



STATE OF WASHINGTON
DEPARTMENT OF REVENUE

Cost Benefit Analysis Rule 458-20-194

October 19 , 2005

Appendix Modeling: Firm Descriptions, Apportionment Calculations, and Reported Results

This appendix provides supplemental data and information concerning firm modeling, apportionment calculations, and reported results.

1. Types of Firm Modeled

The modeling was done by the Washington State Department of Revenue. The firm types chosen were those thought to be most likely to have questions and/or face challenges when apportioning Washington service revenues under current law. Firm types included in the analysis are:

- a brokerage firm
- a professional service provider such as an accounting firm
- a waste management firm
- a commissioned sales representative
- a firm selling electronically provided services

Note that the term "firm" refers to a generic, profit-making, private sector enterprise; it may be a corporation or subsidiary, a partnership, or a sole proprietor.

2. Data Sources

Data was obtained from a number of sources including:

<u>Source</u>	<u>Data (by firm type)</u>
WA DOR	Scale of WA service activities for each firm type
"	DOR 2002 <i>Tax Structure Study</i> database
U.S. I.R.S.	<i>Statistics of Income; Source Book</i> , U.S. tax data

U.S. Census Bureau	Economic Census, subject series
"	Business Expenses Survey
"	Services Annual Survey
Other	Data was supplemented with miscellaneous other items found on the Internet and in S.E.C. financial filings.

3. Firm Characteristics and Assumptions

The firms were constructed to look like firms operating in the Washington market.

The broker is assumed to be a fairly typical firm of modest size with seven or eight salaried employees and \$1.2 to \$1.4 million in service revenues. The Washington headquartered broker was assumed to have its office and facilities entirely within the state with some clients residing in neighboring states, thereby raising the issue of apportionment. The assumptions concerning the Washington activities and presence for the out-of-state broker are derived from a database of apportionment factors that DOR put together and used for DOR's 2002 *Tax Structure Study* (often called the Gates Commission Study).

The professional service firm is assumed to be a medium or large enterprise or subsidiary with a few hundred salaried employees and service revenues in the range of tens of millions of dollars or more. The Washington headquartered firm was similarly assumed to have its office and facilities entirely within the state but to also have some clients residing in neighboring states. Assumptions concerning Washington activities and presence for out-of-state firms are likewise derived from the 2002 *Tax Structure Study* database.

The waste management firm is assumed to be of small size with five to ten employees and \$1.0 to \$1.5 million in service revenues. The locally headquartered firm is likewise assumed to have its facilities within Washington State with the possibility, however, of apportioning some costs out of state. As with the previous firm types, the out-of-state firm's assumed Washington activities and presence are derived from the 2002 *Tax Structure Study* database.

The commissioned sales representative/firm is a wholly hypothetical example, as are the particulars of both the in-state and the out-of-state scenarios. The model hypothesizes a salesperson working out of his or her home and representing the products of nonaffiliated manufacturers.

Electronically provided services is modeled to be in one of the following lines of business: Internet access services, web search portals, data processing, web site hosting and related, application services, video and audio streaming services, etc. The service provider is assumed to be fairly typical of the Washington businesses found in these sectors with 14 or 15 employees and \$2.25 million in service revenues. Both the Washington headquartered firm and the out-of-state provider are assumed to sell broadly on the national market.

4. Firm Profiles and Apportionment Calculations

Description

The firm profiles are a set of specific cost assumptions that describe the relevant characteristics of each firm type. The apportionment calculations apply the five apportionment rules to each firm profile to determine the share of service revenues that should be apportioned to Washington.

There are three pages for each of the firm types: broker, professional service provider, waste management, commissioned sales rep, and electronically provided services. The first page of each contains the cost profile, the cost assumptions that make up the firm. The second and third pages calculate the share of service revenues apportioned to Washington, first for the in-state headquartered firm and the third page for the out-of-state firm.

The apportionment calculation sheet presents the assumed share of each cost that's allocated to Washington under the different apportionment methodologies: Determination No. 01-006 (current law), Determination No. 89-459A, and the new proposed rule. This is multiplied by the cost amount from the profile page to yield the dollar amount that will be allocated to Washington. The dollar amounts are then totaled and restated as a percent of total costs, therefore yielding the overall apportionment ratio for that firm type and methodology. This is done first for the Washington headquartered firms and then for the out-of-state firms.

Also presented are the results of: a conventional three factor formula, a widely used apportionment methodology which is generally not available under Washington statute; and a single sales factor methodology which is generally akin to separate accounting.

Profiles and Apportionment Calculations

The profiles and apportionment calculations are presented starting on the next sheet. Appendix Chart 1, on the next page, lays out the assumptions used to allocate costs for each methodology. Given the data at hand, which is assumed to be similar to the kinds of data available to real world firms, Appendix Chart 1 illustrates how each cost was allocated.

Appendix Chart 1 is followed by fifteen pages containing Appendix Charts 2.1 through 2.15. Appendix Chart 2.1 is the brokerage firm profile while Chart 2.2 and 2.3 detail the apportionment calculations for Washington headquartered brokerages and out-of-state headquartered brokerages respectively. The same pattern of three charts follows for each of the other four firm types: professional service firms, waste management, commissioned sales, and electronic service providers.

Appendix Chart 1.

Allocation Assumptions

Costs were allocated based on the following readily available information:

	<u>I. Current Law, Det. 01-006</u>	<u>II. Det. No 89-459A</u>	<u>III. The New Proposal</u>
Property Cost			
Overhead/administrative	WA Sales Share	WA Property Share	WA Property Share
Production	WA Property Share	WA Property Share	WA Property Share
Payroll			
Overhead/administrative	WA Sales %	WA Payroll Share	WA Payroll Share
Officers	WA Sales %	In St.=100%, out of St.=0%	WA Sales Share
Production	WA Payroll %	WA Payroll Share	WA Payroll Share
Contracted Services			
Contract labor	The average of payroll, property, and sales	The average of payroll, property, and sales	The average of payroll, property, and sales
Other contracted services			
Interest			
Mortgage	Sales (Prof. Servcs. use payroll)	WA Property Share	WA Property Share
Line of credit	Sales (Prof. Servcs. use payroll)	In St.=100%, out of St.=0%	WA Sales Share
Interest on Client Accounts	Sales (applies only to Brokers)	Brokers; in St.=100%, or=0%	Sales (Brokers only)
Taxes			
Ad valorem (property) tax	WA Property Share excluded	WA Property Share excluded	WA Property Share excluded
Income taxes			
Other Costs			
-Broker	WA Sales Share	WA Payroll Share	WA Sales Share
-Professional Services	WA Payroll Share	Payroll, prop., sales average	WA Sales Share
-Waste Management	WA Payroll Share	WA Payroll Share	WA Sales Share
-Commissioned Sales	Sales (or time in state if known)	Sales (or time in state if known)	Sales (or time in state)
-Electronic Services	WA Payroll Share	WA Payroll Share	WA Sales Share

Appendix Chart 2.1

Cost Profile

1. Brokerage firm. Securities/investment advisors

These costs are apportioned on the next two pages by multiplying each amount by the appropriate in-state share (as shown overleaf.)

		in \$1,000
Property Cost	Overhead/administrative	88.4
	Production	1,012.7
Payroll	Overhead/administrative	1,997.4
	Officers	1,577.4
	Production	5,992.1
Contracted services	Contract labor	151.4
	Other contracted services	1,351.9
Interest	Mortgage	222.3
	Line of credit	7,696.3
	Interest on Client Accounts	855.1
Taxes	Ad valorem (property tax)	44.8
	Income taxes (not allocated)	595.6
Other Costs	(detailed below--however, some items are also included above, therefore the sum of the detailed list is greater.)	5,957.6
Total Costs		27,619.4

Other Cost Details	non-representative	in \$1,000
Contract Labor	75%	606
Taxes/License Fees		132
Telecomm etc		372
Utilities		76
Office Supplies		523
Packaging/materials		-
Advertising	100%	165
Repair/maintenance	100%	161
Legal Services	100%	217
Accounting/bookkeeping	100%	67
Data processing, computer related	100%	289
Other operating expenses		4,931
Subtotal, <i>other cost details</i>		7,537

Appendix Chart 2.2

Apportionment Calculations

1. Brokerage firm.

Washington Headquartered

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	90.0%	Average of the 3 factors	95.0%
Payroll, % located in WA	95.0%	Production payroll	59.5%
Property, % located in WA	100.0%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	I. Current Law, Det. 01-006		II. Det. No 89-459A		III. The New Proposal	
	In State %	In State \$	In State %	In State \$	In State %	In State \$
Property Cost						
Overhead/administrative	90.0%	79.5	100.0%	88.4	100.0%	88.4
Production	100.0%	1,012.7	100.0%	1,012.7	100.0%	1,012.7
Payroll						
Overhead/administrative	59.5%	1,187.8	95.0%	1,897.5	95.0%	1,897.5
Officers	59.5%	938.1	100.0%	1,577.4	90.0%	1,419.7
Production	59.5%	3,563.5	95.0%	5,692.5	95.0%	5,692.5
Contracted Services						
Contract labor	95.0%	143.9	95.0%	143.9	95.0%	143.9
Other contracted services	95.0%	1,284.3	95.0%	1,284.3	95.0%	1,284.3
Interest						
Mortgage	90.0%	200.1	100.0%	222.3	100.0%	222.3
Line of credit	90.0%	6,926.6	100.0%	7,696.3	90.0%	6,926.6
Interest on Client Accounts	90.0%	769.6	100.0%	855.1	90.0%	769.6
Ad valorem (property) tax	100.0%	44.8	100.0%	44.8	100.0%	44.8
Other Costs	90.0%	5,361.9	95.0%	5,659.8	90.0%	5,361.9
	Total In-state	21,512.8	Total In-state	26,174.9	Total In-state	24,864.1
(Total costs net of income tax)	Total Costs	27,023.8	Total Costs	27,023.8	Total Costs	27,023.8
Apportioned to WA -->	In-State %	79.6%	In-State %	96.9%	In-State %	92.0%

IV. Single Sales Factor

In-State % 90.0%

V. 3 Factor Convention

In-State % 95.0%

Appendix Chart 2.3

Apportionment Calculations

1. Brokerage firm.

Out of State Headquarters

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	3.3%		
Payroll, % located in WA	1.7%	Average of the 3 factors	2.4%
Property, % located in WA	2.3%	Production payroll	1.1%

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	I. Current Law, Det. 01-006		II. Det. No 89-459A		III. The New Proposal	
	In State %	In State \$	In State %	In State \$	In State %	In State \$
Property Cost						
Overhead/administrative	3.3%	2.9	2.3%	2.0	2.3%	2.0
Production	2.3%	23.3	2.3%	23.3	2.3%	23.3
Payroll						
Overhead/administrative	1.1%	21.3	1.7%	34.0	1.7%	34.0
Officers	1.1%	16.8	0.0%	-	3.3%	52.1
Production	1.1%	63.8	1.7%	101.9	1.7%	101.9
Contracted Services						
Contract labor	2.4%	3.7	2.4%	3.7	2.4%	3.7
Other contracted services	2.4%	32.9	2.4%	32.9	2.4%	32.9
Interest						
Mortgage	3.3%	7.3	2.3%	5.1	2.3%	5.1
Line of credit	3.3%	254.0	0.0%	-	3.3%	254.0
Interest on Client Accounts	3.3%	28.2	0.0%	-	3.3%	28.2
Ad valorem (property) tax	2.3%	1.0	2.3%	1.0	2.3%	1.0
Other Costs	3.3%	196.6	1.7%	101.3	3.3%	196.6
	Total In-state	651.8	Total In-state	305.1	Total In-state	734.7
(Total costs net of income tax)	Total Costs	27,023.8	Total Costs	27,023.8	Total Costs	27,023.8
Apportioned to WA -->	In-State %	2.4%	In-State %	1.1%	In-State %	2.7%
	IV. Single Sales Factor		V. 3 Factor Convention			
	In-State %	3.3%	In-State %	2.4%		

Appendix Chart 2.4

Cost Profile

2. Professional Services, such as Accounting

These costs are apportioned on the next two pages by multiplying each amount by the appropriate in-state share (as shown overleaf.)

		in \$1,000
Property Cost	Overhead/administrative	419.4
	Production	1,258.2
Payroll	Overhead/administrative	5,683.5
	Officers	462.3
	Production	17,050.6
Contracted services	Contract labor	103.3
	Other contracted services	922.0
Interest	Mortgage	9.7
	Line of credit	517.1
Taxes	Ad valorem (property tax)	53.4
	Income taxes (not allocated)	3,577.1
Other Costs	(detailed below--however, some items are also included above, therefore the sum of the detailed list is greater.)	4,063.2
Total Costs		34,172.0

Other Cost Details	non-representative	in \$1,000
Contract Labor	75%	413
Taxes/License Fees		90
Telecomm etc		253
Utilities		52
Office Supplies		357
Packaging/materials		-
Advertising	100%	112
Repair/maintenance	100%	110
Legal Services	100%	148
Accounting/bookkeeping	100%	45
Data processing, computer related	100%	197
Other operating expenses		3,363
Subtotal, <i>other cost details</i>		5,141

Appendix Chart 2.5

Apportionment Calculations

2. Professional Services, such as Accounting

Washington Headquartered

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	90.0%		
Payroll, % located in WA	95.0%	Average of the 3 factors	95.0%
Property, % located in WA	100.0%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	<u>I. Current Law, Det. 01-006</u>		<u>II. Det. No 89-459A</u>		<u>III. The New Proposal</u>	
	<u>In State %</u>	<u>In State \$</u>	<u>In State %</u>	<u>In State \$</u>	<u>In State %</u>	<u>In State \$</u>
Property Cost						
Overhead/administrative	90.0%	377.5	100.0%	419.4	100.0%	419.4
Production	100.0%	1,258.2	100.0%	1,258.2	100.0%	1,258.2
Payroll						
Overhead/administrative	90.0%	5,115.2	95.0%	5,399.4	95.0%	5,399.4
Officers	90.0%	416.1	100.0%	462.3	90.0%	416.1
Production	95.0%	16,198.1	95.0%	16,198.1	95.0%	16,198.1
Contracted Services						
Contract labor	95.0%	98.1	95.0%	98.1	95.0%	98.1
Other contracted services	95.0%	875.9	95.0%	875.9	95.0%	875.9
Interest						
Mortgage	95.0%	9.2	100.0%	9.7	100.0%	9.7
Line of credit	95.0%	491.3	100.0%	517.1	90.0%	465.4
Ad valorem (property) tax	100.0%	53.4	100.0%	53.4	100.0%	53.4
Other Costs	95.0%	3,860.0	95.0%	3,860.0	90.0%	3,656.9
(Total costs net of income tax)						
	Total In-state	28,752.9	Total In-state	29,151.6	Total In-state	28,850.5
	Total Costs	30,594.9	Total Costs	30,594.9	Total Costs	30,594.9
Apportioned to WA →	In-State %	94.0%	In-State %	95.3%	In-State %	94.3%
	IV. Single Sales Factor		V. 3 Factor Convention			
	In-State %	90.0%	In-State %	95.0%		

Appendix Chart 2.6

Apportionment Calculations

2. Professional Services, such as Accounting

Out of State Headquarters

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	1.7%		
Payroll, % located in WA	1.5%	Average of the 3 factors	3.7%
Property, % located in WA	8.0%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	I. Current Law, Det. 01-006		II. Det. No 89-459A		III. The New Proposal	
	In State %	In State \$	In State %	In State \$	In State %	In State \$
Property Cost						
Overhead/administrative	1.7%	7.1	8.0%	33.6	8.0%	33.6
Production	8.0%	100.7	8.0%	100.7	8.0%	100.7
Payroll						
Overhead/administrative	1.7%	96.6	1.5%	85.3	1.5%	85.3
Officers	1.7%	7.9	0.0%	-	1.7%	7.9
Production	1.5%	255.8	1.5%	255.8	1.5%	255.8
Contracted Services						
Contract labor	3.7%	3.9	3.7%	3.9	3.7%	3.9
Other contracted services	3.7%	34.4	3.7%	34.4	3.7%	34.4
Interest						
Mortgage	1.5%	0.1	8.0%	0.8	8.0%	0.8
Line of credit	1.5%	7.8	0.0%	-	1.7%	8.8
Ad valorem (property) tax	8.0%	4.3	8.0%	4.3	8.0%	4.3
Other Costs	1.5%	60.9	3.7%	151.7	1.7%	69.1
(Total costs net of income tax)						
	Total In-state	579.4	Total In-state	670.2	Total In-state	604.3
	Total Costs	30,594.9	Total Costs	30,594.9	Total Costs	30,594.9
Apportioned to WA ->	In-State %	1.9%	In-State %	2.2%	In-State %	2.0%
	IV. Single Sales Factor		V. 3 Factor Convention			
	In-State %	1.7%	In-State %	3.7%		

Appendix Chart 2.7

Cost Profile

3. Waste Management Services

These costs are apportioned on the next two pages by multiplying each amount by the appropriate in-state share (as shown overleaf.)

		in \$1,000
Property Cost	Overhead/administrative	64.6
	Production	193.8
Payroll	Overhead/administrative	67.3
	Officers	102.7
	Production	201.8
Contracted services	Contract labor	9.7
	Other contracted services	34.5
Interest	Mortgage	9.1
	Line of credit	41.5
Taxes	Ad valorem (property tax)	12.6
	Income taxes (not allocated)	73.1
Other Costs	(detailed below--however, some items are also included above, therefore the sum of the detailed list is greater.)	272.0
Total Costs		1,089.1

Other Cost Details	non-representative	in \$1,000
Contract Labor	75%	39
Taxes/License Fees		-
Telecomm etc		7
Utilities		6
Office Supplies		76
Packaging/materials		-
Advertising	100%	2
Repair/maintenance	100%	-
Legal Services	100%	-
Accounting/bookkeeping	100%	-
Data processing, computer related	100%	3
Other operating expenses		188
Subtotal, <i>other cost details</i>		323

Appendix Chart 2.8

Apportionment Calculations

3. Waste Management Services

Washington Headquartered

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	90.0%		
Payroll, % located in WA	95.0%	Average of the 3 factors	95.0%
Property, % located in WA	100.0%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	<u>I. Current Law, Det. 01-006</u>		<u>II. Det. No 89-459A</u>		<u>III. The New Proposal</u>	
	<u>In State %</u>	<u>In State \$</u>	<u>In State %</u>	<u>In State \$</u>	<u>In State %</u>	<u>In State \$</u>
Property Cost						
Overhead/administrative	90.0%	58.1	100.0%	64.6	100.0%	64.6
Production	100.0%	193.8	100.0%	193.8	100.0%	193.8
Payroll						
Overhead/administrative	90.0%	60.5	95.0%	63.9	95.0%	63.9
Officers	90.0%	92.4	100.0%	102.7	90.0%	92.4
Production	95.0%	191.7	95.0%	191.7	95.0%	191.7
Contracted Services						
Contract labor	95.0%	9.2	95.0%	9.2	95.0%	9.2
Other contracted services	95.0%	32.8	95.0%	32.8	95.0%	32.8
Interest						
Mortgage	90.0%	8.2	100.0%	9.1	100.0%	9.1
Line of credit	90.0%	37.4	100.0%	41.5	90.0%	37.4
Ad valorem (property) tax	100.0%	12.6	100.0%	12.6	100.0%	12.6
Other Costs	95.0%	258.4	95.0%	258.4	90.0%	244.8
(Total costs net of income tax)						
	Total In-state	955.2	Total In-state	980.3	Total In-state	952.3
	Total Costs	1,016.0	Total Costs	1,016.0	Total Costs	1,016.0
Apportioned to WA →	In-State %	94.0%	In-State %	96.5%	In-State %	93.7%
	IV. Single Sales Factor				V. 3 Factor Convention	
	In-State %	90.0%			In-State %	95.0%

Appendix Chart 2.9

Apportionment Calculations

3. Waste Management Services

Out of State Headquarters

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	17.2%		
Payroll, % located in WA	8.8%	Average of the 3 factors	13.0%
Property, % located in WA	13.0%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	<u>I. Current Law, Det. 01-006</u>		<u>II. Det. No 89-459A</u>		<u>III. The New Proposal</u>	
	<u>In State %</u>	<u>In State \$</u>	<u>In State %</u>	<u>In State \$</u>	<u>In State %</u>	<u>In State \$</u>
Property Cost						
Overhead/administrative	17.2%	11.1	13.0%	8.4	13.0%	8.4
Production	13.0%	25.2	13.0%	25.2	13.0%	25.2
Payroll						
Overhead/administrative	17.2%	11.6	8.8%	5.9	8.8%	5.9
Officers	17.2%	17.7	0.0%	-	17.2%	17.7
Production	8.8%	17.8	8.8%	17.8	8.8%	17.8
Contracted Services						
Contract labor	13.0%	1.3	13.0%	1.3	13.0%	1.3
Other contracted services	13.0%	4.5	13.0%	4.5	13.0%	4.5
Interest						
Mortgage	17.2%	1.6	13.0%	1.2	13.0%	1.2
Line of credit	17.2%	7.1	0.0%	-	17.2%	7.1
Ad valorem (property) tax	13.0%	1.6	13.0%	1.6	13.0%	1.6
Other Costs	8.8%	23.9	8.8%	23.9	17.2%	46.8
(Total costs net of income tax)						
	Total In-state	123.3	Total In-state	89.8	Total In-state	137.4
	Total Costs	1,016.0	Total Costs	1,016.0	Total Costs	1,016.0
Apportioned to WA →	In-State %	12.1%	In-State %	8.8%	In-State %	13.5%
	IV. Single Sales Factor		V. 3 Factor Convention			
	In-State %	17.2%	In-State %	13.0%		

Appendix Chart 2.10

Cost Profile

4. Commissioned Sales Persons

These costs are apportioned on the next two pages by multiplying each amount by the appropriate in-state share (as shown overleaf.)

		in dollars (\$)
Property Cost	Overhead/administrative	1,100
	Production	37,400
Payroll	Overhead/administrative	-
	Officers	-
	Production	-
Contracted services	Contract labor	1,500
	Other contracted services	-
Interest	Mortgage	-
	Line of credit	-
Taxes	Ad valorem (property tax)	-
	Income taxes	-
Other Costs	(detailed below--however, some items are also included above, therefore the sum of the detailed list is greater.)	20,000
Total Costs		60,000

Other Cost Details		in dollars (\$)
	home office	2,000
	equip	1,000
	telecomm	2,500
	entertainment	5,500
	postage	1,000
	shipping	1,000
	accounting	1,500
	office supplies	500
	travel, auto (annualized purchase cost)	20,000
	travel, gas/maintenance	10,000
	travel, insurance	5,000
	travel, other	7,500
	Other operating costs	2,500
	Subtotal, <i>other cost details</i>	60,000

Appendix Chart 2.11

Apportionment Calculations

4. Commissioned Sales Persons

Washington Headquartered

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	90.0%		
Payroll (no payroll, only profits)	0.0%	Average of the 3 factors	63.3%
Property, % located in WA	100.0%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

in dollars (\$)	I. Current Law, Det. 01-006		II. Det. No 89-459A		III. The New Proposal	
	In State %	In State \$	In State %	In State \$	In State %	In State \$
Property Cost						
Overhead/administrative	90.0%	990	100.0%	1,100	100.0%	1,100
Production	100.0%	37,400	100.0%	37,400	100.0%	37,400
Payroll						
Overhead/administrative	90.0%	-	0.0%	-	0.0%	-
Officers	90.0%	-	100.0%	-	90.0%	-
Production	0.0%	-	0.0%	-	0.0%	-
Contracted Services						
Contract labor	63.3%	950	63.3%	950	63.3%	950
Other contracted services	63.3%	-	63.3%	-	63.3%	-
Interest						
Mortgage	90.0%	-	100.0%	-	100.0%	-
Line of credit	90.0%	-	100.0%	-	90.0%	-
Ad valorem (property) tax	100.0%	-	100.0%	-	100.0%	-
Other Costs	90.0%	18,000	90.0%	18,000	90.0%	18,000
(Total costs net of income tax)	Total In-state	57,340	Total In-state	57,450	Total In-state	57,450
	Total Costs	60,000	Total Costs	60,000	Total Costs	60,000
Apportioned to WA ->	In-State %	95.6%	In-State %	95.8%	In-State %	95.8%
IV. Single Sales Factor						
	In-State %	90.0%				
V. 3 Factor Convention						
	In-State %	95.0%				

Appendix Chart 2.12

Apportionment Calculations

4. Commissioned Sales Persons

Out of State Headquarters

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	5.0%		
Payroll (no payroll, only profits)	0.0%	Average of the 3 factors	1.8%
Property, % located in WA	0.5%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

in dollars (\$)	I. Current Law, Det. 01-006		II. Det. No 89-459A		III. The New Proposal	
	In State %	In State \$	In State %	In State \$	In State %	In State \$
Property Cost						
Overhead/administrative	5.0%	55	0.5%	6	0.5%	6
Production	0.5%	187	0.5%	187	0.5%	187
Payroll						
Overhead/administrative	5.0%	-	0.0%	-	0.0%	-
Officers	5.0%	-	0.0%	-	5.0%	-
Production	0.0%	-	0.0%	-	0.0%	-
Contracted Services						
Contract labor	1.8%	28	1.8%	28	1.8%	28
Other contracted services	1.8%	-	1.8%	-	1.8%	-
Interest						
Mortgage	5.0%	-	0.5%	-	0.5%	-
Line of credit	5.0%	-	0.0%	-	5.0%	-
Ad valorem (property) tax	0.5%	-	0.5%	-	0.5%	-
Other Costs	5.0%	1,000	5.0%	1,000	5.0%	1,000
(Total costs net of income tax)						
	Total In-state	1,270	Total In-state	1,220	Total In-state	1,220
	Total Costs	60,000	Total Costs	60,000	Total Costs	60,000
Apportioned to WA ->	In-State %	2.1%	In-State %	2.0%	In-State %	2.0%
	IV. Single Sales Factor		V. 3 Factor Convention			
	In-State %	5.0%	In-State %	2.8%		

Appendix Chart 2.13

Cost Profile

5. Electronic Services

These costs are apportioned on the next two pages by multiplying each amount by the appropriate in-state share (as shown overleaf.)

		in \$1,000
Property Cost	Overhead/administrative	1.6
	Production	17.9
Payroll	Overhead/administrative	59.9
	Officers	48.8
	Production	535.0
Contracted services	Contract labor	86.0
	Other contracted services	578.0
Interest	Mortgage	7.0
	Line of credit	65.0
Taxes	Ad valorem (property tax)	8.0
	Income taxes (not allocated)	64.0
Other Costs	(detailed below--however, some items are also included above, therefore the sum of the detailed list is greater.)	266.0
Total Costs		1,749.7

Other Cost Details	non-representative	in \$1,000
Contract Labor	87%	86
Telecomm etc		141
Utilities		12
Equipment		91
Office Supplies		34
Data processing, computer related	100%	89
All other purchased services	100%	489
Subtotal, <i>other cost details</i>		942

Appendix Chart 2.14

Apportionment Calculations

5. Electronic Services

Washington Headquartered

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	3.0%		
Payroll, % located in WA	35.0%	Average of the 3 factors	26.0%
Property, % located in WA	40.0%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	I. Current Law, Det. 01-006		II. Det. No 89-459A		III. The New Proposal	
	In State %	In State \$	In State %	In State \$	In State %	In State \$
Property Cost						
Overhead/administrative	3.0%	0.0	40.0%	0.6	40.0%	0.6
Production	40.0%	7.2	40.0%	7.2	40.0%	7.2
Payroll						
Overhead/administrative	3.0%	1.8	35.0%	21.0	35.0%	21.0
Officers	3.0%	1.5	100.0%	48.8	3.0%	1.5
Production	35.0%	187.3	35.0%	187.3	35.0%	187.3
Contracted Services						
Contract labor	26.0%	22.4	26.0%	22.4	26.0%	22.4
Other contracted services	26.0%	150.3	26.0%	150.3	26.0%	150.3
Interest						
Mortgage	3.0%	0.2	40.0%	2.8	40.0%	2.8
Line of credit	3.0%	2.0	100.0%	65.0	3.0%	2.0
Ad valorem (property) tax	40.0%	3.2	40.0%	3.2	40.0%	3.2
Other Costs	35.0%	93.1	35.0%	93.1	3.0%	8.0
(Total costs net of income tax)						
	Total In-state	469	Total In-state	602	Total In-state	406
	Total Costs	1,686	Total Costs	1,686	Total Costs	1,686
Apportioned to WA ->	In-State %	27.8%	In-State %	35.7%	In-State %	24.1%
	IV. Single Sales Factor		V. 3 Factor Convention			
	In-State %	3.0%	In-State %	26.0%		

Appendix Chart 2.15

Apportionment Calculations

5. Electronic Services

Out of State Headquarters

A. Underlying Firm Assumptions: Sales to WA customers and WA Share of Payroll and Property

Sales to WA customers	4.0%		
Payroll, % located in WA	5.0%	Average of the 3 factors	3.2%
Property, % located in WA	0.5%		

B. Apportionment Calculations: costs from the profile page are multiplied by the adjacent in-state share dictated by the applicable apportionment methodology.

\$ in 1,000s	I. Current Law, Det. 01-006		II. Det. No 89-459A		III. The New Proposal	
	In State %	In State \$	In State %	In State \$	In State %	In State \$
Property Cost						
Overhead/administrative	4.0%	0.1	0.5%	0.0	0.5%	0.0
Production	0.5%	0.1	0.5%	0.1	0.5%	0.1
Payroll						
Overhead/administrative	4.0%	2.4	5.0%	3.0	5.0%	3.0
Officers	4.0%	2.0	0.0%	-	4.0%	2.0
Production	5.0%	26.8	5.0%	26.8	5.0%	26.8
Contracted Services						
Contract labor	3.2%	2.7	3.2%	2.7	3.2%	2.7
Other contracted services	3.2%	18.3	3.2%	18.3	3.2%	18.3
Interest						
Mortgage	4.0%	0.3	0.5%	0.0	0.5%	0.0
Line of credit	4.0%	2.6	0.0%	-	4.0%	2.6
Ad valorem (property) tax	0.5%	0.0	0.5%	0.0	0.5%	0.0
Other Costs	5.0%	13.3	5.0%	13.3	4.0%	10.6
(Total costs net of income tax)						
	Total In-state	68	Total In-state	64	Total In-state	66
	Total Costs	1,686	Total Costs	1,686	Total Costs	1,686
Apportioned to WA -->	In-State %	4.1%	In-State %	3.8%	In-State %	3.9%
	IV. Single Sales Factor		V. 3 Factor Convention			
	In-State %	4.0%	In-State %	3.2%		

5 Methodology and Results: Correspondence with WA Activity and an Equitable or Level Playing Field

This section documents how the five Washington headquartered and five out-of-state headquartered firms were converted into 50 Washington and 50 out-of-state firms, 100 firms in all.

The results presented in Chart 4 through Chart 9 in the body of the cost benefit analysis, the CBA, are then presented for all 100 firms. These results concern the ability of each apportionment methodology to reflect or track the use of the Washington market and public services; these results also concern equity, or level playing field, the tendency to treat similar firms similarly.

Finally, the detailed presentation of the 100 firm results allows readers to visualize how a firm type's results vary across the iterations and where the reported variances come from (the variances reported in Chart 10 through Chart 13 in the body of the CBA report).

Converting Profiles into Many Firms and Calculating the Variance of the Apportionment Results

The variance of the apportionment results are used to measure how different apportionment methodologies treat similar, but not identical, firms. For each of the five firm types the share of service revenues apportioned to Washington depends on three factors:

- the firm's particular cost characteristics or profile,
- the firm's amount of activity and presence in the Washington market, and
- the application of the apportionment methodology.

Changing the assumptions that describe the firm will change the amount of service revenues apportioned to Washington. Each firm type can realize a range of apportionment results, from zero to 100 percent apportioned in state. In addition, there are a number of ways to construct a reasonable hypothetical firm that will yield any particular result, i.e. there are a number of ways to put together a broker who apportions 75 percent of revenues to Washington under any specific methodology.

To determine how different apportionment methodologies treat somewhat similar firms, and to keep the calculations tractable, it was decided to calculate the variance of the apportionment results for identical firms that differ only in their Washington activity and presence. In other words, the firm cost profiles were held constant, but the following factors were allowed to change one at a time:

- the sales to Washington residents,
- the share of payroll represented by Washington employees, or
- the share of total property value located in Washington.

Note that the variance means the dispersion about the mean and is calculated with a standard statistical function.

For the Washington headquartered scenario, presented in Chart 10 and Chart 11 of the body of the CBA, the ten iterations for each firm type are defined by varying each component one at a time in the following manner:

1. the original scenario (see CBA Chart 5 or the apportionment calculations above),
2. reduce the WA sales share by one-third (times 0.67) with all else fixed,
3. reduce the WA sales share by one-half (times 0.50) with all else fixed,
4. reduce the WA sales share by two-thirds (times 0.33) with all else fixed,
5. reduce WA payroll share by one-third (times 0.67) restoring original sales,
6. reduce WA payroll share by one-half (times 0.50) with all else fixed,
7. reduce WA payroll share by two-thirds (times 0.33) with all else fixed,
8. reduce WA property share by one-third (times 0.67) restoring original payroll,
9. reduce WA property share by one-half (times 0.50) with all else fixed,
10. reduce WA property share by two-thirds (times 0.33) with all else fixed.

The variances for Washington headquartered firms presented in Chart 10 and Chart 11 of the CBA report were calculated for these ten versions of each firm.

A number of other schemes were used to derive sets of ten scenarios and the results tended to be fairly similar. When the variances were close, as they often were, the apportionment methodologies scoring first and second, or second and third, would sometimes switch place (note, a low variance is deemed best). None of these minor differences, however, would change any of the conclusions in the body of the CBA report.

A different set of cost profiles will create an entirely different set of firms, and the apportionment results will also vary across these different firms. If the profiles are so altered, then the variance results for these new firms can be calculated in the same way, by modifying Washington activity and presence in the manner described above (i.e. reducing first Washington sales by one-third, then one-half, then two-thirds, and so on for payroll and property). The variance results from modifying the Washington activity of such newly defined firms tend to be similar to the results of our initial set of firms, as described above.

Another way to calculate variance is over a set of ten fundamentally different firms with ten different cost profiles (rather than the same profile with ten different assumptions concerning Washington activity and presence). It's more difficult to draw categorical conclusions when the variance is calculated over fundamentally different firms; as a general rule, if the comparison is between firms that are similar, but not identical, then the conclusions in the body of the report hold. Again, remember that it is possible to create an infinite range of firms (in terms of their cost profiles); the variance results stemming from comparisons of widely different firms may not always be similar to those presented in the report.

For the out-of-state scenario presented in Chart 12 and Chart 13 of the CBA report, the ten iterations for each firm type are also defined by varying each component of Washington activity and presence, one at a time, but in a manner that differs slightly from the Washington headquartered scenario described above. The changes used to generate the variances for out-of-state headquartered firms are:

1. the original scenario (see CBA Chart 8 or the each apportionment calculations above),
2. increase the WA sales share by two-thirds (times 1.67) with all else fixed,
3. increase the WA sales share by one-third (times 1.33) with all else fixed,
4. reduce the WA sales share by one-third (times 0.67) with all else fixed,
5. increase WA payroll share by two-thirds (times 1.67) restoring original sales,
6. increase WA payroll share by one-third (times 1.33) with all else fixed,
7. reduce WA payroll share by one-third (times 0.67) with all else fixed,
8. increase WA property share by two-thirds (times 1.67) restoring original payroll,
9. increase WA property share by one-third (times 1.33) with all else fixed,
10. reduce WA property share by one-third (times 0.67) with all else fixed.

Note that the ten sets of firms generated for each of the five firm types headquartered in Washington were created exclusively by reducing the state's assumed share of sales, payroll, and property; reductions were made because these scenarios began with fairly high levels of Washington activity and presence. The out-of-state iterations, however, include increases as well as the decreases in these assumed shares because these firm types are initially defined by low levels of Washington activity and presence (since they are by definition out-of-state firms).

Once again, a number of different sets of ten iterations were run for out-of-state headquartered firms with results being similar to those presented in the body of the CBA report. The comments describing the variances for the Washington headquartered firms apply for out-of-state firms here as well.

Results for All 100 Firms (those used in the variance calculations)

Appendix Charts 3.1 and 3.2 below present the results for all 100 firms created by the 20 iterations described above.

Appendix Chart 3.1 shows the results of the above iterations for Washington headquartered firms (reducing one at a time sales, payroll, and property by one-third, one-half, and two-thirds). The left side of the chart presents the apportionment shares for each firm type and for each apportionment methodology. The four columns on the right-hand side display the deviation of the apportioned share from the results for the three factor convention. Note that the deviations from the three factor convention can have negative values.

The data in Appendix Chart 3.1, therefore, are the results used to calculate the variances of the apportionment shares and the variances of the deviations from the three factor convention; these are the variances reported in Chart 10 and Chart 11 in the body of the CBA report.

For example, the share apportioned to Washington over the ten iterations for Washington headquartered brokers under Det. No. 89-459A are:

96.9%, 96.3%, 96.0%, 95.7%, 80.1%,
71.5%, 62.8%, 94.6%, 93.4%, and 92.2%.

The variance for these iterations is calculated to be 0.015 and is shown in the upper left of Chart 10 of the body of the CBA (this is in terms of the percent apportioned to Washington). Likewise for the broker's apportioned share under the other methodologies, and so on for the other firm types.

To see how the deviations from the three factor convention work, note the following in the top row of Appendix Chart 3.1:

Apportioned to Washington;

	<u>under a sales factor</u>	<u>under the three factor convention</u>
WA Broker	90.0%	95.0%.

The deviations from the three factor convention is thus -5 percent, which can be seen as the right entry in Appendix Chart 3.1. The sales factor's deviation from the three factor convention over the ten iterations for Washington headquartered brokers are:

-5.0%, -24.8%, -35.0%, -45.2%, 5.5%,
10.8%, 16.2%, 6.0%, 11.7%, and 17.3%.

The variance for these iterations is calculated to be 0.034 and is shown in the upper right of Chart 11 of the body of the CBA. The same calculations are carried out for each firm type and apportionment methodology.

Appendix Chart 3.2 follows 3.1 and it contains the corresponding apportionment shares and deviations from the three factor convention for firms headquartered out of state; these result form the second set of ten iterations described above (increasing and decreasing sales, payroll, and property one at a time). In the same manner described above, these apportionment results were used to derive the variances presented in Chart 12 and Chart 13 in the body of the CBA report.

Appendix Chart 3.2 is the final exhibit in the appendix.

Appendix Chart 3.1.

Complete Results for Washington Headquartered Firms

Apportioned to Washington (as in Chart 4)						Deviation from 3 Factor Convention (as in Chart 6)			
Original Assumptions									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	96.9%	79.6%	92.0%	90.0%	95.0%	1.9%	-15.4%	-3.0%	-5.0%
Professional Services	95.3%	94.0%	94.3%	90.0%	95.0%	0.3%	-1.0%	-0.7%	-5.0%
Waste Management	96.5%	94.0%	93.7%	90.0%	95.0%	1.5%	-1.0%	-1.3%	-5.0%
Commissioned Sales	95.8%	95.6%	95.8%	90.0%	95.0%	0.8%	0.6%	0.8%	-5.0%
Electronic Services	35.7%	27.8%	24.1%	3.0%	26.0%	9.7%	1.8%	-1.9%	-23.0%
67% of Original WA Sales									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	96.3%	62.8%	73.8%	60.3%	85.1%	11.2%	-22.3%	-11.3%	-24.8%
Professional Services	93.6%	87.3%	89.1%	60.3%	85.1%	8.5%	2.2%	4.0%	-24.8%
Waste Management	96.1%	85.2%	81.1%	60.3%	85.1%	11.0%	0.1%	-4.0%	-24.8%
Commissioned Sales	85.6%	84.9%	85.6%	60.3%	80.2%	5.5%	4.7%	5.5%	-19.9%
Electronic Services	35.6%	27.6%	23.7%	2.0%	25.7%	9.9%	1.9%	-1.9%	-23.7%
50% of Original WA Sales									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	96.0%	54.1%	64.4%	45.0%	80.0%	16.0%	-25.9%	-15.6%	-35.0%
Professional Services	92.8%	83.8%	86.4%	45.0%	80.0%	12.8%	3.8%	6.4%	-35.0%
Waste Management	95.8%	80.7%	74.6%	45.0%	80.0%	15.8%	0.7%	-5.4%	-35.0%
Commissioned Sales	80.4%	79.4%	80.4%	45.0%	72.5%	7.9%	6.9%	7.9%	-27.5%
Electronic Services	35.5%	27.5%	23.6%	1.5%	25.5%	10.0%	2.0%	-1.9%	-24.0%
33% of Original WA Sales									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	95.7%	45.4%	55.0%	29.7%	74.9%	20.8%	-29.5%	-19.9%	-45.2%
Professional Services	91.9%	80.4%	83.7%	29.7%	74.9%	17.0%	5.5%	8.8%	-45.2%
Waste Management	95.6%	76.2%	68.2%	29.7%	74.9%	20.7%	1.3%	-6.7%	-45.2%
Commissioned Sales	75.1%	73.9%	75.1%	29.7%	64.9%	10.3%	9.0%	10.3%	-35.2%
Electronic Services	35.4%	27.3%	23.4%	1.0%	25.3%	10.1%	2.0%	-2.0%	-24.3%
67% of Original WA Payroll									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	80.1%	72.1%	82.2%	90.0%	84.6%	-4.5%	-12.5%	-2.4%	5.5%
Professional Services	70.2%	71.5%	70.7%	90.0%	84.6%	-14.3%	-13.1%	-13.9%	5.5%
Waste Management	79.3%	78.9%	85.0%	90.0%	84.6%	-5.2%	-5.6%	0.4%	5.5%
Commissioned Sales	95.8%	95.6%	95.8%	90.0%	95.0%	0.8%	0.6%	0.8%	-5.0%
Electronic Services	28.3%	20.8%	18.5%	3.0%	22.2%	6.1%	-1.3%	-3.7%	-19.2%
50% of Original WA Payroll									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	71.5%	68.2%	77.1%	90.0%	79.2%	-7.7%	-11.0%	-2.1%	10.8%
Professional Services	57.4%	59.9%	58.5%	90.0%	79.2%	-21.8%	-19.3%	-20.7%	10.8%
Waste Management	70.5%	71.2%	80.5%	90.0%	79.2%	-8.7%	-8.0%	1.3%	10.8%
Commissioned Sales	95.8%	95.6%	95.8%	90.0%	95.0%	0.8%	0.6%	0.8%	-5.0%
Electronic Services	24.4%	17.2%	15.6%	3.0%	20.2%	4.3%	-3.0%	-4.6%	-17.2%
33% of Original WA Payroll									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	62.8%	64.3%	72.0%	90.0%	73.8%	-11.0%	-9.5%	-1.8%	16.2%
Professional Services	44.5%	48.2%	46.3%	90.0%	73.8%	-29.3%	-25.5%	-27.5%	16.2%
Waste Management	61.7%	63.4%	76.0%	90.0%	73.8%	-12.1%	-10.4%	2.2%	16.2%
Commissioned Sales	95.8%	95.6%	95.8%	90.0%	95.0%	0.8%	0.6%	0.8%	-5.0%
Electronic Services	20.6%	13.6%	12.7%	3.0%	18.2%	2.4%	-4.6%	-5.4%	-15.2%
67% of Original WA Property									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	94.6%	77.7%	89.7%	90.0%	84.0%	10.6%	-6.3%	5.7%	6.0%
Professional Services	91.6%	92.2%	92.1%	90.0%	84.0%	7.6%	8.2%	8.1%	6.0%
Waste Management	86.9%	86.8%	84.2%	90.0%	84.0%	2.9%	2.8%	0.2%	6.0%
Commissioned Sales	74.3%	74.7%	74.3%	90.0%	78.5%	-4.2%	-3.8%	-4.2%	11.5%
Electronic Services	33.7%	25.9%	22.1%	3.0%	21.6%	12.1%	4.3%	0.5%	-18.6%
50% of Original WA Property									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	93.4%	76.7%	88.5%	90.0%	78.3%	15.1%	-1.6%	10.2%	11.7%
Professional Services	89.7%	91.3%	90.9%	90.0%	78.3%	11.3%	12.9%	12.6%	11.7%
Waste Management	82.0%	83.1%	79.2%	90.0%	78.3%	3.6%	4.8%	0.9%	11.7%
Commissioned Sales	63.3%	64.0%	63.3%	90.0%	70.0%	-6.8%	-6.0%	-6.8%	20.0%
Electronic Services	32.6%	24.9%	21.1%	3.0%	19.3%	13.3%	5.5%	1.7%	-16.3%
33% of Original WA Property									
In-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	92.2%	75.7%	87.4%	90.0%	72.7%	19.6%	3.1%	14.7%	17.3%
Professional Services	87.8%	90.4%	89.7%	90.0%	72.7%	15.1%	17.7%	17.1%	17.3%
Waste Management	77.0%	79.4%	74.3%	90.0%	72.7%	4.4%	6.8%	1.6%	17.3%
Commissioned Sales	52.2%	53.2%	52.2%	90.0%	61.5%	-9.3%	-8.3%	-9.3%	28.5%
Electronic Services	31.6%	23.9%	20.0%	3.0%	17.1%	14.5%	6.8%	3.0%	-14.1%

Appendix Chart 3.2.

Complete Results for Out of State Headquartered Firms

Apportioned to Washington (as in Chart 7)

Deviation from 3 Factor Convention (as in Chart 9)

Original Assumptions

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.1%	2.4%	2.7%	3.3%	2.4%	-1.3%	0.0%	0.3%	0.9%
Professional Services	2.2%	1.9%	2.0%	1.7%	3.7%	-1.5%	-1.8%	-1.8%	-2.0%
Waste Management	8.8%	12.1%	13.5%	17.2%	13.0%	-4.2%	-0.9%	0.5%	4.2%
Commissioned Sales	2.0%	2.1%	2.0%	5.0%	2.8%	-0.7%	-0.6%	-0.7%	2.3%
Electronic Services	3.8%	4.1%	3.9%	4.0%	3.2%	0.6%	0.9%	0.8%	0.8%

1.67 times Original WA Sales

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.2%	3.7%	4.1%	5.5%	3.2%	-2.0%	0.5%	0.9%	2.3%
Professional Services	2.3%	2.2%	2.2%	2.8%	4.1%	-1.9%	-2.0%	-1.9%	-1.3%
Waste Management	9.0%	15.5%	18.4%	28.7%	16.8%	-7.8%	-1.3%	1.6%	11.9%
Commissioned Sales	3.2%	3.3%	3.2%	8.4%	4.4%	-1.2%	-1.1%	-1.2%	3.9%
Electronic Services	4.2%	4.7%	4.9%	6.7%	4.1%	0.1%	0.6%	0.8%	2.6%

1.33 times Original WA Sales

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.1%	3.0%	3.4%	4.4%	2.8%	-1.6%	0.2%	0.6%	1.6%
Professional Services	2.2%	2.0%	2.1%	2.3%	3.9%	-1.7%	-1.9%	-1.8%	-1.7%
Waste Management	8.9%	13.8%	15.9%	22.9%	14.9%	-6.0%	-1.1%	1.0%	8.0%
Commissioned Sales	2.6%	2.7%	2.6%	6.7%	3.6%	-1.0%	-0.9%	-1.0%	3.1%
Electronic Services	4.0%	4.4%	4.4%	5.3%	3.6%	0.4%	0.8%	0.8%	1.7%

67% of Original WA Sales

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.1%	1.8%	2.1%	2.2%	2.1%	-1.0%	-0.3%	0.0%	0.1%
Professional Services	2.2%	1.8%	1.9%	1.1%	3.5%	-1.4%	-1.8%	-1.7%	-2.4%
Waste Management	8.8%	10.5%	11.1%	11.5%	11.1%	-2.4%	-0.6%	0.0%	0.4%
Commissioned Sales	1.5%	1.5%	1.5%	3.4%	1.9%	-0.5%	-0.4%	-0.5%	1.4%
Electronic Services	3.6%	3.7%	3.5%	2.7%	2.7%	0.9%	1.0%	0.7%	0.0%

1.67 times Original WA Payroll

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.7%	2.7%	3.1%	3.3%	2.8%	-1.1%	-0.1%	0.3%	0.5%
Professional Services	3.0%	2.6%	2.7%	1.7%	4.1%	-1.1%	-1.5%	-1.3%	-2.4%
Waste Management	12.1%	15.0%	15.2%	17.2%	15.0%	-2.9%	0.0%	0.2%	2.2%
Commissioned Sales	2.0%	2.1%	2.0%	5.0%	2.8%	-0.7%	-0.6%	-0.7%	2.3%
Electronic Services	6.0%	6.1%	5.5%	4.0%	4.3%	1.7%	1.8%	1.3%	-0.3%

1.33 times Original WA Payroll

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.4%	2.5%	2.9%	3.3%	2.6%	-1.2%	-0.1%	0.3%	0.7%
Professional Services	2.6%	2.2%	2.3%	1.7%	3.9%	-1.3%	-1.6%	-1.5%	-2.2%
Waste Management	10.4%	13.5%	14.3%	17.2%	14.0%	-3.5%	-0.4%	0.4%	3.2%
Commissioned Sales	2.0%	2.1%	2.0%	5.0%	2.8%	-0.7%	-0.6%	-0.7%	2.3%
Electronic Services	4.9%	5.1%	4.7%	4.0%	3.7%	1.2%	1.3%	1.0%	0.3%

67% of Original WA Payroll

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	0.8%	2.3%	2.5%	3.3%	2.2%	-1.4%	0.0%	0.3%	1.1%
Professional Services	1.8%	1.5%	1.6%	1.7%	3.6%	-1.8%	-2.0%	-2.0%	-1.9%
Waste Management	7.2%	10.7%	12.7%	17.2%	12.0%	-4.8%	-1.3%	0.7%	5.2%
Commissioned Sales	2.0%	2.1%	2.0%	5.0%	2.8%	-0.7%	-0.6%	-0.7%	2.3%
Electronic Services	2.8%	3.1%	3.1%	4.0%	2.6%	0.1%	0.4%	0.5%	1.4%

1.67 times Original WA Property

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.2%	2.5%	2.8%	3.3%	2.9%	-1.7%	-0.4%	-0.1%	0.4%
Professional Services	2.8%	2.2%	2.3%	1.7%	5.5%	-2.7%	-3.3%	-3.2%	-3.8%
Waste Management	11.4%	14.0%	16.1%	17.2%	15.9%	-4.5%	-1.9%	0.2%	1.3%
Commissioned Sales	2.3%	2.3%	2.3%	5.0%	2.9%	-0.7%	-0.6%	-0.7%	2.1%
Electronic Services	3.9%	4.1%	4.0%	4.0%	3.3%	0.6%	0.8%	0.7%	0.7%

1.33 times Original WA Property

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.2%	2.5%	2.8%	3.3%	2.7%	-1.5%	-0.2%	0.1%	0.6%
Professional Services	2.5%	2.0%	2.2%	1.7%	4.6%	-2.1%	-2.6%	-2.5%	-2.9%
Waste Management	10.1%	13.1%	14.8%	17.2%	14.4%	-4.3%	-1.4%	0.3%	2.8%
Commissioned Sales	2.1%	2.2%	2.1%	5.0%	2.8%	-0.7%	-0.6%	-0.7%	2.2%
Electronic Services	3.8%	4.1%	3.9%	4.0%	3.2%	0.6%	0.9%	0.7%	0.8%

67% of Original WA Property

Out-of-State Firm	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor	3-Factor Convention	Det. 89-459A	Det. 01-006	New Proposal	Sales Factor
Brokerage Firm	1.1%	2.4%	2.7%	3.3%	2.2%	-1.1%	0.2%	0.5%	1.1%
Professional Services	1.9%	1.8%	1.8%	1.7%	2.9%	-1.0%	-1.1%	-1.1%	-1.2%
Waste Management	7.6%	11.2%	12.3%	17.2%	11.6%	-4.0%	-0.4%	0.7%	5.6%
Commissioned Sales	1.9%	2.0%	1.9%	5.0%	2.7%	-0.7%	-0.7%	-0.7%	2.3%
Electronic Services	3.8%	4.0%	3.9%	4.0%	3.1%	0.7%	0.9%	0.8%	0.9%