

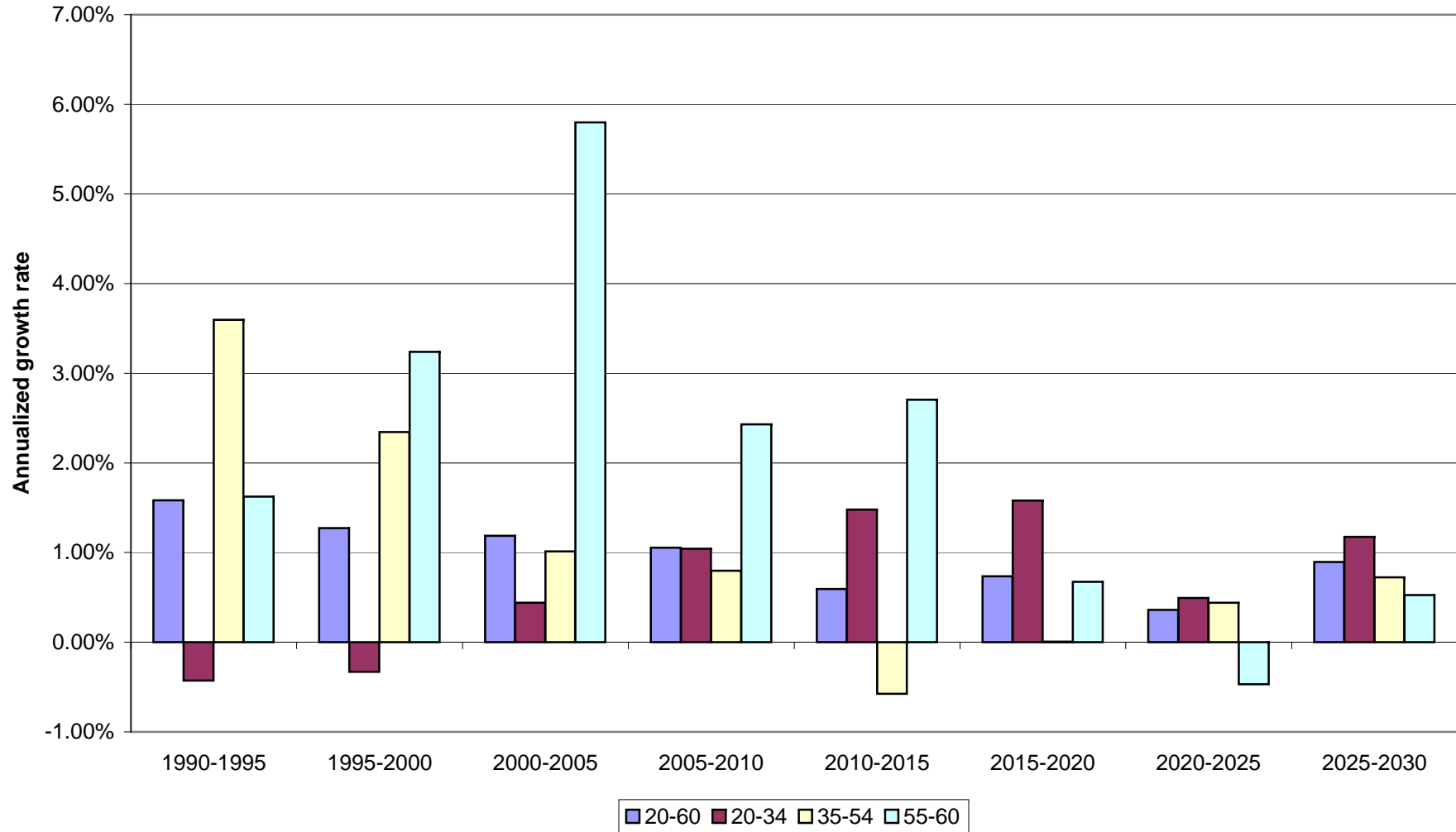
# Preparing for Future Workforce Needs

Summit on Educational and Economic Synthesis  
Education Council  
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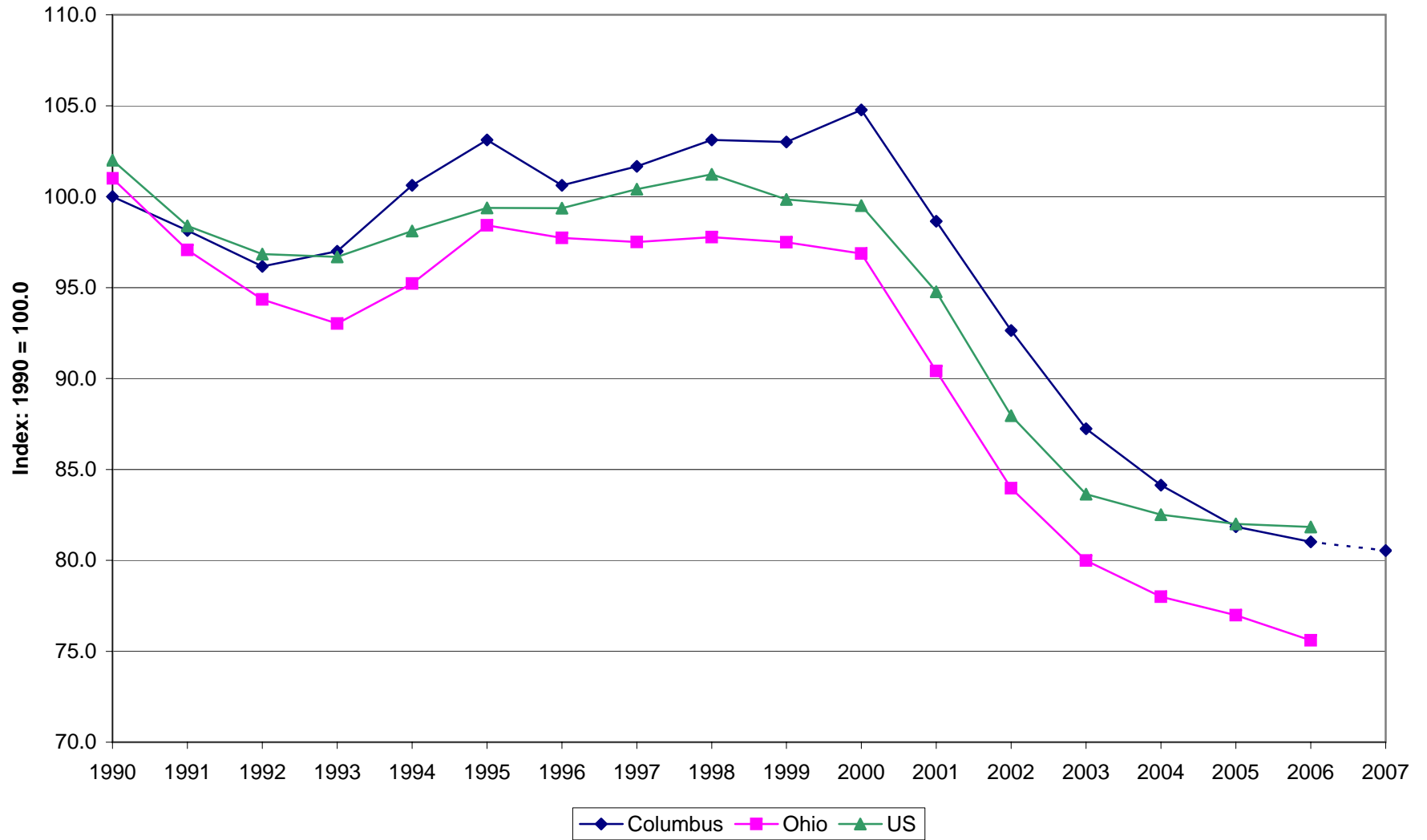
**ColumbusChamber**  
go>ahead

**Figure 1**  
**Working-age population growth in the Columbus MSA will decline significantly in coming years, particularly among more experienced workers**



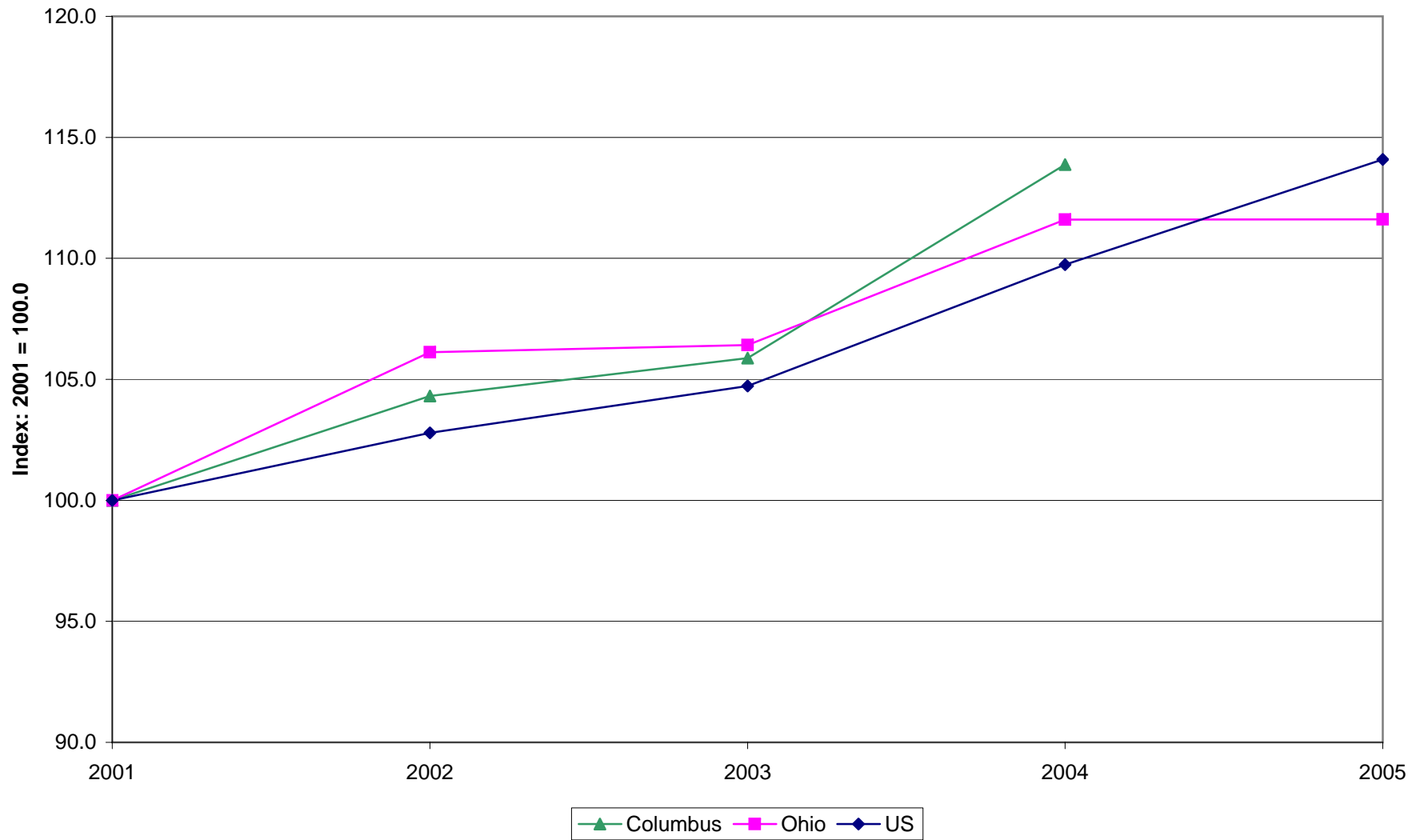
Source: Calculated from U.S. Census Bureau estimates and Ohio Department of Development projections

**Figure 2**  
**The decline in manufacturing jobs is a nationwide phenomenon**



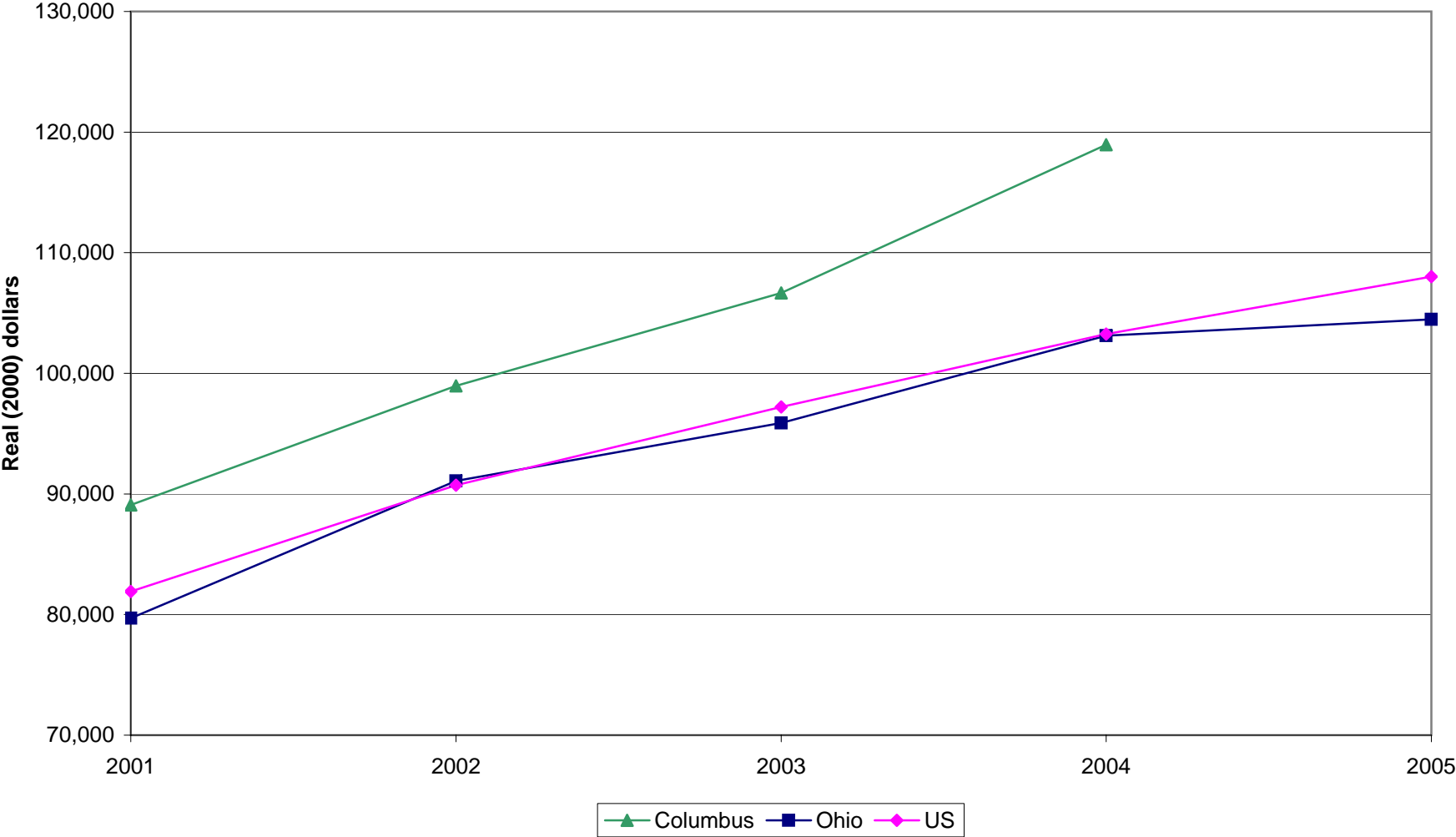
Source: U.S. Bureau of Labor Statistics' Current Employment Statistics series; Columbus Chamber's 2007 Columbus Economic Forecast

**Figure 3**  
**Manufacturing output increased while employment declined**



Source: Columbus Chamber; U.S. Bureau of Economic Analysis

**Figure 4**  
**Manufacturing output per worker has risen impressively since 2001,**  
**with the Columbus MSA far higher than elsewhere**



Source: Calculated from Columbus Chamber, U.S. Bureau of Economic Analysis, and U.S. Bureau of Labor Statistics data

**Figure 5**  
**Many of the Coumbus MSA's top 75 occupations by annual openings are in industry sectors that rank among the region's key drivers**

Rank	Code	Occupational Title**	Employment		Change in Employment		Total Annual Openings	Average Wage 2004	Education Training Level+
			2004 Annual	2014 Projected	2004 - 2014	Percent			
	00-0000	Total, All Occupations	960,500	1,065,500	105,000	10.9%	33,190	NA	NA
1	41-2031	Retail Salespersons	30,440	34,420	3,980	13.1%	1,505	\$11.25	11
2	35-3021	Comb. Food Prep. & Serv. Work, Inc. Fast Food	21,800	26,570	4,770	21.9%	1,422	\$7.76	11
3	41-2011	Cashiers	21,880	24,010	2,130	9.7%	1,278	\$8.57	11
4	35-3031	Waiters and Waitresses	16,190	18,880	2,690	16.6%	1,102	\$7.05	11
5	53-7062	Laborers/Freight/Stock/Material Movers, Hand	27,910	28,190	280	1.0%	940	\$11.14	11
6	43-4051	Customer Service Representatives	21,600	25,220	3,620	16.8%	683	\$13.67	10
7	29-1111	Registered Nurses	16,130	19,280	3,150	19.5%	653	\$25.08	6
8	43-9061	Office Clerks, General	18,700	19,960	1,260	6.7%	540	\$11.83	11
9	37-2011	Janitors & Cleaners, Ex. Maids/Hseking Clean.	14,790	16,550	1,760	11.9%	457	\$10.71	11
10	13-1199	Business Operations Specialists, All Other	11,450	13,880	2,430	21.2%	438	NA	5
11	43-5081	Stock Clerks and Order Fillers	11,240	10,610	-630	-5.6%	416	\$11.04	11
12	41-4012	Sales Rep., Wholesale/Mfg, Ex. Tech./Sci. Prod.	9,890	11,380	1,490	15.1%	409	\$25.52	10
13	37-3011	Landscaping and Groundskeeping Workers	8,350	10,150	1,800	21.6%	362	\$10.99	11
14	11-1021	General and Operations Managers	10,520	11,930	1,410	13.4%	339	\$42.70	4
15	51-2092	Team Assemblers	11,080	11,490	410	3.7%	327	\$13.91	10
16	13-2011	Accountants and Auditors	9,320	10,810	1,490	16.0%	325	\$26.22	5
17	53-3032	Truck Drivers, Heavy and Tractor-Trailer	12,130	13,290	1,160	9.6%	314	\$17.66	10
18	31-1011	Home Health Aides	6,150	8,460	2,310	37.6%	312	\$9.34	11
19	41-1011	First-Line Superv./Mgrs of Retail Sales Workers	10,550	11,770	1,220	11.6%	312	\$17.91	8
20	43-4171	Receptionists and Information Clerks	6,800	8,220	1,420	20.9%	309	\$10.56	11
21	35-2021	Food Preparation Workers	5,420	6,360	940	17.3%	286	\$8.91	11
22	39-9011	Child Care Workers	7,760	8,480	720	9.3%	283	\$8.68	11
23	35-2014	Cooks, Restaurant	5,970	6,940	970	16.2%	282	\$9.68	9
24	43-3031	Bookkeeping, Accounting, and Auditing Clerks	13,390	13,630	240	1.8%	275	\$14.61	10
25	43-6011	Executive Secretaries & Admin. Assistants	11,750	12,200	450	3.8%	270	\$18.48	10
26	43-3011	Bill and Account Collectors	6,430	7,780	1,350	21.0%	256	\$14.34	11
27	49-9042	Maintenance and Repair Workers, General	8,490	9,420	930	11.0%	256	\$15.76	10
28	25-2031	Secondary Sch. Teachers, Ex. Spec. & Voc. Ed	6,880	7,380	500	7.3%	244	\$46,258	5
29	31-9092	Medical Assistants	3,380	5,180	1,800	53.3%	242	\$11.93	10
30	31-1012	Nursing Aides, Orderlies, and Attendants	9,000	10,120	1,120	12.4%	230	\$11.03	11
31	35-1012	FL Sup/Mgrs of Food Prep. & Serving Workers	5,900	6,750	850	14.4%	225	\$12.77	8
32	43-1011	First-Line Sup/Mgrs of Office & Admin. Support	9,100	9,340	240	2.6%	219	\$21.48	8

\*Occupations with 100 or more workers.

\*\*See last page for abbreviations.

+See last page for Education and Training Levels.

++Average Annual Salary.

Rank	Code	Occupational Title**	Employment		Change in Employment		Total Annual Openings	Average Wage 2004	Education Training Level+
			2004 Annual	2014 Projected	2004 - 2014	Percent			
33	53-7064	Packers and Packagers, Hand	7,340	8,160	820	11.2%	219	\$8.81	11
34	15-1051	Computer Systems Analysts	5,460	7,000	1,540	28.2%	216	\$33.22	5
35	43-6014	Secretaries, Ex. Legal, Medical, & Executive	10,990	10,620	-370	-3.4%	210	\$13.65	10
36	43-3071	Tellers	3,580	3,830	250	7.0%	201	\$10.33	11
37	25-2021	Elementary School Teachers, Ex.Special Ed.	6,660	7,140	480	7.2%	195	\$46,279	5
38	33-3051	Police and Sheriff's Patrol Officers	4,170	5,040	870	20.9%	195	\$22.07	9
39	11-9199	Managers, All Other	6,630	7,230	600	9.0%	189	NA	8
40	37-2012	Maids and Housekeeping Cleaners	5,190	5,940	750	14.5%	184	\$9.01	11
41	47-2031	Carpenters	6,280	7,060	780	12.4%	180	\$16.52	9
42	49-3023	Automotive Service Technicians and Mechanics	4,570	5,150	580	12.7%	180	\$17.24	7
43	35-2011	Cooks, Fast Food	5,060	5,270	210	4.2%	178	\$7.75	11
44	41-3021	Insurance Sales Agents	4,590	5,220	630	13.7%	173	\$23.46	5
45	47-2111	Electricians	4,340	5,210	870	20.0%	173	\$19.82	9
46	13-1111	Management Analysts	4,110	5,240	1,130	27.5%	169	\$26.85	4
47	35-3011	Bartenders	3,700	3,890	190	5.1%	165	\$7.91	11
48	41-9099	Sales and Related Workers, All Other	3,920	4,700	780	19.9%	153	NA	10
49	29-2061	Licensed Practical & Licensed Vocat. Nurses	4,500	5,040	540	12.0%	152	\$18.82	7
50	33-2011	Fire Fighters	2,990	3,630	640	21.4%	151	\$16.90	9
51	23-1011	Lawyers	4,670	5,560	890	19.1%	149	\$39.43	1
52	39-5012	Hairdressers, Hairstylists, and Cosmetologists	4,160	4,840	680	16.3%	148	\$10.00	7
53	15-1041	Computer Support Specialists	4,410	5,250	840	19.0%	138	\$23.72	6
54	41-2021	Counter and Rental Clerks	2,590	2,960	370	14.3%	136	\$11.77	11
55	15-1031	Computer Software Engineers, Applications	3,140	4,170	1,030	32.8%	134	\$33.52	5
56	53-7061	Cleaners of Vehicles and Equipment	3,060	3,330	270	8.8%	134	\$9.18	11
57	51-9198	Helpers--Production Workers	4,600	4,640	40	0.9%	133	\$10.74	11
58	47-2061	Construction Laborers	4,670	5,360	690	14.8%	131	\$15.13	10
59	25-9041	Teacher Assistants	4,770	5,120	350	7.3%	127	\$24,436	11
60	35-9031	Hosts & Hostesses, Rest./Lounge/Coffee Shop	2,660	3,080	420	15.8%	127	\$7.85	11
61	53-7051	Industrial Truck and Tractor Operators	6,090	6,210	120	2.0%	127	\$13.46	11
62	33-9032	Security Guards	4,520	4,790	270	6.0%	125	\$11.32	11
63	35-9021	Dishwashers	3,110	3,310	200	6.4%	125	\$8.03	11
64	47-1011	First-Line Sup/Mgrs of Con. Trades/Extract. Work	3,630	4,260	630	17.4%	125	\$25.89	8
65	33-3012	Correctional Officers and Jailers	2,840	3,480	640	22.5%	123	\$17.73	10
66	51-9199	Production Workers, All Other	5,100	5,110	10	0.2%	123	NA	10
67	25-2022	Middle School Teachers, Ex. Special & Voc. Ed.	4,070	4,360	290	7.1%	119	\$46,440	5
68	35-2012	Cooks, Institution and Cafeteria	3,530	3,630	100	2.8%	119	\$10.76	10
69	41-1012	First-Line Sup./Mgrs of Non-Retail Sales Workers	3,900	4,330	430	11.0%	117	\$31.92	8
70	39-9021	Personal and Home Care Aides	2,940	3,630	690	23.5%	116	\$9.32	11

\*Occupations with 100 or more workers.

\*\*See last page for abbreviations.

+See last page for Education and Training Levels.

++Average Annual Salary.

Rank	Code	Occupational Title**	Employment		Change in Employment		Total Annual Openings	Average Wage 2004	Education Training Level+
			2004 Annual	2014 Projected	2004 - 2014	Percent			
71	35-9011	Dining Room & Cafeteria Attend. & Bar Helpers	2,450	2,770	320	13.1%	114	\$7.44	11
72	41-4011	Sales Rep., Wholesale & Mfg, Tech./Sci. Prod.	2,680	3,090	410	15.3%	111	\$27.80	10
73	43-5071	Shipping, Receiving, and Traffic Clerks	5,220	5,250	30	0.6%	110	\$12.69	11
74	11-3021	Computer and Information Systems Managers	2,420	3,060	640	26.4%	108	\$43.43	4
75	49-1011	FL Sup/Mgrs of Mechanics/Installers/Repairers	3,070	3,380	310	10.1%	108	\$25.58	8

+ Education/Training Levels

- 1 First Professional Degree
- 2 Doctor's Degree
- 3 Master's Degree
- 4 Work Experience plus Degree
- 5 Bachelor's Degree
- 6 Associate Degree
- 7 Postsecondary Vocational Training
- 8 Work Experience in a Related Occupation
- 9 Long-Term On-The-Job Training
- 10 Moderate-Term On-The-Job Training
- 11 Short-Term On-The-Job Training

\*\*Abbreviations

- AO = All Other
- FL Sup/Mgrs = First-Line Supervisors/Managers
- M/P = Metal and Plastic
- O/T = Operators and Tenders
- S/O/T = Setters, Operators and Tenders
- PS = Postsecondary

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, February 2006.

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