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# Customizing a State's Local Employment Dynamics Database to Facilitate Use of LED Data

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# Why?

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Why have some shops historically not utilized LED data?

- What does LED add to our existing knowledge base?
- Lack of time to learn how to use the data
- Lack of an individual dedicated to this topic
- Difficult to use

Why did we design this database?

- LED data is difficult to compile into tables and reports
- The online QWI interface is useful, but does not successfully solve these problems
- WIBs were not using the data because of the difficulty of the QWI interface and because of a lack of familiarity with the data

# QWI Online LED Interface

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## QWI Online [NAICS]

AgeGroup/Sex | Education/Sex | Race/Ethnicity

### LEHD State of Pennsylvania WIA Reports - Quarterly Workforce Indicators

Select Criteria below. A new report will be created below as selections change.

Year: 2010 | Geographic Grouping: WIA or Information by Detailed Industry
Quarter: Q4 | WIA: 175 Central PA WIA
Sex: Male and Fema | Industry: All NAICS Sectors
AgeGroup: 14-99 | Ownership: All (1-5)

Download Dataset | Print Table

| QWI Quick Facts | Central PA WIA (Q4) | Central PA WIA (Avg:Selected + 3 Prior qtrs) | Pennsylvania (Q4) | Pennsylvania (Avg:Selected + 3 Prior qtrs) |
|---|---|---|---|---|
| Total Employment | 237,561 | 233,843 | 5,433,161 | 5,334,454 |
| Net Job Flows | -5,991 | -609 | -120,266 | 2,762 |
| Job Creation | 10,350 | 12,146 | 276,200 | 287,881 |
| New Hires | 25,733 | 26,528 | 675,122 | 643,084 |
| Separations | 39,968 | 35,881 | 997,473 | 834,697 |
| Turnover | 9.2% | 8.0% | 9.8% | 8.3% |
| Avg Monthly Earnings | $3,422.00 | $3,175.25 | $3,981.00 | $3,728.25 |
| Avg New Hire Earnings | $2,175.00 | $1,991.75 | $2,478.00 | $2,290.25 |

View Detailed Comparison Reports

For more information

QWI Online

# QUARTERLY WORKFORCE INDICATORS

**(based on the U.S. Census Bureau, Local Employment Dynamics (LED)**

## Percentage of Industry[1] Employment by Age Group (2010Q4)

| Northern Tier | 14-24 | 25-34 | 35-44 | 45-54 | 55+ |
|---|---|---|---|---|---|
| All industry groups | 13.2% | 18.3% | 21.5% | 25.7% | 21.3% |
| 2111 Oil and Gas Extraction | *** | 26.3% | 21.1% | 28.9% | *** |
| 2131 Support Activities for Mining | 21.5% | 33.6% | 20.2% | 16.7% | 7.8% |
| 2371 Utility System Construction | 10.2% | 22.3% | 21.9% | 28.8% | 16.8% |
| 4862 Pipeline Transportation of Natural Gas | 3.4% | 17.2% | 19.5% | 40.2% | 19.5% |

| Southwest Corner | 14-24 | 25-34 | 35-44 | 45-54 | 55+ |
|---|---|---|---|---|---|
| All industry groups | 12.4% | 19.3% | 20.2% | 25.0% | 23.2% |
| 2111 Oil and Gas Extraction | *** | 33.1% | 23.3% | 24.4% | 11.3% |
| 2131 Support Activities for Mining | 15.9% | 37.4% | 24.2% | 15.9% | 6.7% |
| 2371 Utility System Construction | 12.8% | 24.2% | 24.4% | 20.1% | 18.4% |
| 4862 Pipeline Transportation of Natural Gas | *** | 15.2% | 22.8% | 38.0% | *** |

| Central | 14-24 | 25-34 | 35-44 | 45-54 | 55+ |
|---|---|---|---|---|---|
| All industry groups | 13.2% | 18.7% | 20.9% | 25.2% | 22.0% |
| 2111 Oil and Gas Extraction | *** | 49.3% | 19.3% | 12.7% | *** |
| 2131 Support Activities for Mining | 17.7% | 32.3% | 24.7% | 16.9% | 8.4% |
| 2371 Utility System Construction | *** | 20.9% | 21.0% | 27.2% | 21.8% |
| 4862 Pipeline Transportation of Natural Gas | *** | 14.4% | 24.0% | 38.5% | 19.2% |

| North Central | 14-24 | 25-34 | 35-44 | 45-54 | 55+ |
|---|---|---|---|---|---|
| All industry groups | 12.2% | 18.0% | 21.6% | 26.1% | 22.1% |
| 2111 Oil and Gas Extraction | *** | 20.3% | 21.6% | 29.0% | 22.1% |
| 2131 Support Activities for Mining | 15.9% | 31.9% | 20.2% | 21.6% | 10.5% |
| 2371 Utility System Construction | 22.8% | 28.1% | 20.0% | 18.9% | 10.2% |
| 4862 Pipeline Transportation of Natural Gas | 2.4% | 12.9% | 19.1% | 40.6% | 25.0% |

| Tri-County | 14-24 | 25-34 | 35-44 | 45-54 | 55+ |
|---|---|---|---|---|---|
| All industry groups | 13.5% | 19.3% | 20.5% | 25.1% | 21.6% |
| 2111 Oil and Gas Extraction | *** | 24.4% | 18.7% | 32.0% | 20.0% |
| 2131 Support Activities for Mining | 11.4% | 27.1% | 23.4% | 24.6% | 13.5% |
| 2371 Utility System Construction | 8.1% | 23.0% | 24.4% | 27.6% | 16.8% |
| 4862 Pipeline Transportation of Natural Gas | *** | 37.0% | 18.5% | 29.6% | 11.1% |

| Westmoreland & Fayette | 14-24 | 25-34 | 35-44 | 45-54 | 55+ |
|---|---|---|---|---|---|
| All industry groups | 12.9% | 18.3% | 20.6% | 25.4% | 22.6% |
| 2111 Oil and Gas Extraction | 10.1% | 27.2% | 22.7% | 26.5% | 13.2% |
| 2131 Support Activities for Mining | 13.4% | 34.2% | 26.5% | 17.1% | 8.8% |
| 2371 Utility System Construction | 9.4% | 23.2% | 22.5% | 27.9% | 17.1% |
| 4862 Pipeline Transportation of Natural Gas | 1.7% | 14.6% | 18.5% | 42.7% | *** |

*** *Indicates that data cannot be disclosed due to confidentiality restrictions or data quality standards*

- Workers in the Marcellus Shale related industry groups tended, on average, to be younger than the total across all industries.
- The percentage of workers in core related industry groups aged 55 and over was smaller than found across all industries.

[1] Local Employment Dynamics data are only available at the 4-digit NAICS level. While these industry groups contain some employment from non-Marcellus Shale related core industries, they help to provide an understanding of the industries' employment composition by age.

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# Pennsylvania's LED Database

# Update Process

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What you will need:

1. SAS
2. Microsoft Access
3. 7-Zip (a free open source zip program)

Update:

Step 1: Edit the Macros in the SAS Programs for your State
Step 2: Create a blank copy of the state and WIA databases
Step 3: Download the files
Step 4: Run the Setup SAS program
Step 5: Run the Master SAS Program

These programs copy and name the output files, export the data to those files, zip them, and then delete the large original files

20120209 - LED Database_Macro_All_States.sas

```
3543  /*%export(TriCounty,('005','019','063'),'OSW11000')*/
3544
3545  %export(Berks,('011'),'OSE01500')
3546  %export(Bucks,('017'),'OSE02000')
3547  %export(Central,('027','035','037','081','087','093','097','109','119'),'OCE17500')
3548  %export(Chester,('029'),'OSE03000')
3549  %export(CityOfPittsburgh,('003'),'OSW09500')
3550  %export(Delaware,('045'),'OSE03500')
3551  %export(Lackawanna,('069'),'ONE05500')
3552  %export(Lancaster,('071'),'OSE06000')
3553  %export(LehighValley,('077','095'),'OLV07000')
3554  %export(Luzerne,('079','107'),'ONE07500')
3555  %export(Montgomery,('091'),'OSE08000')
3556  %export(NorthCentral,('023','033','047','065','083','105'),'ONC12500')
3557  %export(NorthernTier,('015','113','115','117','131'),'ONT13000')
3558  %export(Northwest,('031','039','049','053','121','123'),'ONW17000')
3559  %export(Philadelphia,('101'),'OSE09000')
3560  %export(Pocono,('025','089','103','127'),'ONE13500')
3561  %export(SouthCentral,('001','041','043','055','067','075','099','133'),'OSC18000')
3562  %export(SouthernAlleghenies,('009','013','021','057','061','111'),'OSA10000')
3563  %export(SouthwestCorner,('007','059','125'),'OSW16500')
3564  /*%export(ThreeRivers,('003'),'OSW00500')*/
3565  %export(TriCounty,('005','019','063'),'OSW11000')
3566  %export(WestCentral,('073','085'),'ONW14500')
3567  %export(Westmoreland,('051','129'),'OSW04500')
3568
```

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | | Name | | FIPS | WIB_Code |
| 2 | %export( | AnnaArundel | AnnaArundel_2Digit | '003' | '00100100' |
| 3 | %export( | BaltimoreCity | BaltimoreCity_2Digit | '510' | '00100300' |
| 4 | %export( | BaltimoreCounty | BaltimoreCounty_2Digit | '005' | '00100200' |
| 5 | %export( | FrederickCounty | FrederickCounty_2Digit | '021' | '00100400' |
| 6 | %export( | LowerShore | LowerShore_2Digit | '039','045','047' | '00100500' |
| 7 | %export( | MidMaryland | MidMaryland_2Digit | '013','027' | '00100600' |
| 8 | %export( | Montgomery | Montgomery_2Digit | '031' | '00100700' |
| 9 | %export( | PrinceGeorges | PrinceGeorges_2Digit | '033' | '00100800' |
| 10 | %export( | SouthernMaryland | SouthernMaryland_2Digit | '009','017','037' | '00100900' |
| 11 | %export( | SusquehannaRegion | SusquehannaRegion_2Di | '015','025' | '00101000' |
| 12 | %export( | UpperShore | UpperShore_2Digit | '011','019','029','035','041' | '00101100' |
| 13 | %export( | WesternMaryland | WesternMaryland_2Digit | '001','023','043' | '00101200' |
| 14 | | | | | |
| 15 | | | | | |

```
%export(AnnaArundel,('003'),'00100100')
%export(BaltimoreCity,('510'),'00100300')
%export(BaltimoreCounty,('005'),'00100200')
%export(FrederickCounty,('021'),'00100400')
%export(LowerShore,('039','045','047'),'00100500')
%export(MidMaryland,('013','027'),'00100600')
%export(Montgomery,('031'),'00100700')
%export(PrinceGeorges,('033'),'00100800')
%export(SouthernMaryland,('009','017','037'),'00100900')
%export(SusquehannaRegion,('015','025'),'00101000')
%export(UpperShore,('011','019','029','035','041'),'00101100')
%export(WesternMaryland,('001','023','043'),'00101200')
```

```
%export(AnnaArundel_2Digit,('003'),'00100100',AnnaArundel)
%export(BaltimoreCity_2Digit,('510'),'00100300',BaltimoreCity)
%export(BaltimoreCounty_2Digit,('005'),'00100200',BaltimoreCounty)
%export(FrederickCounty_2Digit,('021'),'00100400',FrederickCounty)
%export(LowerShore_2Digit,('039','045','047'),'00100500',LowerShore)
%export(MidMaryland_2Digit,('013','027'),'00100600',MidMaryland)
%export(Montgomery_2Digit,('031'),'00100700',Montgomery)
%export(PrinceGeorges_2Digit,('033'),'00100800',PrinceGeorges)
%export(SouthernMaryland_2Digit,('009','017','037'),'00100900',SouthernMaryland)
%export(SusquehannaRegion_2Digit,('015','025'),'00101000',SusquehannaRegion)
%export(UpperShore_2Digit,('011','019','029','035','041'),'00101100',UpperShore)
%export(WesternMaryland_2Digit,('001','023','043'),'00101200',WesternMaryland)
```

```
1  /*Creates copies of LED Files*/
2  /*A Brad Keen Production*/
3
4  /*For Washington*/
5
6  options noxwait;  /* automatically close the command window after executing x commands */
7
8  /* copy a file and rename it */
9
10 %macro duplicate(WIA);
11
12 x "copy d:\LED\wia.mdb d:\LED\&wia..mdb";
13
14 %mend;
15
16 %duplicate(Benton)
17 %duplicate(EasternWashington)
18 %duplicate(NorthCentralWashington)
19 %duplicate(NorthwestWashington)
20 %duplicate(Olympic)
21 %duplicate(PacificMountain)
22 %duplicate(Seattle)
23 %duplicate(Snohomish)
24 %duplicate(SouthWestWashington)
25 %duplicate(SpokaneCity)
26 %duplicate(Tacoma)
27 %duplicate(Central)
28 %duplicate(Benton_2Digit)
29 %duplicate(EasternWashington_2Digit)
30 %duplicate(NorthCentralWashington_2Digit)
31 %duplicate(NorthwestWashington_2Digit)
32 %duplicate(Olympic_2Digit)
33 %duplicate(PacificMountain_2Digit)
34 %duplicate(Seattle_2Digit)
35 %duplicate(Snohomish_2Digit)
36 %duplicate(SouthWestWashington_2Digit)
37 %duplicate(SpokaneCity_2Digit)
38 %duplicate(Tacoma_2Digit)
39 %duplicate(Central_2Digit)
40
```

# Step 3: Download the LED Files

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Where can you download the files (3 Sources):

Cornell Virtual Research Data Center:
http://www.vrdc.cornell.edu/qwipu/

State FTP Site:
http://lehd.did.census.gov/led/partnersonly/statesonlyadmin.html

The DVDs that are mailed to you each quarter

20120213 - LED Database_Macro.sas

```
35  /*Step 3: Create 4 Digit WIA Databi*/
36  /*Step 4: Create the 2 Digit WIA Databi*/
37  /*Step 5: Create the 2 Digit State Level Databi*/
38  /*Step 6: Create the 4 Digit State Level Databi*/
39
40  /*Set State*/
41
42  %let state=WA;
43
44  /*STEP 1: IMPORT LED TABLES*/
45
46  /*Set Directory*/
47
48  %let directory=D:\LED\WA;
49  %let libname=D:\LED\WA;
50  %let report_year=2005,2006,2007,2008,2009,2010,2011;
51
52  /*Turns on Macro Print*/
53  options mprint;
54
55  /*Automatically closes Command Prompt*/
56  options noxwait;
57
58  /*Options for Dealing with Log File*/
59
60  /*Prints to External Log File*/
```

# Highlights

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- ❑Easy to Update, Automatic Process
- ❑Numbers can be validated
- ❑Reports are exportable to Excel
- ❑Customizable Selections based on 2/4 Digit Industry Code, Time Period, and Location
- ❑The code that builds this database can be amended to allow for additional uses of the LED data

# Negatives

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- A few of the queries, especially in the state level database are slow.

- There is still some “slack” in the db, tables and queries that don’t need to be there

- A fully documented procedure for building and maintaining the db doesn’t yet exist, this would allow other states to more easily build their own

- By design, it has a fixed set of answers and output.  Hard when you have a very specific question, time period, custom location, or set of data that you need

# Future Improvements

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✓The Ability to save NAICS selections in the current database and then to export/import them to future versions and updates

✓Add additional Education variables to available reports

✓Add Race/Ethnicity

✓SAS Programming could be amended for speed and simplification

✓Edit WIA and State versions of the database so that a change only needs to occur once per version (instead of twice)

✓Reach out to users for suggestions and understand uses, education

✓Reduce size and increase speed of reports and queries

✓Clean up database (remove excess queries and tables)

✓Edit SAS code for ability to add custom locations

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## Industry Demographics

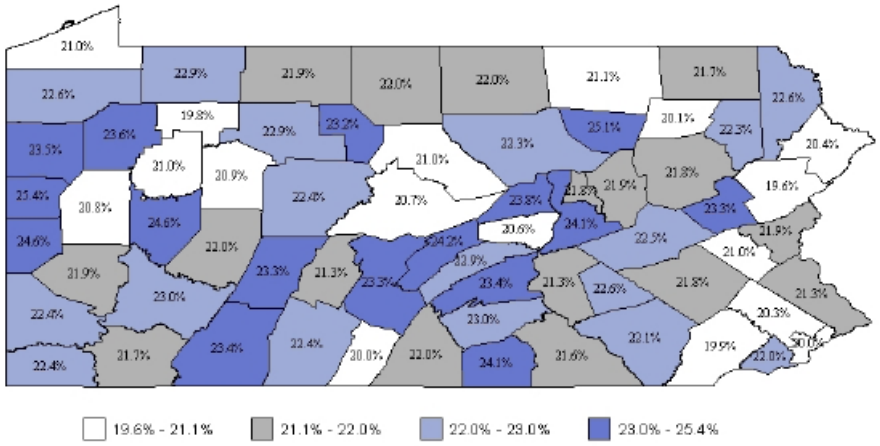
Across the Tri-County WIA and the state as a whole, the industries making up the Marcellus Shale sector had a predominantly male workforce. Across the state, most industries had a higher percentage of employment in the 45 to 54 year old age range than any other age group. The industry groups in the tables below encompass, but are not limited to, all of the industries defined by the CWIA as core and ancillary to the Marcellus Shale industry sector.

### *Industry Gender Demographics, 4th Quarter 2010*

| NAICS Code | NAICS Title | Pennsylvania | |
|---|---|---|---|
| | | Male | Female |
| 2111 | Oil and Gas Extraction | 81.1% | 18.9% |
| 2131 | Support Activities for Mining | 92.3% | 7.7% |
| 2211 | Electric Power Generation, Transmission and Distribution | 83.1% | 16.9% |
| 2212 | Natural Gas Distribution | 74.2% | 25.8% |
| 2213 | Water, Sewage and Other Systems | 73.4% | 26.6% |
| 2371 | Utility System Construction | 88.9% | 11.1% |
| 2373 | Highway, Street, and Bridge Construction | 85.8% | 14.2% |

# Workforce Indicators

### 2010 Q4 Percent of Workers 55 and Older by County




*Source: U.S. Census Bureau; Local Employment Dynamics (LED) Program*

### 2010 Q4 Top Industrial Sectors Employing Workers 55 and Older

| NAICS | Industry Group | Workers 55+ | Total Employment | % Workers 55+ |
|---|---|---|---|---|
| | All industry groups | 1,167,507 | 5,424,751 | 21.5% |
| 4855 | Charter Bus Industry | 1,350 | 2,802 | 48.2% |
| 8122 | Death Care Services | 3,305 | 7,102 | 46.5% |
| 4854 | School and Employee Bus Transportation | 13,827 | 29,980 | 46.1% |
| 8131 | Religious Organizations | 3,474 | 8,058 | 43.1% |
| 4853 | Taxi and Limousine Service | 910 | 2,150 | 42.3% |
| 4871 | Scenic and Sightseeing Transportation, Land | 237 | 567 | 41.8% |
| 3131 | Fiber, Yarn, and Thread Mills | 106 | 260 | 40.8% |
| 4852 | Interurban and Rural Bus Transportation | 369 | 920 | 40.1% |
| 4231 | Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers | 7,861 | 20,110 | 39.1% |
| 4531 | Florists | 1,341 | 3,519 | 38.1% |
| 4859 | Other Transit and Ground Passenger Transportation | 1,438 | 3,811 | 37.7% |
| 3151 | Apparel Knitting Mills | 155 | 414 | 37.4% |
| 9251 | Administration of Housing Programs, Urban Planning, and Community Development | 1,390 | 3,908 | 35.6% |
| 6112 | Junior Colleges | 8,709 | 24,516 | 35.5% |
| 3152 | Cut and Sew Apparel Manufacturing | 1,928 | 5,428 | 35.5% |
| 8141 | Private Households | 1,489 | 4,217 | 35.3% |
| 3169 | Other Leather and Allied Product Manufacturing | 76 | 222 | 34.2% |
| 3311 | Iron and Steel Mills and Ferroalloy Manufacturing | 3,513 | 10,509 | 33.4% |
| 1124 | Sheep and Goat Farming | 7 | 21 | 33.3% |
| 3361 | Motor Vehicle Manufacturing | 304 | 913 | 33.3% |

*Source: U.S. Census Bureau; Local Employment Dynamics (LED) Program*
Note: NAICS is the North American Industry Classification System

# Workforce Indicators

The following is an example of the occupations commonly found in an aging industry identified using Local Employment Dynamics (LED) data.

### Occupations Commonly Found In: Iron & Steel Mills & Ferroalloys Manufacturing (NAICS: 3311)

Establishments primarily engaged in one or more of the following: (1) direct reduction of iron ore; (2) manufacturing pig iron in molten or solid form; (3) converting pig iron into steel; (4) manufacturing ferroalloys; (5) making steel; (6) making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, wire); and (7) making steel and forming pipe and tube.

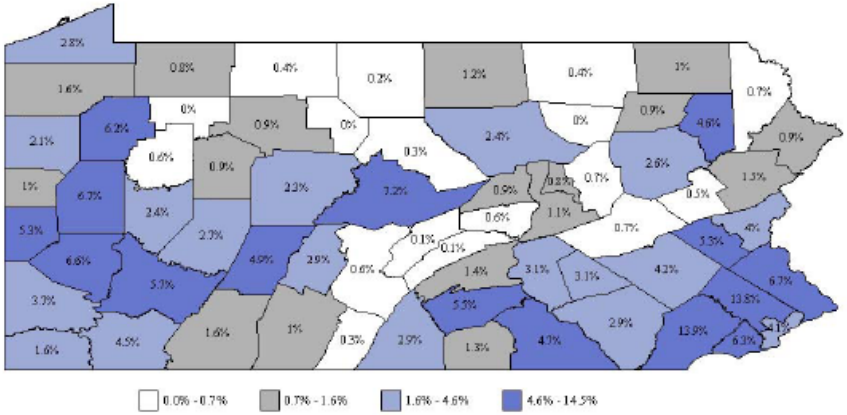
| Occupational Code | Occupational Title | Percent of Industry 2008 | Estimated 2018 Percent |
|---|---|---|---|
| 51-4051 | Metal-Refining Furnace Oprs/Tndrs | 8.2% | 9.0% |
| 51-4023 | Rolling Machine Setters/Oprs/Tndrs, Metal & Plastic | 5.4% | 5.9% |
| 51-4031 | Cutting, Punching & Press Machine Setters/Oprs/Tndrs, Metal & Plastic | 4.2% | 3.8% |
| 49-9042 | Maintenance & Repair Workers, General | 3.7% | 3.7% |
| 53-7021 | Crane & Tower Operators | 3.3% | 3.3% |
| 51-4052 | Pourers & Casters, Metal | 3.2% | 3.5% |
| 53-7062 | Laborers & Freight, Stock & Material Movers, Hand | 2.9% | 2.6% |
| 51-1011 | Supervisors – Production & Operating Workers | 2.9% | 2.8% |
| 51-9198 | Helpers, Production Workers | 2.7% | 2.7% |
| 51-4191 | Heat Treating Equipment Setters/Oprs/Tndrs, Metal & Plastic | 2.7% | 2.8% |
| 49-9041 | Industrial Machinery Mechanics | 2.7% | 3.1% |
| 51-4034 | Lathe & Turning Machine Tool Setters/Oprs/Tndrs, Metal & Plastic | 2.4% | 2.3% |
| 53-7063 | Machine Feeders & Offbearers | 2.3% | 2.1% |
| 51-4072 | Molding & Casting Machine Setters/Oprs/Tndrs, Metal & Plastic | 2.2% | 2.0% |
| 51-9061 | Inspectors, Testers, Sorters, Samplers, & Weighers | 2.2% | 2.1% |
| 51-4011 | Computer-Controlled Machine Tool Operators, Metal & Plastic | 2.1% | 2.3% |
| 51-4035 | Milling & Planning Machine Setters/Oprs/Tndrs, Metal & Plastic | 2.0% | 1.8% |
| 43-5061 | Production, Planning, & Expediting Clerks | 1.9% | 1.9% |
| 51-4021 | Extruding & Drawing Machine Setters/Oprs/Tndrs, Metal & Plastic | 1.8% | 1.8% |
| 51-4041 | Machinists | 1.8% | 1.9% |
| 47-2111 | Electricians | 1.5% | 1.6% |
| 41-4012 | Sales Representatives | 1.5% | 1.5% |
| 51-9111 | Packaging & Filling Machine Oprs/Tndrs | 1.4% | 1.3% |
| 17-2131 | Materials Engineers | 1.2% | 1.3% |
| 43-5071 | Shipping, Receiving, & Traffic Clerks | 1.2% | 1.2% |
| 53-7051 | Industrial Truck & Tractor Operators | 1.2% | 1.0% |
| 51-4193 | Plating & Coating Machine Setters/Oprs/Tndrs, Metal & Plastic | 1.2% | 1.2% |
| 17-2112 | Industrial Engineers | 1.1% | 1.4% |

*Source: 2008-18 Long-Term Occupational Employment Projections*

# QUARTERLY WORKFORCE INDICATORS

## Pennsylvania High Tech[1/] Industry Profile

### 2010 Q3 Percent Employment by County in High Tech Industries




*Source: U.S. Census Bureau; Local Employment Dynamics (LED) Program*

- Chester (13.9%), Montgomery (13.8%), Centre (7.2%), Butler (6.7%), and Bucks (6.7%) counties had the greatest percentage of high tech employment in 2010 Q3

### 2010 Q3 High Tech Employment

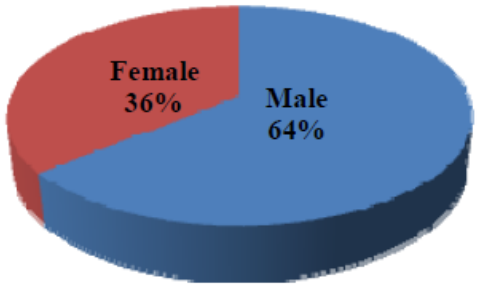
| High Tech Industry Sector | 2009 Q3 Employment | 2010 Q3 Employment | Change from 2009 Q3 |
|---|---|---|---|
| 3254 Pharmaceutical & Medicine Mfg. | 22,498 | 22,909 | 1.8% |
| 3336 Turbine & Power Transmission Eq. | 3,232 | 3,402 | 5.3% |
| 3341 Computer & Peripheral Eq. Mfg. | 1,790 | 1,802 | 0.7% |
| 3342 Communications Eq. Mfg. | 4,007 | 3,985 | -0.5% |
| 3343 Audio & Video Eq. Mfg. | 437 | 311 | -28.8% |
| 3344 Semiconductor & Comp. Mfg. | 10,875 | 11,401 | 4.8% |
| 3345 Electronic Instrument Mfg. | 13,620 | 13,485 | -1.0% |
| 3346 Magnetic Media Mfg. | 1,805 | 1,560 | -13.6% |
| 3353 Electrical Equipment | 8,338 | 7,869 | -5.6% |
| 3363 Motor Vehicle Parts Mfg. | 6,300 | 6,437 | 2.2% |
| 3364 Aerospace Product & Parts Mfg. | 11,934 | 12,466 | 4.5% |
| 3391 Medical Eq. & Supplies Mfg. | 15,990 | 14,558 | -9.0% |
| 5112 Software Publishers | 5,247 | 5,506 | 4.9% |
| 5121 Motion Picture & Video Industries | 8,689 | 8,702 | 0.1% |
| 5122 Sound Recording Industries | 400 | 396 | -1.0% |
| 5182 Data Processing and Hosting | 9,613 | 9,697 | 0.9% |
| 5413 Architectural, Engin. & Related Svcs. | 58,503 | 59,591 | 1.9% |
| 5414 Specialized Design Services | 3,539 | 3,455 | -2.4% |
| 5415 Computer Systems Design & Svcs. | 49,464 | 51,087 | 3.3% |
| 5416 Management Consulting Services | 40,379 | 42,737 | 5.8% |
| 5417 Scientific Research & Dev. Svcs. | 31,949 | 32,175 | 0.7% |
| 8112 Elec. & Precision Eq. Repair & Maint. | 3,883 | 3,955 | 1.9% |
| **High Tech Industries Total** | **312,492** | **317,486** | **1.6%** |
| **State Total** | **5,308,216** | **5,374,597** | **1.3%** |

*Source: U.S. Census Bureau; Local Employment Dynamics (LED) Program*

[1/]High Tech industries defined by IHS Global Insight


# QUARTERLY WORKFORCE INDICATORS


## High Tech Industry Employment
## 2010 Q3




### PA High Tech Industries Labor Force Age Groups

| Age Group | 2007 Q3 | 2008 Q3 | 2009 Q3 | 2010 Q3 |
|---|---|---|---|---|
| <25 | 8.2% | 8.2% | 7.2% | 6.8% |
| 25-34 | 22.1% | 22.3% | 22.2% | 21.9% |
| 35-44 | 26.2% | 25.4% | 24.9% | 24.4% |
| 45-54 | 26.3% | 26.3% | 26.9% | 27.1% |
| 55+ | 17.2% | 17.8% | 18.8% | 19.8% |

*Source: U.S. Census Bureau; Local Employment Dynamics (LED) Program*

### 2010 Q3 Percentage of Workers Aged 55+ By High Tech Industry

| High Tech Industry Sector | Older Worker Count | Total Worker Count | Percent Older Workers |
|---|---|---|---|
| 3254 Pharmaceutical & Medicine Mfg. | 3,629 | 22,909 | 15.8% |
| 3336 Turbine & Power Transmission Eq. | 910 | 3,402 | 26.7% |
| 3341 Computer & Peripheral Eq. Mfg. | 371 | 1,802 | 20.6% |
| 3342 Communications Eq. Mfg. | 886 | 3,985 | 22.2% |
| 3343 Audio & Video Eq. Mfg. | 57 | 311 | 18.3% |
| 3344 Semiconductor & Comp. Mfg. | 2,915 | 11,401 | 25.6% |
| 3345 Electronic Instrument Mfg. | 3,691 | 13,485 | 27.4% |
| 3346 Magnetic Media Mfg. | 312 | 1,560 | 20.0% |
| 3353 Electrical Equipment | 1,945 | 7,869 | 24.7% |
| 3363 Motor Vehicle Parts Mfg. | 1,443 | 6,437 | 22.4% |
| 3364 Aerospace Product & Parts Mfg. | 3,174 | 12,466 | 25.5% |
| 3391 Medical Eq. & Supplies Mfg. | 3,493 | 14,558 | 24.0% |
| 5112 Software Publishers | 675 | 5,506 | 12.3% |
| 5121 Motion Picture & Video Industries | 1,112 | 8,702 | 12.8% |
| 5122 Sound Recording Industries | 61 | 396 | 15.4% |
| 5182 Data Processing and Hosting | 1,937 | 9,697 | 20.0% |
| 5413 Architectural, Engin. & Related Svcs. | 13,985 | 59,591 | 23.5% |
| 5414 Specialized Design Services | 715 | 3,455 | 20.7% |
| 5415 Computer Systems Design & Svcs. | 6,777 | 51,087 | 13.3% |
| 5416 Management Consulting Services | 7,666 | 42,737 | 17.9% |
| 5417 Scientific Research & Dev. Svcs. | 6,296 | 32,175 | 19.6% |
| 8112 Elec. & Precision Eq. Repair & Maint. | 711 | 3,955 | 18.0% |
| **High Tech Industries Total** | **62,761** | **317,486** | **19.8%** |
| **State Total** | **1,126,567** | **5,374,597** | **21.0%** |

*Source: U.S. Census Bureau; Local Employment Dynamics (LED) Program*

# Questions???

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