

Industry Profiles – Building & Construction

The Building & Construction cluster includes industries directly involved in the construction of housing, roadways or other physical structures. Industries such as HVAC (Heating, Ventilation, and Air Conditioning) equipment manufacturing, whose products are used exclusively in the construction of these structures are also included. The retail industries such as Home Centers which act as an intermediary between manufacturer and independent contractors are included as well. Lastly, technical firms such as those that offer drafting or architectural services are also in the cluster¹.

This report presents an overview of employment trends. We examine how Building & Construction has changed since 2007, the year before the Great Recession had an impact. Then, we examine the composition of the industry cluster by size of businesses and highlight clusters with the largest share of smaller businesses. The section on workers demographics shows the composition of industry clusters by gender, age, and education. Finally, we look at the major occupations that support industry clusters.

- The Building & Construction industry cluster represents over 16,300 jobs in Philadelphia and only 2 percent total employment. Employment in the cluster declined by 17 percent since 2007 with professional services supporting construction losing the most jobs.

SUMMARY OF BUILDING & CONSTRUCTION INDUSTRY CLUSTER IN PHILADELPHIA

Industry Cluster Summary	Core Industries	Supporting Industries	Prof. Services Industries	All Industries in Building & Constr.
Number of Jobs	11,119	3,118	2,149	16,386
Number of Establishments	1,029	223	205	1,457
% of Total Phila. Jobs	2%	0%	0%	2%
% V. Small Businesses (1-4)	66%	52%	56%	53%
% Small Businesses (5-99)	33%	43%	43%	43%
% Big Businesses (100+)	1%	5%	1%	4%
Average Wages	\$68,661	\$39,139	\$74,475	\$63,805
Job Change 2007-2013 (#)	(1,924)	(201)	(1,164)	(3,289)
Job Change 2007-2013 (%)	-15%	-6%	-35%	-17%

Source: Philadelphia Works analysis of the QCEW Employees & Non-QCEW Employees - EMSI 2013.4 Class of Worker data

¹ Descriptions of industry clusters are borrowed directly from the State report. The full report can be found here: <http://www.portal.state.pa.us/portal/server.pt/community/products/19738>

% CHANGE IN EMPLOYMENT IN BUILDING & CONSTRUCTION INDUSTRIES IN PHILADELPHIA VS. PA AND U.S. AND VS. ALL INDUSTRIES



TRENDS IN EMPLOYMENT IN BUILDING & CONSTRUCTION SUB-CLUSTERS IN PHILADELPHIA: IN CORE INDUSTRIES



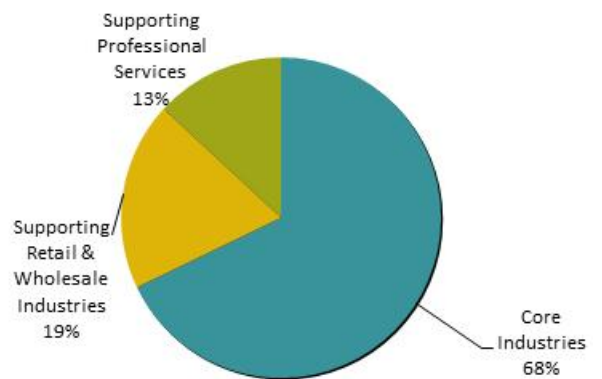
TRENDS IN EMPLOYMENT IN BUILDING & CONSTRUCTION SUB-CLUSTERS IN PHILADELPHIA: IN SUPPORTING RETAIL & WHOLESALE IND.



TRENDS IN EMPLOYMENT IN BUILDING & CONSTRUCTION SUB-CLUSTERS IN PHILADELPHIA: IN SUPPORTING PROFESSIONAL SERVICES IND.



EMPLOYMENT BY INDUSTRY SUB-CLUSTER



Source: Philadelphia Works analysis of the QCEW Employees & Non-QCEW Employees - EMSI 2013.4 Class of Worker data

Industry Highlights

16,386 workers were employed in the Building & Construction industry cluster in 2013. The industry cluster can be divided into three sectors: core industries in construction, supporting retail and wholesale industries, and supporting professional services industries.

- Employment in the Building & Construction industry cluster declined by 17percent since 2007. The supporting professional services industries within the Building & Construction industry sub-cluster lost 35 percent of jobs since 2007, while declines in core construction industries and supporting industries in retail and wholesale were 15 and 6 percent respectively.

TOP INDUSTRIES IN BUILDING & CONSTRUCTION INDUSTRY CLUSTER IN PHILADELPHIA

Description	2013 Jobs	% Change 2007-2013	Change	Expected Change	Competitive Effect	Wages
All Industries in Construction	16,386	▼ -17%	(1,924)	3,983	701	\$63,805
Core Industries	11,119	▼ -15%	(552)	(2,769)	853	\$68,661
Plumbing, Heating, and Air-Conditioning Contractors	2,228	▼ -14%	(367)	(366)	-	\$81,354
Commercial and Institutional Building Construction	1,777	▲ 23%	330	(269)	600	\$90,803
Electrical Contractors and Other Wiring Installation Contractors	1,234	▼ -15%	(226)	(246)	20	\$73,154
Residential Remodelers	861	▲ 25%	173	(109)	283	\$36,788
Highway, Street, and Bridge Construction	627	▬ 1%	6	(75)	81	\$67,801
Other Building Finishing Contractors	534	▲ 72%	223	(24)	247	\$43,912
Water and Sewer Line and Related Structures	442	▬ 4%	18	(107)	125	\$75,870
Painting and Wall Covering Contractors	297	▲ 9%	25	(74)	100	\$50,911
New Single-Family Housing Construction (except Operative Builders)	295	▼ -62%	(486)	(380)	(106)	\$58,540
Site Preparation Contractors	272	▼ -27%	(103)	(95)	(7)	\$57,137
Roofing Contractors	264	▼ -35%	(140)	(63)	(77)	\$54,620
Ornamental and Architectural Metal Work Manufacturing	205	▼ -48%	(192)	(71)	(121)	\$47,342
Supporting Retail & Wholesale Industries	3,118	▼ -6%	(201)	(332)	129	\$39,139
Home Centers	1,690	▬ 4%	68	(19)	86	\$27,636
Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	315	▲ 61%	119	(15)	134	\$66,998
Other Building Material Dealers	216	▼ -40%	(146)	(106)	(39)	\$44,117
Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	199	▼ -15%	(36)	(41)	5	\$63,067
Hardware Stores	173	▼ -29%	(70)	(28)	(43)	\$26,279
Supporting Professional Services Industries	2,149	▼ -35%	(1,164)	(882)	(281)	\$74,475
Architectural Services	1,689	▼ -38%	(1,030)	(716)	(314)	\$75,462
Landscape Architectural Services	263	▼ -6%	(16)	(88)	73	\$74,188
Interior Design Services	169	▼ -42%	(122)	(78)	(43)	\$68,615

Source: Philadelphia Works analysis of the QCEW Employees & Non-QCEW Employees - EMSI 2013.4 Class of Worker data

- Workers in Building & Construction (\$63,805) earned wages above the average across the industry cluster in Pennsylvania (\$51,256) and all other industries in Philadelphia (\$55,830). Wages in supporting retail and wholesale industries (\$39,139) were below the average in the cluster and across Philadelphia.
- The difference between expected change (determined from the national trends) and actual change can be seen as competitive effect –growth or decline attributed to local factors. Core and supporting retail and wholesale industries in Building & Construction declined at the rate below the declines in similar industries nationwide. Supporting professional services in construction declined at a rate higher compared to similar industries across the nation.

Employers in Building & Construction

- Nearly 1,500 businesses represent the Building & Construction industry cluster. The majority of businesses are “very small” (1-4 employees) and “small” (5-99 employees).

EMPLOYERS IN BUILDING & CONSTRUCTION INDUSTRY CLUSTER BY SIZE

Size	In Industry	in Phila	Industry Employers by Size
1-4	62%	60%	
5-9	17%	15%	
10-19	11%	11%	
20-49	5%	8%	
50-99	2%	3%	
100-249	2%	2%	
250-499	0.4%	0.5%	
500-999	0.0%	0.2%	
1000 & Over	0.0%	0.1%	
Total	100%	100%	

Source: PA Employer Database 2013

TOP EMPLOYERS IN BUILDING & CONSTRUCTION

ELLIOTT LEWIS CONVENTION SERVICES	JPC GROUP INC
ELLIOTT-LEWIS CORPORATION	M SCHNOLL & SONS INC
EWING COLE INC	MORRISSEY, JAMES D INC
HERMAN GOLDNER CO INC	P AGNES INC
HOME DEPOT U S A INC	PEIRCE-PHELPS INC
URS CORPORATION	THE BALLINGER COMPANY
FLUIDICS INC	TURNER CONSTRUCTION CO
GENERAL ASPHALT PAVING CO OF PHILA	CABLENET SERVICES UNLIMITED INC
HATZEL & BUEHLER INC	LOWE'S HOME CENTERS INC
JAMES J ANDERSON CONSTRUCTION CO	HOME DEPOT U S A INC
JJ WHITE INC	DONOVAN MECHANICAL CORPORATION

Source: PA Employer Database 2013

Worker Demographics

Workforce demographics are examined by gender, age, and education of workers.

Gender of Workers in Building & Construction

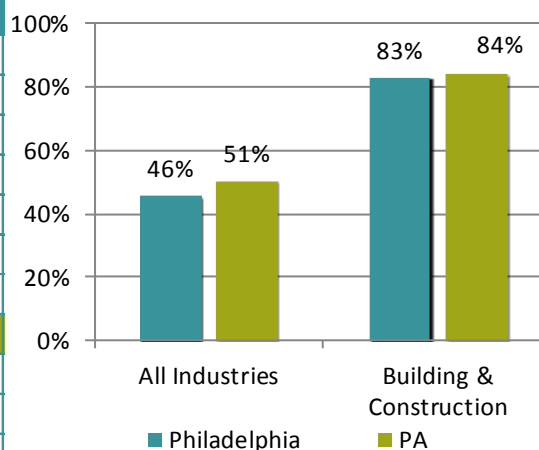
- Nearly 8 out of 10 workers in Building & Construction were men. Men made up nearly all of workforce in the Other Heavy and Civil Engineering Construction and Highway, Street, and Bridge Construction.

GENDER OF WORKERS IN 2013Q1+3 PREVIOUS QUARTERS

% MEN EMPLOYED IN BUILDING & CONSTRUCTION IN PHILADELPHIA VS. PA

	% men
Other Spec. Trade Contractors	93%
Highway, Street, & Bridge Constr.	92%
Building Finishing Contractors	92%
Building Equip. Contractors	90%
Utility System Constr.	88%
Building Foundation/Exterior Contract	88%
HVAC & Commercial Refrig. Equip	87%
Building & Construction	83%
Lumber & Supply Merch. Whls.	82%
Res. Building Constr.	81%
NonRes. Building Constr.	79%
Hardware & Plumbing Merch. Whls.	74%
Build. Mater. & Supplies Dealers	68%
All Industries	46%

% MEN EMPLOYED BY CLUSTER AND GEOGRAPHY



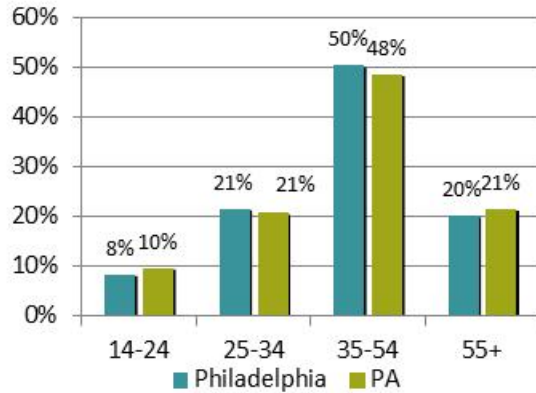
Source: Philadelphia Works Analysis of Quarterly Workforce Indicators data.

Age of Workers in Building & Construction

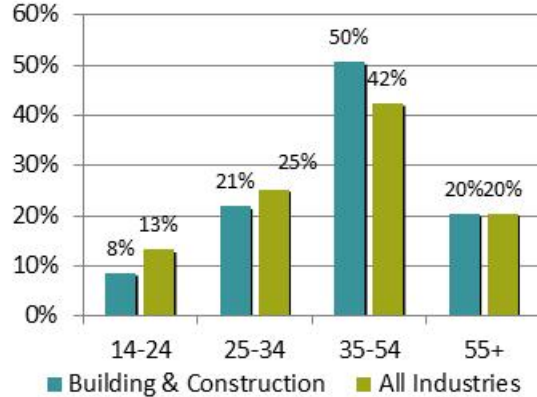
- Fewer younger workers are employed in Building & Construction compared to the average across all industries.

AGE OF WORKERS IN 2013Q1+3 PREVIOUS QUARTERS:

EMPLOYED IN BUILDING & CONSTRUCTION IN PHILADELPHIA VS. PA



EMPLOYED IN BUILDING & CONSTRUCTION VS. ALL INDUSTRIES IN PHILADELPHIA



Source: Philadelphia Works Analysis of Quarterly Workforce Indicators data.

TOP INDUSTRIES IN BUILDING & CONSTRUCTION IN PHILADELPHIA BY AGE OF WORKERS IN 2013Q1+3 PREVIOUS QUARTERS

Industry/Age	14-24	25-54	55+	Total	# Employed
Building Equip. Contractors	6.6%	76.3%	17.1%	100%	3,169
Build. Mater. & Supplies Dealers	17.2%	57.3%	25.5%	100%	2,694
NonRes. Building Constr.	5.3%	75.0%	19.6%	100%	1,474
Building Finishing Contractors	6.1%	79.2%	14.6%	100%	1,218
Res. Building Constr.	7.4%	76.4%	16.3%	100%	1,171
Hardware & Plumbing Merch. Whls.	5.7%	61.5%	32.8%	100%	842
Utility System Constr.	7.8%	73.4%	18.8%	100%	838
Highway, Street, & Bridge Constr.	5.6%	72.8%	21.6%	100%	744
Building Foundation/Exterior Contractors	6.4%	78.8%	14.9%	100%	700
Other Spec. Trade Contractors	4.7%	78.3%	17.0%	100%	439
Lumber & Supply Merch. Whls.	2.0%	74.2%	23.7%	100%	269
HVAC & Commercial Refrig. Equip	2.1%	74.6%	23.3%	100%	239
Building & Construction	8.2%	71.8%	20.0%	100%	14,014
All Industries	12.9%	67.0%	20.1%	100%	558,394

Source: Philadelphia Works Analysis of Quarterly Workforce Indicators data.

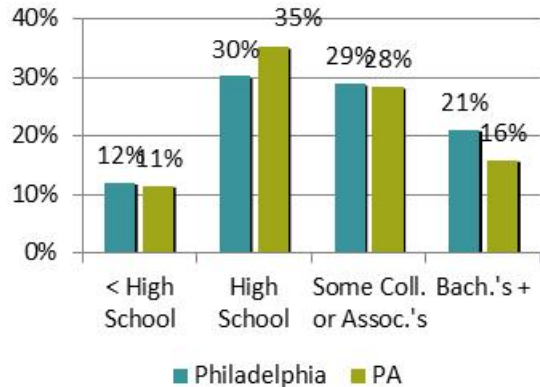
Education of Workers in Building & Construction

- Most workers employed in Building & Construction had a high school diploma or some college or an Associate’s degree. A larger share of workers employed in Building & Construction in

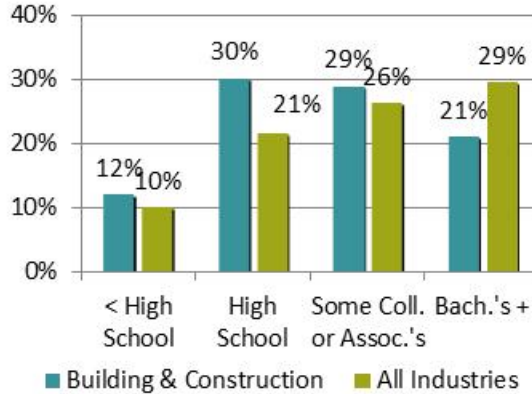
Philadelphia had Bachelor’s degree, mostly due to the concentration of professional services supporting construction in Philadelphia.

EDUCATION OF WORKERS IN 2013Q1+3 PREVIOUS QUARTERS:

% EMPLOYED IN BUILDING & CONSTRUCTION IN PHILADELPHIA VS. PA



% EMPLOYED IN BUILDING & CONSTRUCTION VS. ALL INDUSTRIES IN PHILADELPHIA



Source: Philadelphia Works Analysis of Quarterly Workforce Indicators data.

TOP INDUSTRIES IN BUILDING & CONSTRUCTION IN PHILADELPHIA BY EDUCATION OF WORKERS IN 2013Q1+3 PREVIOUS QUARTERS

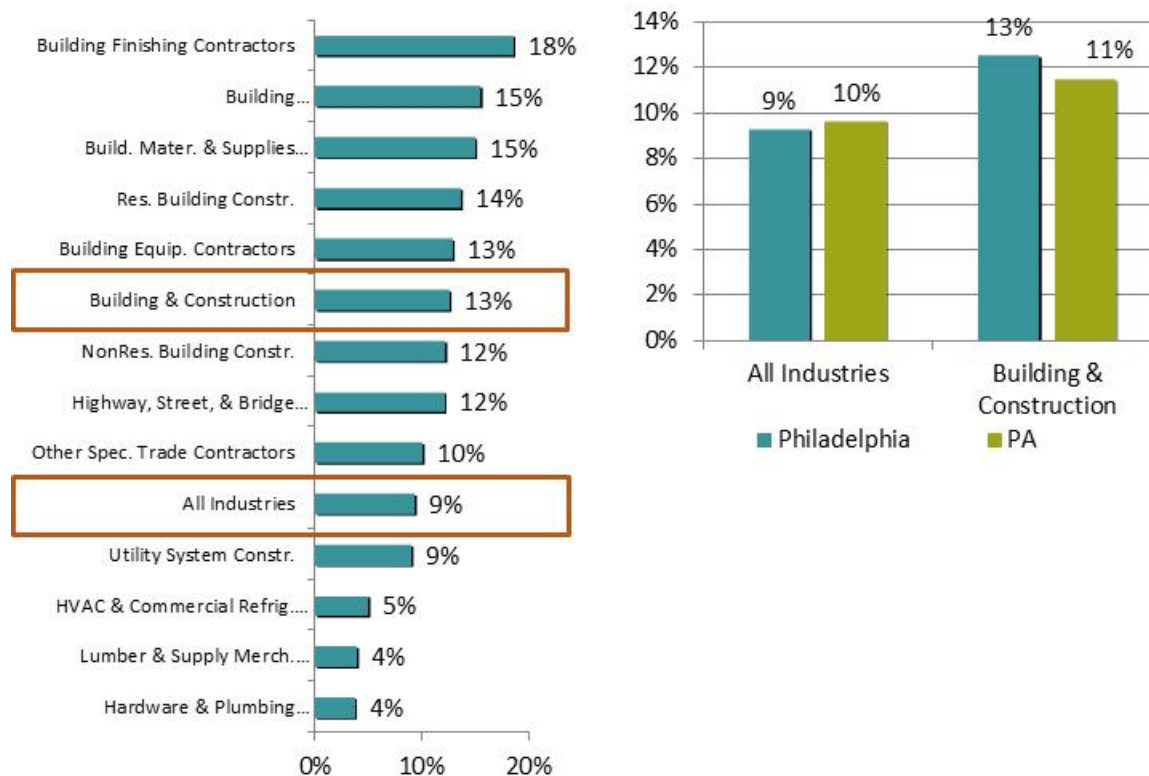
Industry/Education	< High School	High School	Some College or Assoc.'s	Bach.'s +	Unknown	Total	# Employed
Building Equip. Contractors	10.5%	30.9%	31.2%	20.8%	6.6%	100%	3,169
Build. Mater. & Supplies Dealers	11.4%	30.2%	26.0%	15.2%	17.2%	100%	2,694
NonRes. Building Constr.	8.1%	23.2%	29.2%	33.9%	5.5%	100%	1,476
Building Finishing Contractors	12.7%	32.5%	30.3%	18.0%	6.5%	100%	1,222
Res. Building Constr.	15.0%	29.8%	27.7%	20.0%	7.5%	100%	1,173
Hardware & Plumbing Merch. Whls.	8.2%	29.1%	30.7%	25.9%	6.1%	100%	846
Utility System Constr.	11.9%	29.2%	26.4%	24.5%	8.0%	100%	840
Highway, Street, & Bridge Constr.	13.5%	32.4%	30.1%	18.3%	5.7%	100%	745
Building Foundation/Exterior Contractors	14.9%	33.2%	27.2%	18.0%	6.7%	100%	702
Other Spec. Trade Contractors	16.3%	34.1%	27.7%	17.0%	5.0%	100%	441
Lumber & Supply Merch. Whls.	11.7%	30.6%	28.8%	26.0%	2.9%	100%	271
HVAC & Commercial Refrig. Equip	25.2%	29.5%	26.8%	15.8%	2.7%	100%	242
Building & Construction	13.1%	30.3%	28.5%	20.9%	7.2%	100%	14,043
All Industries	10.0%	21.4%	26.2%	29.5%	12.9%	100%	558,394

Source: Philadelphia Works Analysis of Quarterly Workforce Indicators data.

Turnover in Building & Construction

- Turnover rates help us evaluate the churning in the labor force – the average number of separations and hires for the industry group. The rate shows what percentage of the labor force is new.
- The turnover rate in the Building & Construction industry cluster in Philadelphia was 13 percent – above the turnover in Pennsylvania and across all industries in Philadelphia.

TURNOVER RATES IN BUILDING & CONSTRUCTION PHILADELPHIA IN 2012Q3 (FOUR QUARTER MOVING AVERAGE)



Source: Philadelphia Works Analysis of Quarterly Workforce Indicators data.

Occupation Highlights

Staffing patterns analysis was used to identify occupations that are needed in the industry.

- Core industries in Building & Construction relied on Construction; Office and Administrative Support; and Installation, Maintenance, and Repair occupations.
- Supporting retail and wholesale industries employed workers in Sales and Related; Office and Administrative Support; and Transportation occupational families.
- Architecture and Engineering and Office and Administrative Support were top occupational families in professional services industries supporting Building & Construction.

- Production occupations within the core construction industries declined the most since 2007.
- The majority of jobs in core industries in Building & Construction required short-term on-the-job training and long-term on-the-job training. Most jobs in supporting retail and wholesale industries required short-term on-the-job training. A large share of supporting occupations in professional services required an Associate's or a Bachelor's degree.

TOP OCCUPATIONAL FAMILIES IN BUILDING & CONSTRUCTION INDUSTRY CLUSTER

Occupational Family	Jobs 2013	Change % 2007-2013	Jobs 2013	Change % 2007-2013	Jobs 2013	Change % 2007-2013	Jobs 2013	Change % 2007-2013
	Core		Sup. Retail & Whls		Prof. Srv.		All Building & Constr	
Construction	6,417	-12%	38	-5%	64	-33%	6,519	-12%
Sales and related	268	-20%	1,815	-6%	21	-28%	2,104	-8%
Office and admin. support	1,136	-19%	429	-8%	257	-35%	1,822	-19%
Architecture and Engineering	139	-13%	-	n/a	1,142	-35%	1,281	-33%
Installation, maint., and repair	948	-13%	24	4%	-	n/a	972	-13%
Transportation	285	-12%	380	-5%	16	-30%	681	-9%
Management	495	-15%	65	-10%	86	-39%	646	-19%
Business and financial operations	501	-9%	48	-2%	52	-26%	601	-10%
Production	389	-34%	15	0%	-	n/a	404	-34%
Unidentified + Other	541	n/a	304	n/a	511	n/a	1,356	n/a
Total	11,119	-15%	3,118	-6%	2,149	-35%	16,386	-17%

Source: Philadelphia Works analysis of the QCEW Employees & Non-QCEW Employees - EMSI 2013.4 Class of Worker data

EDUCATION REQUIRED OF WORKERS IN BUILDING & CONSTRUCTION INDUSTRY CLUSTER

Skill	Jobs 2013	Change % 2007-2013	Jobs 2013	Change % 2007-2013	Jobs 2013	Change % 2007-2013	Jobs 2013	Change % 2007-2013
	Core		Sup. Retail & Whls		Prof. Srv.		All Building & Constr	
Short-term on-the-job training	2,420	-15%	1,999	-7%	241	-34%	4,660	-13%
Moderate-term on-the-job training	1,989	-18%	403	0%	92	-44%	2,484	-17%
Long-term on-the-job training	3,658	-13%	57	-5%	-	n/a	3,715	-12%
Work experience in a related occupation	783	-13%	229	-8%	106	-35%	1,118	-15%
Postsecondary non-degree award	700	-12%	24	4%	-	n/a	724	-11%
Associate's degree	45	-27%	-	n/a	313	-40%	358	-38%
Bachelor's degree	778	-6%	48	2%	975	-32%	1,801	-22%
Bachelor's or higher degree or higher or work exp.	65	-80%	65	-10%	97	-38%	418	-25%
Unidentified	681	n/a	293	n/a	325	n/a	1,108	n/a
Total	11,119	-15%	3,118	-6%	2,149	-35%	16,386	-17%

Source: Philadelphia Works analysis of the QCEW Employees & Non-QCEW Employees - EMSI 2013.4 Class of Worker data

Top occupations in the cluster are shown in the tables below. Highlighted occupations are Philadelphia 2013 High Priority Occupations important to the cluster. Wage data are not industry specific and describe all workers in the occupation.

TOP OCCUPATIONS IN CORE INDUSTRIES IN BUILDING & CONSTRUCTION

SOC	Occupation	Jobs 2013	% Change from 2007	Entry-Level Earnings	Median Hourly Earnings	% of the Total Jobs in Cluster
Limited Skills Required						
47-2061	Construction Laborers	899	(11%)	\$18.61	\$18.61	8.1%
43-9061	Office Clerks, General	363	(16%)	\$14.76	\$14.76	3.3%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	264	(21%)	\$16.61	\$16.61	2.4%
53-3032	Heavy and Tractor-Trailer Truck Drivers	137	(4%)	\$19.39	\$19.39	1.2%
47-2151	Pipelayers	95	3%	\$23.98	\$23.98	0.9%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	72	(19%)	\$12.60	\$12.60	0.6%
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	62	(11%)	\$17.37	\$17.37	0.6%
41-3099	Sales Representatives, Services, All Other	61	(19%)	\$28.58	\$28.58	0.5%
43-4171	Receptionists and Information Clerks	45	(17%)	\$14.34	\$14.34	0.4%
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	43	(20%)	\$15.28	\$15.28	0.4%
47-3012	Helpers--Carpenters	41	(2%)	\$14.10	\$14.10	0.4%
Some Training or Experience						
47-2031	Carpenters	1,567	(5%)	\$21.91	\$21.91	14.1%
47-2152	Plumbers, Pipefitters, and Steamfitters	735	(15%)	\$28.66	\$28.66	6.6%
47-2111	Electricians	667	(15%)	\$26.39	\$26.39	6.0%
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	590	(9%)	\$38.37	\$38.37	5.3%
47-2073	Operating Engineers and Other Construction Equipment Operators	317	(6%)	\$26.81	\$26.81	2.9%
47-2141	Painters, Construction and Maintenance	240	3%	\$21.85	\$21.85	2.2%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	194	(17%)	\$19.49	\$19.49	1.7%
47-2181	Roofers	172	(33%)	\$19.98	\$19.98	1.5%
47-2211	Sheet Metal Workers	171	(28%)	\$25.64	\$25.64	1.5%
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	164	(20%)	\$25.51	\$25.51	1.5%
47-2051	Cement Masons and Concrete Finishers	163	(18%)	\$22.44	\$22.44	1.5%
47-2021	Brickmasons and Blockmasons	80	(27%)	\$32.63	\$32.63	0.7%
51-2041	Structural Metal Fabricators and Fitters	77	(39%)	\$19.22	\$19.22	0.7%
49-9071	Maintenance and Repair Workers, General	71	(22%)	\$17.56	\$17.56	0.6%
51-2092	Team Assemblers	67	(40%)	\$13.13	\$13.13	0.6%
47-2081	Drywall and Ceiling Tile Installers	62	(30%)	\$17.36	\$17.36	0.6%
47-2071	Paving, Surfacing, and Tamping Equipment Operators	60	(9%)	\$22.71	\$22.71	0.5%
49-9098	Helpers--Installation, Maintenance, and Repair Workers	57	(17%)	\$11.57	\$11.57	0.5%
49-9052	Telecommunications Line Installers and Repairers	55	(20%)	\$33.56	\$33.56	0.5%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	54	(17%)	\$27.43	\$27.43	0.5%
47-2044	Tile and Marble Setters	52	11%	\$23.12	\$23.12	0.5%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	51	(22%)	\$33.40	\$33.40	0.5%

TOP OCCUPATIONS IN CORE INDUSTRIES IN BUILDING & CONSTRUCTION , CONTINUED

SOC	Occupation	Jobs 2013	% Change from 2007	Entry-Level Earnings	Median Hourly Earnings	% of the Total Jobs in Cluster
Some College or Associate's						
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	550	(6%)	\$24.58	\$24.58	4.9%
51-4121	Welders, Cutters, Solderers, and Brazers	89	(30%)	\$18.79	\$18.79	0.8%
Bachelor's or Higher						
13-1051	Cost Estimators	344	(5%)	\$30.69	\$30.69	3.1%
11-9021	Construction Managers	239	(7%)	\$60.46	\$60.46	2.1%
11-1021	General and Operations Managers	196	(23%)	\$56.04	\$56.04	1.8%
13-2011	Accountants and Auditors	75	(15%)	\$34.46	\$34.46	0.7%
17-2051	Civil Engineers	60	3%	\$35.83	\$35.83	0.5%

TOP OCCUPATIONS IN SUPPORTING PROFESSIONAL SERVICES INDUSTRIES

SOC	Occupation	Jobs 2013	% Change from 2007	Entry-Level Earnings	Median Hourly Earnings	% of the Total Jobs in Cluster
Limited Skills Required						
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	83	(37%)	\$16.61	\$16.61	3.8%
43-9061	Office Clerks, General	77	(33%)	\$14.76	\$14.76	3.6%
Some Training or Experience						
47-4011	Construction and Building Inspectors	64	(33%)	\$22.23	\$22.23	3.0%
17-3031	Surveying and Mapping Technicians	52	(49%)	\$20.40	\$20.40	2.4%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	40	(34%)	\$19.49	\$19.49	1.8%
Bachelor's or Higher						
17-1011	Architects, Except Landscape and Naval	568	(31%)	\$38.35	\$38.35	26.4%
27-1025	Interior Designers	84	(39%)	\$25.94	\$25.94	3.9%
17-1022	Surveyors	70	(38%)	\$26.04	\$26.04	3.3%
17-2051	Civil Engineers	65	(29%)	\$35.83	\$35.83	3.0%
17-1012	Landscape Architects	60	(34%)	\$32.09	\$32.09	2.8%
27-1024	Graphic Designers	51	(40%)	\$23.29	\$23.29	2.4%
11-9041	Architectural and Engineering Managers	45	(35%)	\$61.31	\$61.31	2.1%
11-1021	General and Operations Managers	41	(42%)	\$56.04	\$56.04	1.9%

Source: Philadelphia Works analysis of the QCEW Employees & Non-QCEW Employees - EMSI 2013.4 Class of Worker data

TOP OCCUPATIONS IN SUPPORTING RETAIL AND WHOLESALE INDUSTRIES

SOC	Occupation	Jobs 2013	% Change from 2007	Entry-Level Earnings	Median Hourly Earnings	% of the Total Jobs in Cluster
Limited Skills Required						
41-2031	Retail Salespersons	942	(6%)	\$10.43	\$10.43	30.2%
41-2011	Cashiers	301	(13%)	\$9.72	\$9.72	9.7%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	186	(5%)	\$12.60	\$12.60	5.9%
43-5081	Stock Clerks and Order Fillers	115	(12%)	\$10.10	\$10.10	3.7%
53-3033	Light Truck or Delivery Services Drivers	81	(5%)	\$15.06	\$15.06	2.6%
43-9061	Office Clerks, General	65	(4%)	\$14.76	\$14.76	2.1%
53-7051	Industrial Truck and Tractor Operators	65	(8%)	\$15.81	\$15.81	2.1%
43-5071	Shipping, Receiving, and Traffic Clerks	65	(8%)	\$14.52	\$14.52	2.1%
43-4051	Customer Service Representatives	49	(4%)	\$17.30	\$17.30	1.6%
53-3032	Heavy and Tractor-Trailer Truck Drivers	48	(6%)	\$19.39	\$19.39	1.5%
Some Training or Experience						
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	318	1%	\$25.51	\$25.51	10.2%
41-1011	First-Line Supervisors of Retail Sales Workers	177	(9%)	\$20.70	\$20.70	5.7%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	50	(6%)	\$19.49	\$19.49	1.6%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	30	(6%)	\$27.43	\$27.43	1.0%
41-1012	First-Line Supervisors of Non-Retail Sales Workers	22	0%	\$49.81	\$49.81	0.7%
41-2022	Parts Salespersons	20	5%	\$14.85	\$14.85	0.6%
13-1022	Wholesale and Retail Buyers, Except Farm Products	19	(5%)	\$25.70	\$25.70	0.6%
47-2121	Glaziers	19	(5%)	\$20.08	\$20.08	0.6%
47-2031	Carpenters	19	(5%)	\$21.91	\$21.91	0.6%
Some Training or Experience						
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	24	4%	\$24.58	\$24.58	0.8%
Bachelor's or Higher						
11-1021	General and Operations Managers	49	(11%)	\$56.04	\$56.04	1.6%
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	19	6%	\$43.83	\$43.83	0.6%

Notes on Data

We followed industry cluster definitions proposed by the Center for Workforce Information & Analysis. Some industries that have a low number of jobs in Philadelphia County were excluded from the analysis and PA industry clusters were formed in the same way to make comparisons possible.

All the wage, employment, and staffing patterns data in this report come from the EMSI 2013.4 Class of Worker Data. EMSI industry data have various sources including the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. Non-QCEW employee data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics.

Philadelphia Works worked with the Quarterly Workforce Indicators data available through the U.S. Census and defined the industry clusters at the four-digit NAICS code level. An industry group was assigned to a cluster if most of the employment fell in that cluster. Because the data are cyclical, the quarterly data were smoothed using a simple moving average. This report shows the data for the third quarter of 2012 plus three previous quarters.

The PA Employer Database available through the Center for Workforce Information & Analysis was used to report on the employers by size.

The document was corrected on September 19, 2014 to update industries included in the cluster.