

Interactive Exercise

Course 83: Designing a Branch Office Salary Structure

Sarah wants to get an overview of the cost of labor in Tuscaloosa. She begins by opening ERI's **Geographic Assessor**. This online tool allows her to determine the cost of labor and cost of living at branch locations and calculates area differentials between any of over 10,000 locations worldwide.

When the Geographic Assessor launches it will show the default *Two City Comparison* module.

Geographic Assessor | **Two City Comparison** | Cost of Labor List | Cost of Living List | Minimum Wage | Maps | Graphs | Cost of Living Reports | Other Reports

Options

Name:

Base City's Base Salary Level: United States Dollars

Base Location:

Base Currency:

Destination Location:

Destination Currency:

Two City Comparison

Cost of Labor and Cost of Living | Economic Indicators

Cost of Labor

	Base Location: United States Average United States Dollars	Destination Location: Portugal Average United States Dollars	Destination Location as a percentage of Base Location	Differentials: United States Dollars
Salary (Cost of Labor)	100,000	49,148	49.1%	-50,852
% of United States Average	100.0%	49.1%		

Cost of Living

	Base Location: United States Average United States Dollars	Destination Location: Portugal Average United States Dollars	Destination Location as a percentage of Base Location	Differentials: United States Dollars
Consumables	18,343	19,992	109.0%	1,649
Transportation	12,705	18,208	143.3%	5,503
Health Services	2,396	2,393	99.9%	-3

Under *Options*, in the *Base City's Base Salary Level* field, Sarah enters "\$68,400". Why this amount? Because her company's main group of employees is production machinists, and a check of payroll records indicates that in Springfield, Massachusetts, this is the median salary for these employees at present.

Note that the *Base Currency* is United States dollars, the default currency, and appropriate for this exercise. Sarah will use United States dollars for both the Base and Destination currencies. Both can be changed to the currency of another country if necessary.

Next, she presses the *Base Location* **Browse** button.

Geographic Assessor
Two City Comparison
Cost of Labor List
Cost of Living List
Minimum Wage
Maps
Graphs
Cost of Living Reports
Other Reports
Data as 10/1/20:

Options

Name

Base City's Base Salary Level

68,400

United States Dollars

Base Location

United States Average

Browse

Base Currency

United States Dollars

Browse

Destination Location

Portugal Average

Browse

Two City Comparison

PDF Data

Cost of Labor and Cost of Living
Economic Indicators

Cost of Labor

	Base Location: United States Average United States Dollars	Destination Location: Portugal Average United States Dollars	Destination Location as a percentage of Base Location:	Differentials: United States Dollars
Salary (Cost of Labor)	68,400	34,890	51.0%	-33,510
% of United States Average	100.0%	51.0%		

Cost of Living

Reset to Default

Edit Values

	Base Location: United States Average United States Dollars	Destination Location: Portugal Average United States Dollars	Destination Location as a percentage of Base Location:	Differentials: United States Dollars
Consumables	12,627	13,871	109.9%	1,244

The *Browse Areas* box displays. With *ERI Areas* selected, Sarah begins typing “Springfield, Massachusetts,” in the *Area Name* field. When “Springfield, Massachusetts,” is highlighted in the list of cities, she presses the **OK** button to select it.

Note that Sarah could do other kinds of location searches, such as by radius or postal code.

Browse Areas

ERI Areas

Radius Search

User-Defined Averages

Browse By Region

Internal Areas

Area Name

Springfield, Mass

Q

Postal Code ?

Type Postal Code

Filters

All Areas

Select Area

Area Name

Springfield, Massachusetts

Springfield, Michigan

Springfield, Missouri

Springfield, New Jersey

Springfield, Ohio

Springfield, Oregon

Springfield, Pennsylvania

Springfield, Tennessee

Springfield, Vermont

Springfield, Virginia

Springfield-Country Club, Illinois

Springfield-East Forest Park, Massachusetts

Springfield-East, Massachusetts

Springfield-Forest Hills, Ohio

1 of 10619 areas have been selected.

Cancel

OK

Sarah now selects the *Destination Location* **Browse** button.

Geographic Assessor

Two City Comparison

Cost of Labor List

Cost of Living List

Minimum Wage

Maps

Graphs

Cost of Living Reports

Other Reports

Data as 10/1/20

Options

Name

Base City's Base Salary Level

68,400

United States Dollars

Base Location

Springfield, Massachusetts

Q

Browse

Base Currency

United States Dollars

Browse

Destination Location

Portugal Average

Q

Browse

Two City Comparison

Cost of Labor and Cost of Living

Economic Indicators

Cost of Labor

	Base Location: Springfield, Massachusetts United States Dollars	Destination Location: Portugal Average United States Dollars	Destination Location as a percentage of Base Location:	Differentials: United States Dollars
Salary (Cost of Labor)	68,400	33,435	48.9%	-34,965
% of United States Average	104.5%	51.1%		

Cost of Living

Reset to Default

Edit Values

	Base Location: Springfield, Massachusetts United States Dollars	Destination Location: Portugal Average United States Dollars	Destination Location as a percentage of Base Location:	Differentials: United States Dollars
Consumables	12,739	12,602	98.9%	-137

The *Browse Areas* box displays. Sarah begins typing, “Tuscaloosa, Alabama,” in the *Area Name* field. When it is highlighted in the list of cities, she presses the **OK** button and returns to the *Two City Comparison* module.

Browse Areas [X]

ERI Areas Radius Search User-Defined Averages Browse By Region Internal Areas

Area Name: [Search] Postal Code: [Type Postal Code] Filters:

Select Area

Area Name
Tuscaloosa, Alabama
Tuskegee, Alabama
Tustin, California
Tustin-Tustin Ranch, California
Tuttlingen, Germany
Tuusula, Finland
Tuvalu Average
Tuxtla Gutiérrez, Mexico
Tuzla, Bosnia-Herzegovina
Twillingate, Newfoundland & Labrador
Twin Falls, Idaho
Twinsburg, Ohio
Twisp, Washington
Twisteden, Germany

1 of 10619 areas have been selected.

[Cancel](#) **OK**

The *Two City Comparison* table now shows that both the cost of labor and the cost of living in Tuscaloosa are lower than in Springfield, but not as much as the executives were expecting:

- The cost of living is about 22% lower.
- The cost of labor is about 10% lower.

Since the cost of labor represents salary, the best savings the company can expect is 10% - not what the executives want to hear.

Two City Comparison



Cost of Labor and Cost of Living

Economic Indicators

Cost of Labor

	Base Location: Springfield, Massachusetts United States Dollars	Destination Location: Tuscaloosa, Alabama United States Dollars	Destination Location as a percentage of Base Location:	Differentials: United States Dollars
Salary (Cost of Labor)	68,400	61,155	89.4%	-7,245
% of United States Average	104.5%	93.4%		

Cost of Living

[Reset to Default](#)
[Edit Values](#)

	Base Location: Springfield, Massachusetts United States Dollars	Destination Location: Tuscaloosa, Alabama United States Dollars	Destination Location as a percentage of Base Location:	Differentials: United States Dollars
Consumables	12,739	10,548	82.8%	-2,191
Transportation	4,317	3,534	81.9%	-783
Health Services	2,095	1,596	76.2%	-499
Rent/Utilities/Insurance	36,511	24,882	68.1%	-11,629
Income+Payroll Taxes	15,149	14,768	97.5%	-381
Miscellaneous	-2,411	-2,411	100.0%	0
Total Cost of Living	68,400	52,917	77.4%	-15,483
COL % of Base Location	100.0%	77.4%		-22.6%

Wanting to develop a more complete picture of the costs involved in this move, Sarah presses the **Cost of Labor List** tab.

Two City Comparison



Cost of Labor and Cost of Living Economic Indicators				
Cost of Labor				
	Base Location: Springfield, Massachusetts United States Dollars	Destination Location: Tuscaloosa, Alabama United States Dollars	Destination Location as a percentage of Base Location:	Differentials: United States Dollars
Salary (Cost of Labor)	68,400	61,155	89.4%	-7,245
% of United States Average	104.5%	93.4%		

She then selects **Add Location**, and the *Browse Areas* box displays.

Cost of Labor - Springfield, Massachusetts



List of Cities
Add Location
My Areas
+
-
+
-
+
-
+

#
Comparison Cities
31,200
36,000
48,000
72,000

You haven't added any areas yet
Click an option to add an area
Add Area

Sarah begins typing, "Tuscaloosa, Alabama," in the *Area Name* field and, when it is highlighted in the cities list, presses **OK**.

Browse Areas

ERI Areas

Radius Search

User-Defined Averages

Browse By Region

Internal Areas

Area Name

Tuscaloos

Postal Code ?

Type Postal Code

Filters

All Areas

Select Area

Area Name

Tuscaloosa, Alabama

Tuskegee, Alabama

Tustin, California

Tustin-Tustin Ranch, California

Tuttlingen, Germany

Tuusula, Finland

Tuvalu Average

Tuxtla Gutiérrez, Mexico

Tuzla, Bosnia-Herzegovina

Twillingate, Newfoundland & Labrador

Twin Falls, Idaho

Twinsburg, Ohio

Twisp, Washington

Twisteden, Germany

1 of 10619 areas have been selected.

Cancel

OK

Sarah is only interested in one city for this analysis. However, if she wanted to analyze multiple cities to see how different salary levels compare to Springfield, she would enter more cities in her list.

She is also able to change the default salary levels to those found in her organization.

Back at the *Cost of Labor List* module, Sarah can see a comparison of salary levels between Springfield and Tuscaloosa. She can change how this data is presented by selecting one of the choices in the *Display* dropdown. She selects **Percent Differentials**.

Options

Base Location

Springfield, Massachusetts

Browse

Base Currency

United States Dollars

Browse

Salary Levels

Customize Table Headers

Display

Percent Differentials

Cost of Labor - Springfield, Massachusetts

List of Cities [Add Location](#)

My Areas

#	Comparison Cities	31,200	36,000	48,000	72,000	108,000	144,000
1	Tuscaloosa, Alabama	-51.7	-32.1	-18.7	-9.6	-3.3	0.6

The table below shows that as income rises, the percentage difference in annual income between Springfield and Tuscaloosa declines. However, this table defaults to salary ranges that are not specific to Sarah's company.

Cost of Labor - Springfield, Massachusetts

List of Cities [Add Location](#)

My Areas

#	Comparison Cities	31,200	36,000	48,000	72,000	108,000	144,000
1	Tuscaloosa, Alabama	-51.7	-32.1	-18.7	-9.6	-3.3	0.6

So, Sarah changes the default salary values for her company. To make the adjustments, she presses the **Customize Table Headers** button.

Options

Base Location

Springfield, Massachusetts

Browse

Base Currency

United States Dollars

Browse

Salary Levels

Customize Table Headers

Cost of Labor - Springfield, Massachusetts

List of Cities [Add Location](#)

My Areas

#	Comparison Cities	31,200	36,000	48,000	72,000	108,000	144,000
1	Tuscaloosa, Alabama	-51.7	-32.1	-18.7	-9.6	-3.3	0.6

In the *Modify Salary Levels* box, Sarah enters her company's midpoints for each of 7 salary levels. First, she changes the 6 default salary levels to the ones given below by placing her cursor on the value in each row. Next, she adds a 7th level by selecting the

Add Salary Level link and adding the value for that row. She then presses the **OK** button. (The levels can be thought of as grade range midpoints.)

- Level 1: \$42,500 per year
- Level 2: \$48,875 per year
- Level 3: \$56,206 per year
- Level 4: \$64,637 per year
- Level 5: \$74,333 per year
- Level 6: \$85,483 per year
- Level 7: \$98,305 per year

Modify Salary Levels

Base City Salary Levels in: United States Dollars

Default

Add Salary Level

Upload

Salary Levels	
48,875	
56,206	
64,637	
74,333	
85,483	
98,305	

Cancel

OK

This modified table validates the original numbers. As income rises, the differential between Springfield and Tuscaloosa declines. If the salary structure for this branch office were graphed:

- low-level jobs would have a midpoint about 18-22% less than Springfield

- mid-level jobs would have a midpoint about 10-15% less than Springfield

Cost of Labor - Springfield, Massachusetts



List of Cities 📍 Add Location My Areas + 📄 ✎ ✖ 📌 1								
#	Comparison Cities	42,500	48,875	56,206	64,637	74,333	85,483	98,305
1	Tuscaloosa, Alabama	-21.8	-18.3	-14.9	-11.8	-9.0	-6.6	-4.5

As a final check, Sarah decides to use ERI's **Salary Assessor** to compare important benchmark jobs in Tuscaloosa, Alabama. She opens ERI's **Salary Assessor** and selects **Benchmark List**.

Salary Assessor

Job Report
Benchmark List
Geographic List
Advanced Reports
Compensation Management
Survey Management
Total Compensation
Benefits

Organization Name (Optional)

Area

Browse Averages

Industry

eSIC Code:

NAICS:

usSEC:

Browse

Benchmark List

Add Job
My Jobs
+ 📄 ✎ ✖ 📌

Compensation Type: Base Salaries
Pay Period: Annual
Experience/Levels: Default
Choose Columns
Percentiles

#	Job Title	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile	Adjustments

She adjusts the data for location, industry, and salary planning date:

In the *Area* field she begins typing "Tuscaloosa, Alabama," and selects it when it's highlighted.

In the *Industry* field she begins typing "General Aircraft Parts and Auxiliary Equipment Manufacturing" (eSIC 3728) and selects it when it's highlighted.

Revenue is \$2,000,000,000.

In the *Salary Planning Date* field, she selects January 1, 2026.

She also checks to make sure “Base Salaries” is selected in the *Compensation Type* dropdown. *Pay Period* should be set to “Annual” and *Experience/Levels* set to “Default.”

Salary Assessor

Job Report **Benchmark List** Geographic List Advanced Reports Compensation Management Survey Management Total Compensation

Organization Name (Optional)
Your Organization Name

Area
Tuscaloosa, Alabama

Browse **Averages**

Industry
General Aircraft Parts and Auxiliary Eqp

eSIC Code: 3728

NAICS: 336413

usSEC: 3728

Browse

Analysis Based on
Revenue

2,000,000,000

☐ Include Revenue in analysis of lower level jobs

Salary Planning Date
1/1/2026

Benchmark List

+ Add Job My Jobs **+** **Save** **Edit**

Compensation Type **Pay Period** **Experience/Levels**

Base Salaries Annual Default

Choose Columns **Percentiles**

#	Job Title	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
You haven't added any jobs yet Click an option to add a job						

+ Add Job
Upload

Sarah then selects **Add Job** so she can build a list of benchmark jobs to view market data for them.

Benchmark List

+ Add Job My Jobs **+** **Create New List** **Save**

Compensation Type **Pay Period** **Experience/Levels**

Base Salaries Annual Default

Choose Columns **Percentiles**

#	Job Title	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
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In the *Browse Jobs* box *Search* field, she begins typing, “Machinist Production.” When it is highlighted in green, she presses the **OK** button.

Browse Jobs

Search

Machinist Prod

View Extended Job List

Search by

Job Title

Filter table by

All Jobs

AI Job Search

Advanced Search

Hybrid Jobs

Suggest a Title

X

CANCEL

Select Job

Job Title	eDOT Code	SOC Code	ERI Code	Salary By Level	Similar Jobs
Machinist Production	600280111	514041	54539	Yes	Similar Jobs
Machinist Prototype	600260022	514041	115015	Yes	Similar Jobs
Machinist Setup Operator	600380018	514041	67926	Yes	Similar Jobs
Machinist Tool Room	600280002	514041	257639	Yes	Similar Jobs
Magazine Editor	132037022	273041	25887	Yes	Similar Jobs
Magazine Sales Representative	277357024	414012	5794	Yes	Similar Jobs
Magician	159041010	272099	2100	Yes	Similar Jobs
Magnetic Imaging Technologist	078362058	292035	2701	Yes	Similar Jobs
Magnetic Resonance Imaging Technologist	078362058	292035	67936	Yes	Similar Jobs
Maid	323687014	372012	25910	Yes	Similar Jobs

1 of 18951 jobs have been selected.

Job Description

Fabricates metallic and nonmetallic parts, and fits and assembles machined parts into complete units, applying knowledge of machine shop theory and procedures, shop mathematics, machinability of materials, and layout techniques, operating conventional, special-purpose, and numerical control (NC) machines and machining centers.

This position is distinguished from Product Assembler positions as it requires more training and experience, generally two to four years, to perform the activities.

CANCEL

OK

The other jobs she selects for the benchmark list are: “Tester Quality Control,” “CAD Drafter,” “Machinist Computer-Aided,” and “Metallurgical Technician.”

Once she is done entering all five jobs in the *Benchmark List*, Sarah selects **Choose Columns** to add Actual Salary and Market Index.

Benchmark List

+ Add Job		My Jobs + + +				
Compensation Type		Pay Period		Experience/Levels		
Base Salaries		Annual		Default		
				Choose Columns Percentiles		
#	Job Title	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
1	Metallurgical Technician	61,466	67,722	75,034	84,360	92,745
2	Machinist Computer-Aided	53,119	58,134	63,993	71,364	77,988
3	Cad Drafter	69,693	76,275	83,938	93,642	102,312
4	Tester Quality Control	62,146	68,004	74,853	83,566	91,409
5	Machinist Production	54,628	59,716	65,676	73,253	80,155

In the *Choose Columns* box, Sarah checks *Actual Salary* so she can add her company's midpoints and *Market Index*. She then presses **OK** and refreshes her browser.

Choose Columns ×

[Select All](#) [Deselect All](#)

☒ Job Title

☒ Actual Salary

☒ Market Index

☐ Default Experience ?

☐ Analysis Type

[Cancel](#) **OK**

In the Benchmark List *Actual Salary* column, Sarah enters the midpoints for the salaries her company pays for these benchmark positions in Springfield:

- Machinist Production \$72,900
- Tester Quality Control \$81,500
- Metallurgical Technician \$81,400

- Machinist Computer-Aided \$71,600
- CAD Drafter \$89,400

Benchmark List

+ Add Job

My Jobs

+

Compensation Type

Pay Period

Experience/Levels

Base Salaries

Annual

Default

Choose Columns

Percentiles

#	Job Title	10th Percent...	25th Percent...	Median	75th Percent...	90th Percent...	Actual Salary	Market Index
1	Metallurgical Technician	61,466	67,722	75,034	84,360	92,745	81,400	1.08
2	Machinist Computer-Aided	53,119	58,134	63,993	71,364	77,988	71,600	1.12
3	Cad Drafter	69,693	76,275	83,938	93,642	102,312	89,400	1.07
4	Tester Quality Control	62,146	68,004	74,853	83,566	91,409	81,500	1.09
5	Machinist Production	54,628	59,716	65,676	73,253	80,155	72,900	1.11

The adjacent column, *Market Index*, now compares the median market data for Tuscaloosa with the actual Springfield base salaries paid for these jobs (use the horizontal scroll bar to display the results if it isn't displaying). These numbers represent the Springfield salary structure midpoint as a percentage of Tuscaloosa median market pay.

- A number less than 100 indicates that the organization is paying under the Tuscaloosa market
- A number greater than 100 indicates the organization is paying above the Tuscaloosa market

This table shows that Sarah's organization currently pays all the jobs over the Tuscaloosa market at base salary. However, Sarah's analysis indicates the labor savings from the plan to manufacture in Tuscaloosa may not be as great as desired.

You have now completed this Interactive Exercise. Please close this window and press the **Next** button on the *Problem Statement* page to continue.