

Impact of New Projections Methodology

Employment Projections *2016-2026*



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Crown Plaza, Madison WI

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Wisconsin Employment Projections



US Department of Labor



U.S. Employment and
Training Administration
(ETA)

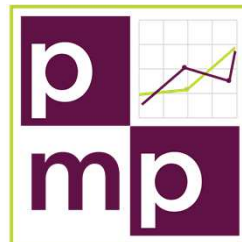


U.S. Bureau of Labor
Statistics (BLS)



Office Of Economic
Advisors (OEA)/Labor
Market Information
(LMI)

Projection Managing Partnership (PMP)



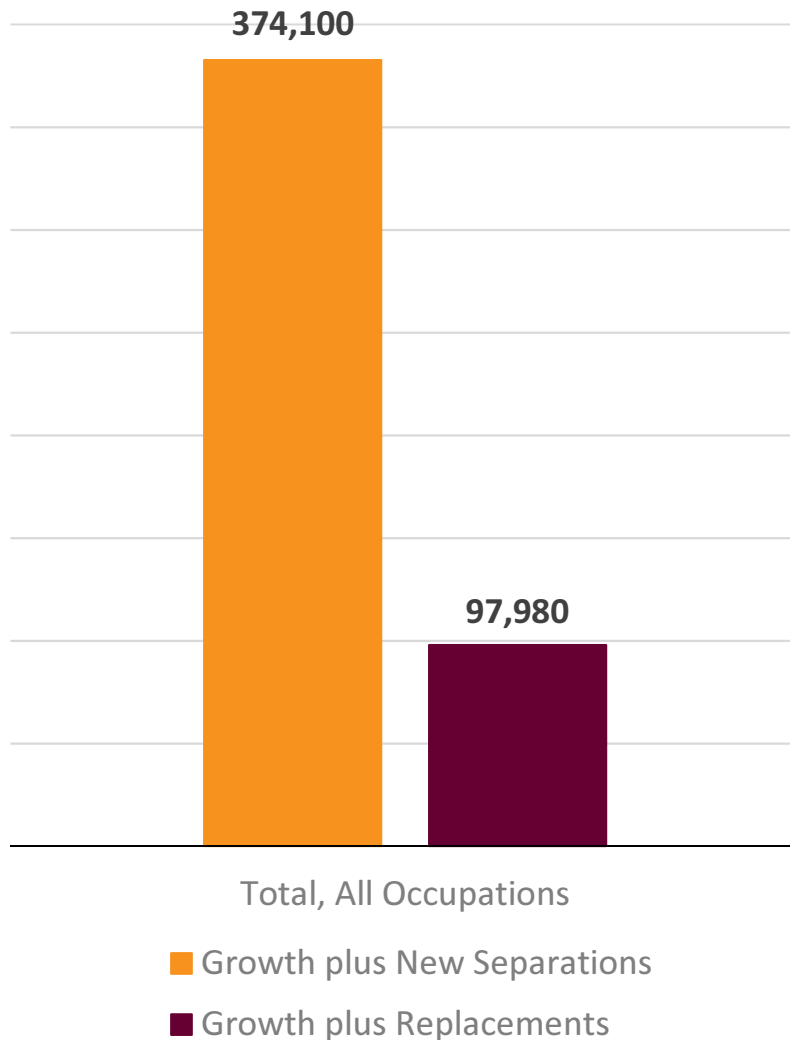
Projections Managing Partnership

- Separations Openings Method Results
 - Estimates of workers who leave their occupation and need to be replaced by a new worker
 - From Replacements: includes primarily retirements and deaths ... to **Separations**: who is leaving the labor force entirely (***exit rates***) and those who are changing jobs and leaving an occupation (***transfer rates***)
 - Accounts for different types of job changes to ensure the data reflects today's dynamic workforce
- Foxconn Impact Project

Long-term Employment Occupational Projections, 2016-2026

SEPARATIONS OPENINGS METHOD RESULTS

WI Long-Term Projections Annual Openings, 2016-2026 - New Separations Methodology



Separations:

- Labor Exits: 150,260
- Occupational Transfers: 202,820
- Growth: 21,020
- Annual Openings: **374,100**

“The once-traditional career path of entering an occupation at a young age and working until retirement in that same occupation is no longer the norm of American workers.”

Michael Wolf, Chief

Division of Occupation Employment Projections

BLS

Separations Rates Context



- What does 3.7 million openings mean?
 - Equivalent to every current worker either leaving the labor force or changing occupations **once every 9 years**
 - In contrast, 1 million openings implies workers remain in their occupation for 35 years, on average

Annual Separations (2016-2026) vs. Annual Replacements (2014-2024) - Results



Occupations	Exits	Transfer	Growth	Total
<i>Total</i>	150,260	202,820	21,020	374,100
Management	5,860	8,960	2,020	16,840
Financial	4,720	9,650	1,620	15,990
Computer & Math	1,400	3,860	1,090	6,360
Architect & Engineer	1,390	2,550	630	4,570
Life & Social	600	1,430	260	2,290
Community & Social	1,830	3,090	520	5,450
Legal	410	600	90	1,100
Education	8,270	8,030	920	17,220
Arts & Media	2,160	3,130	390	5,680

Occupations	Replacements	Growth	Total
<i>Total</i>	21,960	76,030	97,980
Management	1,630	4,880	6,510
Financial	1,390	3,180	4,570
Computer & Math	1,150	1,080	2,240
Architect & Engineer	300	1,320	1,620
Life & Social	270	720	990
Community & Social	390	920	1,310
Legal	50	280	330
Education	900	5,640	6,540
Arts & Media	290	1,320	1,610

Source: DWD, Office of Economic Advisors, December 2018 (Long-term 2016-26 new separations method vs. 2014-24 replacements method)

Annual Separations (2016-2026) vs. Annual Replacements (2014-2024) - Results



Occupations	Exits	Transfer	Growth	Total	Occupations	Replacements	Growth	Total
Health Practitioners	4,560	4,480	1,480	10,560	Health Practitioners	1,320	3,550	4,860
Health Support	4,490	4,330	810	9,630	Health Support	910	1,640	2,550
Protective Service	3,010	3,220	160	6,390	Protective Service	150	1,390	1,540
Food Prep and Serving	19,110	24,830	2,630	46,570	Food Prep and Serving	2,250	8,880	11,130
Buildings Maintenance	6,190	6,390	650	13,230	Buildings Maintenance	940	2,140	3,080
Personal Care	12,730	11,920	2,750	27,400	Personal Care	2,600	3,030	5,630
Sales	17,130	22,900	1,480	41,510	Sales	1,380	8,420	9,790
Admin Support	22,840	26,670	300	49,800	Admin Support	1,400	9,420	10,830
Farming & Fishing	1,130	3,450	180	4,750	Farming & Fishing	130	1,660	1,790

Source: DWD, Office of Economic Advisors, December 2018 (Long-term 2016-26 new separations method vs. 2014-24 replacements method)

Annual Separations (2016-2026) vs. Annual Replacements (2014-2024) - Results



Occupations	Exits	Transfer	Growth	Total	Occupations	Replacements	Growth	Total
Construction	4,190	7,720	1000	12,900	Construction	1,010	1,690	2,690
Installation and Repair	4,110	6,770	690	11,570	Installation and Repair	830	2,610	3,440
Production	12,820	22,620	-180	35,260	Production	1,150	7,100	8,250
Transport & Material Moving	11,290	16,220	1,530	29,040	Transport & Material Moving	1,530	5,170	6,700

Source: DWD, Office of Economic Advisors, December 2018 (Long-term 2016-26 new separations method vs. 2014-24 replacements method)

Long-term Employment Industry and Occupational Projections,
2016-2026

FOXCONN IMPACT PROJECT

- **NAICS 334419: Other electronic component manufacturing**
 - U.S. industry comprises establishments primarily engaged in *manufacturing electronic components*
 - Examples:
 - Crystals and crystal assemblies, electronic, manufacturing
 - Electron tubes manufacturing
 - ***LCD (liquid crystal display) unit screens* manufacturing**
 - Microwave components manufacturing
 - Printed circuit laminates manufacturing
 - Switches for electronic applications manufacturing
 - Transducers (except pressure) manufacturing
 - Piezoelectric devices manufacturing

- Direct effect:
 - Represent jobs on Foxconn payroll
- Indirect effect:
 - Jobs resulting from Foxconn economic activity
- Induced effect:
 - Jobs resulting from employee economic activity
 - Increase in income and people that will lead to increased demand for services

Wisconsin Output Demand



Sector	Employment	Event Year
Other Electronic Component Manufacturing	13,000	2021

Impact Type	Employment
Direct Effect	13,000
Indirect Effect	4,240
Induced Effect	6,340
Total Effect	23,580

**Using IMPLAN multipliers*

Top 5 Sectors Affected by the Indirect Effect



- Management of companies and enterprises
- Truck transportation
- Employment services
- Services to buildings
- Maintenance and repair construction of nonresidential structures

Top 5 Sectors Affected by the Induced Effect



- Hospitals
- Full-service restaurants
- Limited-service restaurants
- Real estate
- Retail-general merchandise stores

Wisconsin Employment Projections



- Scenario **#1**: Employment
- Scenario **#2**: Foxconn Direct Impact
 - *+ 13,000* direct effect
- Scenario **#3**: Foxconn Direct and Indirect/Induced Impact using IMPLAN
 - *+ 13,000* direct effect
 - *+ 4,240* indirect effect
 - *+ 6,340* induced effect

Other Foxconn NAICS Classification Assumption



NAICS 541715: Research and Development in the Physical, Engineering, and Life Sciences (*Racine, Green Bay and Eau Claire Innovation Centers*)

U.S. industry comprises establishments primarily engaged in conducting research and experimental development in the physical, engineering, and life sciences, such as agriculture, electronics, environmental, biology, botany, computers, chemistry, food, fisheries, forests, geology, health, mathematics, medicine, oceanography, pharmacy, physics, veterinary and other allied subjects

Other Foxconn NAICS Classification Assumption



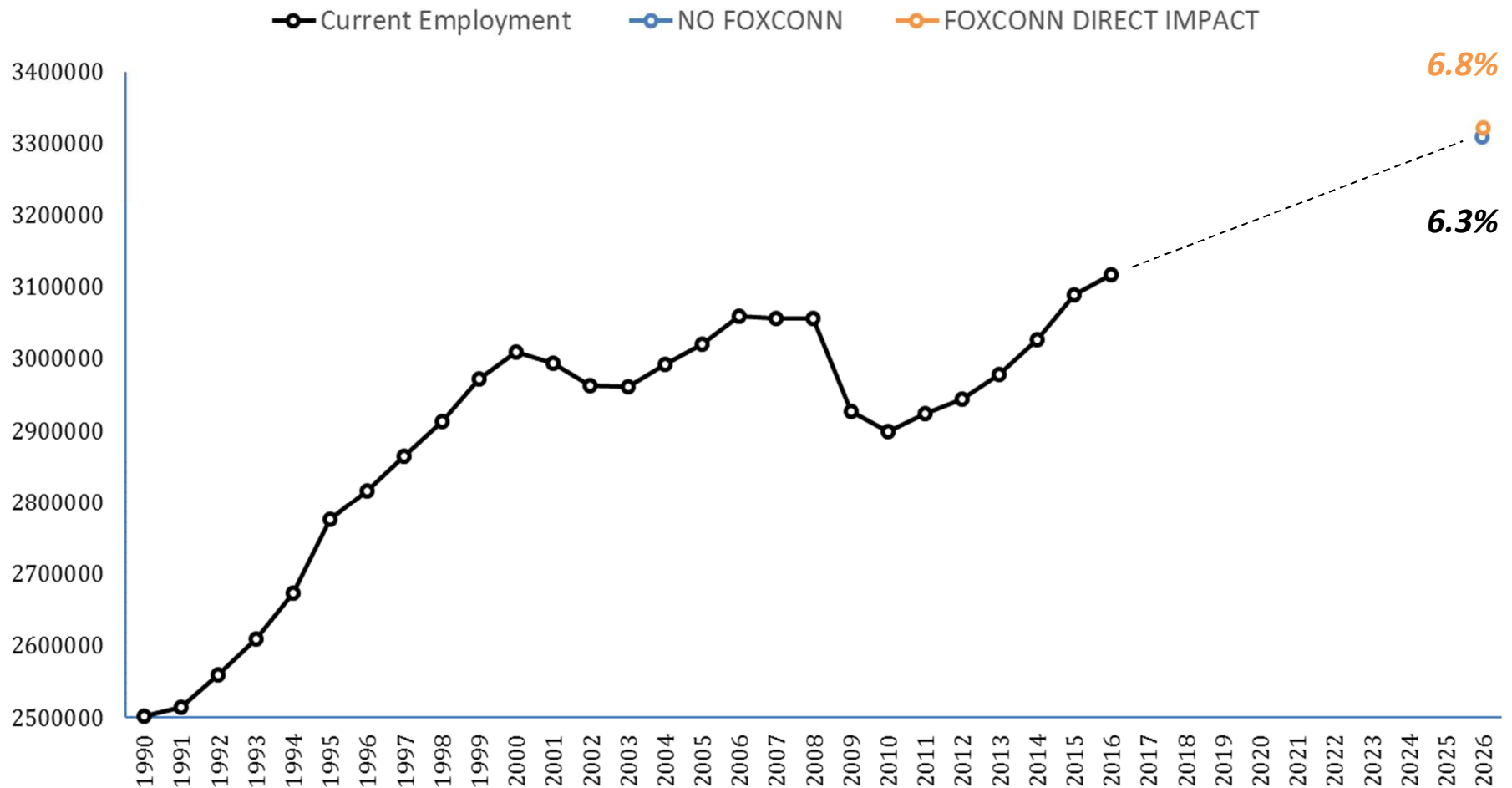
NAICS 55111: Management of Companies and Enterprises (*Milwaukee Headquarter Office*)

(1) establishments primarily engaged in holding the securities of (or other equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing management decisions or (2) establishments (except government establishments) that administer, oversee, and manage other establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision-making role of the company or enterprise. Establishments that administer, oversee and manage may hold the securities of the company or enterprise.

WI Long-term Industry Employment Projections, 2016-2026 Results



Wisconsin Total Employment



Source: DWD, Office of Economic Advisors, November 2018

Wisconsin Total Employment Forecast Results



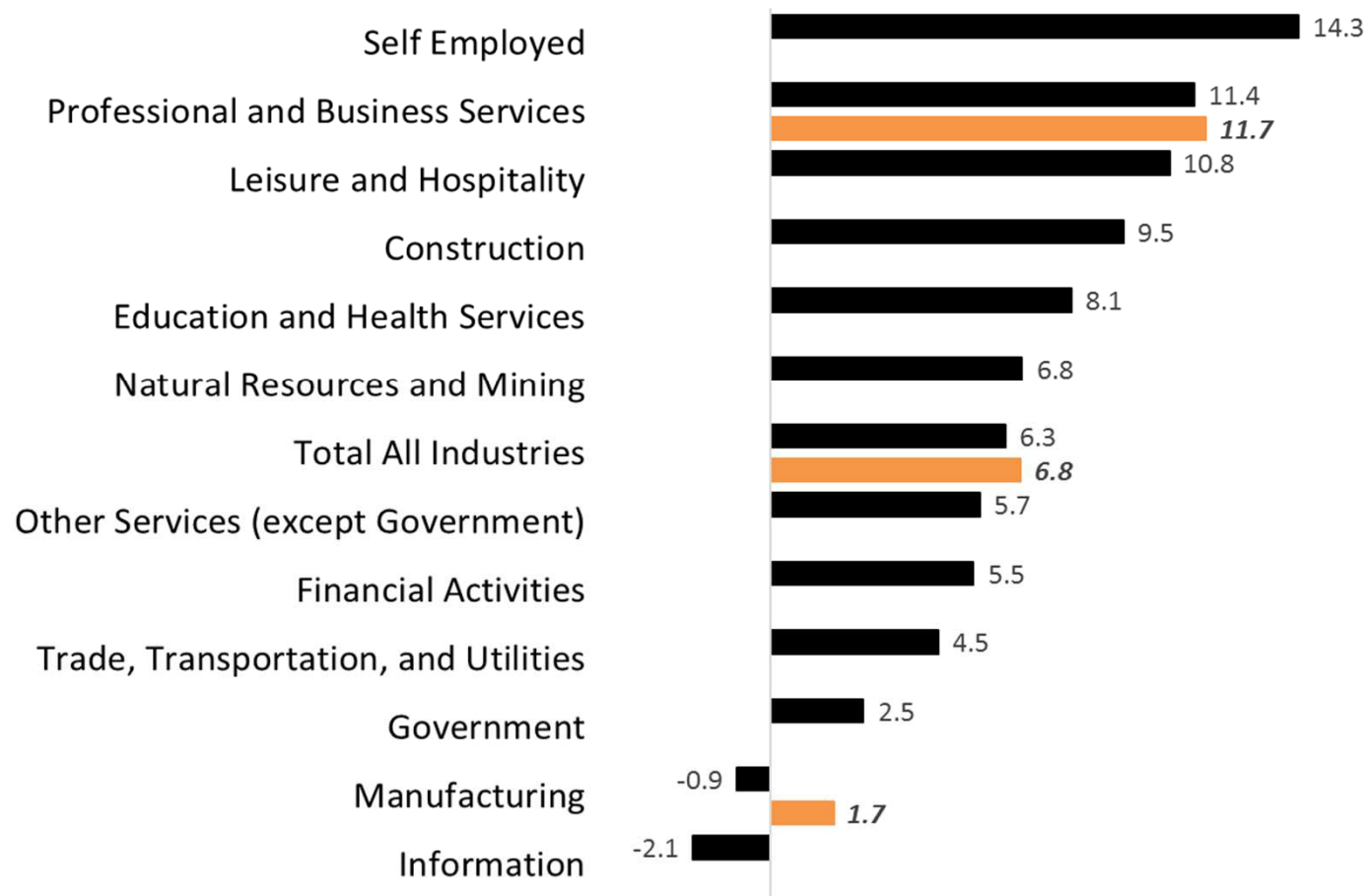
Scenarios	Projected Employment 2026	Numeric Change (2016-2026)	Percent Change (2016-2026)
#1 Employment (No Foxconn)	3,307,650	197,180	6.3 %
#2 Foxconn Direct Impact	3,320,650	210,180	6.8 %
#3 Direct and Indirect/Induced Impact	-	-	-

WI Long-term Industry Employment Projections, 2016-2026 - Results



Industry Sector by Percent Change

■ NO FOXCONN ■ FOXCONN DIRECT IMPACT



Source: DWD, Office of Economic Advisors, November 2018

WI Long-term Occupational Employment Projections, 2016-2026 by % Change Results



Major Occupational Group	NO FOXCONN	FOXCONN DIRECT IMPACT
Personal Care and Service	17.70	17.68
Computer and Mathematical	13.91	14.44
Community and Social Service	12.14	12.15
Life, Physical, and Social Science	11.31	12.17
Healthcare Support	10.75	10.75
Food Preparation and Serving Related	10.70	10.70
Management	10.52	11.01
Business and Financial Operations	9.94	10.50
Healthcare Practitioners and Technical	8.87	8.88
Construction and Extraction	8.78	8.75
Architecture and Engineering	7.36	11.83
Arts, Design, Entertainment, Sports, and Media	7.36	7.47
Transportation and Material Moving	6.80	6.91
Building and Grounds Cleaning and Maintenance	6.56	6.60
Total, All Occupations	6.3	6.8
Farming, Fishing, and Forestry	5.99	5.99
Installation, Maintenance, and Repair	5.79	6.13
Legal	5.60	5.59
Sales and Related	4.94	5.10
Education, Training, and Library	4.88	4.88
Protective Service	2.77	2.79
Office and Administrative Support	0.37	0.69
Production	-2.37	-0.57

Source: DWD, Office of Economic Advisors, November 2018

WDA Direct Effect Assumptions



- **WDA1 Southeast**
 - NAICS 3344 **+12,025**
 - NAICS 5417 **+125**
- **WDA2 Milwaukee**
 - NAICS 5511 **+500**
- **WDA5 Bay Area**
 - NAICS 5417 **+200**
- **WDA8 West Central**
 - NAICS 5417 **+150**

WDA Direct Impact Industry Sector Forecast

Scenario #1 and #2 Results



WDA	Employment 2016	Employment 2026	% Change (2016-2026)
1 Southeast			
<i>Manufacturing</i>	34,345	S1: 34,662 S2: 46,687	S1: 0.92% S2: 35.94%
<i>Professional and Business Services</i>	16,141	S1: 17,696 S2: 17,821	S1: 9.63% S2: 10.41%
2 Milwaukee			
<i>Professional and Business Services</i>	78,002	S1: 84,109 S2: 84,609	S1: 7.83% S2: 8.47%
5 Bay Area			
<i>Professional and Business Services</i>	40,364	S1: 45,433 S2: 45,622	S1: 12.53% S2: 13.03%
8 West Central			
<i>Professional and Business Services</i>	16,712	S1: 18,971 S2: 19,121	S1: 13.52% S2: 14.41%

Source: DWD, Office of Economic Advisors, November 2018

WDA Long-term Industry Employment Projections, 2016-2026 - Total Employment



Workforce Development Area	Employment 2016	Projected Employment 2026	Numeric Change (2016-2026)	Percent Change (2016-2026)
1	197,023	222,515	25,492	12.9
2	522,243	540,960	18,717	3.60
3	363,595	395,297	31,702	8.70
4	211,969	222,829	10,860	5.10
5	453,608	486,252	32,252	7.20
6	220,046	236,141	16,096	7.30
7	77,227	80,268	3,041	3.90
8	212,692	229,547	16,855	7.90
9	161,791	173,540	11,749	7.30
10	511,165	555,951	44,786	8.80
11	135,566	141,827	6,261	4.60

Source: DWD, Office of Economic Advisors, November 2018

WDA Long-term Occupational Employment Projections, 2016-2026 - WDA1 Results



Major Occupational Group	NO FOXCONN	FOXCONN DIRECT IMPACT
Personal Care and Service	18.78	18.56
Computer and Mathematical	15.00	21.24
Community and Social Service	12.47	12.25
Architecture and Engineering	11.36	72.66
Transportation and Material Moving	10.82	12.60
Arts, Design, Entertainment, Sports, and Media	10.31	10.83
Life, Physical, and Social Science	10.11	14.63
Construction and Extraction	9.98	9.69
Business and Financial Operations	9.73	19.84
Food Preparation and Serving Related	9.43	9.43
Healthcare Support	9.40	9.49
Management	8.97	12.90
Installation, Maintenance, and Repair	8.04	13.02
Sales and Related	7.28	9.42
Total, All Occupations	6.8	12.9
Building and Grounds Cleaning and Maintenance	6.19	7.50
Healthcare Practitioners and Technical	4.83	4.79
Education, Training, and Library	4.44	4.39
Farming, Fishing, and Forestry	2.69	2.87
Protective Service	1.69	1.69
Office and Administrative Support	1.69	8.04
Production	-0.27	27.66
Legal	-2.56	-2.93

Source: DWD, Office of Economic Advisors, November 2018

WDA Long-term Occupational Employment Projections, 2016-2026 - WDA2 Results



Major Occupational Group	NO FOXCONN	FOXCONN DIRECT IMPACT
Personal Care and Service	17.91	17.90
Computer and Mathematical	12.33	12.76
Arts, Design, Entertainment, Sports, and Media	9.65	9.88
Management	9.14	9.49
Business and Financial Operations	7.30	7.65
Construction and Extraction	7.12	7.09
Life, Physical, and Social Science	6.95	7.11
Community and Social Service	5.39	5.42
Legal	4.78	4.86
Education, Training, and Library	4.72	4.71
Food Preparation and Serving Related	4.65	4.65
Healthcare Support	4.09	4.10
Healthcare Practitioners and Technical	3.79	3.82
Architecture and Engineering	3.78	3.92
Total, All Occupations	3.5	3.6
Transportation and Material Moving	3.36	3.37
Installation, Maintenance, and Repair	1.89	1.93
Sales and Related	-0.29	-0.26
Protective Service	-0.80	-0.79
Building and Grounds Cleaning and Maintenance	-1.16	-1.16
Office and Administrative Support	-2.98	-2.80
Farming, Fishing, and Forestry	-4.41	-4.41
Production	-7.59	-7.58

Source: DWD, Office of Economic Advisors, November 2018

WDA Long-term Occupational Employment Projections, 2016-2026 - WDA5 Results



Major Occupational Group	NO FOXCONN	FOXCONN DIRECT IMPACT
Personal Care and Service	17.31	17.30
Computer and Mathematical	16.72	16.84
Food Preparation and Serving Related	15.84	15.87
Community and Social Service	14.60	14.60
Healthcare Support	12.30	12.30
Management	10.59	10.71
Business and Financial Operations	10.44	10.53
Healthcare Practitioners and Technical	9.72	9.73
Construction and Extraction	8.69	8.69
Architecture and Engineering	8.09	8.89
Transportation and Material Moving	7.85	7.86
Farming, Fishing, and Forestry	7.84	7.84
Installation, Maintenance, and Repair	7.67	7.67
Legal	7.48	7.48
Total, All Occupations	7.15	7.20
Life, Physical, and Social Science	6.96	8.70
Arts, Design, Entertainment, Sports, and Media	5.88	5.86
Education, Training, and Library	5.30	5.29
Building and Grounds Cleaning and Maintenance	4.88	4.90
Protective Service	4.80	4.80
Sales and Related	4.62	4.63
Office and Administrative Support	2.31	2.34
Production	-0.70	-0.70

Source: DWD, Office of Economic Advisors, November 2018

WDA Long-term Occupational Employment Projections, 2016-2026 - WDA8 Results



Major Occupational Group	NO FOXCONN	FOXCONN DIRECT IMPACT
Personal Care and Service	14.83	14.92
Computer and Mathematical	14.79	14.92
Construction and Extraction	11.72	11.72
Business and Financial Operations	11.44	11.54
Food Preparation and Serving Related	11.27	11.27
Healthcare Support	11.11	11.11
Management	10.73	10.75
Installation, Maintenance, and Repair	10.39	10.42
Transportation and Material Moving	10.27	10.27
Healthcare Practitioners and Technical	10.13	10.13
Community and Social Service	10.04	10.04
Farming, Fishing, and Forestry	9.85	9.89
Life, Physical, and Social Science	8.89	14.93
Building and Grounds Cleaning and Maintenance	8.71	8.70
Total, All Occupations	7.85	7.92
Sales and Related	7.76	7.77
Architecture and Engineering	6.60	7.05
Arts, Design, Entertainment, Sports, and Media	5.72	5.80
Education, Training, and Library	4.77	4.77
Legal	3.96	3.96
Protective Service	3.34	3.34
Office and Administrative Support	2.60	2.67
Production	1.36	1.48

Source: DWD, Office of Economic Advisors, November 2018

Questions?

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