

**NORTHWEST PENNSYLVANIA  
AS A LOCATION FOR THE  
WOOD PRODUCTS INDUSTRY**



*PREPARED BY:*

**Carter Burgess**

July 2004

***TABLE OF CONTENTS***

	<b><u>Page #</u></b>
Introduction	3
Project Model	4
Cost Spread Sheets	5
Total Project Operating Costs	7
Labor Costs	8
Labor Characteristics	10
Build-To-Suit Costs	12
Taxes	13
Utilities	14
Cost of Living	15
Wood Products in NW PA	16
Incentives in NW PA	17
NW PA Strengths	18

## Introduction

This report, **Northwest Pennsylvania as a Location for the Wood Products Industry**, identifies business costs and conditions associated with the development of a wood cabinet manufacturing facility in Northwest Pennsylvania (NW PA). Secondary wood products are an important aspect of the Northwest Pennsylvania economy.

The report compares cost and conditions in Northwest Pennsylvania versus select locations (see map on next page), which have a heavy presence of wood products firms, including:

- Maple Ridge (Vancouver), British Columbia
- Redding, California
- Portland, Oregon
- Utica, New York
- Muskegon, Michigan

Costs are drawn from a hypothetical wood products project (see model description on page 4), which was based on actual site selection experience. Key site location cost factors are examined in this report including:

- Salary and wages
- Fringe benefits
- Build-to-suit
- Select taxes
- Electric power, and
- Cost of living

The cost comparison spreadsheet follows on pages 5-7. Costs were derived from actual field research in Northwest Pennsylvania and telephone research on competitor communities. The latest available data was used for all cost comparisons.

In addition, other regional conditions related to the wood products industry are examined.

Carter & Burgess, Inc. is a world-renowned architecture/engineering, real estate and site selection firm based in Fort Worth, Texas and with offices nation-wide. The firm has located and designed over 100,000,000 square feet of commercial/industrial space over the last seven years.

***Project Model***  
**Wood Cabinets Manufacturing**

**Purpose:** The manufacturing of wood cabinets to serve the North American marketplace.

**Hours of Operation:** 16 hours per day (2 shifts); 7 days per week

**Labor:** 85 total

5-managerial and engineering

5- clerical

5-production supervisors

10 skilled workers, machine set up operators

40 semiskilled, woodworking machine operators and wood assemblers

20 unskilled- material handlers and fork lift drivers

**Utilities:** Electric Power- Demand: 1000 KW; Energy: 500,000 KwH/month (average)

**Building:** 80,000 square feet, 60,000 of manufacturing space; 5,000 square feet of office space and 15,000 square feet of enclosed warehousing space.

**Land:** 20 level acres in a planned industrial park fully developed.

**Investment:** Land/building-\$3,000,000 to \$6,000,000; Machinery & Equipment-\$8,000,000; Inventory-\$3,000,000.

**Other Critical Factors:** Good access to reasonably priced skilled workforce; reliable and economical electric power supply; access to good supplier and customer network, including engineered wood plants; good technical college with flexibility in training.

Northwest Pennsylvania as a Location for the Wood Products Industry

**WOOD CABINETS PROJECT**

*Year 1 Operating Costs*

**Labor Costs**

	NW PA	Muskegon, MI	Redding, CA	Utica, NY	Maple Ridge, BC	Portland, OR
<i>Mgmt./Supervision</i>						
Number	5	5	5	5	5	5
Annual Salary	\$76,889	\$85,271	\$86,518	\$82,741	\$81,146	\$85,856
Total Management Salaries	\$384,445	\$426,355	\$432,590	\$413,705	\$301,457	\$429,280
<i>Production Supervisors</i>						
Number	5	5	5	5	5	5
Annual Salary	\$30,844	\$35,571	\$35,104	\$33,123	\$36,643	\$35,702
Total Supervisor Salaries	\$154,220	\$177,855	\$175,520	\$165,615	\$136,129	\$178,510
<i>Clerical</i>						
Number	5	5	5	5	5	5
Annual Salary	\$18,533	\$21,519	\$21,109	\$20,104	\$27,265	\$21,308
Total Clerical Salaries	\$92,665	\$107,595	\$105,545	\$100,520	\$101,289	\$106,540
<i>Skilled Machine Set Up Operators</i>						
Number	10	10	10	10	10	10
Annual Salary	\$22,631	\$26,173	\$25,487	\$24,296	\$31,631	\$25,889
Total Skilled Salaries	\$226,310	\$261,730	\$254,870	\$242,960	\$235,018	\$258,890
<i>Semiskilled Woodworking Machine Operators</i>						
Number	40	40	40	40	40	40
Annual Salary	\$21,022	\$24,392	\$23,659	\$22,584	\$30,964	\$24,066
Total Semiskilled Salaries	\$840,880	\$975,680	\$946,360	\$903,360	\$920,250	\$962,640
<i>Unskilled Material Handlers</i>						
Number	20	20	20	20	20	20
Annual Salary	\$19,135	\$22,067	\$21,927	\$20,616	\$28,305	\$21,888
Total Unskilled Salaries	\$382,700	\$441,340	\$438,540	\$412,320	\$420,612	\$437,760
<b>Total Annual Salary Costs</b>	<b>\$2,081,220</b>	<b>\$2,390,555</b>	<b>\$2,353,425</b>	<b>\$2,238,480</b>	<b>\$2,114,756</b>	<b>\$2,373,620</b>

**Fringe Benefits**

	NW PA	Muskegon, MI	Redding, CA	Utica, NY	Maple Ridge, BC	Portland, OR
Medical @ 15 % (Canada (CD)-9%)	\$312,183	\$358,583	\$353,014	\$335,772	\$190,328	\$213,626
Disability @ .133 %	\$2,768	\$3,179	\$3,130	\$2,977	\$2,813	\$3,157
FICA @ 7.5 % (CD payroll tax@1.95)	\$156,092	\$179,292	\$176,507	\$167,886	\$41,238	\$46,286
Life @ .5 % (Canada CPP@3.9%)	\$10,406	\$11,953	\$11,767	\$11,192	\$82,475	\$11,868
Unemployment Ins. Rate	3.75%	2.70%	3.50%	4.00%	2.20%	3.30%
UI Cost	\$24,000	\$21,803	\$11,025	\$14,400	\$42,523	\$66,852
Workers Comp Rate-Plant (per \$100)	\$2.90	\$11.36	\$20.95	\$5.82	\$2.22	\$1.92
Worker Comp Rate-Office (per \$100)	\$0.47	\$0.23	\$2.24	\$0.35	\$2.22	\$1.92
Workers Compensation Cost	\$43,207	\$191,363	\$349,828	\$91,644	\$40,321	\$37,331
Fringe Benefit Load Factor	26.36%	32.05%	38.47%	27.87%	18.90%	15.97%
<b>Total Annual Fringe Benefits Costs</b>	<b>\$548,656</b>	<b>\$766,172</b>	<b>\$905,270</b>	<b>\$623,872</b>	<b>\$399,699</b>	<b>\$379,120</b>

Northwest Pennsylvania as a Location for the Wood Products Industry

**WOOD CABINETS PROJECT (CONT)**

<b>Build to Suit Costs</b>	<b>NW PA</b>	<b>Muskegon, MI</b>	<b>Redding, CA</b>	<b>Utica, NY</b>	<b>Maple Ridge, BC</b>	<b>Portland, OR</b>
Square Feet Office	5,000	5,000	5,000	5,000	5,000	5,000
Square Feet Manufacturing/Warehouse	75,000	75,000	75,000	75,000	75,000	75,000
Total Square Feet Required	80,000	80,000	80,000	80,000	80,000	80,000
Cost per Square Foot of Mfg.	\$24.00	\$35.00	\$32.00	\$28.00	\$30.00	\$23.00
Cost per Square Foot of Office	\$45.00	\$50.00	\$40.00	\$35.00	\$50.00	\$28.00
Total Building Cost	\$2,025,000	\$2,875,000	\$2,600,000	\$2,275,000	\$2,500,000	\$1,865,000
<b>Land Costs</b>	<b>NW PA</b>	<b>Muskegon, MI</b>	<b>Redding, CA</b>	<b>Utica, NY</b>	<b>Maple Ridge, BC</b>	<b>Portland, OR</b>
Cost per Acre	\$15,000	\$54,000	\$41,000	\$20,000	\$650,000	\$174,240
Acres Required	20	20	20	20	20	20
Total Land Cost	\$300,000	\$1,080,000	\$820,000	\$400,000	\$13,000,000	\$3,484,800
Total Building & Land Cost	\$2,325,000	\$3,955,000	\$3,420,000	\$2,675,000	\$15,500,000	\$5,349,800
Annual Payment (@ 6%, 15 yrs)	\$239,388	\$407,218	\$352,133	\$275,425	\$1,595,923	\$550,830
<b>Property Tax Costs</b>	<b>NW PA</b>	<b>Muskegon, MI</b>	<b>Redding, CA</b>	<b>Utica, NY</b>	<b>Maple Ridge, BC</b>	<b>Portland, OR</b>
Value of Real Estate	\$2,325,000	\$3,955,000	\$3,420,000	\$2,675,000	\$15,500,000	\$5,349,800
Assessment Ratio	100%	50%	100%	100%	100%	100%
Property Tax Rate	41.84	5	1.1	3.857	2.6	16.946
Real Estate Taxes	\$97,278	\$98,875	\$71,620	\$103,175	\$403,000	\$90,658
Machinery & Equipment Value	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000
Personal Property Tax Rate	0	0	0	0	0	16.946
Personal Property Tax	\$0	\$0	\$0	\$0	\$0	\$135,568
Value of Inventory	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
Inventory Tax Rate	0	0	0	0	0	0
Inventory Tax	\$0	\$0	\$0	\$0	\$0	\$0
Total Annual Property Taxes	\$97,278	\$98,875	\$71,620	\$103,175	\$403,000	\$226,226
<b>State/Provincial Corporate Income Taxes</b>	<b>NW PA</b>	<b>Muskegon, MI</b>	<b>Redding, CA</b>	<b>Utica, NY</b>	<b>Maple Ridge, BC</b>	<b>Portland, OR</b>
Adjusted State Taxable Income	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Tax Rate (Federal and State/Provincial)	44.90%	36.90%	43.40%	42.50%	38.62%	41.60%
Total Federal and State/Provincial taxes	\$898,000	\$738,000	\$868,000	\$850,000	\$772,400	\$832,000
<b>Electric Power Costs</b>	<b>NW PA</b>	<b>Muskegon, MI</b>	<b>Redding, CA</b>	<b>Utica, NY</b>	<b>Maple Ridge, BC</b>	<b>Portland, OR</b>
KW Demand	1500	1500	1500	1500	1500	1500
Kwh/Month Usage	450,000	450,000	450,000	450,000	450,000	450,000
Cost/Kwh	\$0.0358	\$0.0600	\$0.0750	\$0.0600	\$0.0310	\$0.0688
Total Annual Electric Power Cost	\$193,320	\$324,000	\$405,000	\$324,000	\$167,400	\$371,520
<b>Total Annual Operating Costs</b>	<b>NW PA</b>	<b>Muskegon, MI</b>	<b>Redding, CA</b>	<b>Utica, NY</b>	<b>Maple Ridge, BC</b>	<b>Portland, OR</b>
<b>Total Annual Operating Costs</b>	<b>\$4,057,862</b>	<b>\$4,724,820</b>	<b>\$4,955,448</b>	<b>\$4,414,952</b>	<b>\$5,453,178</b>	<b>\$4,733,316</b>
<i>Operating costs greater than NW PA</i>		\$666,958	\$897,586	\$357,090	\$1,395,315	\$675,454
<i>Percentage greater than NW PA</i>		16%	22%	8.8%	34.4%	16.6%

### Total Project Operating Costs

**Northwest Pennsylvania is the low cost locale for this wood cabinets project.** More than \$1.3 million per year could be saved by locating this project here versus the highest cost area of Maple Ridge, BC.

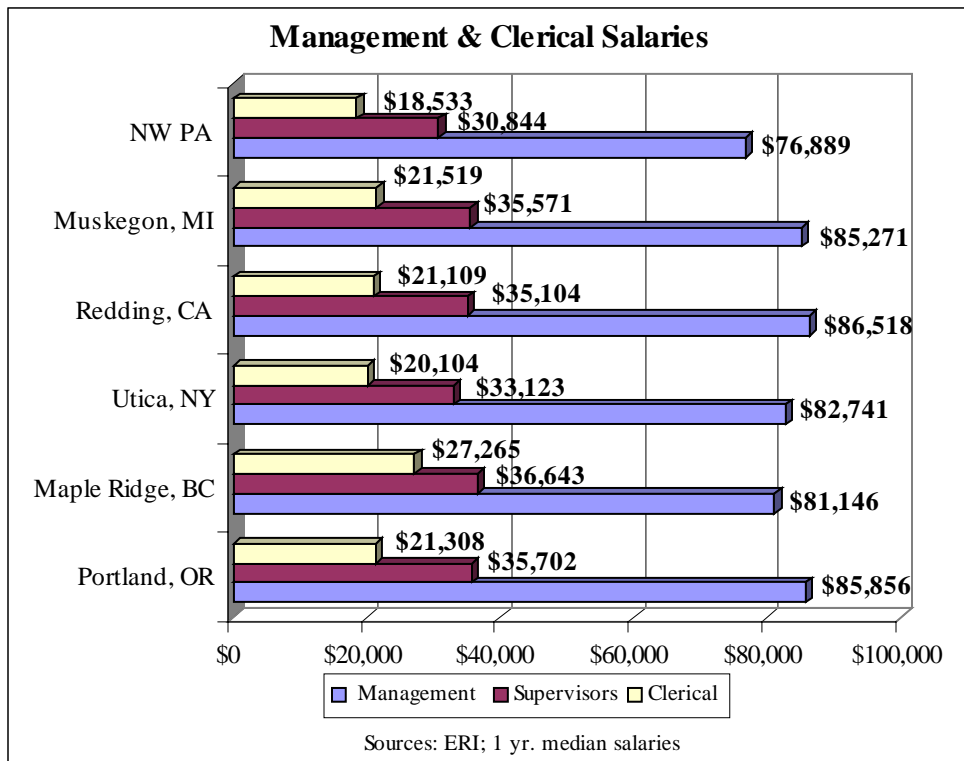


## Labor Costs

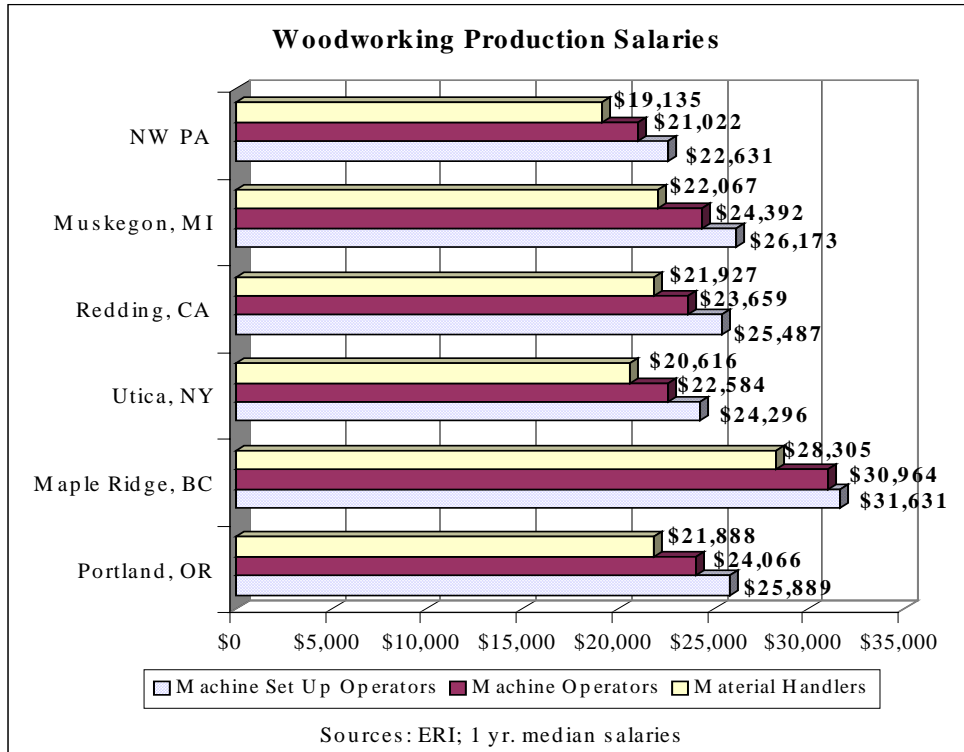
### Wages and Salaries

Wage and salary costs represent approximately 45% of the total annual operating costs for this project, the largest single cost factor.

**Wages and salaries are lower in Northwest Pennsylvania than in the other comparison areas.** Wages and salaries are used in the model are for median salary range positions with one year experience. All wages come from our national data resource<sup>1</sup>, and actual on-site fieldwork.



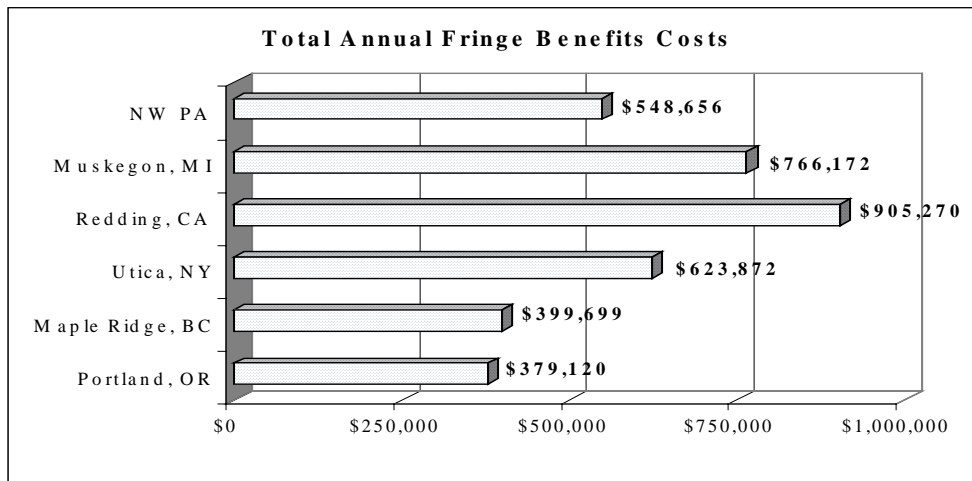
<sup>1</sup> Economics Research Institute (ERI)



**Fringe Benefits**

Fringe benefits represent approximately 13% of the total annual operating costs for this project. The fringe benefit components for U.S. locations include medical insurance, disability, Social Security taxes (FICA), unemployment insurance and workers compensation.

For Canadian employers, medical and dental health insurance contributions average 9%, the Canadian pension plan (CPP) employer contribution is 3.9% and the Canadian employee health tax is 1.95%. The unemployment insurance employer contribution is constant throughout Canada. Canadian workers compensation rates are calculated by type of industry instead of type of position.



## Labor Characteristics

### Availability

The ability to find qualified workers will be critical to the success of this project. Through interviews with the local employers we were able to determine current labor availability.

We use the *Paragon Index*, which measures labor availability on a one to ten point scale (1= very poor; 5=average; and 10=excellent). We use the same index in all of our labor market analysis nation-wide and this gives a true “apples to apples” comparison of different communities.

Generally, scores of 3 to 4 are “below average”, 5 to 6 are “high average”; 6 to 7 are “above average”; 7 to 8 are “good”; 8 to 9 are “very good” and 9 to 10 are “excellent”.

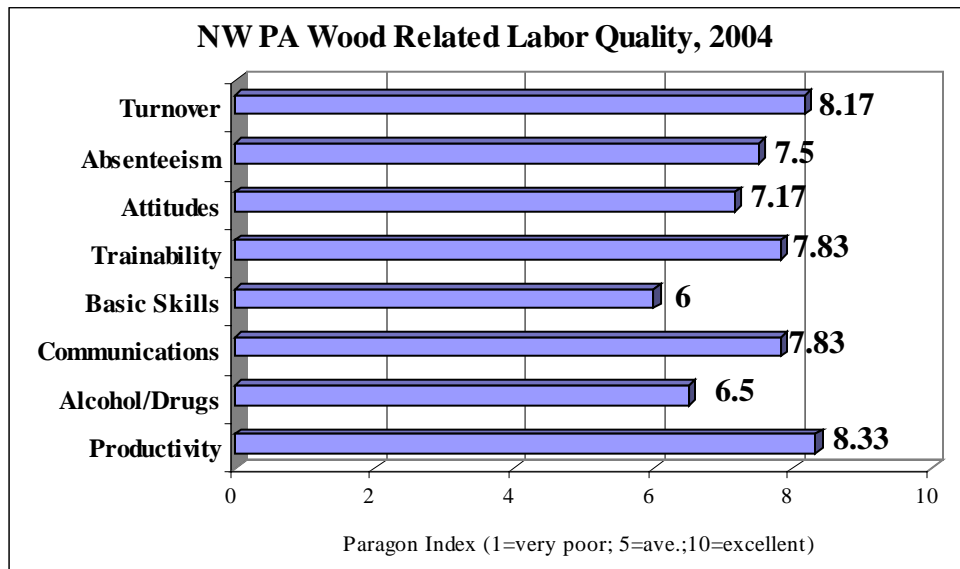
- All availability is “above average to good” currently.



## **Quality**

Good labor quality is critical to a successful business operation. We collected information on select, important labor characteristics during our fieldwork. We measured select factors again using the *Paragon Index* (1=very poor; 5=average; 10=excellent). The following graph depicts labor characteristics of workers in Northwest Pennsylvania.

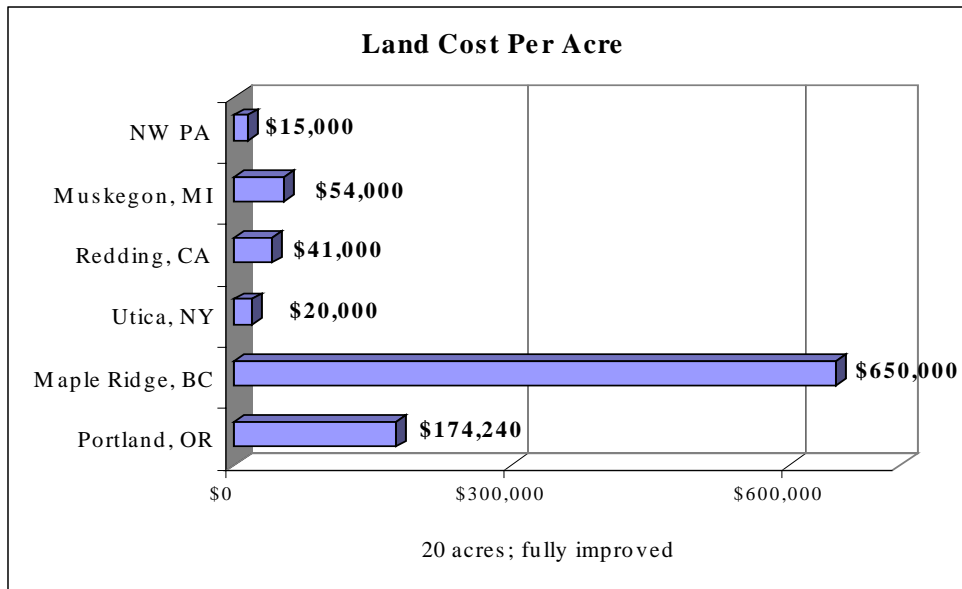
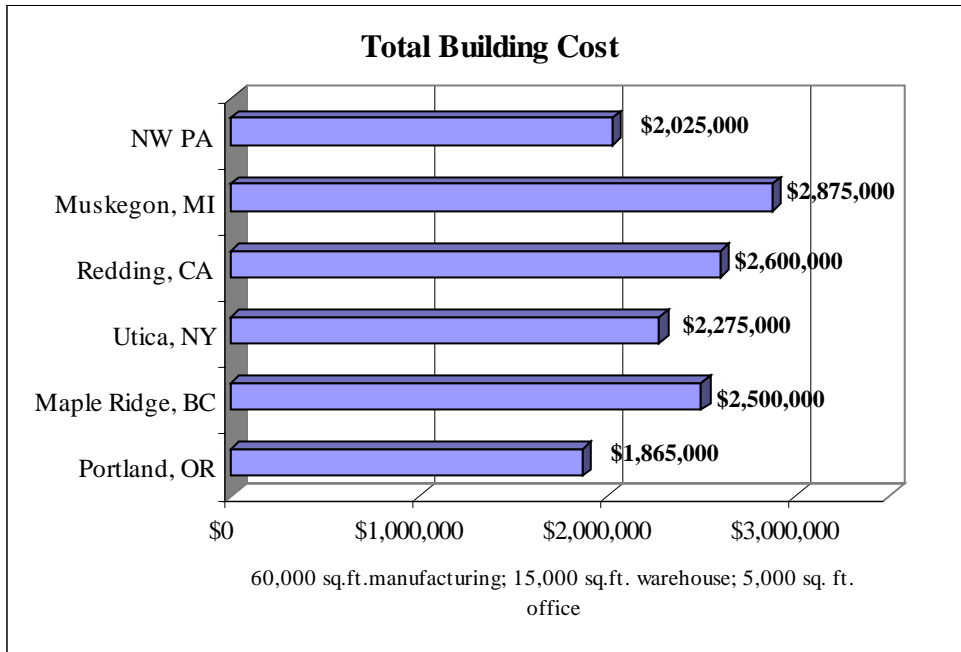
- **Most quality scores were good to very good.**
- The exceptions are basic skills and alcohol/drugs, which are “above average.”



### Build to Suit Costs

Annual building and site costs represent approximately 10% of total annual operating costs in the model (this cost is amortized).

- **Northwest Pennsylvania building related costs are lower due to the low cost of prime industrial sites and competitive construction costs.**



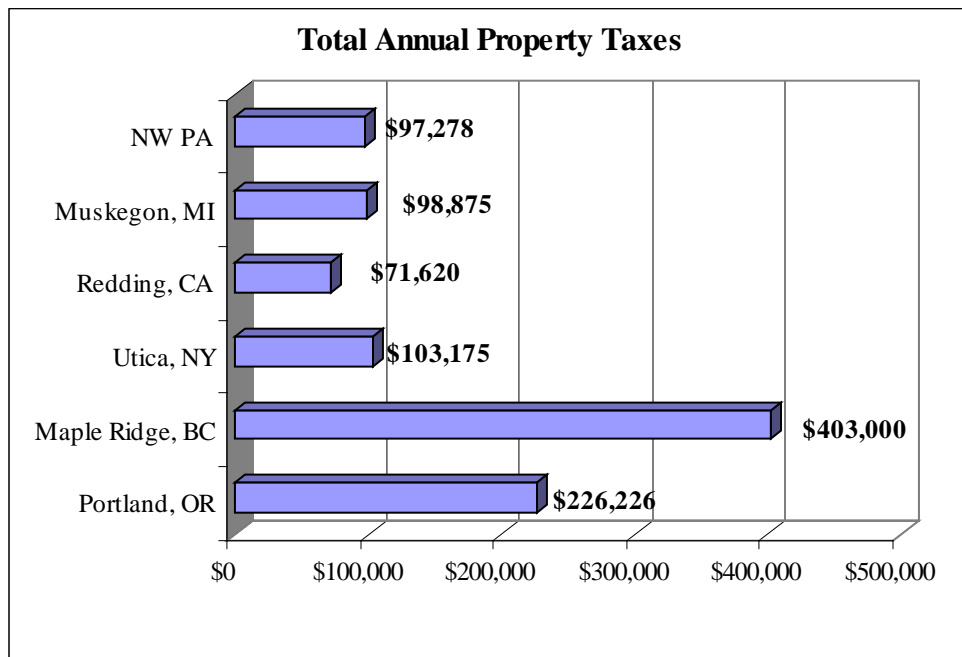
## Taxes

### Property Taxes

Property taxes consist of real estate and personal property taxes, which may include taxes on machinery and equipment. Northwest Pennsylvania property taxes are modest compared to other cities and will be zeroed out since this project will be located in a Keystone Opportunity Zone (KOZ).

### Corporate Income Taxes

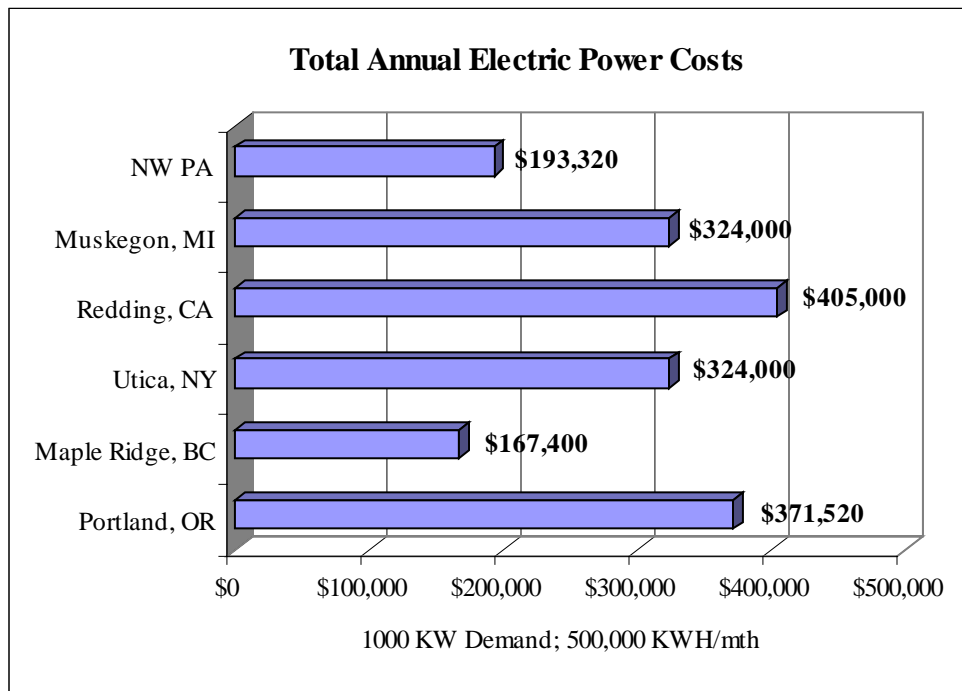
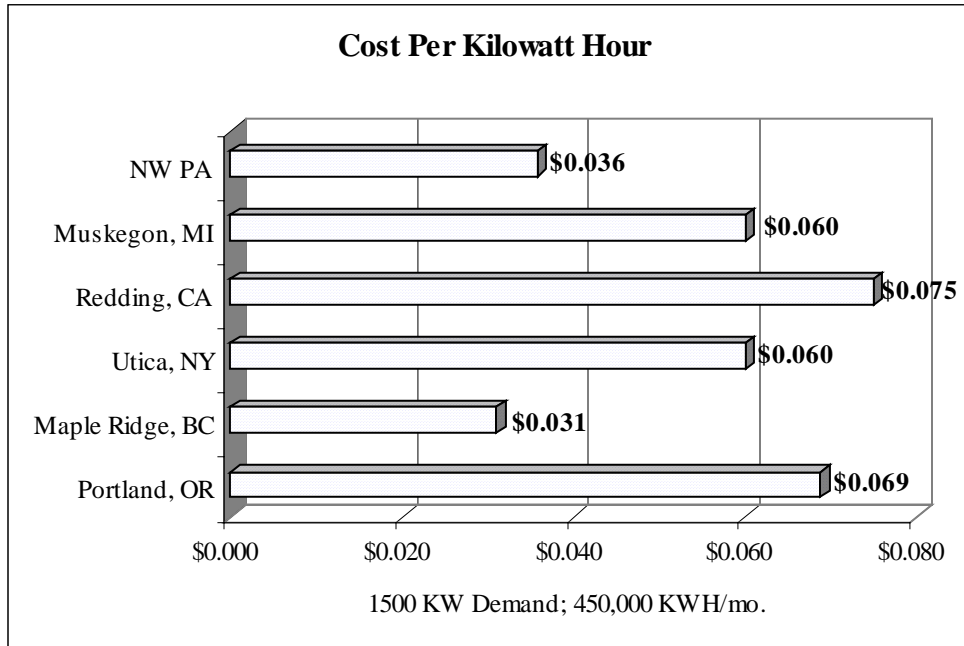
Pennsylvania's state income tax rate is 9.90%, the highest of the comparison cities. However, the NW PA rate will be zeroed out since this project will be located in a Keystone Opportunity Zone (KOZ).



## Utilities

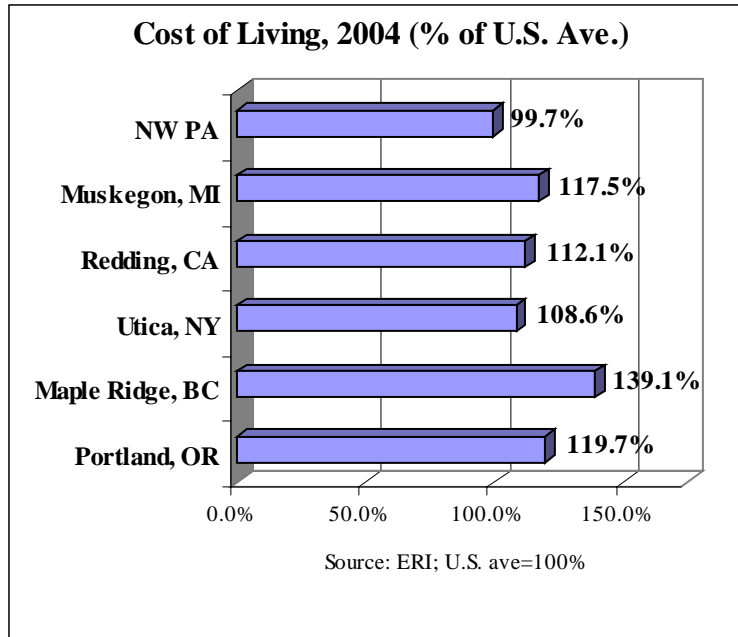
### Electric Power

Power costs are a relatively minor cost in this model, anywhere from 2-5% of total operating costs. NW PA has the second lowest electric power rates due to attractive incentive rates.



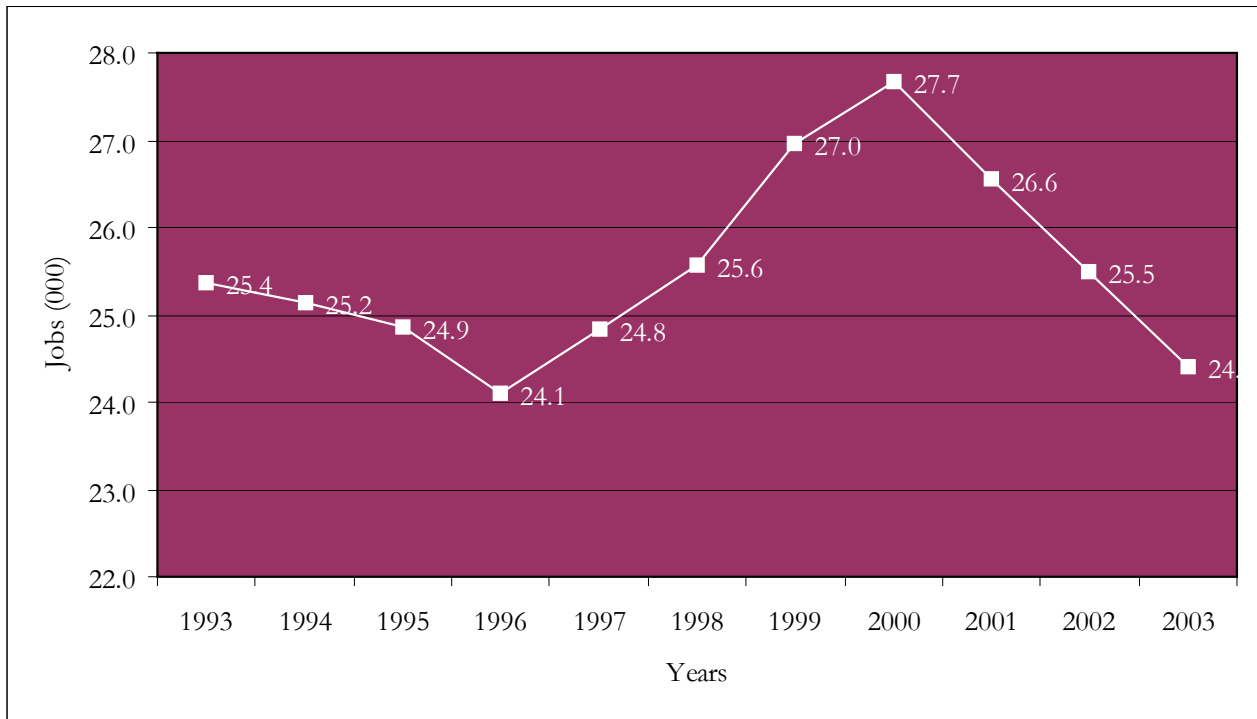
## Cost of Living

The cost of living will influence relocation of key personal to the project city. It should be relatively easy to sell employees on NW PA's lower costs, the only comparison area under the U.S. average.



## Wood Products in NW PA

### Pennsylvania Furniture Manufacturing Employment (NAICS 337), 1993-2003



Pennsylvania's furniture sector saw favorable employment growth in the 1996-2000 period, but it has declined since then.

The industry's chief advantage in the NW region is its ready access to hardwood for furniture manufacturing.

NW Penn County	Firms	Jobs
Clarion, PA	8	277
Crawford, PA	6	115
Erie, PA	23	1,261
Lawrence, PA	2	8
Mercer, PA	7	59
Venango, PA	1	N/A
Totals	47	1,720

Source: D&B iMarketplace data, 2003

Note; While no furniture manufacturing businesses are identified for Forest and Warren Counties, both play an important role as logging and wood product and materials suppliers.

## Incentives Offered in NW PA

**The Northwest Commission can facilitate excellent incentive packages to qualified wood product businesses.** Major programs include:

- **Keystone Opportunity Zones (KOZ):** Keystone Opportunity Zones represent the boldest, most forward-thinking economic development program in the nation. Through credits, waivers, and comprehensive deductions, total taxes on economic activity in Keystone Opportunity Zones are reduced to almost zero. And these tax abatements remain in effect through 2013. The Northwest Pennsylvania region has numerous designated zones.
- **Customized Training Programs:** The third largest program in the nation, the Customized Job Training program is responsive to employer needs by providing grant funds for specialized job training to existing or newly hired employers.
- **Guaranteed Free Training Program:** Through the Workforce and Economic Development Network of Pennsylvania (WEDnetPA), qualified companies may receive free job training for basic entry-level skills and advanced information technology skills for their employees. Pennsylvania is the first state to offer advanced technology and business training online.
- **R&D Tax Credits** – Corporate income tax reductions for firms investing in research and development.

## **Northwest Pennsylvania's Strengths for Wood Products Firms**

- **The low cost area versus all comparison cities.**
- Excellent supply of raw wood, especially hard woods, some of the world's best.
- Excellent proximity to regional markets.
- Good presence of other wood products operations.
- Outstanding educational and training resources.
- Good site and build-to-suit opportunities
- Great financial and training incentives to help firms with startup and expansion.
- Outstanding professional resources that are ready, willing and able to assist firms.
- Reasonable cost of living.

*For More Information Regarding This Report, Please Contact:*

**Mr. Jack Allston**  
**Executive Director**  
**Northwest Commission**  
**(814) 677-4800**  
[jacka@nwcommission.org](mailto:jacka@nwcommission.org)

or

**Mr. Deane C. Foote**  
**Senior Project Manager**  
**Carter & Burgess, Inc.**  
**(602) 650-4982**  
[footedc@c-b.com](mailto:footedc@c-b.com)