors (SOC 17-2111)	91	103	12	13.19%	$30.38	0.61	4
Industrial engineers (SOC 17-2112)	1,005	1,091	86	8.56%	$34.27	0.75	42
Materials engineers (SOC 17-2131)	20	21	1	5.00%	$33.90	0.14	1
Mechanical engineers (SOC 17-2141)	750	753	3	0.40%	$36.45	0.49	25
Postsecondary vocational award	782	733	(49)	(6.27%)	$19.51	1.20	23
Mechanical drafters (SOC 17-3013)	355	331	(24)	(6.76%)	$24.71	0.70	9
Sound engineering technicians (SOC 27-4014)	427	402	(25)	(5.85%)	$15.26	2.87	14
Professional Engineering Pathway	36,287	42,628	6,341	17.47%	$32.72	0.91	1,545
Associate's degree	3,396	4,123	727	21.41%	$19.90	1.05	170
Computer support specialists (SOC 15-1041)	3,396	4,123	727	21.41%	$19.90	1.05	170
Bachelor's degree	14,884	19,094	4,210	28.29%	$30.24	0.70	702
Aerospace engineers (SOC 17-2011)	81	83	2	2.47%	$37.78	0.17	2
Agricultural engineers (SOC 17-2021)	13	16	3	23.08%	$33.80	0.87	1
Biomedical engineers (SOC 17-2031)	20	34	14	70.00%	$28.55	0.21	2
Chemical engineers (SOC 17-2041)	92	91	(1)	(1.09%)	$42.01	0.51	3
Civil engineers (SOC 17-2051)	1,097	1,204	107	9.75%	$31.34	0.53	33
Computer hardware engineers (SOC 17-2061)	143	154	11	7.69%	$30.29	0.35	7
Computer software engineers, applications (SOC 15-1031)	2,083	2,945	862	41.38%	$34.28	0.68	105
Computer software engineers, systems software (SOC 15-1032)	1,030	1,364	334	32.43%	$32.68	0.41	45
Computer systems analysts (SOC 15-1051)	2,747	3,580	833	30.32%	$27.81	0.88	145
Database administrators (SOC 15-1061)	650	833	183	28.15%	$31.81	0.99	30
Electrical engineers (SOC 17-2071)	314	317	3	0.96%	$36.73	0.33	9
Engineers, all other (SOC 17-2199)	477	512	35	7.34%	$31.16	0.42	15
Environmental engineers (SOC 17-2081)	288	369	81	28.13%	$34.73	0.90	15
Marine engineers and naval architects (SOC 17-2121)	12	13	1	8.33%	$32.72	0.30	0
Mechanical engineers (SOC 17-2141)	750	753	3	0.40%	$36.45	0.49	25
Mining and geological engineers, including mining safety engineers (SOC 17-2151)	23	26	3	13.04%	$26.09	0.24	1

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Network and computer systems administrators (SOC 15-1071)	2,841	3,769	928	32.66%	$29.92	1.39	143
Network systems and data communications analysts (SOC 15-1081)	1,786	2,509	723	40.48%	$23.09	0.82	106
Nuclear engineers (SOC 17-2161)	157	180	23	14.65%	$30.34	0.67	6
Petroleum engineers (SOC 17-2171)	14	18	4	28.57%	$37.65	0.08	1
Technical writers (SOC 27-3042)	267	324	57	21.35%	$20.78	0.75	10
Degree plus work experience	16,528	17,914	1,386	8.39%	$38.47	1.28	626
Computer and information systems managers (SOC 11-3021)	2,048	2,618	570	27.83%	$39.18	1.18	92
General and operations managers (SOC 11-1021)	14,480	15,297	817	5.64%	$38.37	1.30	534
Doctoral degree	268	326	58	21.64%	$24.47	0.67	12
Computer and information scientists, research (SOC 15-1011)	268	326	58	21.64%	$24.47	0.67	12
Master's degree	103	124	21	20.39%	$22.41	0.80	5
Statisticians (SOC 15-2041)	103	124	21	20.39%	$22.41	0.80	5
Moderate-term on-the-job training	392	408	16	4.08%	$17.36	0.76	11
Surveying and mapping technicians (SOC 17-3031)	392	408	16	4.08%	$17.36	0.76	11
Postsecondary vocational award	717	640	(77)	(10.74%)	$26.04	0.87	18
Architectural and civil drafters (SOC 17-3011)	717	640	(77)	(10.74%)	$26.04	0.87	18
Science and Mathematics Pathway	16,881	18,893	2,012	11.92%	$26.99	0.80	598
Associate's degree	566	572	6	1.06%	$16.73	0.51	21
Broadcast technicians (SOC 27-4012)	281	266	(15)	(5.34%)	$13.61	1.16	9
Chemical technicians (SOC 19-4031)	174	175	1	0.57%	$18.19	0.45	6
Life, physical, and social science technicians, all other (SOC 19-4099)	82	96	14	17.07%	$19.88	0.22	5
Nuclear technicians (SOC 19-4051)	29	35	6	20.69%	$28.91	0.65	2
Bachelor's degree	5,807	6,389	582	10.02%	$23.73	0.91	209
Atmospheric and space scientists (SOC 19-2021)	50	59	9	18.00%	$26.16	0.61	2
Biological scientists, all other (SOC 19-1029)	87	116	29	33.33%	$31.49	0.49	6
Chemists (SOC 19-2031)	362	394	32	8.84%	$19.84	0.77	16
Computer programmers (SOC 15-1021)	2,932	3,133	201	6.86%	$26.69	1.12	81
Conservation scientists (SOC 19-1031)	43	51	8	18.60%	$18.28	0.30	1
Dietitians and nutritionists (SOC 29-1031)	404	491	87	21.53%	$28.83	0.97	22
Graphic designers (SOC 27-1024)	1,585	1,731	146	9.21%	$17.90	0.93	66
Life scientists, all other (SOC 19-1099)	10	12	2	20.00%	$20.10	0.13	0
Materials engineers (SOC 17-2131)	20	21	1	5.00%	$33.90	0.14	1
Materials scientists (SOC 19-2032)	19	24	5	26.32%	$28.83	0.36	1
Technical writers (SOC 27-3042)	267	324	57	21.35%	$20.78	0.75	10
Zoologists and wildlife biologists (SOC 19-1023)	29	35	6	20.69%	$18.85	0.26	2
Doctoral degree	7,959	9,177	1,218	15.30%	$32.28	0.76	266
Astronomers (SOC 19-2011)	4	5	1	25.00%	$19.57	0.35	0
Biochemists and biophysicists (SOC 19-1021)	11	14	3	27.27%	$20.80	0.07	1
Mathematicians (SOC 15-2021)	16	20	4	25.00%	$38.15	0.82	1
Medical scientists, except epidemiologists (SOC 19-1042)	98	138	40	40.82%	$21.00	0.15	6
Microbiologists (SOC 19-1022)	81	98	17	20.99%	$21.56	0.77	4

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Physicists (SOC 19-2012)	95	107	12	12.63%	$46.47	1.03	4
Postsecondary teachers (SOC 25-1099)	7,654	8,795	1,141	14.91%	$32.38	0.82	249
Long-term on-the-job training	463	487	24	5.18%	$14.45	1.26	18
Audio and video equipment technicians (SOC 27-4011)	463	487	24	5.18%	$14.45	1.26	18
Master's degree	793	983	190	23.96%	$25.42	0.54	45
Anthropologists and archeologists (SOC 19-3091)	26	31	5	19.23%	$20.21	0.61	2
Economists (SOC 19-3011)	26	32	6	23.08%	$24.19	0.29	1
Environmental scientists and specialists, including health (SOC 19-2041)	423	527	104	24.59%	$26.34	0.69	23
Geoscientists, except hydrologists and geographers (SOC 19-2042)	96	118	22	22.92%	$24.31	0.35	5
Hydrologists (SOC 19-2043)	47	57	10	21.28%	$26.26	0.35	2
Social scientists and related workers, all other (SOC 19-3099)	72	93	21	29.17%	$27.53	0.39	6
Statisticians (SOC 15-2041)	103	124	21	20.39%	$22.41	0.80	5
Moderate-term on-the-job training	511	551	40	7.83%	$15.73	0.96	17
Radio operators (SOC 27-4013)	119	144	25	21.01%	$10.62	3.54	6
Surveying and mapping technicians (SOC 17-3031)	392	408	16	4.08%	$17.36	0.76	11
Postsecondary vocational award	782	733	(49)	(6.27%)	$19.51	1.20	23
Mechanical drafters (SOC 17-3013)	355	331	(24)	(6.76%)	$24.71	0.70	9
Sound engineering technicians (SOC 27-4014)	427	402	(25)	(5.85%)	$15.26	2.87	14
Transportation, Distribution, & Logistics	170,303	191,747	21,444	12.59%	$18.76	1.14	6,902
Facility and Mobile Equipment Maintenance Pathway	28,054	31,486	3,432	12.23%	$20.52	1.02	986
Associate's degree	588	584	(4)	(0.68%)	$26.69	0.59	15
Aerospace engineering and operations technicians (SOC 17-3021)	34	29	(5)	(14.71%)	$30.53	0.47	1
Electrical and electronic engineering technicians (SOC 17-3023)	553	555	2	0.36%	$26.46	0.59	14
Degree plus work experience	2,395	2,866	471	19.67%	$26.85	1.63	100
Administrative services managers (SOC 11-3011)	2,395	2,866	471	19.67%	$26.85	1.63	100
Long-term on-the-job training	15,571	17,732	2,161	13.88%	$20.57	0.97	560
Automotive body and related repairers (SOC 49-3021)	1,175	1,269	94	8.00%	$22.15	1.16	51
Automotive glass installers and repairers (SOC 49-3022)	174	193	19	10.92%	$19.21	1.46	7
Carpenters (SOC 47-2031)	8,347	9,058	711	8.52%	$20.87	0.92	218
Electricians (SOC 47-2111)	4,230	5,351	1,121	26.50%	$19.33	1.14	228
Industrial machinery mechanics (SOC 49-9041)	1,287	1,392	105	8.16%	$22.38	0.74	37
Motorboat mechanics (SOC 49-3051)	124	154	30	24.19%	$15.82	0.76	6
Motorcycle mechanics (SOC 49-3052)	166	248	82	49.40%	$15.41	1.27	12
Rail car repairers (SOC 49-3043)	67	68	1	1.49%	$23.86	0.39	2
Moderate-term on-the-job training	220	263	43	19.55%	$17.19	0.78	8
Bicycle repairers (SOC 49-3091)	17	22	5	29.41%	$15.59	0.28	1
Signal and track switch repairers (SOC 49-9097)	203	241	38	18.72%	$17.33	0.94	7
Postsecondary vocational award	8,930	9,629	699	7.83%	$18.67	1.07	289
Aircraft mechanics and service technicians (SOC 49-3011)	390	454	64	16.41%	$22.70	0.56	15
Automotive service technicians and mechanics (SOC 49-3023)	5,140	5,528	388	7.55%	$17.96	1.05	160

Pathway Group / Career Pathway / Minimum Education Requirement / Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Avionics technicians (SOC 49-2091)	229	258	29	12.66%	$22.44	2.09	7
Bus and truck mechanics and diesel engine specialists (SOC 49-3031)	2,210	2,288	78	3.53%	$20.05	1.30	71
Electrical and electronics installers and repairers, transportation equipment (SOC 49-2093)	127	142	15	11.81%	$13.26	1.60	4
Electronic equipment installers and repairers, motor vehicles (SOC 49-2096)	100	114	14	14.00%	$14.25	0.99	3
Mobile heavy equipment mechanics, except engines (SOC 49-3042)	734	845	111	15.12%	$17.88	0.98	28
Short-term on-the-job training	351	412	61	17.38%	$13.77	0.71	15
Tire repairers and changers (SOC 49-3093)	351	412	61	17.38%	$13.77	0.71	15
Health, Safety and Environmental Pathway	12,879	15,781	2,902	22.53%	$20.76	0.94	613
Associate's degree	212	271	59	27.83%	$21.52	1.58	10
Environmental engineering technicians (SOC 17-3025)	212	271	59	27.83%	$21.52	1.58	10
Bachelor's degree	378	472	94	24.87%	$33.69	0.81	18
Environmental engineers (SOC 17-2081)	288	369	81	28.13%	$34.73	0.90	15
Health and safety engineers, except mining safety engineers and inspectors (SOC 17-2111)	91	103	12	13.19%	$30.38	0.61	4
Long-term on-the-job training	1,171	1,706	535	45.69%	$19.00	0.84	66
Compliance officers, except agriculture, construction, health and safety, and transportation (SOC 13-1041)	1,171	1,706	535	45.69%	$19.00	0.84	66
Master's degree	423	527	104	24.59%	$26.34	0.69	23
Environmental scientists and specialists, including health (SOC 19-2041)	423	527	104	24.59%	$26.34	0.69	23
Work experience in a related field	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Managers, all other (SOC 11-9199)	10,695	12,804	2,109	19.72%	$20.27	0.97	495
Logistics Planning and Management Services Pathway	398	520	122	30.65%	$27.46	0.70	21
Bachelor's degree	398	520	122	30.65%	$27.46	0.70	21
Logisticians (SOC 13-1081)	398	520	122	30.65%	$27.46	0.70	21
Sales and Service Pathway	49,577	60,571	10,994	22.18%	$17.92	1.35	2,475
Degree plus work experience	4,673	5,687	1,014	21.70%	$34.42	1.33	208
Marketing managers (SOC 11-2021)	1,603	1,947	344	21.46%	$33.05	1.25	71
Sales managers (SOC 11-2022)	3,070	3,741	671	21.86%	$35.13	1.38	137
Moderate-term on-the-job training	28,963	36,395	7,432	25.66%	$15.14	1.40	1,616
Billing and posting clerks and machine operators (SOC 43-3021)	3,108	3,965	857	27.57%	$14.93	1.09	139
Cargo and freight agents (SOC 43-5011)	666	842	176	26.43%	$18.04	1.35	35
Customer service representatives (SOC 43-4051)	20,797	26,385	5,588	26.87%	$14.23	1.61	1,245
Sales representatives, services, all other (SOC 41-3099)	4,391	5,203	812	18.49%	$19.23	0.96	196
Short-term on-the-job training	3,832	4,082	250	6.52%	$10.13	1.09	133
Counter and rental clerks (SOC 41-2021)	2,777	3,045	268	9.65%	$9.51	1.12	105
Reservation and transportation ticket agents and travel clerks (SOC 43-4181)	1,055	1,037	(18)	(1.71%)	$11.85	1.01	28
Work experience in a related field	12,110	14,407	2,297	18.97%	$20.66	1.33	518
First-line supervisors/managers of office and administrative support workers (SOC 43-1011)	12,110	14,407	2,297	18.97%	$20.66	1.33	518
Transportation Operations Pathway	30,107	33,087	2,980	9.90%	$17.61	1.02	992

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Bachelor's degree	111	118	7	6.31%	$28.80	0.21	5
Airline pilots, copilots, and flight engineers (SOC 53-2011)	111	118	7	6.31%	$28.80	0.21	5
Long-term on-the-job training	425	521	96	22.59%	$36.11	0.51	25
Airfield operations specialists (SOC 53-2022)	74	94	20	27.03%	$26.99	0.73	5
Air traffic controllers (SOC 53-2021)	259	347	88	33.98%	$43.53	1.39	18
Flight attendants (SOC 39-6031)	92	80	(12)	(13.04%)	$20.77	0.12	2
Moderate-term on-the-job training	16,942	18,080	1,138	6.72%	$17.92	1.12	504
Bus drivers, transit and intercity (SOC 53-3021)	1,111	1,218	107	9.63%	$15.93	0.91	33
Dispatchers, except police, fire, and ambulance (SOC 43-5032)	1,096	1,089	(7)	(0.64%)	$16.11	0.95	30
Locomotive engineers and operators (SOC 53-4019)	201	169	(32)	(15.92%)	$20.08	0.51	7
Motorboat operators (SOC 53-5022)	51	66	15	29.41%	$12.96	0.77	4
Railroad brake, signal, and switch operators (SOC 53-4021)	109	90	(19)	(17.43%)	$21.00	0.55	4
Railroad conductors and yardmasters (SOC 53-4031)	161	133	(28)	(17.39%)	$20.76	0.49	6
Subway and streetcar operators (SOC 53-4041)	35	41	6	17.14%	$21.97	0.96	2
Truck drivers, heavy and tractor-trailer (SOC 53-3032)	14,178	15,274	1,096	7.73%	$18.14	1.20	419
Postsecondary vocational award	292	407	115	39.38%	$27.40	1.11	23
Commercial pilots (SOC 53-2012)	167	225	58	34.73%	$25.69	0.80	12
Ship engineers (SOC 53-5031)	126	183	57	45.24%	$29.61	2.10	11
Short-term on-the-job training	10,979	12,370	1,391	12.67%	$14.04	0.92	367
Bridge and lock tenders (SOC 53-6011)	34	39	5	14.71%	$17.63	1.23	2
Bus drivers, school (SOC 53-3022)	2,913	3,011	98	3.36%	$10.26	0.93	68
Sailors and marine oilers (SOC 53-5011)	386	539	153	39.64%	$16.22	2.42	32
Taxi drivers and chauffeurs (SOC 53-3041)	1,657	2,178	521	31.44%	$12.02	0.82	82
Truck drivers, light or delivery services (SOC 53-3033)	5,989	6,602	613	10.24%	$16.30	0.91	183
Work experience in a related field	1,358	1,591	233	17.16%	$33.73	1.57	69
Aircraft cargo handling supervisors (SOC 53-1011)	118	146	28	23.73%	$26.67	1.54	5
Captains, mates, and pilots of water vessels (SOC 53-5021)	422	595	173	41.00%	$45.76	2.12	35
Transportation, storage, and distribution managers (SOC 11-3071)	819	850	31	3.79%	$28.28	1.33	28
Transportation Systems/ Infrastructure Planning, Management, and Regulation Pathway	14,462	16,751	2,289	15.83%	$34.52	0.98	615
Associate's degree	1,704	1,805	101	5.93%	$23.64	0.72	52
Civil engineering technicians (SOC 17-3022)	425	454	29	6.82%	$22.95	0.76	12
Electrical and electronic engineering technicians (SOC 17-3023)	553	555	2	0.36%	$26.46	0.59	14
Electro-mechanical technicians (SOC 17-3024)	23	22	(1)	(4.35%)	$19.67	0.22	1
Environmental engineering technicians (SOC 17-3025)	212	271	59	27.83%	$21.52	1.58	10
Industrial engineering technicians (SOC 17-3026)	337	359	22	6.53%	$21.64	0.83	11
Mechanical engineering technicians (SOC 17-3027)	154	144	(10)	(6.49%)	$23.39	0.53	4

Pathway Group Career Pathway Minimum Education Requirement Occupations	2009 Jobs	2019 Jobs	Change	% Change	Current Hourly Earnings	LQ	Annual Openings 2009-2019
Bachelor's degree	1,097	1,204	107	9.75%	$31.34	0.53	33
Civil engineers (SOC 17-2051)	1,097	1,204	107	9.75%	$31.34	0.53	33
Degree plus work experience	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Chief executives (SOC 11-1011)	9,433	10,819	1,386	14.69%	$39.94	1.19	418
Long-term on-the-job training	1,430	2,053	623	43.57%	$23.42	0.90	84
Air traffic controllers (SOC 53-2021)	259	347	88	33.98%	$43.53	1.39	18
Compliance officers, except agriculture, construction, health and safety, and transportation (SOC 13-1041)	1,171	1,706	535	45.69%	$19.00	0.84	66
Master's degree	119	138	19	15.97%	$24.09	0.48	4
Urban and regional planners (SOC 19-3051)	119	138	19	15.97%	$24.09	0.48	4
Moderate-term on-the-job training	392	408	16	4.08%	$17.36	0.76	11
Surveying and mapping technicians (SOC 17-3031)	392	408	16	4.08%	$17.36	0.76	11
Short-term on-the-job training	192	206	14	7.29%	$17.83	4.52	9
Traffic technicians (SOC 53-6041)	192	206	14	7.29%	$17.83	4.52	9
Work experience in a related field	96	117	21	21.88%	$16.70	0.64	4
Transportation inspectors (SOC 53-6051)	96	117	21	21.88%	$16.70	0.64	4
Warehousing and Distribution Center Operations Pathway	37,841	37,280	(561)	(1.48%)	$13.20	1.29	1,336
Bachelor's degree	1,005	1,091	86	8.56%	$34.27	0.75	42
Industrial engineers (SOC 17-2112)	1,005	1,091	86	8.56%	$34.27	0.75	42
Moderate-term on-the-job training	102	92	(10)	(9.80%)	$15.45	1.40	3
Tank car, truck, and ship loaders (SOC 53-7121)	102	92	(10)	(9.80%)	$15.45	1.40	3
Short-term on-the-job training	33,096	32,363	(733)	(2.21%)	$11.46	1.33	1,190
Laborers and freight, stock, and material movers, hand (SOC 53-7062)	20,832	20,589	(243)	(1.17%)	$10.93	1.48	846
Packers and packagers, hand (SOC 53-7064)	5,014	4,537	(477)	(9.51%)	$9.38	1.03	115
Production, planning, and expediting clerks (SOC 43-5061)	2,251	2,369	118	5.24%	$17.74	1.35	75
Shipping, receiving, and traffic clerks (SOC 43-5071)	4,998	4,868	(130)	(2.60%)	$12.96	1.17	153
Work experience in a related field	3,638	3,734	96	2.64%	$23.26	1.21	101
First-line supervisors/managers of helpers, laborers, and material movers, hand (SOC 53-1021)	1,704	1,811	107	6.28%	$20.18	1.55	48
First-line supervisors/managers of transportation and material-moving machine and vehicle operators (SOC 53-1031)	1,115	1,073	(42)	(3.77%)	$24.29	0.84	24
Transportation, storage, and distribution managers (SOC 11-3071)	819	850	31	3.79%	$28.28	1.33	28

Source: EMSI Complete Employment - 2nd Quarter 2010