

47-1011 First-Line Supervisors/Managers of Construction Trades and Extraction Workers

FA

Directly supervise and coordinate activities of construction or extraction workers. *Example: Cement Contractor*

Training Category: Related experience

2007 Average Wage:	\$25.55
2006 Estimated Employment:	3,247
2016 Projected Employment:	3,645
Growth Rate, 2006-2016:	12.3%
Annual Openings:	85

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	24.9%	25.3%
Self-Employed Workers	24.4%	23.6%
236 Construction of Buildings	16.6%	16.9%
237 Heavy and Civil Engineering Construction	9.4%	9.8%
State Government, ex. Education and Hospitals	9.1%	8.6%
Local Government, ex. Education	7.3%	7.4%

47-2011 Boilermakers

FA

Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Align structures or plate sections to assemble boiler frame tanks or vats, following blueprints. *Examples: Boiler Installer; Boiler Mechanic; Pressure Tester*

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	n/a
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	n	n
622 Hospitals	n	n

47-2021 Brickmasons and Blockmasons

FA

Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures. *Examples: Adobe Layer; Chimney Builder; Furnace Liner*

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	\$20.63
2006 Estimated Employment:	524
2016 Projected Employment:	596
Growth Rate, 2006-2016:	13.7%
Annual Openings:	18

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	55.0%	55.4%
Self-Employed Workers	24.6%	23.7%
236 Construction of Buildings	12.0%	12.1%
5617 Services to Buildings and Dwellings	n	n

47-2022 Stonemasons

LS

Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors. *Examples: Granite Setter; Monument Installer; Rock Mason*

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	\$19.51
2006 Estimated Employment:	45
2016 Projected Employment:	50
Growth Rate, 2006-2016:	11.1%
Annual Openings:	2

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	35.6%	36.0%
Self-Employed Workers	22.2%	22.0%
212 Mining (except Oil and Gas)	n	n
453 Miscellaneous Store Retailers	n	n

47-2031 Carpenters

FA

Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. *Examples: Shipwright; Cabinetmaker; Wood Floor Layer*

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	\$18.85
2006 Estimated Employment:	6,563
2016 Projected Employment:	7,328
Growth Rate, 2006-2016:	11.7%
Annual Openings:	166

Industry	2006 Share	2016 Share
236 Construction of Buildings	43.1%	43.9%
Self-Employed Workers	31.8%	30.6%
238 Specialty Trade Contractors	13.4%	13.9%
444 Building Material & Garden Supply Stores	2.3%	2.5%
321 Wood Product Manufacturing	2.2%	1.8%
237 Heavy and Civil Engineering Construction	1.9%	2.0%

47-2041 Carpet Installers

LF

Lay and install carpet from rolls or blocks on floors. Install padding and trim flooring materials. *Examples: Floor Coverer; Rug Layer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$17.54
2006 Estimated Employment:	301
2016 Projected Employment:	300
Growth Rate, 2006-2016:	-0.3%
Annual Openings:	4

Industry	2006 Share	2016 Share
Self-Employed Workers	49.2%	47.3%
442 Furniture and Home Furnishings Stores	32.6%	33.7%
236 Construction of Buildings	n	n
238 Specialty Trade Contractors	n	n

47-2042 Floor Layers, Except Carpet, Wood, and Hard Tiles

LF

Apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors. *Examples: Composition Floor Setter; Linoleum Layer; Soft Tile Setter*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	n/a
2006 Estimated Employment:	42
2016 Projected Employment:	37
Growth Rate, 2006-2016:	-11.9%
Annual Openings:	1

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	52.4%	54.1%
Self-Employed Workers	47.6%	46.0%

47-2043 Floor Sanders and Finishers

LS

Scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish. *Examples: Floor Sanding Machine Operator; Floor Surfer; Hardwood Finisher*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	n/a
2006 Estimated Employment:	33
2016 Projected Employment:	36
Growth Rate, 2006-2016:	9.1%
Annual Openings:	1

Industry	2006 Share	2016 Share
Self-Employed Workers	48.5%	44.4%
238 Specialty Trade Contractors	n	n
444 Building Material & Garden Supply Stores	n	n
5613 Employment Services	n	n

47-2044 Tile and Marble Setters

FA

Apply hard tile, marble, and wood tile to walls, floors, ceilings, and roof decks. *Examples: Ceramic Tile Installer; Hard Tile Setter; Marble Installer*

Training Category: Long-term OJT (12 mos. or more)

2007 Average Wage:	\$17.20
2006 Estimated Employment:	169
2016 Projected Employment:	199
Growth Rate, 2006-2016:	17.8%
Annual Openings:	6

Industry	2006 Share	2016 Share
Self-Employed Workers	33.7%	32.7%
327 Nonmetallic Mineral Product Mfg	19.5%	19.1%
238 Specialty Trade Contractors	17.8%	18.1%
423 Merchant Wholesalers, Durable Goods	n	n
442 Furniture and Home Furnishings Stores	n	n

47-2051 Cement Masons and Concrete Finishers

VF

Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; use saws to cut expansion joints. *Examples: Curb Builder; Concrete Floor Installer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$16.64
2006 Estimated Employment:	341
2016 Projected Employment:	392
Growth Rate, 2006-2016:	15.0%
Annual Openings:	15

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	69.8%	70.2%
Self-Employed Workers	2.1%	1.8%
236 Construction of Buildings	n	n
237 Heavy and Civil Engineering Construction	n	n
327 Nonmetallic Mineral Product Mfg	n	n
423 Merchant Wholesalers, Durable Goods	n	n

47-2053 Terrazzo Workers and Finishers

FA

Apply a mixture of cement, sand, pigment, or marble chips to floors, stairways, and cabinet fixtures to fashion durable and decorative surfaces.

Training Category: Long-term OJT (12 mos. or more)

2007 Average Wage:	\$19.43
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	n	n
Self-Employed Workers	n	n

47-2061 Construction Laborers

VF

Perform tasks involving physical labor at building, highway, and heavy construction projects, tunnel and shaft excavations, and demolition sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. *Examples: Air Hammer Operator; Asphalt Patcher; Construction Craft Laborer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$14.12
2006 Estimated Employment:	3,727
2016 Projected Employment:	4,425
Growth Rate, 2006-2016:	18.7%
Annual Openings:	98

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	43.3%	41.9%
Self-Employed Workers	16.5%	15.7%
237 Heavy and Civil Engineering Construction	12.3%	12.1%
5613 Employment Services	11.8%	14.8%
236 Construction of Buildings	11.2%	10.8%
Local Government, ex. Education	1.6%	1.5%

47-2071 Paving, Surfacing, and Tamping Equipment Operators

FA

Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways, or equipment used for tamping gravel, dirt, or other materials. Include concrete and asphalt paving machine operators, form tampers, tamping machine operators, and stone spreader operators. *Examples: Asphalt Spreader Operator; Black Top Machine Operator; Road Grader*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$19.24
2006 Estimated Employment:	110
2016 Projected Employment:	126
Growth Rate, 2006-2016:	14.5%
Annual Openings:	4

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	83.6%	83.3%
Self-Employed Workers	1.8%	1.6%
237 Heavy and Civil Engineering Construction	n	n

47-2072 Pile-Driver Operators

FA

Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures, such as buildings, bridges, and piers. *Examples: Nozzle Operator; Pile Driver Engineer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$26.49
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
Self-Employed Workers	4.4%	5.8%
237 Heavy and Civil Engineering Construction	n	n
238 Specialty Trade Contractors	n	n

47-2073 Operating Engineers and Other Construction Equipment Operators

FA

Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties. *Examples: Bulldozer Operator; Power Grader Operator; Steam Shovel Operator*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$19.45
2006 Estimated Employment:	1,363
2016 Projected Employment:	1,556
Growth Rate, 2006-2016:	14.2%
Annual Openings:	45

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	47.3%	47.4%
237 Heavy and Civil Engineering Construction	16.7%	17.2%
Local Government, ex. Education	13.4%	13.5%
236 Construction of Buildings	8.8%	8.8%
Self-Employed Workers	5.7%	5.6%
212 Mining (except Oil and Gas)	n	n

47-2081 Drywall and Ceiling Tile Installers

LS

Apply plasterboard or other wallboard to ceilings or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. *Examples: Acoustical Carpenter; Sheet Rock Hanger*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$20.33
2006 Estimated Employment:	295
2016 Projected Employment:	321
Growth Rate, 2006-2016:	8.8%
Annual Openings:	7

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	67.1%	68.2%
Self-Employed Workers	23.1%	22.7%
236 Construction of Buildings	n	n
321 Wood Product Manufacturing	n	n

47-2082 Tapers

LS

Seal joints between plasterboard or other wallboard to prepare wall surface for painting or papering. *Examples: Sheet Rock Taper; Wall Taper*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$23.83
2006 Estimated Employment:	84
2016 Projected Employment:	93
Growth Rate, 2006-2016:	10.7%
Annual Openings:	2

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	56.0%	55.9%
	Self-Employed Workers	25.0%	24.7%
236	Construction of Buildings	19.1%	19.4%

47-2111 Electricians

FA

Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. *Examples: Electrical Sign Servicer; House Wirer; Chief Electrician*

Training Category: Long-term OJT (12 mos. or more)

2007 Average Wage:	\$21.62
2006 Estimated Employment:	2,847
2016 Projected Employment:	3,189
Growth Rate, 2006-2016:	12.0%
Annual Openings:	107

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	76.6%	77.1%
	Self-Employed Workers	10.8%	11.0%
236	Construction of Buildings	1.4%	1.5%
332	Fabricated Metal Product Manufacturing	1.0%	1.0%

47-2121 Glaziers

FA

Install glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops. *Examples: Window Glass Installer; Plate Glass Installer; Stained Glass Glazier*

Training Category: Long-term OJT (12 mos. or more)

2007 Average Wage:	\$18.59
2006 Estimated Employment:	233
2016 Projected Employment:	271
Growth Rate, 2006-2016:	16.3%
Annual Openings:	8

Industry		2006 Share	2016 Share
444	Building Material & Garden Supply Stores	46.4%	47.6%
238	Specialty Trade Contractors	42.5%	41.7%
	Self-Employed Workers	5.2%	4.8%
236	Construction of Buildings	n	n

47-2131 Insulation Workers, Floor, Ceiling, and Wall

FA

Line and cover structures with insulating materials. May work with batt, roll, or blown insulation materials. *Example: Fiberglass Insulation Installer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$16.22
2006 Estimated Employment:	133
2016 Projected Employment:	148
Growth Rate, 2006-2016:	11.3%
Annual Openings:	5

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	97.7%	98.0%
	Self-Employed Workers	n	n

47-2132 Insulation Workers, Mechanical

LS

Apply insulating materials to pipes or ductwork, or other mechanical systems in order to help control and maintain temperature.

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	n/a
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	n	n

47-2141 Painters, Construction and Maintenance

VF

Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency. *Examples: Bridge Painter; Traffic Line Painter; House Painter*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$15.59
2006 Estimated Employment:	1,780
2016 Projected Employment:	2,048
Growth Rate, 2006-2016:	15.1%
Annual Openings:	59

Industry	2006 Share	2016 Share
Self-Employed Workers	42.3%	43.3%
238 Specialty Trade Contractors	38.7%	38.0%
236 Construction of Buildings	12.3%	12.0%
531 Real Estate	n	n
6113 Colleges and Universities	n	n
622 Hospitals	n	n

47-2142 Paperhangers

LF

Cover interior walls and ceilings of rooms with decorative wallpaper or fabric, or attach advertising posters on surfaces, such as walls and billboards. Duties include removing old materials from surface to be papered. *Examples: Billboard Poster; Wallpaperer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	n/a
2006 Estimated Employment:	32
2016 Projected Employment:	29
Growth Rate, 2006-2016:	-9.4%
Annual Openings:	1

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	62.5%	62.1%
Self-Employed Workers	37.5%	37.9%

47-2151 Pipelayers

FA

Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints. *Examples: Trench Pipe Layer; Pipe Liner; Sewer Connector*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$17.26
2006 Estimated Employment:	169
2016 Projected Employment:	195
Growth Rate, 2006-2016:	15.4%
Annual Openings:	7

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	34.9%	34.9%
Self-Employed Workers	11.8%	11.3%
Local Government, ex. Education	8.9%	8.7%
221 Utilities	n	n
237 Heavy and Civil Engineering Construction	n	n

47-2152 Plumbers, Pipefitters, and Steamfitters

VF

Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. *Examples: Gas Line Installer; Hot Water Heater Installer; Sprinkling System Installer*

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	\$20.58
2006 Estimated Employment:	1,884
2016 Projected Employment:	2,174
Growth Rate, 2006-2016:	15.4%
Annual Openings:	68

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	66.2%	66.9%
	Self-Employed Workers	12.4%	11.8%
236	Construction of Buildings	4.8%	4.7%
221	Utilities	2.7%	2.2%
237	Heavy and Civil Engineering Construction	2.6%	2.8%
444	Building Material & Garden Supply Stores	n	n

47-2161 Plasterers and Stucco Masons

LS

Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster. *Examples: Dry Plasterer; Stucco Worker; Ornamental Plasterer*

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	n/a
2006 Estimated Employment:	56
2016 Projected Employment:	62
Growth Rate, 2006-2016:	10.7%
Annual Openings:	2

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	76.8%	77.4%
	Self-Employed Workers	16.1%	16.1%
236	Construction of Buildings	7.1%	6.5%

47-2171 Reinforcing Iron and Rebar Workers

FA

Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Include rod busters.

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	\$19.38
2006 Estimated Employment:	57
2016 Projected Employment:	66
Growth Rate, 2006-2016:	15.8%
Annual Openings:	2

Industry		2006 Share	2016 Share
237	Heavy and Civil Engineering Construction	n	n
238	Specialty Trade Contractors	n	n
327	Nonmetallic Mineral Product Mfg	n	n

47-2181 Roofers

VF

Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, and related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures. *Examples: Slater; Hot Tar Roofer; Terra Cotta Roofer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$15.77
2006 Estimated Employment:	434
2016 Projected Employment:	510
Growth Rate, 2006-2016:	17.5%
Annual Openings:	18

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	74.4%	76.3%
	Self-Employed Workers	20.1%	18.6%
236	Construction of Buildings	n	n
321	Wood Product Manufacturing	n	n

47-2211 Sheet Metal Workers

FA

Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings.
Example: Tinsmith

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	n/a
2006 Estimated Employment:	677
2016 Projected Employment:	767
Growth Rate, 2006-2016:	13.3%
Annual Openings:	25

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	47.9%	48.2%
	Self-Employed Workers	4.7%	4.4%
332	Fabricated Metal Product Manufacturing	n	n
333	Machinery Manufacturing	n	n
335	Electrical Equipment and Appliances	n	n
5613	Employment Services	n	n

47-2221 Structural Iron and Steel Workers

FA

Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings. *Examples: Bolter; Guard Rail Installer; Construction Ironworker*

Training Category: Long-term OJT (12 mos.or more)

2007 Average Wage:	\$20.71
2006 Estimated Employment:	302
2016 Projected Employment:	344
Growth Rate, 2006-2016:	13.9%
Annual Openings:	14

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	40.4%	37.8%
237	Heavy and Civil Engineering Construction	36.4%	37.2%
	Self-Employed Workers	5.3%	5.2%
236	Construction of Buildings	n	n
332	Fabricated Metal Product Manufacturing	n	n

47-3011 Helpers—Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters

FA

Help brickmasons, blockmasons, stonemasons, or tile and marble setters by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. *Examples: Brick Carrier; Brick Washer; Tile Layers Helper*

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	\$16.37
2006 Estimated Employment:	231
2016 Projected Employment:	263
Growth Rate, 2006-2016:	13.9%
Annual Openings:	9

Industry		2006 Share	2016 Share
238	Specialty Trade Contractors	83.1%	83.7%
	Self-Employed Workers	3.0%	3.0%
212	Mining (except Oil and Gas)	n	n
236	Construction of Buildings	n	n

47-3012 Helpers—Carpenters

FA

Help carpenters by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. *Examples: Carpenter's Mate; Joiner's Helper; Cabinetmaker's Helper*

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	\$12.27
2006 Estimated Employment:	464
2016 Projected Employment:	519
Growth Rate, 2006-2016:	11.9%
Annual Openings:	18

Industry		2006 Share	2016 Share
236	Construction of Buildings	72.6%	73.8%
238	Specialty Trade Contractors	12.7%	13.1%
	Self-Employed Workers	3.2%	3.1%
237	Heavy and Civil Engineering Construction	n	n
321	Wood Product Manufacturing	n	n

47-3013 Helpers—Electricians

LS

Help electricians by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. *Examples: Utilities Ground Worker; Electrician's Assistant*

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	\$14.67
2006 Estimated Employment:	201
2016 Projected Employment:	218
Growth Rate, 2006-2016:	8.5%
Annual Openings:	7

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	88.1%	89.0%
Self-Employed Workers	3.0%	2.8%
236 Construction of Buildings	n	n
237 Heavy and Civil Engineering Construction	n	n
321 Wood Product Manufacturing	n	n

47-3014 Helpers—Painters, Paperhangers, Plasterers, and Stucco Masons

LF

Help painters, paperhangers, plasterers, or stucco masons by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. *Example: Plaster Tender*

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	\$11.25
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	n	n
Self-Employed Workers	n	n

47-3015 Helpers—Pipelayers, Plumbers, Pipefitters, and Steamfitters

VF

Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. *Examples: Pipe Cutter; Plumber's Assistant; Water Main Installer's Helper*

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	\$13.44
2006 Estimated Employment:	350
2016 Projected Employment:	409
Growth Rate, 2006-2016:	16.9%
Annual Openings:	15

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	81.4%	81.4%
Self-Employed Workers	2.9%	2.7%
236 Construction of Buildings	n	n
444 Building Material & Garden Supply Stores	n	n

47-3016 Helpers—Roofers

LF

Help roofers by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. *Example: Roofer's Assistant*

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	n/a
2006 Estimated Employment:	65
2016 Projected Employment:	65
Growth Rate, 2006-2016:	0.0%
Annual Openings:	2

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	63.1%	69.2%
321 Wood Product Manufacturing	n	n
Self-Employed Workers	n	n

47-3019 Helpers—Construction Trades, All Other

FA

All construction trades helpers not listed separately. *Examples: Cement Mixer; Glazier's Helper; Surveyor's Helper*

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	\$13.06
2006 Estimated Employment:	362
2016 Projected Employment:	413
Growth Rate, 2006-2016:	14.1%
Annual Openings:	14

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	55.0%	55.2%
Self-Employed Workers	3.3%	3.2%
236 Construction of Buildings	n	n
237 Heavy and Civil Engineering Construction	n	n
321 Wood Product Manufacturing	n	n
5413 Architectural and Engineering Services	n	n

47-4011 Construction and Building Inspectors

FA

Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing. *Examples: Highway Inspector; Electrical Inspector; Architectural Inspector*

Training Category: Related experience

2007 Average Wage:	\$21.87
2006 Estimated Employment:	363
2016 Projected Employment:	429
Growth Rate, 2006-2016:	18.2%
Annual Openings:	14

Industry	2006 Share	2016 Share
Local Government, ex. Education	53.2%	51.5%
Self-Employed Workers	9.4%	8.4%
State Government, ex. Education and Hospitals	3.0%	2.8%
524 Insurance Carriers & Related Activities	n	n
5413 Architectural and Engineering Services	n	n
624 Social Assistance	n	n

47-4021 Elevator Installers and Repairers

LS

Assemble, install, repair, or maintain electric or hydraulic freight or passenger elevators, escalators, or dumbwaiters.

Training Category: Long-term OJT (12 mos. or more)

2007 Average Wage:	\$34.31
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	n	n

47-4031 Fence Erectors

FA

Erect and repair metal and wooden fences and fence gates around highways, industrial establishments, residences, or farms, using hand and power tools. *Examples: Wire Fence Builder; Wood Fence Installer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$13.48
2006 Estimated Employment:	39
2016 Projected Employment:	45
Growth Rate, 2006-2016:	15.4%
Annual Openings:	2

Industry	2006 Share	2016 Share
Self-Employed Workers	23.1%	22.2%
237 Heavy and Civil Engineering Construction	n	n
238 Specialty Trade Contractors	n	n
444 Building Material & Garden Supply Stores	n	n

47-4041 Hazardous Materials Removal Workers

FA

Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, contaminated soil, etc. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks. *Examples: Asbestos Remover; Irradiated Fuel Handler; Hazardous Waste Remover*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$16.12
2006 Estimated Employment:	54
2016 Projected Employment:	63
Growth Rate, 2006-2016:	16.7%
Annual Openings:	2

Industry	2006 Share	2016 Share
Self-Employed Workers	1.9%	1.6%
332 Fabricated Metal Product Manufacturing	n	n
336 Transportation Equipment Manufacturing	n	n
562 Waste Management and Remediation Service	n	n
6113 Colleges and Universities	n	n
622 Hospitals	n	n

47-4051 Highway Maintenance Workers

FA

Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement, repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road or plow snow from roadway. *Examples: Snow Plow Operator; Road Patcher; Road Sign Installer*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$14.19
2006 Estimated Employment:	1,826
2016 Projected Employment:	2,025
Growth Rate, 2006-2016:	10.9%
Annual Openings:	53

Industry	2006 Share	2016 Share
Local Government, ex. Education	58.5%	60.2%
State Government, ex. Education and Hospitals	40.1%	38.4%

47-4071 Septic Tank Servicers and Sewer Pipe Cleaners

FA

Clean and repair septic tanks, sewer lines, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping. *Examples: Sewage Screen Operator; Septic Tank Cleaner; Electric Sewer Cleaning Machine Operator*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$16.86
2006 Estimated Employment:	224
2016 Projected Employment:	263
Growth Rate, 2006-2016:	17.4%
Annual Openings:	9

Industry	2006 Share	2016 Share
562 Waste Management and Remediation Service	63.8%	66.2%
Local Government, ex. Education	24.6%	23.2%
Self-Employed Workers	6.3%	5.7%
237 Heavy and Civil Engineering Construction	n	n

47-4099 Construction and Related Workers, All Other

FA

All construction and related workers not listed separately.

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$17.88
2006 Estimated Employment:	812
2016 Projected Employment:	886
Growth Rate, 2006-2016:	9.1%
Annual Openings:	28

Industry	2006 Share	2016 Share
238 Specialty Trade Contractors	35.3%	37.3%
236 Construction of Buildings	9.7%	10.2%
Self-Employed Workers	8.7%	8.5%
237 Heavy and Civil Engineering Construction	8.1%	8.7%
State Government, ex. Education and Hospitals	7.8%	7.5%
339 Miscellaneous Manufacturing	n	n

47-5021 Earth Drillers, Except Oil and Gas

FA

Operate a variety of drills—such as rotary, churn, and pneumatic—to tap sub-surface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction. May use explosives. *Examples: Earth Boring Machine Operator; Tunneling Machine Operator*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	\$19.46
2006 Estimated Employment:	263
2016 Projected Employment:	310
Growth Rate, 2006-2016:	17.9%
Annual Openings:	14

Industry	2006 Share	2016 Share
237 Heavy and Civil Engineering Construction	52.9%	52.6%
Self-Employed Workers	9.5%	9.4%
238 Specialty Trade Contractors	n	n
5413 Architectural and Engineering Services	n	n

47-5031 Explosives Workers, Ordnance Handling Experts, and Blasters

LF

Place and detonate explosives to demolish structures or to loosen, remove, or displace earth, rock, or other materials. May perform specialized handling, storage, and accounting procedures. Include seismograph shooters. *Examples: Dynamiter; Explosives Expert*

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	n/a
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
213 Support Activities for Mining	n	n
238 Specialty Trade Contractors	n	n
325 Chemical Manufacturing	n	n
424 Merchant Wholesalers, Nondurable Goods	n	n

47-5051 Rock Splitters, Quarry

LS

Separate blocks of rough dimension stone from quarry mass using jackhammer and wedges.

Training Category: Moderate-term OJT (1 to 12 months)

2007 Average Wage:	n/a
2006 Estimated Employment:	n
2016 Projected Employment:	n
Growth Rate, 2006-2016:	n
Annual Openings:	n

Industry	2006 Share	2016 Share
Self-Employed Workers	4.4%	3.9%
212 Mining (except Oil and Gas)	n	n
327 Nonmetallic Mineral Product Mfg	n	n

47-5081 Helpers—Extraction Workers

LS

Help extraction craft workers, such as earth drillers, blasters and explosives workers, derrick operators, and mining machine operators, by performing duties of lesser skill. Duties include supplying equipment or cleaning work area.

Training Category: Short-term OJT (brief demo)

2007 Average Wage:	\$15.31
2006 Estimated Employment:	45
2016 Projected Employment:	51
Growth Rate, 2006-2016:	13.3%
Annual Openings:	2

Industry	2006 Share	2016 Share
237 Heavy and Civil Engineering Construction	64.4%	66.7%
212 Mining (except Oil and Gas)	n	n
238 Specialty Trade Contractors	n	n
5413 Architectural and Engineering Services	n	n