

**The Economic Effects of Local Purchasing Preferences:
A Case Study of Computer Systems West
In Lane County**

By

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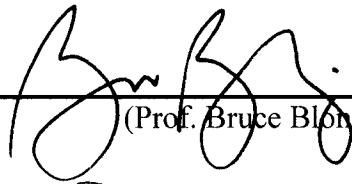
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1. Introduction

As mail order and online purchases are on the rise, there is increased competition for many local community businesses. Companies like Wal-Mart are entering small towns all over the country, and many small local businesses are losing money, or even shutting their doors. To counteract these problems ten states have enacted local bidding preference laws (www.earthrights.org). Selective purchasing is a decision by the governments to avoid buying from certain companies based on their political, social, environmental, or in this case, geographical attributes. These laws, covering a range of different products and services, give anywhere from a 3-10% bidding preference to companies located within that particular state.¹

To counteract selective purchasing laws within the United States, twenty-nine state governments are now using reciprocal preference laws. "Oregon's reciprocal preference law requires public contracting agencies, in determining the lowest responsible bidder, to add a percent increase to each out-of-state bidder's bid price which is equal to the percent of preference given to local bidders in the bidder's home state. That is, if the low bidder is from a state that grants a 10 percent preference to its own in-state bidders, the Oregon agency must add 10 percent to that bidder's price when evaluating the bid"(Dept. of Admin. Services). Selective purchasing and reciprocal laws are now just going back and forth at each other. Reciprocal preference laws are essentially costs that accompany selective purchasing preferences. Another form of purchasing law is the tie-bid or vendor preference law. This law states that if an in-state firm ties for the lowest bid with an out-of-state firm, the in-state firm will win the bid. Many states have passed this law, but its effects are most likely not as great as the selective purchasing. Table 1 shows all fifty states, and which states are using reciprocal preference and tie-bid laws.

Many feel that a local purchasing preference will generate more money within the state through direct and indirect effects. A multiplier effect will result in increased economic activity through more jobs, tax revenues and local expenditures. This may be the case, but there is also a cost to local purchasing laws. If firms are required to purchase from in-state agencies, they may

¹ One example of selective purchasing based on social criteria is The Massachusetts Burma Law. It was modeled after the South African anti-Apartheid selective purchasing laws adopted by 25 states in the 1980's. "The Massachusetts Burma Law provides a 10% preference for bids from companies that avoid doing business in Burma unless the preference would impair essential purchases or result in inadequate competition" (www.earthrights.org). This law was passed in 1996, three months before Congress authorized federal sanctions against Burma.

not be buying from the most efficient source. This will raise their overall total costs, which may be passed through to the consumer, diluting the positive effects of the multiplier.

TABLE 1: Reciprocal Laws and Tie-Bid Preference Laws in the U.S.

State	Reciprocal Law	Tie-Bid Preference	Date Revised	State	Reciprocal Law	Tie-Bid Preference	Date Revised
Alabama (AL)	No	Yes	3/ 2003	Montana (MT)	Yes	No	3/ 2003
Alaska (AK)	No	No	3/ 2003	Nebraska (NE)	No	Yes	3/ 2003
Arizona (AZ)	No	No	3/ 2003	Nevada (NV)	No	Yes	3/ 2003
Arkansas (AR)	No	No	5/ 2002	New Hampshire (NH)	No	No	1/ 2001
California (CA)	No	Yes	3/ 2003	New Jersey (NJ)	Yes	No	5/ 2002
Colorado (CO)	Yes	Yes	3/ 2003	New Mexico (NM)	No	Yes	5/ 2002
Connecticut (CT)	No	Yes	1/ 2001	New York (NY)	Yes	Yes	5/ 2002
Delaware (DE)	No	No	3/ 2003	North Carolina (NC)	Yes	Yes	3/ 2003
Florida (FL)	Yes	Yes	3/ 2003	North Dakota (ND)	Yes	Yes	3/ 2003
Georgia (GA)	Yes	Yes	3/ 2003	Ohio (OH)	Yes	No	1/ 2001
Hawaii (HI)	Yes	Yes	3/ 2003	Oklahoma (OK)	Yes	No	3/ 2003
Idaho (ID)	Yes	Yes	3/ 2003	Oregon (OR)	Yes	Yes	3/ 2003
Illinois (IL)	Yes	Yes	5/ 2002	Pennsylvania (PA)	Yes	Yes	5/ 2002
Indiana (IN)	Yes	No	3/ 2003	Rhode Island (RI)	No	Yes	3/ 2003
Iowa (IA)	Yes	N/A	3/ 2003	South Carolina (SC)	No	Yes	5/ 2002
Kansas (KS)	Yes	Yes	5/ 2002	South Dakota (SD)	Yes	Yes	3/ 2003
Kentucky (KY)	No	Yes	5/ 2002	Tennessee (TN)	Yes	Yes	3/ 2003
Louisiana (LA)	Yes	Yes	3/ 2003	Texas (TX)	Yes	Yes	3/ 2003
Maine (ME)	Yes	Yes	3/ 2003	Utah (UT)	Yes	Yes	5/ 2002
Maryland (MD)	Yes	Yes	1/ 2001	Vermont (VT)	No	Yes	5/ 2002
Massachusetts (MA)	No	Yes	1/ 2001	Virginia (VA)	Yes	Yes	5/ 2002
Michigan (MI)	Yes	Yes	1/ 2001	Washington (WA)	Yes	No	3/ 2003
Minnesota (MN)	Yes	No	3/ 2003	West Virginia (WV)	Yes	No	1/ 2001
Mississippi (MS)	Yes	Yes	1/ 2001	Wisconsin (WI)	Yes	No	5/ 2002
Missouri (MO)	Yes	Yes	1/ 2001	Wyoming (WY)	No	Yes	5/ 2002

Notes: Data collected from the Department of Administrative Services of the State of Oregon.

Our study examines both the positive and negative effects of local versus out-of-state purchasing from both the business and state perspective. The benefits to the local economy

come from increased revenues, which create greater expenditures from both the businesses and consumers. This can lead to higher levels of employment, and increased tax revenues. But the costs to society also have to be considered. These laws can bring higher total costs to downstream businesses and consumers, which leads to less disposable income, cutbacks on spending, and job losses. Another cost to regions are the reciprocal laws that are counteracting local purchasing. Though the reciprocal preference laws are not always costs. If all states adopted reciprocal preference laws it would lead to elimination of local purchasing laws, which may be a good thing. Together these laws create inefficiencies in the markets and promote less competition between states. The cost side of the study can be difficult to quantify, but they still must be accounted for.

Local businesses, state agencies, and consumers can benefit from our research because they will know the benefits and costs of local purchasing and can use it to base their decisions about similar problems in various economies, policies, and markets. Already ten states have passed purchasing laws without a detailed economic study to examine what the full impacts are on their local economy. From our research Oregon businesses and citizens will have a greater understanding of the costs and benefits of such proposals.

Our study is both a general analysis and a specific case study involving selective purchasing. We focus on Computer Systems West for a hypothetical situation of what would happen if Oregon decided to pass a local purchasing law. We collected data from Computer Systems West to calculate local and non-local expenditures and from there we were able to get a more specific multiplier for their company. We also were able to use a “generic” multiplier for computer equipment in Lane County. The multipliers give us two different effects for the same industry and allow us to compare and contrast the two. CSW feels that their main competitor is Dell Computers, so we also evaluated the pros and cons of using both companies. We spoke to both existing customers of Computer Systems West as well as potential clients to evaluate the trade offs of using the two companies. We spoke to mostly state agencies, which are involved in state pricing agreements with various computer companies. This allowed us to examine how costly it would be if a purchasing law were implemented.

After analyzing CSW’s expenditures and grouping them into local and non-local, we found that approximately 31% of their total expenditures stayed in Lane County in the form of wages, rent, taxes, etc. The CSW multiplier was estimated to be 1.45, significantly lower than

the generic multiplier (2.02) from the IMPLAN model. In the IMPLAN model, value added is 31% of total expenditure and 26% was allocated to locally purchased intermediate inputs, making local expenditures equal to 58%. Whereas, we calculated CSW to have a value added multiplier of 31% and locally purchased intermediate inputs close to 0%, making local expenditures equal to 31%. Because of the discrepancy of the locally purchased intermediate goods in the IMPLAN model, we decided to adjust the multipliers generated by the IMPLAN model. As the difference between the two multipliers came from the intermediate inputs, we subtracted 0.26 from 2.02 and got 1.76. This is our adjusted multiplier that we will use for the computer industry in Lane County.

Given this multiplier, a doubling of operations from, say \$2.5 million to \$5 million, would lead to an additional \$1.36 million in local spending in Lane County. Similarly, we can adjust the employment SAM multiplier by 13% to give us a new employment multiplier of 2.4. Assuming constant returns to scale, a doubling of operations would also lead to more than twice as many full-time positions (CSW has 14 full-time employees). Therefore, 33.6 additional full-time equivalent jobs would be created in Lane County if operations doubled.

The positive effects to the local economy from an increase in local spending on computer products could come with associated costs. After interviewing customers of both Computer Systems West and Dell Computers, we found certain tradeoffs they face when making purchasing decisions. Purchasers tended to choose Dell over CSW because of lower prices, brand recognition, and convenience of ordering. Some agencies chose CSW over Dell for special orders and because of their great location and service. Speaking to these purchasers gave us a better idea of why they chose one company over another.

We also discuss three possible scenarios from implementing a 5% local purchasing preference law for computers in Lane County. The first scenario would be if the law was implemented and purchasers voluntarily switched their purchases from Dell to CSW. It may be the case that purchasers were previously unaware of CSW's products. Once they discover them (because of the 5% law) they voluntarily change their purchases. This scenario would generate all the benefits to the local economy, without the potential costs.

The next scenario from the 5% preference law in computers would be that no one would switch their purchasing. This may be because CSW is only fulfilling special orders, and their

prices are not competitive enough for standard orders. In this case there would be no associated benefits or costs to Lane County.

The final scenario would be that some purchasers are forced to change their purchases to CSW, now paying a higher price. In this case we assume that CSW's revenues would double from the increased spending. The purchasers' total costs would rise, making them charge higher prices to their downstream consumers. This would lead to a decrease in demand, decrease in production, spending cutbacks, and layoffs. In this case there is a simple transfer from consumers to producers, with no net benefit or cost. However, it also causes purchases to switch to an inefficient local producer, causing an efficiency loss. These negative impacts would dilute the benefits added by the increased spending on computer equipment.

2. Literature Review

A great deal of research has been done in the area of purchasing preferences when it comes to domestic versus foreign firms. One study done by Fernando Branco (1994) considers the "rationale for giving preference to domestic firms in the award of government contracts when the regulator is interested in maximizing domestic welfare". He finds that when there are no comparative advantages for either firm, that the regulator should favor the domestic firm to increase domestic welfare. This applies to our study in the sense of state versus federal. Out-of-state firm's profits won't increase in-state welfare directly, but through federal programs and funding we will get other indirect benefits. He also goes on to discuss that in his examples neither firm has cost advantages, while in our study this is not the case. But Branco's conclusions are good baselines to start from, i.e., assuming no cost difference initially. Various states across the US have adopted local preference laws which favor domestic firms to an out-of-state firm if it the bidding price is within a certain range, say 5%. In reaction to such preference laws, twenty-nine states have enacted reciprocal preference laws. In Oregon, the lowest out-of-state bidder will get an additional percentage increase equal to the amount of preference it gets in its particular state, and then is reassessed with other local firms.

In response to the continuous growth of electronic commerce a number of papers have examined the social, as well as economic effects of online purchasing opportunities on the local economy. Austan Goolsbee (2001) has done a study comparing the competition in the computer

industry: online versus retail. He examines how much competition online companies create for local merchants, and estimates the “price sensitivity of individuals choice of whether to buy online versus in retail stores”. This is useful for our study, because it will help to show the impact on Computer Systems West if Dell has lower prices. Goolsbee goes on to find that the “variation in retail prices has a significant impact on the likelihood of buying directly from the manufacturer”. If local purchasing laws were put into place, all else equal, organizations would be buying more from companies like Computer Systems West because the prices would then be essentially equalized. Goolsbee also found that “conditional on buying a computer, the elasticity of buying remotely with respect to retail store prices is about 1.5”. This means that if retail prices increase by one percent, then people purchase 1.5 percent more from an online market, *ceteris paribus*. The main focus of this study was on consumers, while our focus is on government and state-funded agencies, which would be more effected by local purchasing laws.

Charles Steinfield and Pamela Whitten (1999) focus on the differences between online businesses and local businesses, and the comparative advantages that the online businesses may have. According to their study, they found that online business had a comparative advantage over their local counterparts. The main advantages found were 1) lower sunk costs due to the lack of building or rental space, 2) better economies of scale achieved from a larger customer base and thus volume discounts on inputs, 3) flexibility of setting up facilities in proximity of factors of production, 4) lower costs as a result of bypassing intermediaries in retail distribution, 5) cheaper labor costs and more efficient service, 6) ability to access distant markets anytime. They also found that these factors create social costs to the local economy, such as decreases in employment, decreases in convenience due to fewer local businesses, loss of local goods and of uniqueness of community, and reduced collectible tax from businesses causing government funds to go down. In addition, they also speculated that local businesses could increase their productivity by complementing their physical businesses with virtual stores. These observations are important for our study. If the advantages of online businesses creates overall lower total costs to the firm, and in turn the consumers, we will need to examine the direct and indirect effects of an increase in costs to consumers if local purchasing laws were enacted. If the direct and indirect effects as a result of increase in price are positively correlated to consumption, then online businesses are likely the most efficient source. Therefore, a local purchasing law could have adverse effects on consumers. Evaluating the effects of online versus local purchases

involves understanding how local benefits accrue from local purchases; this is where we use economic multipliers.

A good source for direct and indirect multiplier effects is the Regional Multipliers Handbook for input-output modeling system. It helps in deciding what information is necessary in order to effectively use the multipliers for analysis. They can then be used to estimate the impact of a proposed project on local earnings, output and employment. The “final-demand multipliers for output are the basic multipliers from which all the others are derived”(Daley, Ehrlich, Landefeld, 1997), they show the change in output that results from a \$1 change in demand for final goods and services. Using this we can then estimate the effects on wages and employment levels. We can use these multipliers to help determine the effects of increased local business activity if a purchasing law was passed. The generic multiplier for Lane County computer purchasing was calculated in this way. Most of the handbook focuses on changes within a given community, such as a business opening or closing, so we will mainly use the input-output multiplier method from NASDA that is described below.

In order to calculate the economic impact of local businesses in the community, we will refer to National Association of State Development Agencies (NASDA) report prepared for the U.S. Department of Commerce (1999). NASDA addressed this problem by using an input-output analysis, where buyers and suppliers of the industry were traced. This model was able to estimate 1) the direct impact on the industry that could possibly become part of the firms supplier base, 2) the indirect effects of new income generated by the new employees in the area, and 3) the induced effects caused by increased amounts in spending money for the firms and individuals of the local economy. We will use similar methodology in quantifying the different types of multipliers that may arise as a result of shifting from online retailing to local purchasing preferences, by surveying people that have used CSW’s services, and those that chose an alternative supplier, as well as by examining CSW’s financial statements. CSW’s financials will give us insight into how much of their expenditures stay within the state, and how much “leaks out” through non-local purchasing. This information will help us estimate the benefit-side of the study. From the data collected of the survey questions we will be able to determine how much of their total costs are due to computer expenses, and how much of an affect a local purchasing preference would have on their total cost, which would help in estimating the cost-side of the study.

3. Analysis

3.1. Empirical Methodology

“Benefit-cost analysis is really a framework for comparing the pros (benefits) and cons (costs) of project choices”(Gramlich, Edward M., 9). Our study is meant to be a guideline to help policy makers, businesses, and consumers in local economic decision-making. The first part of the analysis quantifies the benefits that directly result to the local economy by examining the expenditures of Computer Systems West to determine what percentage of their total expenses go back into the local economy, in the form of wages paid to workers, contracts with local suppliers, profits gained by owner, utility bills, state income taxes, and so forth. While some of this money ultimately “leaks out” of the state, much of it will remain in circulation in the local economy, increasing economic activity statewide. From this information we are able to estimate the percentage amount of total expenses that CSW incurs that goes back into the economy and estimate an individual multiplier for CSW. This allows us to quantify the benefits reaped by the local community as a result of purchasing from CSW. The second part of the analysis deals with estimating the cost-side of the study. In order to discuss possible tradeoffs that may occur as a result of purchasing computers from local retailers instead of online businesses, we surveyed different firms that chose CSW over Dell and vice-versa. From their responses we found that the majority of computers were purchased from Dell. Some of the local businesses that we talked to did not even know about CSW. So there is a possibility that local businesses and state agencies would purchase from CSW rather than Dell, provided they knew CSW existed and that prices and quality were equal. Most of current purchases from CSW were for special orders that were harder to order online; these costs were about 5% to 10% of their total costs allocated for electronic computers. Thus, most firms said that they would continue to purchase from CSW even if the price rose, by say 5%, because special orders were only a small portion of their total budget. In the next section, we talk about a hypothetical situation where there is a 5% local purchasing preference law on computers in the state of Oregon, and how that would effect the price elasticity of demand for computers and how pricier computers would effect consumption of other goods, by reducing the amount of disposable income that could be spent on them, which in turn would reduce the overall local benefit.

We will divide our study into three sections. The first section will deal with the benefits received, and the details of how we got the generic multiplier for electronic computers in Lane County and how we sorted CSW's financial data into non-local and local to calculate the firm's individual multiplier. The second part of the study will discuss the possible tradeoffs that many purchasers face when making their computer purchasing decisions. The third section deals with the effects caused by a hypothetical situation where a 5% local purchasing law exists on electronic computers in Lane County.

3.2. Estimation of Benefits to the Local Community from CSW

In this section we discuss the details of how we calculated the generic multiplier for electronic computers in Lane County and how we sorted CSW's financial data into non-local and local expenditures, to calculate the firm's individual multiplier. We were able to get an estimate of a generic multiplier for electronic goods in Lane County using the Impact Planning (IMPLAN) Model from Bruce Sorte at Oregon State University. The IMPLAN model is similar to the input-output model used in the NASDA report, as previously discussed. The model was able to produce multipliers for the direct, indirect, and induced impacts that the computer industry generates in Lane County for the year 2000. The calculated estimate for an employment SAM multiplier was 2.77 and for a total value added SAM multiplier was 2.02. The SAM multiplier incorporates all three impacts². It is calculated by taking the sum of the three impacts and dividing it by the direct effects to give an overall total multiplier. This means that for every one million dollar increase in the computer industry, approximately three jobs are created in the county. And, for every \$1 spent on electronic computers the local economy gets benefits of \$2.02. The IMPLAN model also provided the total local production, imports into, and exports out of Lane County for the computer industry, that were \$1.604 million, \$16.657 million, and \$0.254 million respectively. Furthermore, the IMPLAN model gave us an estimate of the portion of total local production that was value added, which was equal to \$0.521 million. From this data we are able to calculate value added as a portion of total output value for the computer

² The actual dollar amount that goes into the local community in the form of wages, property taxes, rent, etc are the direct impacts. The individual spending that occurs from wages being paid out to employees and rent being collected are indirect effects, whereas the induced effects occur when local businesses benefit from additional customers. In this way, money circulates in the local economy making it actually greater than the amount that was first put in directly by the CSW. All of these impacts are calculated in the SAM multiplier.

industry, which is about 32%. Also, from the IMPLAN model we found out that 58% was local expenditures. This implies that the locally purchased intermediate inputs were 26% (58-32%) of the total expenditures.

While interpreting the results we should take into considerations that the IMPLAN model, as every model does, has limitations that may effect our estimations. The limitations being: 1) prices are constant, 2) individual firms are aggregate, 3) the production possibilities frontier is linear and homogeneous, 4) the coefficients of production per dollar output are constant, i.e., constant returns to scale and no technology changes, 5) intermediate production requirements from other local industries remain constant, and 6) supply is unconstrained. For instance, the IMPLAN model is not able to capture the flexibility of the people, nor does it account for technology advancements as it assumes constant prices and constant returns to scale. The model also assumes an unlimited supply of goods and a linear and homogeneous production possibilities frontier, which is generally a non-linear function (bowed out) because resources are not able to adapt perfectly. Although the IMPLAN model has its limitations it still provides us with a good estimate of the multiplier effects for Lane County.

As the IMPLAN model treats all of the firms in the same industry as a single aggregate firm, by calculating CSW's individual multiplier we will obtain a more accurate representation of the multiplier of a typical computer firm. In order to calculate the individual multiplier for CSW, we used CSW's Income Statements for the years 2001 and 2002. Unlike the IMPLAN model that calculated aggregate multipliers for electronic computers in Lane County, we divided CSW's operating expenses, cost of goods sold and profits into two sections: local and non-local, based on whether the expenses stayed in-state or leaked out-of-state.

The local section contains expenses that would directly go back into the local economy, i.e. in the state of Oregon, for example, wages, rent, utilities, property taxes, etc. Whereas the non-local section contained expenses CSW incurred that leaked out of the local economy, for example, cost of goods sold that were manufactured in other states besides Oregon, etc. Some of the items such as employee benefits, non-inventory purchases, etc, were hard to place in either section. For those items we assumed a certain percentage stayed in state whereas the rest leaks out. With the employee benefits we assumed that 20% of the expenses leaked out of state in the form of administrative cost portion of health insurance, Medicare, Workman's Compensation, FUTA and SUTA, whereas the remaining 80% stayed in the local economy as people tend to go

to hospitals around their vicinity. Most of CSW's inventory and non-inventory items- hardware, software and other accessories- come from distributors in California, whereas about 10% come from in-state manufacturers such as Intel and Hewlett Packard. Hence, we allocated 90% of those expenses as non-local and the remaining as local. Other items that were hard to trace back to either one source, and weren't very significant in terms of percentage of expenditures, were allocated to being local, such as office supplies, travel expenses, etc. Advertising was one of the more significant operating expenses, and since CSW did most of their advertising via radio we put the whole value as a local expense even though there is possibility of leakage, as headquarters to those stations are in other states.

TABLE 2: Computer Systems West Expenses for 2001-2002

Expenses	Year 2001			Year 2002		
	% of Total Expenses	% Local	% Non-Local	% of Total Expenses	% Local	% Non-Local
Cost of Goods Sold	0.74	0.04	0.70	0.73	0.03	0.70
Employee Benefits	0.03	0.02	0.01	0.03	0.03	0.01
Wages	0.16	0.16		0.19	0.19	
Rent & Utilities	0.02	0.02		0.02	0.02	
Office Expenses	0.06	0.06		0.06	0.06	
Taxes	0.00	0.00		0.00	0.00	
Net Income	0.01	0.01		0.01	0.01	
Total	1.01	0.31	0.71	1.03	0.33	0.70

Table 2 gives a brief summary of local and non-local estimates for the main expenses that occurred in 2001 and 2002. After calculating both the local and non-local expenditures we found out that the average percentage amount of CSW's expenditures that were local was about 31% and the remaining being non-local. A more detailed version of Table 2 is given in Table 3 at the end of this section. In that table, expenditures are first divided into two categories: local and non-local, and again sub-divided into groups such as- cost of goods sold, wages, employee benefits, etc. All expenditures are individually accounted for, under groups, and are compared as a percentage of total expenses of their respective years. (Detailed information of sorted monthly expenditures is provided in the Appendices section for both years). Similar to Table 2, expenditure ratios are calculated by adding the individual proportions on each side for each year. Then the average of the yearly ratios are taken and were estimated to be 31% local and 69% non-local. In order to calculate the individual multiplier for CSW we took the reciprocal of the difference between 1 and .31, which is approximately equal to 1.45.

We should note here that our local estimate for CSW (31%) and the value added estimate from the IMPLAN model (32%) is very close. The discrepancy between the two models is with the percentage of locally purchased intermediate inputs. The IMPLAN model attributes 26% of the total expenditures to intermediate inputs, whereas our calculations suggest those values being close to zero. Also, the IMPLAN model multiplier of 2.02 implies that more than 50% of the total expenditures are local at every step. In comparison to our case study of CSW this estimate seems rather high, considering that cost of goods sold was about 70% of the total expenditures, out of which more than 90% were non-local purchases. Though there maybe a possibility that CSW may not be a typical firm representing most of Lane County's electronic computer retailers, the chances of computer retailers getting more than 50% of their total expenses locally is slim, since Oregon does not have many hardware and software manufacturers.

Because of the discrepancy between the two models, we adjusted the IMPLAN model multiplier of 2.02 by .26, making our adjusted multiplier equal to 1.76. Here, we have assumed that our first-round estimates from CSW are correct, i.e., the direct effects from CSW to Lane County is approximately 31%. In the next steps in the multiplier we use IMPLAN's estimates of the indirect and induced effects, which are approximately equal to 50%. Similarly, we adjusted the employment SAM multiplier given by the IMPLAN model. As the discrepancy of 0.26 was approximately equal to 13% of the value added SAM multiplier (2.02), we adjusted the employment multiplier (2.77) by 13% to 2.4.

With multiplier estimates in hand, we can now think about how increases in spending will affect the local economy. As a thought experiment, suppose local purchases were to increase such that CSW could double its operations from \$2.5 million to \$5 million. This means that an additional \$775,000 (31% of \$2.5 million) would directly be fed back into the local economy. The actual additional benefit would be greater than that due to the multiplier effect, and would equal to \$775,000 times the multiplier of 1.76. This is approximately equal to \$1.36 million. Assuming constant returns to scale, a doubling of operations would also lead to more than twice the number of jobs being created in Lane County (CSW has 14 full-time employees). Therefore, 33.6 (14 times 2.4) additional full-time equivalent jobs would be created if operations doubled.

TABLE 3: Computer Systems West Local and Non-Local Expenses (detailed version)

<u>Local Expenses</u>				<u>Non-Local Expenses</u>					
	Year 2001	% In 2001	Year 2002	% In 2002	Year 2001	% In 2001	Year 2002	% In 2002	
COGS	102615.8	0.038758	77050.1	0.028917	1856538	0.701214	1861359	0.698560	
Freight	4474	0.001690	4065	0.001526	981418	0.370681	860881	0.323085	
Non-Inventory Purchases	98141.8	0.037068	72985.1	0.027391	89018	0.026068	97475	0.036582	
Wages	412187	0.155883	501659	0.188270	127998	0.048345	168106	0.063089	
Subcontract Labor	0	0.000000	1076	0.000404	656163	0.247832	656865.9	0.246519	
Service Wages	163597	0.061791	223557	0.083900	Inventory Adjustments	21941	5046	0.001894	
Service Commissions	21145	0.007986	21393	0.008029	Employee Benefits	13997.8	0.005287	16098.4	0.006042
Sales Salaries	85478	0.032285	93665	0.035152	FICA/ Service	2198.2	0.000830	2919.2	0.001096
Sales Commission	101827	0.038460	105003	0.039407	FICA/ Sales	2306.6	0.000871	2302	0.000864
Administrative Salaries	35049	0.013238	54009	0.020269	FICA/ Administration	595.4	0.000225	655.4	0.000246
Subcontract Services	5091	0.001923	2956	0.001109	Medicare/ Service	514	0.000194	682.8	0.000256
Employee Benefits	58482.2	0.022089	68047	0.025538	Medicare/ Sales	551.6	0.000208	738	0.000277
FICA/ Service	8792.8	0.003321	11676.8	0.004382	Medicare/ Admin	139.6	0.000053	153.2	0.000057
FICA/ Sales	9226.4	0.003485	9208	0.003456	W/C Assessment/ Service	25.8	0.000010	45.4	0.000017
FICA/ Administration	2381.6	0.000900	2621.6	0.000984	W/C Assessment/ Sales	20.4	0.000008	17.8	0.000007
Medicare/ Service	2056	0.000777	2731.2	0.001025	W/C Assessment/ Admin	10	0.000004	10.6	0.000004
Medicare/ Sales	2206.4	0.000833	2952	0.001108	Workmans Comp Ins	55.2	0.000021	22.6	0.000008
Medicare/ Admin	558.4	0.000211	612.8	0.000230	W/C Ins/ Service	354.8	0.000134	271	0.000102
W/C Assessment/ Service	103.2	0.000039	181.6	0.000068	W/C Ins/ Sales	185.8	0.000070	102.4	0.000038
W/C Assessment/ Sales	81.6	0.000031	71.2	0.000027	W/C Ins/ Admin	31.8	0.000012	18.6	0.000007
W/C Assessment/ Admin	40	0.000015	42.4	0.000016	FUTA/ Service	61.4	0.000023	75.8	0.000028
Workmans Comp Ins	220.8	0.000083	90.4	0.000034	FUTA/ Sales	58.6	0.000022	44.6	0.000017
W/C Ins/ Service	1419.2	0.000536	1084	0.000407	FUTA/ Admin	22.4	0.000008	22.4	0.000008
W/C Ins/ Sales	743.2	0.000281	409.6	0.000154	SUTA/ Service	332.2	0.000125	732	0.000275
W/C Ins/ Admin	127.2	0.000048	74.4	0.000028	SUTA/ Sales	308.6	0.000117	504	0.000189
FUTA/ Service	245.6	0.000093	303.2	0.000114	SUTA/ Admin	136.4	0.000052	235.8	0.000088
FUTA/ Sales	234.4	0.000089	178.4	0.000067	Medical Ins/ Service	1728.4	0.000653	1878.6	0.000705
FUTA/ Admin	89.6	0.000034	89.6	0.000036	Medical Ins/ Sales	2554.8	0.000965	2744.8	0.001030
SUTA/ Service	1328.8	0.000502	2928	0.001099	Medical Ins/ Admin	986.4	0.000373	1000.8	0.000376
SUTA/ Sales	1234.4	0.000466	2016	0.000757	Dental Ins	8	0.000003	12	0.000005
SUTA/ Admin	545.6	0.000206	943.2	0.000354	Dental Ins/ Service	250	0.000094	279.8	0.000105
LTD/ Service	1063	0.000401	1414	0.000531	Dental Ins/ Sales	423	0.000160	480	0.000180
LTD/ Sales	1141	0.000431	1116	0.000419	Dental Ins/ Admin	138.4	0.000052	148.8	0.000056
LTD/ Admin	287	0.000108	317	0.000119	Non-local Estimate	0.706501	0.704602		
Medical Ins/ Service	6913.6	0.002611	7514.4	0.002820					
Medical Ins/ Sales	10219.2	0.003860	10979.2	0.004120					
Medical Ins/ Admin	3945.6	0.001490	4003.2	0.001502					
Dental Ins	32	0.000012	48	0.000018					
Dental Ins/ Service	1000	0.000378	1119.2	0.000420					
Dental Ins/ Sales	1692	0.000639	1920	0.000721					
Dental Ins/ Admin	553.6	0.000209	595.2	0.000223					
Rent & Utilities	51260	0.019361	58726	0.022040					
Rent	34330	0.012966	37975	0.014252					
Telephone	14157	0.005347	17353	0.006513					
Utilities & Garbage	2773	0.001047	3398	0.001275					
Office Expenses	160752	0.060716	153839	0.057735					
Travel/ Service	0	0.000000	7823	0.002936					
Travel/ Sales	0	0.000000	1200	0.000450					
Employee Relations	2558	0.000966	2386	0.000895					
Employee Relations/Admin	19	0.000007	68	0.000026					
Training/ Service	11	0.000004	431	0.00162					
Training/ Sales	2920	0.001103	300	0.000113					
Meals & Entertain/ Service	690	0.000261	213	0.000080					
Meals & Entertain/ Sales	127	0.000048	2660	0.000998					
Printing & Office Supplies	29	0.000011	7939	0.002979					
Operating Supplies	3417	0.001291	2714	0.001019					
Postage & Shipping	9973	0.003767	4708	0.001767					
Dues, Licenses, Subscriptions	6994	0.002642	7861	0.002950					
Equipment Rental & Lease	672	0.000254	734	0.000275					
Repairs & Maintenance	573	0.000216	1630	0.000612					
Meals & Entertainment	8384	0.003167	10239	0.003843					
Travel	9492	0.003585	11840	0.004444					
Gas	4970	0.001877	4244	0.001593					
Vehicle Repairs & Maintenance	5350	0.002021	7732	0.002902					
Vehicle Insurance	5167	0.001952	4687	0.001759					
Liability Insurance	2862	0.001081	5323	0.001998					
Advertising	60124	0.022709	36462	0.013684					
Accounting & Legal	2698	0.001019	4650	0.001745					
Consulting Fees	0	0.000000	168	0.000063					
Employee Recruitment	646	0.000244	3305	0.001240					
Charitable Contributions	475	0.000179	1016	0.000381					
Clients Goodwill	1384	0.000523	1193	0.000448					
Clients Seminars	1083	0.000409	1353	0.000508					
Bank Fees	0	0.000000	286	0.000107					
Depreciation	22128	0.008358	12000	0.004504					
Bad Debts	0	0.000000	718	0.000269					
Misc. Expense	8006	0.003024	7956	0.002986					
Taxes	1726	0.000652	1579	0.000593					
Property Taxes	1726	0.000652	1579	0.000593					
Net Income (loss)	27988	0.010571	14633	0.005492					
Net Profit (loss)	27988	0.010571	14633	0.005492					
Local Estimate	0.307829		0.328584						
Total Expenses in resp. yr.	2647607	1.014330	2664566	1.033185					

The Average Local Estimate is $(0.307829+0.328584)/2 = 0.318207$
The Average Non-Local Estimate is $(0.706501+0.704602)/2 = 0.7055515$

3.3. Tradeoffs for Lane County Business Purchasers of Computers: Anecdotal Evidence

As discussed in the previous section, local purchasing laws have benefits to the local economy through multiplier effects. But, we have found that with these benefits of local purchases come associated tradeoffs. To try and evaluate the tradeoffs, we surveyed businesses and state agencies that use Computer Systems West, as well as those who purchase from Dell Computers. Through these surveys we were able to get a better understanding of why agencies make certain choices regarding the differences between online and retail markets. Our focus was mainly on purchasers from state agencies, because they are the ones who would most likely be affected by the local purchasing law.

Purchasing from online or mail order has great advantages for these state agencies. They are able to buy from the most efficient sources, get the lowest prices, and are able to do it all from their computer. Lane County only produces \$1.604 million of computer equipment, \$0.254 million of which is exported, while importing \$16.657 million worth. Lane County is spending \$18.007 million dollars on electronic computer equipment annually, but only producing 8.9% of it. We have tried to get a sense of why purchasers are going outside of Lane County for their computer needs.

After speaking to businesses we found a few reasons why they chose Dell Computers or Computer Systems West. One of the reasons for choosing Dell involves brand recognition. Knowing a brand name makes purchasers feel more comfortable about their computer purchase decisions. If the company has a good reputation it can make businesses feel like they are getting the best equipment. Buying a clone or generic brand can give the feeling of lesser quality. Another reason for choosing Dell is because of convenience. Purchasers can place orders from their computer and have them delivered to their door in a short time. This ease of ordering gives them more time for other tasks.

Another problem facing purchasers, that they are unaware of, may be a lack of information. After interviewing one local purchaser we found that CSW and other local firms may not be very widely known. If consumers in Lane County were more informed about CSW and their products, they may choose to buy from them versus Dell. CSW's products could be perfect substitutes with identical prices, and if purchasers don't know about them, it makes no difference.

Some agencies chose Computer Systems West for their purchases because of their proximity and service. They felt the reliability of the machines was equal, and the service department was excellent. Because Computer Systems West is located in Lane County the technicians are able to serve customers needs right away. Another reason for using Computer Systems West is for special purchases. One purchaser we interviewed orders all of their special purchases from CSW. In this way, CSW is servicing a niche market. They can fulfill unusual orders like special hard drives or other systems that may not be for general office use. The location, service and specialty factors give Computer Systems West an advantage over Dell, while the widely recognized brand name, and convenience give Dell an advantage.

Another major factor driving purchasing decisions is pricing. As discussed by Steinfield and Whitten (1999), online firms enjoy many cost advantages. The main advantages found were 1) lower sunk costs due to the lack of building or rental space, 2) better economies of scale achieved from a larger customer base and thus volume discounts on inputs, 3) flexibility of setting up facilities in proximity of factors of production, 4) lower costs as a result of bypassing intermediaries in retail distribution, 5) cheaper labor costs and more efficient service, 6) ability to access distant markets anytime. Because of their comparative advantage Dell is able to offer great prices to its state purchasers. One way these discounts are achieved is through pricing agreements. We found that all state agencies in Oregon are required to take part in various price agreement contracts through different computer companies. They can choose from a variety of companies including Dell and Hewlett Packard, based on their needs and the prices. One pricing contract involving fifteen Western states is the Western State Contracting Alliance (WSCA). This cooperative purchasing agreement allows member's city, county, education and state entities to combine their purchasing power in a single contract. Combining all of these agents together gives them huge amounts of purchasing power, which affects demand, and in turn prices. Because of the huge volume being purchased, these states are able to get significant discounts on their computer equipment. It is still undetermined whether Computer Systems West is able to bid for these pricing agreements, or whether it is only a privilege for larger competitors.

3.4. Thought Experiment: If Lane County Adopted a 5% Local Purchasing Preference in the Computer Industry

Previously we discussed the benefits local economies would enjoy because of a purchasing law. As stated, ten states have enacted local purchasing preference laws that give a 5-10% bidding preference to those firms located within the particular state. In this section we consider hypothetical scenarios that show the potential costs that may offset the local benefits if a purchasing preference law was adopted in Lane County. This law would force state agencies to buy from an in-state firm if their price is within a 5% range of the lowest bid. We will illustrate three different scenarios affecting state agencies if the 5% preference law were put into place.³

The first scenario involves a lack of information. As previously discussed, CSW and other local firms may not be widely known in Lane County. This may be one of the reasons agencies are choosing to purchase from Dell or other big name computer brands. If a 5% purchasing law were passed in Lane County, local purchasers would gain knowledge of which local suppliers exist in Lane County. Once they were aware of CSW and their products, they may switch their purchases voluntarily, without being forced by the purchasing law. This is the best-case scenario for the purchasing law. Lane County would enjoy all the benefits generated by the multiplier effect because of increased local spending, without the potential costs.

If a selective purchasing law were adopted in Lane County, it would be unrealistic to assume that all purchases would then be local. Not all local firms would be competitive enough to compete with out-of-state businesses, even with a 5% purchasing preference. The second possible scenario would be that no purchasing changes would be made. This may be realistic if local firms are only providing special order computers, and are not competitive for standard orders. All state agencies would maintain their current purchasing habits. If in-state firms cannot get within the 5% range of the lowest bid, then purchasers wouldn't have to change their purchases at all. In this case, there would be no associated costs and no associated benefits to the law.

³ We are only considering state agencies, because they are the most likely ones to be affected by the local purchasing law.

The next possible scenario for the 5% selective purchasing law would be that some purchasers would then have to purchase their computer equipment from in-state firms. In this hypothetical situation we are going to assume that because of these purchases, Computer Systems West's yearly revenue would double from \$2.5 million to \$5 million annually. If Computer Systems West's prices were 5% more for all these customers, this would raise their customer's total costs. This increase would also have an identical multiplier effect on the cost side. Since the state agencies' costs would rise, they may have to charge higher prices to their consumers. From the law of demand, higher prices mean a decrease in demand for the goods and services. When quantity demanded decreases, firms will have to decrease their production. This could lead to spending cutbacks and employee lay offs. From all of these economic changes, consumer spending will decrease. All of these effects would be felt throughout the county and would trickle down to consumers. Standard economic analysis would suggest that the 5% price increase would be a simple transfer from consumers to producers, with no net benefit or cost. However, it also causes purchases to switch to inefficient local producers, causing an efficiency loss.

Another issue that faces firms when considering preference laws is capacity. If local firms were within the 5% range and purchasers increased their in-state purchases, Lane County firms would likely have difficulty accommodating the demand to supply our county with computer equipment. If Computer Systems West doubled their revenue, they would have to either move into new office space, or build a new facility.⁴ So, we must also consider if the law is plausible in terms of our capability of supplying our state with the necessary computers. In the long run, with the 5% purchasing law in place, existing firms may expand their business, while others may enter. However, the entering firms may not be competing with online or out-of-state firms, only with the other local firms that have the advantage of the 5% preference law. This would be creating more efficiency losses from increased purchasing from a less efficient source.

⁴ If a new facility were built it would create benefits in the short run in the form of construction costs. If they used an in-state construction company this would create short-term jobs and would have a multiplier effect through out the local economy.

4. Conclusion

With the growing number of e-commerce and mail order businesses, many communities and states across the country are lobbying for local bidding preferences, maybe without knowing the true long-term economic effects. Our study examines the potential benefits and costs if a local preference law was enacted in Lane County. Because of the local preference laws being put into place, 29 states are now passing reciprocal preference laws, which essentially counteract each other. Through the cost benefit analysis we have examined the multiplier affects caused by increased local spending, as well as the potential efficiency losses from the possibility of increased costs to downstream customers. We examined the expenditures of Computer Systems West to create a case specific multiplier for their firm, we then compared it with the model set up by IMPLAN, to get an accurate representation of a value added multiplier for electronic computer equipment in Lane County. We analyzed Computer Systems West's expenses for 2001-2002, deciding which expenditures were local and which leaked out to places other than Lane County. We calculated that 31% of CSW's expenditures stay in Lane County in the form of wages, rent, property taxes, etc. We adjusted the value added SAM multiplier and the employment multiplier to 1.76 and 2.4, from the original estimates of 2.02 and 2.77 after comparing the aggregate multipliers from the IMPLAN model to our case study of CSW. We estimated that if CSW's operations were to double from \$2.5 million to \$5 million, it would create an additional \$1.36 million of local spending in Lane County. Assuming that doubling of operations implies at least twice as many employees would be hired, i.e., constant returns to scale, 33.6 more jobs would also be created in Lane County.

Along with benefits of purchasing locally come the potential costs. We discuss the potential costs to downstream consumers in various situations, as well as the tradeoffs that purchasers face when making computer purchase decisions. We consider three plausible situations if a 5% purchasing law in computers were implemented in Lane County. The first scenario being that because purchasers learn of CSW and their products, they switch their purchases voluntarily, without having to be forced by the 5% preference law. In this case all of the benefits generated by the multipliers would be enjoyed, without the potential costs. The next scenario would be that no purchasers have to change their purchasing habits because local firms' prices do not reach the 5% range. This may be because they are only fulfilling special computer

orders, and aren't competitive for standard orders. The final scenario would be that some firms would have to switch their purchases to a local firm, and they may experience some added costs because of it. The major costs are higher prices to consumers, decreases in demand, spending cutbacks, and layoffs. All of which will have a negative effect on the local economy, and would dilute the benefits added by the increased spending on computer equipment.

With our research, consumers, businesses and state agencies will hopefully be better informed of the economic impacts of the bidding preference laws, or at least the industry factors that make it more beneficial (less costly) to the local community that adopts these laws. There is still a substantial amount of research that can be done in this area. In the future we would hope to be able to quantify the potential costs to Lane County from the 5% preference law, so the overall net benefits or costs would be more apparent. It would also be interesting to analyze the 10 states that have passed local purchasing laws, to see the impacts it has had on their local economies.

5. References

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6. Appendices

Local Expenses (2001)	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Total	Total w/x%	
Freight	L	454	332	317	264	420	486	521	388	377	565	129	221	4474	4474
Non-Inventory Purchases	.1L	59986	79904	84904	52296	90148	82274	57805	192127	93718	67,263	49,774	71,219	981418	98141.8
Service Wages	L	15011	13540	14640	14703	15678	12186	12333	9650	8629	15,171	14,535	17,521	163597	163597
Service Commissions	L	2099	2399	2145	2766	2169	1715	1452	941	1601	1,357	1,459	1,042	21145	21145
Sales Salaries	L	6847	6707	6656	6831	7553	7218	5640	8980	8074	7,930	6,299	6,743	85478	85478
Sales Commission	L	4838	7917	10684	7864	12796	11275	4677	23196	6649	5,992	2,538	3,401	101827	101827
Administrative Salaries	L	3914	3575	3855	3745	3995	3619	4080	4220	4046	0	0	0	35049	35049
FICA/ Service	.8L	985	1051	953	985	1127	930	932	539	635	806	1,018	1,030	10991	8792.8
FICA/ Sales	.8L	1299	660	863	1025	873	1237	1022	782	1765	869	683	455	11533	9226.4
FICA/ Administration	.8L	230	240	238	209	230	239	230	256	257	255	257	336	2977	2381.6
Medicare/ Service	.8L	230	246	223	230	264	218	218	126	148	188	238	241	2570	2056
Medicare/ Sales	.8L	304	154	202	240	204	289	239	183	413	203	192	135	2758	2206.4
Medicare/ Admin	.8L	54	56	56	49	54	56	54	60	60	60	60	79	698	558.4
W/C Assesment/ Sevice	.8L	12	15	5	12	12	10	8	8	9	11	14	13	129	103.2
W/C Assesment/ Sales	.8L	12	10	4	8	11	11	8	8	8	7	8	7	102	81.6
W/C Assesment/ Admin	.8L	5	5	2	4	4	4	4	5	4	4	5	4	50	40
Workmans Comp Ins	.8L	23	23	23	23	23	23	23	23	23	23	23	23	276	220.8
W/C Ins/ Service	.8L	132	163	151	150	168	217	125	86	84	126	158	214	1774	1419.2
W/C Ins/ Sales	.8L	102	45	65	78	67	131	79	41	148	53	51	69	929	743.2
W/C Ins/ Admin	.8L	11	12	13	10	12	19	11	14	12	13	14	18	159	127.2
FUTA/ Service	.8L	127	76	24	2	1	2	1	4	19	14	18	19	307	245.6
FUTA/ Sales	.8L	136	69	36	14	7	11	12	8	0	0	0	0	293	234.4
FUTA/ Admin	.8L	30	31	31	15	5	0	0	0	0	0	0	0	112	89.6
SUTA/ Service	.8L	238	254	231	238	228	54	42	52	57	64	111	92	1661	1328.8
SUTA/ Sales	.8L	314	160	209	210	131	151	124	141	24	21	30	28	1543	1234.4
SUTA/ Admin	.8L	56	58	58	55	56	58	56	62	62	62	62	37	682	545.6
LTD/ Service	L	95	102	92	95	109	90	90	52	61	78	99	100	1063	1063
LTD/ Sales	L	126	64	83	99	84	120	99	76	171	84	79	56	1141	1141
LTD/ Admin	L	22	23	23	20	22	23	22	25	25	25	25	32	287	287
Medical Ins/ Service	.8L	1167	1167	1167	828	821	616	616	411	411	411	411	616	8642	6913.6
Medical Ins/ Sales	.8L	1167	1167	1167	1167	1167	1167	962	962	962	962	962	962	12774	10219.2
Medical Ins/ Admin	.8L	411	411	411	411	411	411	411	411	411	411	411	411	4932	3945.6
Dental Ins	.8L	0	0	0	0	5	5	5	5	5	5	5	5	40	32
Dental Ins/ Service	.8L	163	195	195	130	108	81	81	54	54	54	54	81	1250	1000
Dental Ins/ Sales	.8L	228	195	195	195	183	183	156	156	156	156	156	156	2115	1692
Dental Ins/ Admin	.8L	65	65	65	65	54	54	54	54	54	54	54	54	692	553.6
Employee Relations	L	0	0	0	120	0	0	0	0	0	0	0	2,438	2558	2558
Employee Relations/ Service	L	4	8	0	0	7	0	0	0	0	0	0	0	19	19
Employee Relations/ Sales	L	3	8	0	0	0	0	0	0	0	0	0	0	11	11
Training/ Service	L	145	495	166	200	250	295	79	0	240	155	0	895	2920	2920
Training/ Sales	L	0	336	236	90	0	28	0	0	35	-35	0	0	690	690
Training/ Admin	L	0	0	0	62	0	0	0	0	0	0	65	0	127	127
Meals & Entertain/ Service	L	0	0	0	9	0	0	0	0	20	0	0	0	29	29
Meals & Entertain/ Sales	L	258	235	354	378	181	226	556	342	235	220	205	227	3417	3417
Rent	L	2719	2819	2819	2819	2819	2905	2905	2905	2905	2,905	2,905	2,905	34330	34330
Telephone	L	1542	1504	790	1093	1204	1141	1156	1218	656	1,297	1,220	1,336	14157	14157
Utilities & Garbage	L	248	182	268	254	227	227	252	224	212	228	226	225	2773	2773
Printing & Office Supplies	L	694	951	753	1250	869	829	793	877	664	1,130	527	636	9973	9973
Operating Supplies	L	42	43	20	66	121	47	38	177	145	103	65	239	1106	1106
Postage & Shipping	L	508	608	665	569	538	645	449	362	536	334	338	382	5934	5934
Dues, Licenses, Subscriptions	L	331	361	720	708	608	974	483	558	723	483	642	403	6994	6994
Equipment Rental & Lease	L	36	51	60	60	60	60	60	60	45	60	60	60	672	672
Repairs & Maintenance	L	0	0	0	392	83	0	0	0	0	98	0	0	573	573
Meals & Entertainment	L	948	942	544	750	773	687	529	481	708	578	622	822	8384	8384
Travel	L	492	161	1078	527	1605	1205	40	0	189	4,180	15	9492	9492	9492
Gas	L	518	394	395	457	422	484	368	434	457	392	384	265	4970	4970
Vehicle Repairs & Maintenance	L	50	29	78	1275	1236	117	66	349	1068	899	0	183	5350	5350
Vehicle Insurance	L	479	479	479	437	437	437	337	437	438	415	396	396	5167	5167
Liability Insurance	L	233	233	233	238	238	238	238	238	238	245	245	245	2862	2862
Advertising	L	6518	5606	6569	3483	3092	5824	4982	5820	863	7,051	5,837	4,479	60124	60124
Accounting & Legal	L	133	0	0	0	33	0	150	390	160	186	190	1,456	2698	2698
Subcontract Services	L	0	90	0	90	0	0	0	142	0	207	0	0	529	529
Subcontract Services/ All right	L	0	0	0	0	0	0	0	4769	0	0	0	0	4769	4769
Employee Recruitment	L	0	0	0	0	222	0	66	0	0	358	0	0	646	646
Charitable Contributions	L	0	65	0	0	0	0	200	0	0	0	0	210	475	475
Clients Goodwill	L	0	423	30	0	899	0	0	32	0	0	0	0	1384	1384
Clients Seminar	L	0	0	0	0	211	0	0	0	200	0	30	642	1083	1083
Depreciation Expense	L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	11128	22128	22128
Property Taxes	L	169	169	169	169	169	169	106	106	106	106	144	144	1726	1726
Misc. Expenses	L	180	13	122	652	1359	1373	136	2157	869	628	212	305	8006	8006
Net Income (loss)	L	\$4,720	-2,226	-4,908	-11,163	5,419	7,295	-3,788	31,005	13,533	-1,784	-2,581	-7,534	27,988	27988
Total		62423	55834	57405	48461	72714	68629	45067	105674	61093	52917	46941	56482	733640	822258

Non-Local Expenses (2001)		Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Total	Total w/ x%
COGS/ Hardware	N	59986	79904	84904	52296	90148	82274	57805	192127	93718	67,263	49,774	71,219	981418	981418
COGS/ Supplies & Accessories	N	6581	5375	4040	4282	6121	6538	5557	8804	6219	7,037	4,402	4,062	69018	69018
COGS/ Software	N	5733	8701	7631	5820	10774	9686	8458	27272	19823	8,707	6,099	9,294	127998	127998
COGS/ Non-Inventory Purchases	.9N	45461	25589	34261	73754	40897	64716	42394	51768	89566	60,678	40,691	159,295	729070	656163
Inventory Adjustments	N	1047	1132	360	2161	600	-363	-16	-1034	-206	187	828	17,245	21941	19746.9
FICA/ Service	.2N	985	1051	953	985	1127	930	932	539	635	806	1,018	1,030	10991	2198.2
FICA/ Sales	.2N	1299	660	863	1025	873	1237	1022	782	1765	869	683	455	11533	2306.6
FICA/ Administration	.2N	230	240	238	209	230	239	230	256	257	255	257	336	2977	595.4
Medicare/ Service	.2N	230	246	223	230	264	218	218	126	148	188	238	241	2570	514
Medicare/ Sales	.2N	304	154	202	240	204	289	239	183	413	203	192	135	2758	551.6
Medicare/ Admin	.2N	54	56	56	49	54	56	54	60	60	60	60	79	698	139.6
W/C Assesment/ Sevice	.2N	12	15	5	12	12	10	8	8	9	11	14	13	129	25.8
W/C Assesment/ Sales	.2N	12	10	4	8	11	11	8	8	8	7	8	7	102	20.4
W/C Assesment/ Admin	.2N	5	5	2	4	4	4	4	5	4	4	5	4	50	10
Workmans Comp Ins	.2N	23	23	23	23	23	23	23	23	23	23	23	23	276	55.2
W/C Ins/ Service	.2N	132	163	151	150	168	217	125	86	84	126	158	214	1774	354.8
W/C Ins/ Sales	.2N	102	45	65	78	67	131	79	41	148	53	51	69	929	185.8
W/C Ins/ Admin	.2N	11	12	13	10	12	19	11	14	12	13	14	18	159	31.8
FUTA/ Service	.2N	127	76	24	2	1	2	1	4	19	14	18	19	307	61.4
FUTA/ Sales	.2N	136	69	36	14	7	11	12	8	0	0	0	0	293	58.6
FUTA/ Admin	.2N	30	31	31	15	5	0	0	0	0	0	0	0	112	22.4
SUTA/ Service	.2N	238	254	231	238	228	54	42	52	57	64	111	92	1661	332.2
SUTA/ Sales	.2N	314	160	209	210	131	151	124	141	24	21	30	28	1543	308.6
SUTA/ Admin	.2N	56	58	58	55	56	58	56	62	62	62	62	37	682	136.4
Medical Ins/ Service	.2N	1167	1167	1167	828	821	616	616	411	411	411	411	616	8642	1728.4
Medical Ins/ Sales	.2N	1167	1167	1167	1167	1167	1167	962	962	962	962	962	962	12774	2554.8
Medical Ins/ Admin	.2N	411	411	411	411	411	411	411	411	411	411	411	411	4932	986.4
Dental Ins	.2N	0	0	0	0	5	5	5	5	5	5	5	5	40	8
Dental Ins/ Service	.2N	163	195	195	130	108	81	81	54	54	54	54	81	1250	250
Dental Ins/ Sales	.2N	228	195	195	195	183	183	156	156	156	156	156	156	2115	423
Dental Ins/ Admin	.2N	65	65	65	65	54	54	54	54	54	54	54	54	692	138.4
Total		126309	127229	137783	144666	154766	169028	119671	283388	214901	148704	106789	266200	1999434	1868341.7

Local Expenses	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Total	Total w/ x%	
Freight	L	413	504	394	248	191	654	219	132	498	276	367	169	4065	4065
Non-Inventory Purchases	.1L	3438	25910	48741	30232	59125	103202	91534	125149	45325	60147	42506	94542	729851	72985.1
Subcontract Labor	L	0	0	0	0	0	0	0	0	0	0	1076	1076	1076	1076
Service Wages	L	20788	17199	18265	17939	18103	17775	19989	20405	17299	19402	17225	19168	223557	223557
Service Commissions	L	2584	1428	1381	2125	1850	1349	1812	1768	2121	1892	1534	1549	21393	21393
Sales Salaries	L	5429	7609	6950	7924	7331	7158	8074	7279	11916	7933	8448	7614	93665	93665
Sales Commission	L	3256	2297	8809	5713	7534	23647	13194	15264	10661	5963	4679	3986	105003	105003
Administrative Salaries	L	6092	3940	4239	4255	4236	3817	5603	4258	4008	4829	3894	4838	54009	54009
FICA/ Service	.8L	996	1494	1153	1120	1183	1230	1194	1301	1231	1278	1277	1139	14596	11676.8
FICA/ Sales	.8L	575	429	382	1117	800	1859	898	1206	1335	1370	766	773	11510	9208
FICA/ Administration	.8L	371	271	237	263	248	254	312	279	246	289	248	259	3277	2621.6
Medicare/ Service	.8L	233	349	270	262	277	288	279	304	288	299	299	266	3414	2731.2
Medicare/ Sales	.8L	134	100	89	261	187	401	244	282	1312	320	179	181	3690	2952
Medicare/ Admin	.8L	87	63	55	62	58	59	73	65	58	68	58	60	766	612.8
W/C Assesment/ Sevice	.8L	13	22	20	20	19	20	19	21	19	18	20	16	227	181.6
W/C Assesment/ Sales	.8L	4	6	4	10	8	9	8	8	8	8	9	7	89	71.2
W/C Assesment/ Admin	.8L	4	4	5	4	5	5	4	4	4	5	5	4	53	42.4
Workmans Comp Ins	.8L	17	17	17	17	17	-61	4	17	17	17	17	17	113	90.4
W/C Ins/ Service	.8L	76	148	118	111	121	81	108	129	113	122	128	100	1355	1084
W/C Ins/ Sales	.8L	15	17	13	57	36	22	100	61	70	53	36	32	512	409.6
W/C Ins/ Admin	.8L	8	8	8	8	9	5	8	8	7	8	9	7	93	74.4
FUTA/ Service	.8L	129	121	49	40	12	10	7	5	6	0	0	0	223	178.4
FUTA/ Sales	.8L	74	55	16	67	11	0	0	0	0	0	0	0	112	89.6
FUTA/ Admin	.8L	48	35	23	6	0	0	0	0	0	0	0	0	112	89.6
SUTA/ Service	.8L	418	626	484	470	406	298	223	209	150	124	136	116	3660	2928
SUTA/ Sales	.8L	241	180	160	469	335	360	403	131	132	93	16	0	2520	2016
SUTA/ Admin	.8L	155	114	99	110	104	106	119	106	94	92	37	43	1179	943.2
LTD/ Service	L	96	145	112	108	115	119	116	126	119	124	124	110	1414	1414
LTD/ Sales	L	56	42	37	108	77	83	184	117	129	133	74	76	1116	1116
LTD/ Admin	L	36	26	23	25	24	25	30	27	24	28	24	25	317	317
Medical Ins/ Service	.8L	626	626	626	835	835	835	835	835	835	835	835	835	9393	7514.4
Medical Ins/ Sales	.8L	1005	1005	1005	1005	1213	1213	1213	1213	1213	1213	1213	1213	13724	10979.2
Medical Ins/ Admin	.8L	417	417	417	417	417	417	417	417	417	417	417	417	5004	4003.2
Dental Ins	.8L	5	5	5	5	5	5	5	5	5	5	5	5	60	48
Dental Ins/ Service	.8L	81	81	81	108	131	131	131	131	131	131	131	131	1399	1119.2
Dental Ins/ Sales	.8L	156	156	156	156	222	222	222	222	222	222	222	222	2400	1920
Dental Ins/ Admin	.8L	54	54	54	54	66	66	66	66	66	66	66	66	744	595.2
Travel/ Service	L	612	536	544	739	714	579	739	882	532	752	838	356	7823	7823
Travel/ Sales	L	70	124	64	113	105	105	77	49	86	205	71	131	1200	1200
Employee Relations	L	0	0	519	0	0	0	25	57	0	0	37	1748	2386	2386
Employee Relations/Admin	L	0	0	0	0	68	0	0	0	0	0	0	0	68	68
Training/ Service	L	0	0	0	0	181	125	0	0	0	0	125	0	431	431
Training/ Sales	L	0	0	0	0	0	145	0	50	0	0	105	0	300	300
Training/ Admin	L	0	0	0	0	0	145	0	50	0	0	105	0	300	300
Meals & Entertain/ Service	L	88	0	83	0	0	0	24	0	0	18	0	0	213	213
Meals & Entertain/ Sales	L	200	170	199	214	220	296	211	152	201	292	222	283	2660	2660
Meals & Entertain/ Admin	L	200	170	199	214	220	296	211	152	201	292	222	283	2660	2660
Rent	L	2905	2905	2905	2905	3029	2988	3323	3323	3423	3423	3423	3423	37975	37975
Telephone	L	2190	708	1326	1494	1428	1433	1387	1135	1722	1342	1697	1491	17353	17353
Utilities & Garbage	L	285	259	286	328	222	333	268	260	296	295	266	300	3398	3398
Printing & Office Supplies	L	1047	144	614	383	642	2111	1047	768	190	339	321	333	7939	7939
Operating Supplies	L	59	281	377	200	136	82	398	201	71	724	123	62	2714	2714
Postage & Shipping	L	403	351	369	282	377	541	387	365	366	442	500	325	4708	4708
Dues, Licenses, Subscriptio	L	512	487	787	729	779	804	604	579	800	554	639	587	7861	7861
Equipment Rental & Lease	L	60	60	60	60	60	62	62	62	62	62	62	62	734	734
Repairs & Maintenance	L	0	0	39	18	0	0	1174	219	180	0	0	0	1630	1630
Meals & Entertainment	L	758	980	515	1303	1053	1107	593	593	1022	798	790	727	10239	10239
Travel	L	709	134	1504	1427	2592	465	568	1295	196	30	38	2882	11840	11840
Gas	L	319	363	229	334	365	439	473	335	444	337	253	353	4244	4244
Vehicle Repairs & Maintenan	L	212	293	493	32	0	1991	1809	300	801	1117	326	358	7732	7732
Vehicle Insurance	L	396	396	395	396	396	396	396	396	393	397	397	333	4687	4687
Liability Insurance	L	245	245	241	474	507	491	491	491	491	491	578	578	5323	5323
Advertising	L	2937	2987	2585	1832	3658	4899	3406	1671	2949	2876	2791	3871	36462	36462
Accounting & Legal	L	2264	-369	155	156	120	120	120	198	146	120	120	1500	4650	4650
Subcontract Services	L	150	258	250	250	250	250	250	298	250	250	250	250	2956	2956
Consulting Fees	L	0	0	0	0	0	0	84	0	84	0	0	0	168	168
Employee Recruitment	L	500	500	805	500	500	500	0	0	0	0	0	0	3305	3305
Charitable Contributions	L	0	50	0	50	0	0	0	50	150	0	716	0	1016	1016
Clients Goodwill	L	45	0	0	0	0	0	0	0	0	0	379	769	1193	1193
Clients Seminars	L	0	1353	0	0	0	0	0	0	0	0	0	0	1353	1353
Bank Fees	L	27	18	21	26	21	26	25	28	36	45	7	6	286	286
Depreciation	L	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000	12000
Property Taxes	L	144	144	144	144	144	144	138	82	82	91	161	161	1579	1579
Bad Debts	L	0	0	0	0	0	498	0	0	0	0	0	220	718	718
Misc. Expense	L	122	54	176	1132	808	590	191	102	1715	823	1428	815	7956	7956
Net Profit (loss)	L	9144	-10205	8883	-12738	-6831	41231	-7782	20792	5366	-10154	-19910	-3163	14633	14633
Total		75533	69729	120065	79514	117855	229415	159135	217283	123133	114449	82757	158823	1547691	874726.7

Non-Local Expenses		Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Total	Total w/ x%
COGS/ Hardware	N	88913	36483	98838	52955	52261	135732	76296	113842	82121	41948	31653	49839	860881	860881
COGS/ Supplies & Accessories	N	5537	3928	8460	5060	4832	7926	6603	17276	9962	10018	8895	8978	97475	97475
COGS/ Software	N	13880	6011	14614	7829	10653	31102	18752	24261	14888	10910	8134	7072	168106	168106
COGS/ Non-Inventory Purchases	.9N	3438	25910	48741	30232	59125	103202	91534	125149	45325	60147	42506	94542	729851	656865.9
Inventory Adjustments	N	723	1000	25	187	410	8	5	-87	157	277	1922	419	5046	5046
FICA/ Service	.2N	996	1494	1153	1120	1183	1230	1194	1301	1231	1278	1277	1139	14596	2919.2
FICA/ Sales	.2N	575	429	382	1117	800	1859	898	1206	1335	1370	766	773	11510	2302
FICA/ Administration	.2N	371	271	237	263	248	254	312	279	246	289	248	259	3277	655.4
Medicare/ Service	.2N	233	349	270	262	277	288	279	304	288	299	299	266	3414	682.8
Medicare/ Sales	.2N	134	100	89	261	187	401	244	282	1312	320	179	181	3690	738
Medicare/ Admin	.2N	87	63	55	62	58	59	73	65	58	68	58	60	766	153.2
W/C Assessment/ Service	.2N	13	22	20	20	19	20	19	21	19	18	20	16	227	45.4
W/C Assessment/ Sales	.2N	4	6	4	10	8	9	8	8	8	8	9	7	89	17.8
W/C Assessment/ Admin	.2N	4	4	5	4	5	5	4	4	4	5	5	4	53	10.6
Workmans Comp Ins	.2N	17	17	17	17	17	-61	4	17	17	17	17	17	17	22.6
W/C Ins/ Service	.2N	76	148	118	111	121	81	108	129	113	122	128	100	1355	271
W/C Ins/ Sales	.2N	15	17	13	57	36	22	100	61	70	53	36	32	512	102.4
W/C Ins/ Admin	.2N	8	8	8	8	9	5	8	8	7	8	9	7	93	18.6
FUTA/ Service	.2N	129	121	49	40	12	10	7	5	6	0	0	0	379	75.8
FUTA/ Sales	.2N	74	55	16	67	11	0	0	0	0	0	0	0	223	44.6
FUTA/ Admin	.2N	48	35	23	6	0	0	0	0	0	0	0	0	112	22.4
SUTA/ Service	.2N	418	626	484	470	406	298	223	209	150	124	136	116	3660	732
SUTA/ Sales	.2N	241	180	160	469	335	360	403	131	132	93	16	0	2520	504
SUTA/ Admin	.2N	155	114	99	110	104	106	119	106	94	92	37	43	1179	235.8
Medical Ins/ Service	.2N	626	626	626	835	835	835	835	835	835	835	835	835	9393	1878.6
Medical Ins/ Sales	.2N	1005	1005	1005	1005	1213	1213	1213	1213	1213	1213	1213	1213	13724	2744.8
Medical Ins/ Admin	.2N	417	417	417	417	417	417	417	417	417	417	417	417	5004	1000.8
Dental Ins	.2N	5	5	5	5	5	5	5	5	5	5	5	5	60	12
Dental Ins/ Service	.2N	81	81	81	108	131	131	131	131	131	131	131	131	1399	279.8
Dental Ins/ Sales	.2N	156	156	156	156	222	222	222	222	222	222	222	222	2400	480
Dental Ins/ Admin	.2N	54	54	54	54	66	66	66	66	66	66	66	66	744	148.8
Total		118433	79735	176224	103317	134006	285805	200082	287466	160432	130353	99239	166759	1941851	1804472.3