

Labor Market  
Information  
(LMI)  
Data

### Bioscience Occupational Projections for Baltimore City and Baltimore County combined

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
17-2051	Civil engineers	Bachelor's degree	1,300	1,512	558	42.89%
13-1111	Management analysts	Bachelor's or higher degree, plus work experience	2,022	2,078	403	19.92%
17-1011	Architects, except landscape and naval	Bachelor's degree	914	1,067	324	35.41%
19-4021	Biological technicians	Bachelor's degree	385	446	199	51.58%
11-1021	General and operations managers	Bachelor's or higher degree, plus work experience	676	650	174	25.77%
17-1022	Surveyors	Bachelor's degree	289	357	155	53.42%
17-3011	Architectural and civil drafters	Postsecondary vocational award	468	488	153	32.76%
19-2041	Environmental scientists and specialists, including health	Master's degree	236	301	126	53.21%
19-1042	Medical scientists, except epidemiologists	Doctoral degree	305	331	120	39.32%
15-1051	Computer systems analysts	Bachelor's degree	219	275	114	51.91%
13-2011	Accountants and auditors	Bachelor's degree	305	343	92	30.34%
19-2031	Chemists	Bachelor's degree	337	297	89	26.47%
15-1081	Network systems and data communications analysts	Bachelor's degree	163	218	88	53.75%
11-9041	Engineering managers	Bachelor's or higher degree, plus work experience	222	258	81	36.67%
11-9199	Managers, all other	Work experience in a related occupation	299	314	79	26.38%
17-2071	Electrical engineers	Bachelor's degree	185	217	74	39.84%
17-2081	Environmental engineers	Bachelor's degree	118	157	73	62.22%
13-1199	Business operation specialists, all other	Bachelor's degree	285	327	72	25.32%
15-1031	Computer software engineers, applications	Bachelor's degree	136	187	71	52.25%
15-1071	Network and computer systems administrators	Bachelor's degree	142	174	65	45.57%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
15-1032	Computer software engineers, systems software	Bachelor's degree	159	194	58	36.64%
15-1099	Computer specialists, all other	Associate degree	213	206	56	26.47%
41-3099	Sales representatives, services, all other	Work experience in a related occupation	117	144	54	46.39%
27-1025	Interior designers	Associate degree	117	139	54	46.22%
27-3042	Technical writers	Bachelor's degree	96	119	53	55.21%
17-3012	Electrical and electronics drafters	Postsecondary vocational award	116	134	51	43.84%
15-1041	Computer support specialists	Associate degree	134	139	51	37.83%
17-2141	Mechanical engineers	Bachelor's degree	201	204	50	24.82%
17-2199	Engineers, all other	Bachelor's degree	187	213	47	25.32%
19-3021	Market research analysts	Bachelor's degree	215	243	43	19.93%
19-4099	Life, physical, and social science technicians, all other	Associate degree	102	106	42	41.03%
13-1073	Training and development specialists	Bachelor's or higher degree, plus work experience	97	110	33	34.22%
27-1024	Graphic designers	Bachelor's degree	120	121	33	27.70%
13-1071	Employment, recruitment, and placement specialists	Bachelor's degree	106	111	33	30.97%
15-2031	Operations research analysts	Master's degree	67	85	31	46.51%
17-2072	Electronics engineers, except computer	Bachelor's degree	79	92	30	38.10%
17-1012	Landscape architects	Bachelor's degree	105	115	30	28.13%
15-1061	Database administrators	Bachelor's degree	78	98	28	36.17%
11-2021	Marketing managers	Bachelor's or higher degree, plus work experience	79	87	27	33.99%
19-4091	Environmental science and protection technicians, including health	Associate degree	63	65	26	40.74%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
13-2099	Financial specialists, all other	Bachelor's degree	80	80	24	30.36%
19-1099	Life scientists, all other	Bachelor's degree	79	69	24	30.36%
17-3013	Mechanical drafters	Postsecondary vocational award	74	72	24	32.00%
29-1111	Registered nurses	Associate degree	56	70	23	41.79%
11-3031	Financial managers	Bachelor's or higher degree, plus work experience	135	123	23	17.34%
11-3021	Computer and information systems managers	Bachelor's or higher degree, plus work experience	87	96	23	26.44%
15-1021	Computer programmers	Bachelor's degree	111	101	23	20.70%
13-1072	Compensation, benefits, and job analysis specialists	Bachelor's degree	60	69	23	37.58%
23-1011	Lawyers	First professional degree	79	85	21	27.19%
11-9121	Natural sciences managers	Bachelor's or higher degree, plus work experience	77	80	19	25.00%
17-2112	Industrial engineers	Bachelor's degree	51	59	19	37.18%
17-2041	Chemical engineers	Bachelor's degree	56	60	18	32.26%
19-1022	Microbiologists	Doctoral degree	55	57	17	31.82%
19-3051	Urban and regional planners	Master's degree	53	55	17	32.08%
11-1011	Chief executives	Bachelor's or higher degree, plus work experience	58	57	16	27.80%
17-2111	Health and safety engineers, except mining safety engineers and inspectors	Bachelor's degree	55	58	16	28.57%
13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation	Long-term on-the-job training	101	101	15	15.37%
13-1079	Human resources, training, and labor relations specialists, all other	Bachelor's degree	48	51	15	31.15%
19-1012	Food scientists and technologists	Bachelor's degree	31	36	15	46.88%
13-2051	Financial analysts	Bachelor's degree	103	109	15	14.12%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
19-4061	Social science research assistants	Associate degree	28	30	13	46.67%
15-2041	Statisticians	Master's degree	40	39	12	31.25%
11-2022	Sales managers	Bachelor's or higher degree, plus work experience	46	43	12	26.72%
17-1021	Cartographers and photogrammetrists	Bachelor's degree	25	29	11	45.45%
19-3099	Social scientists and related workers, all other	Master's degree	31	32	11	35.14%
13-2031	Budget analysts	Bachelor's degree	33	35	10	28.89%
11-9111	Medical and health services managers	Bachelor's or higher degree, plus work experience	28	32	9	32.57%
15-2011	Actuaries	Bachelor's or higher degree, plus work experience	24	23	9	37.93%
19-3022	Survey researchers	Bachelor's degree	49	53	9	18.60%
29-2011	Medical and clinical laboratory technologists	Bachelor's degree	32	37	9	28.00%
29-9011	Occupational health and safety specialists	Bachelor's degree	37	38	9	24.29%
17-2011	Aerospace engineers	Bachelor's degree	41	31	8	20.59%
19-1021	Biochemists and biophysicists	Doctoral degree	28	32	8	28.57%
29-2012	Medical and clinical laboratory technicians	Associate degree	27	30	8	28.65%
11-3049	Human resources managers, all other	Bachelor's or higher degree, plus work experience	24	27	8	30.95%
19-1041	Epidemiologists	Master's degree	15	18	7	46.15%
19-2042	Geoscientists, except hydrologists and geographers	Master's degree	27	27	7	25.00%
27-1014	Multi-media artists and animators	Bachelor's degree	11	15	7	57.95%
27-3041	Editors	Bachelor's degree	20	16	7	32.21%
27-1021	Commercial and industrial designers	Bachelor's degree	26	14	6	25.00%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
27-3031	Public relations specialists	Bachelor's degree	49	51	6	12.72%
11-3061	Purchasing managers	Bachelor's or higher degree, plus work experience	21	21	6	29.73%
15-2021	Mathematicians	Doctoral degree	12	15	6	50.00%
25-9031	Instructional coordinators	Master's degree	18	22	6	33.23%
27-3043	Writers and authors	Bachelor's degree	27	25	6	20.72%
17-2061	Computer hardware engineers	Bachelor's degree	12	13	5	45.83%
41-9022	Real estate sales agents	Postsecondary vocational award	32	29	5	15.97%
15-1011	Computer and information scientists, research	Doctoral degree	13	14	5	38.46%
19-2012	Physicists	Doctoral degree	15	18	5	33.33%
19-2099	Physical scientists, all other	Bachelor's degree	23	25	5	21.43%
11-3042	Training and development managers	Bachelor's or higher degree, plus work experience	14	16	5	35.71%
19-2043	Hydrologists	Master's degree	22	22	5	22.22%
13-1031	Claims adjusters, examiners, and investigators	Long-term on-the-job training	19	18	5	25.43%
23-2011	Paralegals and legal assistants	Associate degree	20	22	5	23.33%
13-2052	Personal financial advisors	Bachelor's degree	28	25	4	16.00%
29-9099	Healthcare practitioners and technical workers, all other	Bachelor's degree	13	14	4	34.51%
19-1029	Biological scientists, all other	Doctoral degree	22	16	4	19.23%
17-3019	Drafters, all other	Postsecondary vocational award	14	14	4	28.57%
17-2031	Biomedical engineers	Bachelor's degree	10	12	4	40.00%
19-3011	Economists	Master's degree	14	14	4	27.27%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
13-1121	Meeting and convention planners	Bachelor's degree	10	10	4	37.21%
19-3093	Historians	Master's degree	9	9	3	37.50%
11-2031	Public relations managers	Bachelor's or higher degree, plus work experience	10	11	3	30.19%
33-9021	Private detectives and investigators	Work experience in a related occupation	14	13	3	21.43%
11-3041	Compensation and benefits managers	Bachelor's or higher degree, plus work experience	13	14	3	22.50%
25-4021	Librarians	Master's degree	9	9	3	32.13%
19-3031	Clinical, counseling, and school psychologists	Doctoral degree	9	11	3	30.33%
27-3099	Media and communication workers, all other	Long-term on-the-job training	7	8	2	33.33%
27-1011	Art directors	Bachelor's or higher degree, plus work experience	7	8	2	33.33%
25-3099	Teachers and instructors, all other	Bachelor's degree	12	13	2	17.68%
21-1091	Health educators	Bachelor's degree	10	11	2	21.79%
21-1022	Medical and public health social workers	Bachelor's degree	6	7	2	34.38%
27-4021	Photographers	Long-term on-the-job training	7	7	2	29.33%
41-9099	Sales and related workers, all other	Moderate-term on-the-job training	15	16	2	13.28%
41-3031	Securities, commodities, and financial services sales agents	Bachelor's degree	7	6	2	25.55%
27-1029	Designers, all other	Bachelor's degree	3	4	2	50.00%
41-9031	Sales engineers	Bachelor's degree	6	5	2	27.27%
11-2011	Advertising and promotions managers	Bachelor's or higher degree, plus work experience	5	5	2	30.91%
29-1051	Pharmacists	First professional degree	4	5	2	40.48%
21-1099	Community and social service specialists, all other	Bachelor's degree	6	7	1	22.40%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
21-1012	Educational, vocational, and school counselors	Master's degree	4	5	1	31.70%
13-2021	Appraisers and assessors of real estate	Bachelor's degree	6	6	1	20.86%
41-3011	Advertising sales agents	Moderate-term on-the-job training	5	5	1	27.13%
29-2034	Radiologic technologists and technicians	Associate degree	4	5	1	28.46%
27-1026	Merchandise displayers and window trimmers	Moderate-term on-the-job training	4	4	1	25.93%
41-3021	Insurance sales agents	Bachelor's degree	3	4	1	29.06%
25-3021	Self-enrichment education teachers	Work experience in a related occupation	3	4	1	25.94%
29-1031	Dietitians and nutritionists	Bachelor's degree	2	2	1	38.26%
13-2041	Credit analysts	Bachelor's degree	2	1	1	38.16%
27-3091	Interpreters and translators	Long-term on-the-job training	2	2	1	36.36%
21-1023	Mental health and substance abuse social workers	Master's degree	1	2	1	39.66%
19-1031	Conservation scientists	Bachelor's degree	1	1	1	40.00%
29-1131	Veterinarians	First professional degree	1	1	1	51.16%
13-2072	Loan officers	Bachelor's degree	5	4	1	10.74%
13-1061	Emergency management specialists	Work experience in a related occupation	4	3	0	0.00%
11-9151	Social and community service managers	Bachelor's degree	1	2	0	0.00%
53-2012	Commercial pilots	Postsecondary vocational award	1	1	0	0.00%
25-4011	Archivists	Master's degree	1	1	0	0.00%
21-1093	Social and human service assistants	Moderate-term on-the-job training	1	2	0	0.00%
13-2061	Financial examiners	Bachelor's degree	2	2	0	0.00%

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27-2012	Producers and directors	Bachelor's or higher degree, plus work experience	1	1	0	0.00%
29-2021	Dental hygienists	Associate degree	1	1	0	0.00%
25-9099	Education, training, and library workers, all other	Bachelor's degree	1	1	0	0.00%
19-3039	Psychologists, all other	Master's degree	1	1	0	0.00%
13-2071	Loan counselors	Bachelor's degree	2	2	0	10.64%
13-2082	Tax preparers	Moderate-term on-the-job training	1	1	0	0.00%
19-4093	Forest and conservation technicians	Associate degree	0	0	0	0.00%
29-9012	Occupational health and safety technicians	Bachelor's degree	1	1	0	0.00%
<b>Total</b>			<b>14,134</b>	<b>15,463</b>	<b>4,674</b>	<b>0</b>

### Business Services Occupational Projections for Baltimore City and Baltimore County combined

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
23-1011	Lawyers	First professional degree	4502	4868	1224	27.2%
13-2011	Accountants and auditors	Bachelor's degree	3205	3612	972	30.3%
11-1021	Marketing managers	Bachelor's or higher degree, plus work experience	2648	2544	682	25.8%
15-1051	Computer systems analysts	Bachelor's degree	1268	1590	658	51.9%
13-1111	Management analysts	Bachelor's or higher degree, plus work experience	3280	3372	654	19.9%
17-2051	Civil engineers	Bachelor's degree	1348	1567	578	42.9%
23-2011	Paralegals and legal assistants	Associate degree	2434	2684	568	23.3%
15-1081	Network systems and data communications analysts	Bachelor's degree	965	1288	519	53.8%
15-1031	Computer software engineers, applications	Bachelor's degree	852	1174	445	52.3%
15-1041	Computer support specialists	Associate degree	1161	1206	439	37.8%
29-1111	Registered nurses	Associate degree	968	1212	404	41.8%
15-1099	Computer specialists, all other	Associate degree	1410	1362	373	26.5%
27-4021	Photographers	Long-term on-the-job training	1192	1280	350	29.3%
17-1011	Architects, except landscape and naval	Bachelor's degree	929	1085	329	35.4%
15-1071	Network and computer systems administrators	Bachelor's degree	704	865	321	45.6%
41-3099	Sales representatives, services, all other	Work experience in a related occupation	626	769	290	46.4%
11-9199	General and operations managers	Work experience in a related occupation	914	960	241	26.4%
15-1021	Computer programmers	Bachelor's degree	1139	1033	236	20.7%
15-1032	Computer software engineers, systems software	Bachelor's degree	632	772	232	36.6%

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13-1071	Employment, recruitment, and placement specialists	Bachelor's degree	714	752	221	31.0%
13-1199	Business operations specialists, all other	Bachelor's degree	817	935	207	25.3%
19-4021	Biological technicians	Bachelor's degree	323	374	167	51.6%
17-3011	Architectural and civil drafters	Postsecondary vocational award	479	499	157	32.8%
17-1022	Surveyors	Bachelor's degree	293	362	157	53.4%
27-1024	Graphic designers	Bachelor's degree	539	545	149	27.7%
33-9021	Private detectives and investigators	Work experience in a related occupation	673	631	144	21.4%
13-1073	Training and development specialists	Bachelor's or higher degree, plus work experience	420	474	144	34.2%
19-2041	Environmental scientists and specialists, including health	Master's degree	254	324	135	53.2%
11-3021	Compensation and benefits managers	Bachelor's or higher degree, plus work experience	502	554	133	26.4%
11-3031	Training and development managers	Bachelor's or higher degree, plus work experience	764	695	133	17.3%
15-1061	Database administrators	Bachelor's degree	362	454	131	36.2%
13-2099	Financial specialists, all other	Bachelor's degree	418	419	127	30.4%
27-3042	Technical writers	Bachelor's degree	228	283	126	55.2%
19-3021	Market research analysts	Bachelor's degree	595	673	119	19.9%
11-9041	Funeral directors	Bachelor's or higher degree, plus work experience	278	324	102	36.7%
29-1131	Veterinarians	First professional degree	199	263	102	51.2%
19-1042	Medical scientists, except epidemiologists	Doctoral degree	239	259	94	39.3%
11-2021	Public relations managers	Bachelor's or higher degree, plus work experience	276	305	94	34.0%

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17-2071	Electrical engineers	Bachelor's degree	226	264	90	39.8%
11-2022	Administrative services managers	Bachelor's or higher degree, plus work experience	311	291	83	26.7%
17-2081	Environmental engineers	Bachelor's degree	133	177	83	62.2%
13-1072	Compensation, benefits, and job analysis specialists	Bachelor's degree	216	249	81	37.6%
27-1014	Multi-media artists and animators	Bachelor's degree	131	177	76	58.0%
17-2199	Engineers, all other	Bachelor's degree	265	302	67	25.3%
11-1011	Advertising and promotions managers	Bachelor's or higher degree, plus work experience	241	236	67	27.8%
15-2031	Operations research analysts	Master's degree	140	177	65	46.5%
13-1079	Human resources, training, and labor relations specialists, all other	Bachelor's degree	209	222	65	31.2%
41-3011	Advertising sales agents	Moderate-term on-the-job training	237	250	64	27.1%
13-2051	Financial analysts	Bachelor's degree	453	478	64	14.1%
19-2031	Chemists	Bachelor's degree	241	213	64	26.5%
17-2141	Mechanical engineers	Bachelor's degree	242	246	60	24.8%
17-3012	Electrical and electronics drafters	Postsecondary vocational award	135	155	59	43.8%
27-1025	Interior designers	Associate degree	128	152	59	46.2%
19-4099	Life, physical, and social science technicians, all other	Associate degree	130	135	53	41.0%
13-1031	Claims adjusters, examiners, and investigators	Long-term on-the-job training	199	187	50	25.4%
17-2072	Electronics engineers, except computer	Bachelor's degree	119	139	45	38.1%
11-9111	Property, real estate, and community association managers	Bachelor's or higher degree, plus work experience	132	150	43	32.6%

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11-3049	Purchasing managers	Bachelor's or higher degree, plus work experience	125	139	39	31.0%
27-1011	Art directors	Bachelor's or higher degree, plus work experience	112	124	37	33.3%
17-1012	Landscape architects	Bachelor's degree	132	145	37	28.1%
27-3043	Writers and authors	Bachelor's degree	158	147	33	20.7%
27-3031	Public relations specialists	Bachelor's degree	254	262	32	12.7%
13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation	Long-term on-the-job training	203	204	31	15.4%
11-2011	Sales managers	Bachelor's or higher degree, plus work experience	98	107	30	30.9%
19-3022	Survey researchers	Bachelor's degree	163	178	30	18.6%
19-1099	Life scientists, all other	Bachelor's degree	98	86	30	30.4%
13-2082	Tax preparers	Moderate-term on-the-job training	167	147	29	17.6%
17-2112	Industrial engineers	Bachelor's degree	78	89	29	37.2%
19-4091	Environmental science and protection technicians, including health	Associate degree	70	73	29	40.7%
17-3013	Mechanical drafters	Postsecondary vocational award	87	86	28	32.0%
27-3041	Editors	Bachelor's degree	84	67	27	32.2%
11-3042	Industrial production managers	Bachelor's or higher degree, plus work experience	73	86	26	35.7%
13-2031	Budget analysts	Bachelor's degree	88	92	25	28.9%
41-9022	Real estate sales agents	Postsecondary vocational award	149	132	24	16.0%
17-2111	Health and safety engineers, except mining safety engineers and inspectors	Bachelor's degree	80	85	23	28.6%
27-3099	Media and communication workers, all other	Long-term on-the-job training	68	73	23	33.3%

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11-3061	Farm, ranch, and other agricultural managers	Bachelor's or higher degree, plus work experience	75	75	22	29.7%
11-2031	Computer and information systems managers	Bachelor's or higher degree, plus work experience	71	74	22	30.2%
19-1012	Food scientists and technologists	Bachelor's degree	43	50	20	46.9%
17-2061	Computer hardware engineers	Bachelor's degree	44	49	20	45.8%
41-3031	Securities, commodities, and financial services sales agents	Bachelor's degree	78	63	20	25.6%
13-2041	Credit analysts	Bachelor's degree	50	38	19	38.2%
11-9121	Social and community service managers	Bachelor's or higher degree, plus work experience	69	71	17	25.0%
19-3051	Urban and regional planners	Master's degree	54	56	17	32.1%
17-2041	Chemical engineers	Bachelor's degree	52	55	17	32.3%
25-9031	Instructional coordinators	Master's degree	49	59	16	33.2%
13-2052	Personal financial advisors	Bachelor's degree	102	92	16	16.0%
13-1081	Logisticians	Bachelor's degree	69	74	16	23.6%
29-1051	Pharmacists	First professional degree	40	49	16	40.5%
27-3091	Interpreters and translators	Long-term on-the-job training	43	50	16	36.4%
19-4061	Social science research assistants	Associate degree	31	33	14	46.7%
15-2011	Actuaries	Bachelor's or higher degree, plus work experience	38	37	14	37.9%
25-2021	Elementary school teachers, except special education	Bachelor's degree	42	47	14	33.8%
29-9011	Occupational health and safety specialists	Bachelor's degree	57	60	14	24.3%
15-2041	Statisticians	Master's degree	44	43	14	31.3%

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19-3099	Social scientists and related workers, all other	Master's degree	38	39	13	35.1%
11-3041	Human resources managers, all other	Bachelor's or higher degree, plus work experience	60	63	13	22.5%
27-1021	Commercial and industrial designers	Bachelor's degree	53	30	13	25.0%
41-9099	Sales and related workers, all other	Moderate-term on-the-job training	98	103	13	13.3%
29-2011	Medical and clinical laboratory technologists	Bachelor's degree	45	51	13	28.0%
17-1021	Cartographers and photogrammetrists	Bachelor's degree	27	32	12	45.5%
21-1012	Educational, vocational, and school counselors	Master's degree	37	41	12	31.7%
15-1011	Computer and information scientists, research	Doctoral degree	30	33	12	38.5%
19-1022	Microbiologists	Doctoral degree	36	38	11	31.8%
29-1126	Respiratory therapists	Associate degree	26	34	11	43.6%
13-2053	Insurance underwriters	Bachelor's degree	37	36	11	30.7%
29-2012	Medical and clinical laboratory technicians	Associate degree	38	43	11	28.6%
25-3099	Teachers and instructors, all other	Bachelor's degree	61	65	11	17.7%
13-2072	Loan officers	Bachelor's degree	100	73	11	10.7%
21-1022	Medical and public health social workers	Bachelor's degree	30	34	10	34.4%
25-4021	Librarians	Master's degree	31	32	10	32.1%
17-2011	Aerospace engineers	Bachelor's degree	48	36	10	20.6%
13-1121	Meeting and convention planners	Bachelor's degree	25	26	9	37.2%
25-2022	Middle school teachers, except special and vocational education	Bachelor's degree	30	32	9	31.7%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
29-9099	Healthcare practitioners and technical workers, all other	Bachelor's degree	24	28	8	34.5%
21-1021	Child, family, and school social workers	Bachelor's degree	25	28	8	32.9%
29-1123	Physical therapists	Master's degree	26	31	8	31.6%
41-9031	Sales engineers	Bachelor's degree	28	21	8	27.3%
21-1093	Social and human service assistants	Moderate-term on-the-job training	28	32	7	26.3%
25-2031	Secondary school teachers, except special and vocational education	Bachelor's degree	21	22	7	34.2%
19-2042	Geoscientists, except hydrologists and geographers	Master's degree	29	29	7	25.0%
19-3031	Clinical, counseling, and school psychologists	Doctoral degree	23	27	7	30.3%
27-1026	Merchandise displayers and window trimmers	Moderate-term on-the-job training	27	26	7	25.9%
27-2012	Producers and directors	Bachelor's or higher degree, plus work experience	17	18	7	40.0%
11-9151	Chief executives	Bachelor's degree	22	24	7	31.2%
41-3021	Insurance sales agents	Bachelor's degree	23	23	7	29.1%
15-2021	Mathematicians	Doctoral degree	13	15	6	50.0%
21-1023	Mental health and substance abuse social workers	Master's degree	16	19	6	39.7%
27-1029	Designers, all other	Bachelor's degree	12	15	6	50.0%
29-2034	Radiologic technologists and technicians	Associate degree	20	24	6	28.5%
19-2099	Physical scientists, all other	Bachelor's degree	27	29	6	21.4%
13-2021	Appraisers and assessors of real estate	Bachelor's degree	25	23	5	20.9%
19-2012	Physicists	Doctoral degree	15	18	5	33.3%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
21-1015	Rehabilitation counselors	Master's degree	11	14	5	46.0%
19-1021	Biochemists and biophysicists	Doctoral degree	18	20	5	28.6%
29-1122	Occupational therapists	Master's degree	13	16	5	37.1%
19-2043	Hydrologists	Master's degree	22	22	5	22.2%
21-1099	Community and social service specialists, all other	Bachelor's degree	22	24	5	22.4%
17-3019	Drafters, all other	Postsecondary vocational award	16	16	5	28.6%
19-3011	Economists	Master's degree	16	16	4	27.3%
29-1031	Dietitians and nutritionists	Bachelor's degree	11	12	4	38.3%
25-3021	Self-enrichment education teachers	Work experience in a related occupation	15	17	4	25.9%
19-1029	Biological scientists, all other	Doctoral degree	20	14	4	19.2%
21-1091	Health educators	Bachelor's degree	17	19	4	21.8%
29-2021	Dental hygienists	Associate degree	10	12	4	38.1%
41-9021	Real estate brokers	Work experience in a related occupation	23	19	4	16.2%
29-1071	Physician assistants	Master's degree	12	13	4	30.3%
13-2061	Financial examiners	Bachelor's degree	18	15	3	19.0%
27-4031	Camera operators, television, video, and motion picture	Postsecondary vocational award	14	14	3	23.5%
31-2021	Physical therapist assistants	Associate degree	8	9	3	37.3%
43-4121	Library assistants, clerical	Short-term on-the-job training	6	7	3	43.4%
17-2031	Biomedical engineers	Bachelor's degree	6	7	2	40.0%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
21-1029	Social workers, all other	Bachelor's degree	8	9	2	27.7%
25-9099	Education, training, and library workers, all other	Bachelor's degree	10	11	2	24.1%
13-2071	Loan counselors	Bachelor's degree	20	17	2	10.6%
53-2012	Commercial pilots	Postsecondary vocational award	4	4	1	35.7%
19-1031	Conservation scientists	Bachelor's degree	1	1	1	40.0%
29-9012	Occupational health and safety technicians	Bachelor's degree	2	2	0	0.0%
<b>Total</b>			<b>47,370</b>	<b>51,593</b>	<b>14,712</b>	<b>31.1%</b>

**Computer and Internet Occupational Projections for Baltimore City and Baltimore County combined**

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
15-1051	Computer systems analysts	Bachelor's degree	939	1178	487	51.9%
15-1031	Computer software engineers, applications	Bachelor's degree	713	983	373	52.3%
15-1081	Network systems and data communications analysts	Bachelor's degree	630	841	339	53.8%
15-1041	Computer support specialists	Associate degree	831	863	314	37.8%
15-1099	Computer specialists, all other	Associate degree	801	774	212	26.5%
15-1032	Computer software engineers, systems software	Bachelor's degree	525	641	192	36.6%
15-1021	Computer programmers	Bachelor's degree	926	840	192	20.7%
15-1071	Network and computer systems administrators	Bachelor's degree	417	513	190	45.6%
11-1021	General and operations managers	Bachelor's or higher degree, plus work experience	678	651	175	25.8%
13-1111	Management analysts	Bachelor's or higher degree, plus work experience	649	667	129	19.9%
41-3099	Sales representatives, services, all other	Work experience in a related occupation	221	271	102	46.4%
13-2011	Accountants and auditors	Bachelor's degree	298	336	90	30.3%
11-3021	Computer and information systems managers	Bachelor's or higher degree, plus work experience	337	371	89	26.4%
15-1061	Database administrators	Bachelor's degree	233	293	84	36.2%
27-3042	Technical writers	Bachelor's degree	109	135	60	55.2%
11-2022	Sales managers	Bachelor's or higher degree, plus work experience	188	177	50	26.7%
11-9199	Managers, all other	Work experience in a related occupation	168	176	44	26.4%
13-1199	Business operations specialists, all other	Bachelor's degree	174	199	44	25.3%
27-1014	Multi-media artists and animators	Bachelor's degree	65	88	38	58.0%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
13-1073	Training and development specialists	Bachelor's or higher degree, plus work experience	108	122	37	34.2%
27-1024	Graphic designers	Bachelor's degree	123	124	34	27.7%
15-2031	Operations research analysts	Master's degree	59	75	28	46.5%
43-4121	Library assistants, clerical	Short-term on-the-job training	63	70	28	43.4%
19-3021	Market research analysts	Bachelor's degree	136	154	27	19.9%
11-2021	Marketing managers	Bachelor's or higher degree, plus work experience	80	88	27	34.0%
11-3031	Financial managers	Bachelor's or higher degree, plus work experience	121	110	21	17.3%
13-2099	Financial specialists, all other	Bachelor's degree	66	66	20	30.4%
17-2072	Electronics engineers, except computer	Bachelor's degree	51	60	20	38.1%
25-4021	Librarians	Master's degree	59	61	19	32.1%
17-2061	Computer hardware engineers	Bachelor's degree	36	41	17	45.8%
13-1071	Employment, recruitment, and placement specialists	Bachelor's degree	52	55	16	31.0%
27-3041	Editors	Bachelor's degree	49	39	16	32.2%
11-1011	Chief executives	Bachelor's or higher degree, plus work experience	55	54	15	27.8%
41-9031	Sales engineers	Bachelor's degree	47	36	13	27.3%
11-9041	Engineering managers	Bachelor's or higher degree, plus work experience	33	39	12	36.7%
13-1079	Human resources, training, and labor relations specialists, all other	Bachelor's degree	38	40	12	31.2%
13-1072	Compensation, benefits, and job analysis specialists	Bachelor's degree	29	34	11	37.6%
17-2071	Electrical engineers	Bachelor's degree	27	32	11	39.8%
13-2051	Financial analysts	Bachelor's degree	77	81	11	14.1%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
23-1011	Lawyers	First professional degree	37	40	10	27.2%
27-3099	Media and communication workers, all other	Long-term on-the-job training	22	24	7	33.3%
15-1011	Computer and information scientists, research	Doctoral degree	19	20	7	38.5%
17-2199	Engineers, all other	Bachelor's degree	27	31	7	25.3%
11-3061	Purchasing managers	Bachelor's or higher degree, plus work experience	20	20	6	29.7%
11-3049	Human resources managers, all other	Bachelor's or higher degree, plus work experience	18	20	6	31.0%
13-2031	Budget analysts	Bachelor's degree	18	19	5	28.9%
41-9099	Sales and related workers, all other	Moderate-term on-the-job training	38	40	5	13.3%
27-3022	Reporters and correspondents	Bachelor's degree	15	12	5	34.6%
27-3043	Writers and authors	Bachelor's degree	23	21	5	20.7%
17-2112	Industrial engineers	Bachelor's degree	13	14	5	37.2%
13-1081	Logisticians	Bachelor's degree	18	19	4	23.6%
27-1011	Art directors	Bachelor's or higher degree, plus work experience	12	13	4	33.3%
17-3012	Electrical and electronics drafters	Postsecondary vocational award	8	10	4	43.8%
13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation	Long-term on-the-job training	23	23	4	15.4%
13-2041	Credit analysts	Bachelor's degree	9	7	3	38.2%
27-1025	Interior designers	Associate degree	7	9	3	46.2%
11-3042	Training and development managers	Bachelor's or higher degree, plus work experience	9	11	3	35.7%
27-3031	Public relations specialists	Bachelor's degree	24	24	3	12.7%
25-9031	Instructional coordinators	Master's degree	9	11	3	33.2%

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
17-2141	Mechanical engineers	Bachelor's degree	12	12	3	24.8%
41-3011	Advertising sales agents	Moderate-term on-the-job training	10	11	3	27.1%
19-3099	Social scientists and related workers, all other	Master's degree	8	8	3	35.1%
29-1126	Respiratory therapists	Associate degree	6	8	3	43.6%
33-9021	Private detectives and investigators	Work experience in a related occupation	13	12	3	21.4%
23-2011	Paralegals and legal assistants	Associate degree	11	12	2	23.3%
19-2041	Environmental scientists and specialists, including health	Master's degree	5	6	2	53.2%
29-1111	Registered nurses	Associate degree	6	7	2	41.8%
27-4021	Photographers	Long-term on-the-job training	7	8	2	29.3%
11-2011	Advertising and promotions managers	Bachelor's or higher degree, plus work experience	7	8	2	30.9%
27-1026	Merchandise displayers and window trimmers	Moderate-term on-the-job training	8	8	2	25.9%
11-2031	Public relations managers	Bachelor's or higher degree, plus work experience	6	7	2	30.2%
29-1051	Pharmacists	First professional degree	4	5	2	40.5%
27-1021	Commercial and industrial designers	Bachelor's degree	7	4	2	25.0%
11-3041	Compensation and benefits managers	Bachelor's or higher degree, plus work experience	7	8	2	22.5%
13-1121	Meeting and convention planners	Bachelor's degree	4	4	1	37.2%
15-2041	Statisticians	Master's degree	4	4	1	31.3%
17-3013	Mechanical drafters	Postsecondary vocational award	4	4	1	32.0%
25-3099	Teachers and instructors, all other	Bachelor's degree	7	8	1	17.7%
19-1042	Medical scientists, except epidemiologists	Doctoral degree	3	3	1	39.3%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
25-3021	Self-enrichment education teachers	Work experience in a related occupation	4	5	1	25.9%
17-2051	Civil engineers	Bachelor's degree	2	3	1	42.9%
17-1021	Cartographers and photogrammetrists	Bachelor's degree	2	2	1	45.5%
17-2111	Health and safety engineers, except mining safety engineers and inspectors	Bachelor's degree	3	3	1	28.6%
25-4011	Archivists	Master's degree	2	2	1	50.0%
27-2012	Producers and directors	Bachelor's or higher degree, plus work experience	2	2	1	40.0%
19-4099	Life, physical, and social science technicians, all other	Associate degree	2	2	1	41.0%
17-2011	Aerospace engineers	Bachelor's degree	4	3	1	20.6%
13-2052	Personal financial advisors	Bachelor's degree	4	4	1	16.0%
41-9021	Real estate brokers	Work experience in a related occupation	4	3	1	16.2%
11-9111	Medical and health services managers	Bachelor's or higher degree, plus work experience	2	2	1	32.6%
27-1029	Designers, all other	Bachelor's degree	1	1	1	0.0%
13-1031	Claims adjusters, examiners, and investigators	Long-term on-the-job training	2	2	1	25.4%
13-2072	Loan officers	Bachelor's degree	5	4	1	10.7%
17-2081	Environmental engineers	Bachelor's degree	1	1	0	0.0%
41-3031	Securities, commodities, and financial services sales agents	Bachelor's degree	2	2	0	0.0%
29-9099	Healthcare practitioners and technical workers, all other	Bachelor's degree	1	1	0	0.0%
19-1012	Food scientists and technologists	Bachelor's degree	1	1	0	0.0%
19-2031	Chemists	Bachelor's degree	1	1	0	0.0%
17-2031	Biomedical engineers	Bachelor's degree	1	1	0	0.0%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
29-9011	Occupational health and safety specialists	Bachelor's degree	1	1	0	0.0%
41-9022	Real estate sales agents	Postsecondary vocational award	2	2	0	0.0%
19-1099	Life scientists, all other	Bachelor's degree	1	1	0	0.0%
25-4012	Curators	Master's degree	1	1	0	0.0%
19-4021	Biological technicians	Bachelor's degree	1	1	0	0.0%
15-2021	Mathematicians	Doctoral degree	1	1	0	0.0%
11-9121	Natural sciences managers	Bachelor's or higher degree, plus work experience	1	1	0	0.0%
13-2061	Financial examiners	Bachelor's degree	1	1	0	0.0%
17-1011	Architects, except landscape and naval	Bachelor's degree	1	1	0	0.0%
13-1061	Emergency management specialists	Work experience in a related occupation	2	2	0	0.0%
17-2041	Chemical engineers	Bachelor's degree	1	1	0	0.0%
29-2011	Medical and clinical laboratory technologists	Bachelor's degree	1	1	0	0.0%
19-2099	Physical scientists, all other	Bachelor's degree	1	1	0	0.0%
<b>Total</b>			<b>10778</b>	<b>11969</b>	<b>3755</b>	<b>29.0%</b>

### Construction Occupational Projections for Baltimore City and Baltimore County combined

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
11-1021	General and operations managers	Bachelor's or higher degree, plus	1036	996	267	25.8%
17-2051	Civil engineers	Bachelor's degree	260	303	112	42.9%
13-2011	Accountants and auditors	Bachelor's degree	269	303	82	30.3%
41-3099	Sales representatives, services, all other	Work experience in a related oc	162	199	75	46.4%
41-9022	Real estate sales agents	Postsecondary vocational awar	359	319	57	16.0%
17-3012	Electrical and electronics drafters	Postsecondary vocational awar	67	78	30	43.8%
27-1025	Interior designers	Associate degree	42	50	19	46.2%
11-1011	Chief executives	Bachelor's or higher degree, plus	70	69	19	27.8%
17-2111	Health and safety engineers, except mining safety engin	Bachelor's degree	64	68	18	28.6%
13-1199	Business operations specialists, all other	Bachelor's degree	68	77	17	25.3%
17-1011	Architects, except landscape and naval	Bachelor's degree	46	53	16	35.4%
17-3011	Architectural and civil drafters	Postsecondary vocational awar	46	48	15	32.8%
11-9199	Managers, all other	Work experience in a related oc	53	55	14	26.4%
11-3031	Financial managers	Bachelor's or higher degree, plus	79	72	14	17.3%
17-1022	Surveyors	Bachelor's degree	25	31	14	53.4%
11-9041	Engineering managers	Bachelor's or higher degree, plus	18	21	7	36.7%
15-1071	Network and computer systems administrators	Bachelor's degree	14	17	6	45.6%
17-2071	Electrical engineers	Bachelor's degree	15	18	6	39.8%
11-2022	Sales managers	Bachelor's or higher degree, plus	18	17	5	26.7%

11-2021	Marketing managers	Bachelor's or higher degree, plus	12	13	4	34.0%
41-9021	Real estate brokers	Work experience in a related occupation	23	20	4	16.2%
13-1079	Human resources, training, and labor relations specialists	Bachelor's degree	12	12	4	31.2%
19-3021	Market research analysts	Bachelor's degree	16	18	3	19.9%
15-1051	Computer systems analysts	Bachelor's degree	6	7	3	51.9%
13-1111	Management analysts	Bachelor's or higher degree, plus	14	14	3	19.9%
29-9011	Occupational health and safety specialists	Bachelor's degree	11	12	3	24.3%
11-3061	Purchasing managers	Bachelor's or higher degree, plus	9	9	3	29.7%
13-1072	Compensation, benefits, and job analysis specialists	Bachelor's degree	7	8	3	37.6%
23-1011	Lawyers	First professional degree	10	11	3	27.2%
15-1041	Computer support specialists	Associate degree	6	7	2	37.8%
17-3013	Mechanical drafters	Postsecondary vocational award	7	7	2	32.0%
15-1081	Network systems and data communications analysts	Bachelor's degree	4	5	2	53.8%
13-1071	Employment, recruitment, and placement specialists	Bachelor's degree	7	7	2	31.0%
13-2099	Financial specialists, all other	Bachelor's degree	7	7	2	30.4%
17-2199	Engineers, all other	Bachelor's degree	8	9	2	25.3%
17-2141	Mechanical engineers	Bachelor's degree	8	8	2	24.8%
27-1024	Graphic designers	Bachelor's degree	6	6	2	27.7%
13-1073	Training and development specialists	Bachelor's or higher degree, plus	4	5	1	34.2%
17-2072	Electronics engineers, except computer	Bachelor's degree	4	4	1	38.1%
41-9099	Sales and related workers, all other	Moderate-term on-the-job training	10	10	1	13.3%

17-1012	Landscape architects	Bachelor's degree	4	4	1	28.1%
15-1031	Computer software engineers, applications	Bachelor's degree	2	2	1	52.3%
15-1021	Computer programmers	Bachelor's degree	4	4	1	20.7%
17-2112	Industrial engineers	Bachelor's degree	2	3	1	37.2%
13-1041	Compliance officers, except agriculture, construction, he	Long-term on-the-job training	5	5	1	15.4%
13-2031	Budget analysts	Bachelor's degree	3	3	1	28.9%
13-2051	Financial analysts	Bachelor's degree	4	4	1	14.1%
11-3021	Computer and information systems managers	Bachelor's or higher degree, pl	2	2	1	26.4%
41-9031	Sales engineers	Bachelor's degree	1	1	0	0.0%
13-2072	Loan officers	Bachelor's degree	3	2	0	0.0%
27-3031	Public relations specialists	Bachelor's degree	2	2	0	0.0%
<b>Total</b>			<b>2,936</b>	<b>3,029</b>	<b>853</b>	<b>29.0%</b>

### Healthcare Occupational Projections for Baltimore City and Baltimore County combined

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
29-1111	Registered nurses	Associate degree	18003	22552	7523	41.8%
29-1069	Physicians and surgeons, all other	Master's degree	2632	2953	798	30.3%
29-1123	Physical therapists	Master's degree	1412	1691	446	31.6%
29-2011	Medical and clinical laboratory technologists	Bachelor's degree	1428	1613	400	28.0%
29-2034	Radiologic technologists and technicians	Associate degree	1265	1459	360	28.5%
21-1022	Medical and public health social workers	Bachelor's degree	986	1120	339	34.4%
29-1126	Respiratory therapists	Associate degree	703	905	306	43.6%
29-2021	Dental hygienists	Associate degree	756	903	288	38.1%
29-1122	Occupational therapists	Master's degree	637	779	237	37.1%
29-2012	Medical and clinical laboratory technicians	Associate degree	813	923	233	28.6%
29-1063	Internists, general	Bachelor's degree	957	856	192	20.1%
21-1093	Social and human service assistants	Moderate-term on-the-job training	730	838	192	26.3%
21-1011	Substance abuse and behavioral disorder counselors	Bachelor's degree	586	650	181	30.9%
29-1071	Physician assistants	Master's degree	598	698	181	30.3%
29-2031	Cardiovascular technologists and technicians	Associate degree	413	539	180	43.5%
21-1023	Mental health and substance abuse social workers	Master's degree	438	511	174	39.7%
29-1021	Dentists, general	First professional degree	853	833	173	20.3%
21-1014	Mental health counselors	Master's degree	479	556	172	36.0%
31-2021	Physical therapist assistants	Associate degree	391	485	146	37.3%
29-1051	Pharmacists	First professional degree	358	441	145	40.5%

29-1031	Dietitians and nutritionists	Bachelor's degree	373	419	143	38.3%
29-1061	Anesthesiologists	Bachelor's degree	551	556	137	24.8%
21-1015	Rehabilitation counselors	Master's degree	289	365	133	46.0%
29-9099	Healthcare practitioners and technical workers, all other	Bachelor's degree	374	431	129	34.5%
11-2021	Marketing managers	Bachelor's or higher degree, pl	348	385	118	34.0%
29-2032	Diagnostic medical sonographers	Associate degree	373	441	116	31.2%
29-1062	Family and general practitioners	Master's degree	565	538	113	20.0%
31-2022	Physical therapist aides	Short-term on-the-job training	453	511	110	24.2%
29-1127	Speech-language pathologists	Master's degree	367	404	107	29.1%
19-3031	Clinical, counseling, and school psychologists	Doctoral degree	343	395	104	30.3%
13-2011	Accountants and auditors	Bachelor's degree	257	289	78	30.3%
21-1013	Marriage and family therapists	Master's degree	364	367	74	20.5%
21-1021	Child, family, and school social workers	Bachelor's degree	223	249	73	32.9%
29-1066	Psychiatrists	Master's degree	261	277	67	25.8%
31-9011	Massage therapists	Postsecondary vocational awar	237	269	58	24.2%
29-1199	Health diagnosing and treating practitioners, all other	Bachelor's degree	189	212	54	28.4%
13-1073	Training and development specialists	Bachelor's or higher degree, pl	156	177	54	34.2%
25-1071	Health specialties teachers, postsecondary	Bachelor's degree	144	171	51	35.5%
29-1124	Radiation therapists	Associate degree	107	139	51	47.8%
13-1199	Business operations specialists, all other	Bachelor's degree	198	227	50	25.3%
15-1041	Computer support specialists	Associate degree	130	135	49	37.8%

29-2033	Nuclear medicine technologists	Associate degree	156	185	49	31.3%
15-1051	Computer systems analysts	Bachelor's degree	93	117	48	51.9%
11-3042	Training and development managers	Bachelor's or higher degree, plus	135	157	48	35.7%
29-1067	Surgeons	Master's degree	212	212	48	22.7%
11-2011	Advertising and promotions managers	Bachelor's or higher degree, plus	139	151	43	30.9%
15-1071	Network and computer systems administrators	Bachelor's degree	89	110	41	45.6%
11-1021	General and operations managers	Bachelor's or higher degree, plus	157	150	40	25.8%
11-3031	Financial managers	Bachelor's or higher degree, plus	212	193	37	17.3%
29-1125	Recreational therapists	Bachelor's degree	164	175	36	22.2%
19-1042	Medical scientists, except epidemiologists	Doctoral degree	90	98	36	39.3%
29-1065	Pediatricians, general	Master's degree	160	164	33	20.6%
21-1091	Health educators	Bachelor's degree	149	164	32	21.8%
19-4021	Biological technicians	Bachelor's degree	61	71	31	51.6%
15-1081	Network systems and data communications analysts	Bachelor's degree	58	78	31	53.8%
13-2099	Financial specialists, all other	Bachelor's degree	92	92	28	30.4%
29-1081	Podiatrists	First professional degree	83	60	28	33.3%
41-3099	Sales representatives, services, all other	Work experience in a related occupation	50	61	23	46.4%
11-9111	Medical and health services managers	Bachelor's or higher degree, plus	70	79	23	32.6%
13-1079	Human resources, training, and labor relations specialists	Bachelor's degree	73	77	23	31.2%
11-1011	Chief executives	Bachelor's or higher degree, plus	81	80	23	27.8%
15-1099	Computer specialists, all other	Associate degree	81	78	21	26.5%

13-1072	Compensation, benefits, and job analysis specialists	Bachelor's degree	55	63	21	37.6%
13-1111	Management analysts	Bachelor's or higher degree, plus	103	105	20	19.9%
21-1099	Community and social service specialists, all other	Bachelor's degree	86	96	19	22.4%
13-1071	Employment, recruitment, and placement specialists	Bachelor's degree	56	59	17	31.0%
21-1012	Educational, vocational, and school counselors	Master's degree	54	61	17	31.7%
25-1072	Nursing instructors and teachers, postsecondary	Bachelor's degree	39	48	15	39.1%
21-1029	Social workers, all other	Bachelor's degree	54	57	15	27.7%
15-1031	Computer software engineers, applications	Bachelor's degree	22	31	12	52.3%
21-2011	Clergy	Master's degree	43	47	10	23.3%
19-4099	Life, physical, and social science technicians, all other	Associate degree	23	24	9	41.0%
11-3041	Compensation and benefits managers	Bachelor's or higher degree, plus	39	41	9	22.5%
15-1061	Database administrators	Bachelor's degree	24	30	9	36.2%
19-3021	Market research analysts	Bachelor's degree	42	48	8	19.9%
11-2031	Public relations managers	Bachelor's or higher degree, plus	27	28	8	30.2%
11-3061	Purchasing managers	Bachelor's or higher degree, plus	27	27	8	29.7%
29-1029	Dentists, all other specialists	First professional degree	34	34	7	21.4%
29-1129	Therapists, all other	Bachelor's degree	50	50	7	14.3%
11-3049	Human resources managers, all other	Bachelor's or higher degree, plus	23	26	7	31.0%
25-3099	Teachers and instructors, all other	Bachelor's degree	40	43	7	17.7%
29-9011	Occupational health and safety specialists	Bachelor's degree	28	29	7	24.3%
13-1041	Compliance officers, except agriculture, construction, health	Long-term on-the-job training	42	42	6	15.4%

27-3091	Interpreters and translators	Long-term on-the-job training	17	20	6	36.4%
29-1121	Audiologists	First professional degree	28	28	6	22.2%
15-2031	Operations research analysts	Master's degree	13	16	6	46.5%
19-1099	Life scientists, all other	Bachelor's degree	20	17	6	30.4%
27-3031	Public relations specialists	Bachelor's degree	45	47	6	12.7%
21-1019	Counselors, all other	Master's degree	21	22	6	27.3%
25-2041	Special education teachers, preschool, kindergarten, and	Bachelor's degree	14	17	6	38.5%
29-9091	Athletic trainers	Bachelor's degree	13	16	5	41.7%
13-2051	Financial analysts	Bachelor's degree	36	38	5	14.1%
25-9031	Instructional coordinators	Master's degree	15	18	5	33.2%
15-1021	Computer programmers	Bachelor's degree	24	22	5	20.7%
29-1011	Chiropractors	First professional degree	29	29	5	16.7%
29-1064	Obstetricians and gynecologists	Master's degree	19	19	5	25.0%
29-1041	Optometrists	First professional degree	17	13	4	25.0%
25-4021	Librarians	Master's degree	11	11	3	32.1%
15-2041	Statisticians	Master's degree	11	10	3	31.3%
11-3021	Computer and information systems managers	Bachelor's or higher degree, plus	12	14	3	26.4%
25-3021	Self-enrichment education teachers	Work experience in a related occupation	12	13	3	25.9%
19-3039	Psychologists, all other	Master's degree	17	13	3	16.7%
41-9099	Sales and related workers, all other	Moderate-term on-the-job training	21	22	3	13.3%
23-1011	Lawyers	First professional degree	9	10	3	27.2%

33-3051	Police and sheriff's patrol officers	Long-term on-the-job training	8	8	2	30.9%
13-2031	Budget analysts	Bachelor's degree	8	9	2	28.9%
11-9199	Managers, all other	Work experience in a related oc	9	9	2	26.4%
19-1022	Microbiologists	Doctoral degree	7	7	2	31.8%
27-1024	Graphic designers	Bachelor's degree	8	8	2	27.7%
15-1032	Computer software engineers, systems software	Bachelor's degree	6	7	2	36.6%
43-4061	Eligibility interviewers, government programs	Moderate-term on-the-job traini	12	10	2	17.2%
19-2031	Chemists	Bachelor's degree	7	6	2	26.5%
53-2012	Commercial pilots	Postsecondary vocational awar	5	6	2	35.7%
13-2052	Personal financial advisors	Bachelor's degree	11	10	2	16.0%
19-4091	Environmental science and protection technicians, includ	Associate degree	4	4	2	40.7%
13-1061	Emergency management specialists	Work experience in a related oc	11	11	1	12.0%
21-1092	Probation officers and correctional treatment specialists	Bachelor's degree	5	5	1	24.1%
17-2031	Biomedical engineers	Bachelor's degree	3	3	1	40.0%
19-1029	Biological scientists, all other	Doctoral degree	5	4	1	19.2%
25-3011	Adult literacy, remedial education, and GED teachers an	Bachelor's degree	4	4	1	24.3%
19-2012	Physicists	Doctoral degree	2	3	1	33.3%
13-2071	Loan counselors	Bachelor's degree	7	6	1	10.6%
25-1199	Postsecondary teachers, all other	Bachelor's degree	2	2	1	38.2%
25-2043	Special education teachers, secondary school	Bachelor's degree	2	2	1	26.5%
29-9012	Occupational health and safety technicians	Bachelor's degree	1	1	0	0.0%
<b>Total</b>			<b>44587</b>	<b>52341</b>	<b>15626</b>	<b>35.0%</b>

### Hospitality and Tourism Occupational Projections for Baltimore City and Baltimore County combined

Code	Occupation	Educational requirements	2006	2016	Total Openings	Percent change
11-1021	General and operations managers	Bachelor's or higher degree, plus work experience	867	833	224	25.8%
27-2042	Musicians and singers	Long-term on-the-job training	438	404	94	21.5%
27-2022	Coaches and scouts	Long-term on-the-job training	222	252	87	39.1%
41-3099	Sales representatives, services, all other	Work experience in a related occupation	155	191	72	46.4%
13-2011	Accountants and auditors	Bachelor's degree	164	185	50	30.3%
31-9011	Massage therapists	Postsecondary vocational award	190	216	46	24.2%
13-1121	Meeting and convention planners	Bachelor's degree	90	94	33	37.2%
11-9199	Managers, all other	Work experience in a related occupation	111	116	29	26.4%
25-3021	Self-enrichment education teachers	Work experience in a related occupation	100	116	26	25.9%
13-1199	Business operations specialists, all other	Bachelor's degree	89	102	23	25.3%
11-2022	Sales managers	Bachelor's or higher degree, plus work experience	62	58	16	26.7%
29-1031	Dietitians and nutritionists	Bachelor's degree	38	42	14	38.3%
13-1073	Training and development specialists	Bachelor's or higher degree, plus work experience	39	44	13	34.2%
15-1041	Computer support specialists	Associate degree	31	32	12	37.8%
25-9031	Instructional coordinators	Master's degree	35	42	12	33.2%
15-1081	Network systems and data communications analysts	Bachelor's degree	21	29	12	53.8%
11-3031	Financial managers	Bachelor's or higher degree, plus work experience	65	59	11	17.3%
25-4012	Curators	Master's degree	22	22	11	50.0%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
11-1011	Chief executives	Bachelor's or higher degree, plus work experience	36	35	10	27.8%
27-3099	Media and communication workers, all other	Long-term on-the-job training	29	31	10	33.3%
11-2011	Advertising and promotions managers	Bachelor's or higher degree, plus work experience	30	32	9	30.9%
25-4013	Museum technicians and conservators	Bachelor's degree	19	17	8	44.4%
27-1024	Graphic designers	Bachelor's degree	30	30	8	27.7%
11-2021	Marketing managers	Bachelor's or higher degree, plus work experience	22	24	7	34.0%
15-1071	Network and computer systems administrators	Bachelor's degree	15	19	7	45.6%
27-2012	Producers and directors	Bachelor's or higher degree, plus work experience	16	17	6	40.0%
13-1111	Management analysts	Bachelor's or higher degree, plus work experience	32	33	6	19.9%
19-3021	Market research analysts	Bachelor's degree	31	35	6	19.9%
27-3031	Public relations specialists	Bachelor's degree	44	45	6	12.7%
13-1079	Human resources, training, and labor relations specialists, all other	Bachelor's degree	18	19	6	31.2%
13-1072	Compensation, benefits, and job analysis specialists	Bachelor's degree	14	17	5	37.6%
29-9091	Athletic trainers	Bachelor's degree	13	16	5	41.7%
41-9099	Sales and related workers, all other	Moderate-term on-the-job training	37	39	5	13.3%
41-3021	Insurance sales agents	Bachelor's degree	16	16	5	29.1%
15-1051	Computer systems analysts	Bachelor's degree	9	11	4	51.9%
27-1027	Set and exhibit designers	Bachelor's degree	12	10	4	33.3%
33-1021	First-line supervisors/managers of fire fighting and prevention workers	Work experience in a related occupation	8	9	3	40.8%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
11-2031	Public relations managers	Bachelor's or higher degree, plus work experience	11	11	3	30.2%
11-3049	Human resources managers, all other	Bachelor's or higher degree, plus work experience	10	11	3	31.0%
41-9022	Real estate sales agents	Postsecondary vocational award	19	17	3	16.0%
15-1021	Computer programmers	Bachelor's degree	15	13	3	20.7%
13-1071	Employment, recruitment, and placement specialists	Bachelor's degree	9	10	3	31.0%
15-1061	Database administrators	Bachelor's degree	8	10	3	36.2%
27-3043	Writers and authors	Bachelor's degree	13	12	3	20.7%
27-4021	Photographers	Long-term on-the-job training	9	9	3	29.3%
15-1032	Computer software engineers, systems software	Bachelor's degree	7	8	2	36.6%
15-1099	Computer specialists, all other	Associate degree	9	9	2	26.5%
25-4021	Librarians	Master's degree	7	7	2	32.1%
29-1111	Registered nurses	Associate degree	5	6	2	41.8%
13-2099	Financial specialists, all other	Bachelor's degree	7	7	2	30.4%
25-4011	Archivists	Master's degree	4	4	2	50.0%
11-3061	Purchasing managers	Bachelor's or higher degree, plus work experience	6	6	2	29.7%
27-1011	Art directors	Bachelor's or higher degree, plus work experience	6	6	2	33.3%
33-9021	Private detectives and investigators	Work experience in a related occupation	9	8	2	21.4%
27-1026	Merchandise displays and window trimmers	Moderate-term on-the-job training	7	7	2	25.9%
11-3021	Computer and information systems managers	Bachelor's or higher degree, plus work experience	7	8	2	26.4%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
29-2041	Emergency medical technicians and paramedics	Postsecondary vocational award	8	8	2	20.7%
27-3041	Editors	Bachelor's degree	5	4	2	32.2%
27-1014	Multi-media artists and animators	Bachelor's degree	3	3	1	58.0%
15-1031	Computer software engineers, applications	Bachelor's degree	3	4	1	52.3%
25-3099	Teachers and instructors, all other	Bachelor's degree	8	8	1	17.7%
23-1011	Lawyers	First professional degree	5	5	1	27.2%
11-3042	Training and development managers	Bachelor's or higher degree, plus work experience	3	4	1	35.7%
41-3011	Advertising sales agents	Moderate-term on-the-job training	4	4	1	27.1%
11-3041	Compensation and benefits managers	Bachelor's or higher degree, plus work experience	5	5	1	22.5%
13-2051	Financial analysts	Bachelor's degree	6	7	1	14.1%
19-3093	Historians	Master's degree	2	2	1	37.5%
27-3042	Technical writers	Bachelor's degree	1	2	1	55.2%
11-9151	Social and community service managers	Bachelor's degree	2	3	1	31.2%
17-2199	Engineers, all other	Bachelor's degree	3	3	1	25.3%
13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation	Long-term on-the-job training	4	4	1	15.4%
15-2031	Operations research analysts	Master's degree	1	2	1	46.5%
17-2051	Civil engineers	Bachelor's degree	1	2	1	42.9%
27-1025	Interior designers	Associate degree	1	1	1	46.2%
11-9039	Education administrators, all other	Bachelor's or higher degree, plus work experience	1	1	1	43.3%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
27-3091	Interpreters and translators	Long-term on-the-job training	1	2	1	36.4%
11-9111	Medical and health services managers	Bachelor's or higher degree, plus work experience	1	2	0	0.0%
13-2031	Budget analysts	Bachelor's degree	2	2	0	0.0%
29-1131	Veterinarians	First professional degree	1	1	0	0.0%
29-1123	Physical therapists	Master's degree	1	2	0	0.0%
13-1031	Claims adjusters, examiners, and investigators	Long-term on-the-job training	2	1	0	0.0%
27-4031	Camera operators, television, video, and motion picture	Postsecondary vocational award	2	2	0	0.0%
17-2141	Mechanical engineers	Bachelor's degree	1	1	0	0.0%
19-1099	Life scientists, all other	Bachelor's degree	1	1	0	0.0%
27-1029	Designers, all other	Bachelor's degree	1	1	0	0.0%
27-1023	Floral designers	Moderate-term on-the-job training	1	1	0	0.0%
19-4099	Life, physical, and social science technicians, all other	Associate degree	1	1	0	0.0%
13-1081	Logisticians	Bachelor's degree	1	1	0	0.0%
43-4121	Library assistants, clerical	Short-term on-the-job training	1	1	0	0.0%
19-4021	Biological technicians	Bachelor's degree	1	1	0	0.0%
29-1051	Pharmacists	First professional degree	1	1	0	0.0%
11-9041	Engineering managers	Bachelor's or higher degree, plus work experience	1	1	0	0.0%
31-2021	Physical therapist assistants	Associate degree	1	1	0	0.0%
19-2031	Chemists	Bachelor's degree	1	1	0	0.0%

<b>Code</b>	<b>Occupation</b>	<b>Educational requirements</b>	<b>2006</b>	<b>2016</b>	<b>Total Openings</b>	<b>Percent change</b>
11-9121	Natural sciences managers	Bachelor's or higher degree, plus work experience	1	1	0	0.0%
27-1013	Fine artists, including painters, sculptors, and illustrators	Long-term on-the-job training	1	1	0	0.0%
23-2011	Paralegals and legal assistants	Associate degree	1	1	0	0.0%
17-1011	Architects, except landscape and naval	Bachelor's degree	0	1	0	0.0%
21-1021	Child, family, and school social workers	Bachelor's degree	0	1	0	0.0%
29-9011	Occupational health and safety specialists	Bachelor's degree	1	1	0	0.0%
41-9021	Real estate brokers	Work experience in a related occupation	1	1	0	0.0%
21-1099	Community and social service specialists, all other	Bachelor's degree	0	1	0	0.0%
<b>Total</b>			<b>3424</b>	<b>3557</b>	<b>978</b>	<b>28.6%</b>