



Information Technology

Highlights at a Glance

- Almost all organizations depend on information technology to conduct business and operate efficiently. Those businesses that do not have these resources available internally, utilize the services of the establishments in this sector to effectively design, implement and manage their information technology systems.
- Faster than average growth is expected for all the industries within the Information Technology sector. Almost all of the occupations in this sector require a Bachelor degree or higher and have median annual wage rates double the state's average wage rate for all occupations.
- The widespread use of the Internet and intranets has resulted in an increased focus on information technology and security. The expansive use of e-commerce highlights this concern, as firms use the Internet to exchange sensitive information. Many organizations are employing the services of security consulting firms, which specialize in all aspects of information technology (IT) security.

Nature of the Industry

The Information Technology sector consists of all organizations primarily engaged in the research, design, implementation and support of digital systems, including both hardware and software that convert, store, organize, protect, transmit, retrieve, share and utilize information. These IT functions may be carried out by businesses and units within government, education and businesses from other sectors such as healthcare, manufacturing, transportation and logistics, and financial services. The critical functions that provide the basis for IT career pathways in Illinois are:

Research and Development: Research, develop and evaluate innovative advances in existing hardware and software products and services to improve digital infrastructures, technology and information services, and integration services.

Infrastructure, Administration and Operations: Develop, configure, monitor, analyze, troubleshoot, manage, maintain, support and improve wired, wireless and combined digital infrastructures including servers, data center operations, networks, network segments and components, and client devices such as mobile devices.

Technology and Information Services: Design, develop, troubleshoot, improve, update and maintain software for operating systems, application servers, database services, and web services across the entire infrastructure including computers, networks and client devices. This includes specialized "vertical" services in a variety of vertical areas such as healthcare, manufacturing, transportation and logistics, and financial services.

Integration Services: Identify, obtain, analyze, integrate and administer information technology resources across organizational networks (including business to business), organizations, and organizational units to meet strategic enterprise and business process needs and requirements. This also includes specialized "vertical" services in a variety of vertical areas such as healthcare, manufacturing, transportation and logistics, and financial services.

Standard Occupational Classification (SOC) Code	Title	Emp. 2014	Employment Change		Average Annual Job Openings due to		2015 Median Annual Wage	Training/ Education Level
			2014-2024 Number	Percent Growth	Replcmnts	Total		
00-0000	Total, All Occupations	6,263,919	371,593	5.93	42,732	147,453	190,185	\$37,316
Integration Services								
15-1131	Computer Programmers	20,572	-1,710	-8.31	0	507	507	\$75,122 Bachelor's degree
15-1133	Software Developers, Systems Software	13,971	3,192	22.85	319	200	519	\$101,948 Bachelor's degree
15-1142	Network & Computer Systems Administrators	15,392	1,476	9.59	148	198	346	\$80,068 Bachelor's degree
15-1143	Computer Network Architects	4,682	678	14.48	68	60	128	\$112,077 Bachelor's degree
15-1199	Computer Occupations, All Other	17,312	1,513	8.74	151	223	374	\$85,662 Associate degree
	Sub Total	71,929	5,149	18.58	686	1,188	1,874	
Technology and Information Services								
15-1131	Computer Programmers	20,572	-1,710	-8.31	0	507	507	\$75,122 Bachelor's degree
15-1132	Software Developers, Applications	29,316	7,676	26.18	768	419	1187	\$91,339 Bachelor's degree
15-1141	Database Administrators	4,546	599	13.18	60	98	158	\$78,715 Bachelor's degree
15-1199	Computer Occupations, All Other	17,312	1,513	8.74	151	223	374	\$85,662 Associate degree
17-2071	Electrical Engineers	5,263	122	2.32	12	116	128	\$92,036 Bachelor's degree
17-2072	Electronics Engineers	3,751	39	1.04	4	83	87	\$97,765 Bachelor's degree
17-3012	Electrical & Electronics Drafters	644	25	3.88	2	8	10	\$68,076 Postsecondary voc award
17-3023	Electrical & Electronic Engineering Techs	3,882	-87	-2.24	0	95	95	\$65,147 Associate degree
27-3042	Technical Writers	1,741	146	8.39	15	40	55	\$70,236 Bachelor's degree
	Sub Total	87,027	8,323	16.56	1012	1,589	2,601	
Infrastructure, Administration and Operations								
11-3021	Computer & Information Systems Managers	13,697	2,253	16.45	225	162	387	\$122,213 Bach degree plus work exp.
15-1121	Computer Systems Analysts	22,499	5,511	24.49	551	290	841	\$87,776 Bachelor's degree
15-1122	Information Security Analysts	2,850	475	16.67	48	37	85	\$87,683 Bachelor's degree
15-1134	Web Developers	5,087	1,649	32.42	165	66	231	\$69,919 Bachelor's degree
15-1142	Network & Computer Systems Administrators	15,392	1,476	9.59	148	198	346	\$80,068 Bachelor's degree
15-1151	Computer User Support Specialists	22,226	3,387	15.24	339	286	625	\$51,069 Associate degree
15-1152	Computer Network Support Specialists	6,283	919	14.63	92	81	173	\$66,038 Bachelor's degree
15-1199	Computer Occupations, All Other	17,312	1,513	8.74	151	223	374	\$85,662 Associate degree
15-2031	Operations Research Analysts	3,831	1,271	33.18	127	68	195	\$81,281 Master's degree
43-9011	Computer Operators	2,366	-469	-19.82	0	18	18	\$49,179 Moderate-term OJT
	Sub Total	111,543	17,985	14.89	1,846	1,429	3,275	
Research and Development								
15-1111	Computer & Information Research Scientists	1,148	170	14.81	17	15	32	\$99,265 Doctoral degree
15-1121	Computer Systems Analysts	22,499	5,511	24.49	551	290	841	\$87,776 Bachelor's degree
15-1199	Computer Occupations, All Other	17,312	1,513	8.74	151	223	374	\$85,662 Associate degree
15-2031	Operations Research Analysts	3,831	1,271	33.18	127	68	195	\$81,281 Master's degree
17-2061	Computer Hardware Engineers	2,067	352	17.03	35	42	77	\$89,419 Bachelor's degree
17-2071	Electrical Engineers	5,263	122	2.32	12	116	128	\$92,036 Bachelor's degree
17-2072	Electronics Engineers	3,751	39	1.04	4	83	87	\$97,765 Bachelor's degree
	Sub Total	55,871	8,978	13.38	897	837	1,734	
25-1021	Computer Science Faculty (Postsecondary)	1,594	52	3.26	5	28	33	\$86,679 Doctoral degree
	Unduplicated Total	203,126	29,187	14.37	3,146	3,112	6,258	

Source: IL Dept. of Employment Security, Economic Information & Analysis Division