

STATUS AND TRENDS OF SUSTAINABILITY PRACTICES IN LANE COUNTY: AN ANALYSIS OF SURVEY DATA

A Report for the Lane County Sustainable Business and Jobs Project

Final Report of Survey Results
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Background and Acknowledgments

As we enter the new millennium, the residents of Lane County face a number of important economic, social, and environmental challenges. The economy is struggling, unemployment is high, government revenues are falling, and water quality, fisheries, and other environmental resources are at risk. Decision makers seek appropriate steps to resolve these problems in a manner that will simultaneously enhance the economy, workers, and the environment, but often are unclear about how to achieve these multiple goals.

In the winter of 2003, the Program for Watershed and Community Health (PWCH), a research and technical assistance program affiliated with the Institute for a Sustainable Environment at the University of Oregon, initiated a project to help decision makers throughout the southern Willamette Valley understand sustainable business and job development and identify strategies to secure and expand the local sustainability sector. The PWCH seeks to provide accurate, objective, and easy-to-understand information about size and scope of the existing sustainability sector and to assess the potential costs and benefits associated with expanding the sector and assisting others to adopt sustainable practices. A team of seven graduate students from the Department of Planning, Public Policy, and Management at the University of Oregon served as the research staff for the project. An informal group of local government and economic development specialists served as the steering committee for the project. This report is one of a series of reports produced as a result of this effort.

AUTHORS

University of Oregon graduate students Jennifer P. Scott and Tina Nunez developed the survey instrument, entered the data, and completed the data assessment for this report with assistance from David Reesor and Shanda LeVan. UO graduate students Tim Shinebarger and Naoko Atsusaka also assisted with the survey development process. Bob Doppelt, director of The Program For Watershed and Community Health, supervised the overall project.

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STATUS AND TRENDS OF SUSTAINABILITY PRACTICES IN LANE COUNTY: AN ANALYSIS OF SURVEY DATA

Key Findings and Conclusions

In the spring of 2003, a written survey was mailed to 157 businesses and non-profit organizations in Lane County that were determined to have potentially applied sustainability practices or policies in their operations (i.e. to be considered part of the “sustainability sector”). The goal of the survey was to determine the extent to which sustainability practices are being applied, the types of practices adopted, their costs and benefits, the potential for future growth, and what may be needed to help expand the practices. In June of 2003 a second survey was mailed to 113 public agencies in rural and urban communities from throughout Lane County. This survey sought to determine the extent to which the agencies have applied sustainability practices, the financial, social, and environmental outcomes of those applications, and their interest in doing more. This report summarizes the findings and potential conclusions that can be drawn from the information received from the two surveys. The analysis for of the private sector survey was completed using the Statistical Package for the Social Sciences (SPSS) and the analysis of the public sector survey was completed using MS Excel.

Some Of The Overall Conclusions that Can Be Drawn Include:

1. The Sustainability Sector in Lane County Is Diverse

After reviewing the many types of businesses and organizations that responded to the private sector survey we grouped them into seven business categories:

- Natural foods, including organic and/or sustainable farms, natural food manufacturers and producers, and natural food retailers (This was the largest category—with 27% of respondents falling into this area)
- Recycling companies
- Consulting firms
- Green building companies
- Industrial manufacturing operations
- Service-oriented business
- Alternative energy companies
- Investment firms

The diversity of organizations that have adopted sustainability measures suggests that sustainability measures could be applicable to many if not most types of industries and that the sector is really not a single entity but includes a variety of industries and sectors.

2. The Local Sustainability Sector is Stable

The majority of the firms that responded to the private sector survey have been in business for 11 or more years and about forty five percent for 20 years or more. The vast majority of firms were

founded by people who already lived in the area (71%). Most sell to local markets. Most expect to stay in the same location or expand locally.

This information suggests that the sector has deep roots, is not likely to leave when conditions change, and does not require extensive external recruitment efforts to help expand and grow.

3. The Local Sustainability Sector Makes an Important Economic Contribution

Data from 43 of the firms that responded to the private sector survey found that sector employs at least 1024 and probably 2195 or more people. The 43 businesses that provided data have a combined net payroll of \$57,035,192. When the payroll expenditures were averaged, the mean payroll was \$1,296,254.37. Because we have data from just one third of the companies that were sent surveys, it is likely that the sustainability sector employs 3,000 or more workers and generates well over \$60 million annually (possibly closer to \$75 million or more) to the local economy.

This information suggests that the local sustainability sector already makes an important economic contribution and offers important employment opportunities in Lane County.

4. Most Firms Do Not Comprehensively Apply Sustainability Practices, Yet A Large Majority of Businesses Found Significant Advantages, Suggesting Major Room for Expansion

Few private companies have adopted a majority of the practices listed in our survey. Reuse, recycling, energy efficiency, the use of non-toxic materials, and the use of third-party certified goods and practices (primarily in the Natural Foods industry) are the most commonly used sustainability practices. However, a vast majority of the businesses said the use of sustainability practices provides competitive advantage. For example, over 40% of the respondents said the practices led to cost savings, 35% said they helped increase sales, 40% said they helped to meet customer demand, 61% said they created a better public image, 18% said they helped to reduce risk of accidents and lawsuits, and almost 15% said they reduced the number of regulations that must be followed. No respondents reported that sustainability practices offer no competitive advantage for their business.

This information suggests that a significant opportunity may exist to help local firms reduce costs and achieve competitive advantage by promoting the benefits found by those who have adopted the measures to other businesses in Lane County and by promoting a more comprehensive use of those practices.

5. A Number Of Sustainable Industries Could Provide Jobs For Less Educated and Skilled Members Of Our Community

The information gathered in the private sector survey suggests that a number of job opportunities may exist in the sustainability sector for less educated and less skilled members of the community. Although only roughly 6% of the businesses reported that the majority of their employees required a low skill level, over 50% said that just a moderate skill level was needed.

Having at least a high school diploma is a requirement for employment in roughly 79% of the jobs in the local sustainable business sector. Roughly one quarter of the businesses said their employees needed a college degree and only 13% reported that the majority of their employees need a graduate or professional degree. The major job opportunities appear to be in reuse, recycling, and Natural Foods.

6. The Public Agency Survey Suggests that Most Agencies Have Done Little But See the Need and Potential and Want Help To Adopt Sustainability Practices

The vast majority of public agencies that responded to our survey have not implemented many sustainability practices. Those that have implemented practices focused primarily on energy efficiency and conservation, reuse, and recycling. Some of the agencies that applied these practices found that they led to cost savings. The limited data that was provided also suggests that public agencies in Lane County are major producers of waste and major users of energy and water. The vast majority of public agencies that responded to the survey said they would like to implement sustainability practices. However, most say they need education, technical assistance, financial help, and stronger support from their board or elected officials.

The level of waste generated and energy used suggests that with effective leadership and program implementation, a major opportunity may exist to save significant amounts of money while reducing energy use and waste. This information must be tempered against the knowledge that our pool of respondents was small and that more agencies may be actively pursuing sustainability measures and finding different results.

7. The Stability and Potential Of The Sustainability Sector, Combined with the Competitive Advantages and Lack of Major Constraints Most Firms See in Lane County, Suggests That It Could Be A Prime Source of Future Business and Job Growth

Even in poor economic conditions of past two years, the vast majority (over 90%) of the private businesses that provided data remained stable or grew. During 2003, a year of increased unemployment, about three quarters of the businesses expected equal or increased growth. Despite uncertain economic conditions, eighty percent of the companies expect to stay the same or grow and hire more people next year. Just six percent expected to let employees go in 2004. Roughly two thirds of the businesses that responded to the survey said they expected their industry to grow over the next 5 years.

The majority of respondents believe that Lane County has a number of assets that provide a competitive advantage for their business. The good quality-of-life available to them and their employees is the greatest competitive advantage seen in Lane County. Respondents feel that the local market for sustainable products is the second most important competitive advantage offered in Lane County.

An overwhelming majority (over 90%) think that Lane County is a good place to operate a sustainable business. Well over half of the respondents who believe Lane County is a good place to do businesses said that a primary reason was that the community is informed and places value on health and sustainability. Thus suggests that a knowledgeable customer base exists that helps

to support and drive the sustainability sector to continually produce top quality goods and services.

Finally, no single issue stood out as a constraint on the ability of the local sustainability sector to grow. About one quarter of the respondents said that high housing cost constrained their ability to succeed. About eighteen percent noted that the high cost of labor in Lane County constrains their businesses' success and eighteen percent mentioned that the high utility costs in Lane County. About sixteen percent of respondents believe that lack of responsiveness/lack of support from government limits their businesses' ability to succeed.

The ability to withstand, thrive, and even grow in difficult economic times, combined with the assets that businesses believe currently exist in Lane County and the lack of outstanding major barriers suggest that with skillful assistance, the sustainability sector could be a major source of future local business and job development. The sector should therefore be considered a prime economic development opportunity.

PART I

Analysis Of Survey Results Of Sustainability Practices Within The Private And Non-Profit Sectors In Lane County

In the spring of 2003, a written survey was mailed to 157 businesses and non-profit organizations in Lane County that were determined to have potentially applied sustainability practices or policies in their operations. The goal of the survey was to determine the extent to which sustainability practices are being applied, the types of practices adopted, their costs and benefits, the potential for future growth, and what may be needed to help expand the practices. The survey was completed and returned by 54 organizations, representing better than a 33% return rate. The survey included 20 questions. The analysis was completed using the Statistical Package for the Social Sciences (SPSS).

This was not a random survey. The 160 entities chosen to receive the survey were selected from lists provided by organizations involved with sustainability as a whole (e.g. The Oregon Natural Step Network) or specific elements of the field, such as waste management (BRING Recycling, Lane County Waste Management), energy efficiency and renewable energy (e.g. Eugene Water and Electric Board), organic and sustainable agriculture (e.g. Oregon Tilth, The Food Alliance) and others. It is a certainty that we did not mail the survey to a complete list of Lane County organizations that have applied sustainability practices. There are undoubtedly many other organizations that could have received the survey. Nevertheless, we believe that the sample is sufficiently representative to provide a meaningful snapshot of current practices and the potential for future growth of the sustainability sector.

Analysis of Individual Questions

A. Background Information on Survey Respondents

Question #1

Question one asked: *Briefly describe your business (what goods do you produce or services do you provide?)*

Upon examination of the responses, we grouped the businesses into eleven categories: natural food farms, natural food manufactures and producers, natural food retailers, recycling operations, consulting firms, businesses specializing in green building, industrial manufacturing of products other than food, service-based businesses, and investment firms. One-hundred percent of respondents answered this question; however, one business was eliminated from the analysis because, based on its own statements of the practices it applied, it was determined not to fit our criteria of a "sustainable business."

The natural food category was the largest with nineteen businesses, or 27.1% responses. This category was broken down into three smaller categories: natural food farms, manufactures and producers of natural foods, and natural food retailers.

Natural food farms

Six businesses, or 11.1% of responses fell in the natural food farm category. These six respondents described their businesses as farms growing organic fruits, herbs, and vegetables.

Natural food manufacturers and producers

Eleven businesses, or 20.4% of responses fell into the category of manufactures and producers of natural foods. This category is made up of businesses with operations such as baking, processing, and manufacturing of natural foods for sale in markets, stores, and restaurant wholesale.

Natural food retailers

Three businesses, or 5.6% of responses fell into the natural food retail category. This category is made up of natural food restaurants, and natural food markets.

Recycling

Three businesses, or 5.6% of responses fell into the recycling category. This category is made up of businesses that recycle goods and then sell the recycled material, as well as businesses that use reclaimed goods in the production of their final products.

Consulting

Ten businesses, or 18.5% of responses fell into the consulting category. These businesses offer consultation to businesses or public agencies attempting to review their environmental impact. Moreover, these businesses consult with individuals and businesses seeking to make their homes and buildings environmentally sound.

Green building

Eleven businesses, or 20.4% of responses fell into the green building category. These businesses design and build buildings that are energy efficient and environmentally sound.

Industrial manufacturing

Two businesses, or 3.7% of respondents fell into the industrial manufacturing category. These businesses manufacture non-food items using policies and products that do not pollute the environment.

Service-oriented business

Three businesses, or 5.6% of respondents fell into the service-oriented business category. These businesses install, distribute and review sustainable products that are produced by other businesses.

Alternative energy sector

Two businesses, or 3.7% of responses fell into the alternative energy sector category. These businesses produce and sell alternative energy such as bio-fuel. They also produce goods to be used in the production of alternative energy such as solar panels.

Investment

Two businesses, or 3.7% of respondents fell into the investment category. These businesses

provide investment services for people who wish to invest in sustainable businesses. These investment firms determine an investment's sustainability using their own criteria.

The largest category of sustainable businesses operating in Lane County are those working in the natural food market. There are also a large amount of consulting and green building businesses in Lane County. The recycling, industrial manufacturing, service, alternative energy and investment sectors are relatively small in the County.

Question #2

Question two asked: *How long has your business been in operation?*

Respondents were given five categories from which to choose: less than one year, 1-5 years, 6-10 years, 11-20 years, and over 20 years. This question had a response rate of 98.1%, with fifty-three respondents answering the question.

- One respondent, or 1.9% of businesses reported that to be in operation for less that one year.
- Eight respondents, or 15.1% or businesses reported that they had been in operation for 1-5 years.
- Eleven respondents, or 20.8% of businesses reported to be in operation for 6-10 years.
- Ten respondents, or 18.9% of businesses reported to be in operation for 11-20 years.
- Twenty-three firms, or 43.4% of businesses reported to have been in operation for over 20 years.

Two thirds of the sustainable business sector in Lane County has been in business for 11 or more years and just less than half for 20 years. This could mean that the sector is difficult to enter, that the sector is saturated, making it difficult for new businesses to survive, or that it is a good place to do business and people therefore stay at it.

Question #3

Question three asked: *How was your business was founded?*

The question gave respondents five response options: spin-off from another firm, merger with another firm, independently founded, purchased from previous owner, and other. The question has a response rate of 98.1%, with fifty-three respondents answering the question.

- Five respondents, or 9.4% of businesses reported that their business was founded by a spin-off from another business.
- Two businesses, or 3.8% of respondents reported that their business was founded through a merger with another firm.
- Thirty-eight respondents, or 71.7 % of respondents reported that their business was independently founded.
- Seven respondents, or 13.2% of businesses were purchased from a pervious owner.
- One respondent, or 1.9% of businesses said that their business was founded in a way not listed as a response option.

An overwhelming majority of sustainable businesses in Lane County were founded independently.

Question #4

Question four asked: *How many full time workers do you employ locally?*

Respondents were given seven categories from which to choose: 1-5 employees, 6-10 employees, 11-20 employees, 21-50 employees, 51-100 employees, 101-200 employees, and 200+ employees. The question has a response rate of 96.3%, with fifty-two survey respondents answering the question.

- Twenty-three respondents, or 44.2% of businesses reported they employ 1-5 workers.
- Seven respondents, or 13.5% of businesses reported they employ 6-10 workers.
- Eight respondents, or 15.4% of respondents employ 11-20 workers.
- Three respondents, or 5.8% of businesses employ 21-50 workers.
- Five respondents, or 9.6% of businesses employ 51-100 workers.
- Four respondents, or 7.7% of businesses employ 101-200 employees.
- Two respondents, or 3.8% of businesses employ more than 200 employees.

Even though the majority of sustainable businesses in Lane County are small employers, the sector employs many people. Based on the range of responses of these fifty-two businesses, the sustainable business sector in Lane County employs at least 1024 and probably 2195 or more people.

The charts below break down the responses by business category.

Natural food farm	Frequency of response	Percent	Valid Percent
1-5 Employees	5	83.30%	100.00%
Missing Data	1	16.70%	
Total	6	100%	

The natural food farm sector employs between 5-25 workers in Lane County.

Natural food manufacturer/producer	Frequency of response	Percent	Valid Percent
1-5 Employees	2	18.20%	18.2
6-10 Employees	2	18.20%	18.20%
11-20 Employees	1	9.10%	9.10%
21-50 Employees	2	18.20%	18.20%
51-100 Employees	3	27.30%	27.30%
101-200 Employees	1	9.10%	9.10%
Missing Data	0	0%	0%
Total	11	100%	100%

The natural food manufactures and producers employ between 321-650 workers in Lane County.

Natural food retail	Frequency of response	Percent	Valid Percent
6-10 Employees	2	66.70%	66.70%
200+ Employees	1	33.30%	33.30%
Missing data	0	0%	0%
Total	3	100%	100%

The natural food retailers employ at least 212 people in Lane County.

Recycling	Frequency of response	Percent	Valid Percent
6-10 Employees	1	33.30%	33.30%
21-50 Employees	1	33.30%	33.30%
101-200 Employees	1	33.30%	33.30%
Missing data	0	0%	0%
Total	3	100%	100%

The recycling sector employs between 128-260 people in Lane County.

Consulting	Frequency of response	Percent	Valid Percent
1-5 Employees	7	70%	70%
6-10 Employees	1	10%	10%
11-20 Employees	2	20%	20%
Missing data	0	0%	0%
Total	10	100%	100%

The consulting sector employs between 35-85 people in Lane County.

Green Building	Frequency of response	Percent	Valid Percent
1-5 Employees	4	36.40%	40%
11-20 Employees	3	27.30%	30%
51-100 Employees	1	9.10%	10%
101-200 Employees	1	9.10%	10%
200+ Employees	1	9.10%	10%
Missing data	1	9.10%	0%
Total	11	100%	100%

The green building sector employs at least 389 people in Lane County.

Industrial manufacturing	Frequency of response	Percent	Valid Percent
11-20 Employees	1	50%	50%
51-100 Employees	1	50%	50%
Missing data	0		
Total	2	100%	100%

The industrial manufacturing sector employs between 62-120 people in Lane County.

Service-oriented businesses	Frequency of response	Percent	Valid Percent
1-5 Employees	2	66.70%	66.70%
11-20 Employees	1	33.30%	33.30%
Missing data	0		
Total	3	100%	100%

The service-oriented business sector employs between 13-30 people in Lane County.

Alternative Energy Sector	Frequency of response	Percent	Valid Percent
1-5 Employees	1	50%	50%
6-10 Employees	1	50%	50%
Missing data	0		
Total	2	100%	100%

The alternative energy sector employs between 6-15 people in Lane County.

Investment	Frequency of response	Percent	Valid Percent
1-5 Employees	2	100%	100%
Missing data	0		
Total	2	100%	100%

The investment sector employs between 2-10 people in Lane County.

The largest employers in the sustainable business sector in Lane County are businesses that manufacture and produce natural foods.

Question # 5

Question five asked: *“What was your approximate payroll expenditure in 2002?”*

The question has a response rate of 81.5%, with 44 survey respondents reporting their payrolls. Respondents were not given any responses from which to choose, only a blank space to fill in. The payroll expenditures for 2002 ranged from \$0-\$15,000,000. Six respondents, or 13.6% of businesses reported to have a payroll expenditure of zero dollars. The owners of these businesses reported in phone interviews that they had no other employees beside themselves.

Overall, these forty-four businesses have a net payroll of \$57,035,192. When the payroll expenditures were averaged, the mean payroll of the forty-four businesses was \$1,296,254.37.

Question # 6

Question six asked: *How would you categorize the skill level required by the majority of your employees?*

Respondents were given three options from which to choose: low skill level needed, moderate skill level needed, and high skill level needed. Question six had a response rate of 96.3%, with fifty-two respondents answering the question.

- Three respondents, or 5.8% of businesses reported that the majority of their employees required a low skill level.
- Twenty-eight respondents, or 53.8% of businesses reported that a moderate skill level was needed of the majority of their employees.
- Twenty-one respondents, or 40.4% of businesses reported that a high skill level was required of the majority of their employees.

The charts below summarize the responses to this question based on business category.

Natural food farm	Frequency of response	Percent	Valid Percent
Low skill level needed	1	16.70%	16.70%
Moderate skill level needed	4	66.70%	66.70%
High skill level needed	1	16.70%	16.70%
Missing Data	0		
Total	6	100%	100%

The majority of the workers in natural food farms need to possess a moderate level of skill.

Natural food manufacturer/producer	Frequency of response	Percent	Valid Percent
Low skill level needed	1	9.10%	9.10%
Moderate skill level needed	9	81.80%	81.80%
High skill level needed	1	9.10%	9.10%
Missing Data	0		
Total	11	100.00%	100.00%

The majority of the workers in the manufacturing and production of natural foods need to possess a moderate level of skill.

Natural food retail	Frequency of response	Percent	Valid Percent
Moderate skill level needed	3	100.00%	100.00%
Missing Data	0		
Total	3	100%	100%

All of the workers in the retail of natural foods need to possess a moderate level of skill.

Recycling	Frequency of response	Percent	Valid Percent
Moderate skill level needed	3	100.00%	100.00%
Missing Data	0		
Total	3	100%	100%

All of the workers in the recycling industry need to possess a moderate level of skill.

Consulting	Frequency of response	Percent	Valid Percent
Low skill level needed	1	10%	10%
Moderate skill level needed	2	20%	20%
High skill level needed	7	70%	70%
Missing Data	0		
Total	10	100%	100%

The majority of the workers in the consulting sector need to possess a high level of skill.

Green Building	Frequency of response	Percent	Valid Percent
Moderate skill level needed	2	18.20%	20%
High skill level needed	8	72.70%	80%
Missing Data	1	9.10%	
Total	11	100.00%	100%

The majority of the workers in the green building sector must possess a high level of skill.

Industrial manufacturing	Frequency of response	Percent	Valid Percent
Moderate skill level needed	2	100.00%	100%
Missing Data	0		
Total	2	100%	100%

All of the workers in the industrial manufacturing sector need to possess a moderate level of skill.

Service-oriented businesses	Frequency of response	Percent	Valid Percent
Moderate skill level needed	1	33.30%	33.30%
High skill level needed	2	66.70%	66.70%
Missing Data	0		
Total	3	100%	100%

The majority of those working in the service-oriented sector need a high level of skill.

Alternative Energy Sector	Frequency of response	Percent	Valid Percent
High skill level needed	1	50%	100%
Missing Data	1	50%	
Total	2	100%	

All of the workers in the alternative energy sector need to possess a high skill level; however, this assessment is based off one survey response.

Investment	Frequency of response	Percent	Valid Percent
Moderate skill level needed	1	50%	50%
High skill level needed	1	50%	50%
Missing Data	0		
Total	2	100%	100%

Employees with both moderate and high skill levels can be employed in the investment sector.

Question # 7

Question seven asked: *What is the education level required by the majority of your employees?*

The question gave four options from which to choose: high school education *not* needed, high school education needed, college degree needed, graduate or professional degree needed. This question had a response rate of 96.3%, with fifty-two respondents answering the question.

- Eleven respondents, or 21.2% of businesses reported that the majority of their employees did not need a high school education.
- Twenty-one respondents, or 40.4% of businesses reported that the majority of their employees needed a high school education.
- Thirteen respondents, or 25% of businesses reported that the majority of their employees needed a college degree.
- Seven respondents, or 13.5% of businesses reported that the majority of their employees need a graduate or professional degree.

Having at least a high school diploma is a requirement for employment in 78.9% of the jobs in the sustainable business sector in Lane County.

The charts below summarize the responses to this question based on business category.

Natural food farm	Frequency of response	Percent	Valid Percent
High school education not needed	4	66.70%	66.70%
High school needed	2	33.30%	33.30%
Missing Data	0		
Total	6	100%	100%

Employment on a natural food farm is a possibility for people without a high school diploma.

Natural food manufacturer/producer	Frequency of response	Percent	Valid Percent
High school education not needed	3	27.30%	27.30%
High school needed	8	72.70%	72.70%
Missing Data	0	0.00%	
Total	11	100.00%	100.00%

Though employment in the production and manufacturing of natural food is a possibility for some people without high school degrees, the majority of those employed in the sector do need to have a high school degree.

Natural food retail	Frequency of response	Percent	Valid Percent
High school education not needed	1	33.30%	33.30%
High school needed	2	67%	67%
Missing Data	0		
Total	3	100	100

The majority of those seeking employment in the retail of natural foods need to have high school diplomas. Some retailers do employ people without high school degrees.

Recycling	Frequency of response	Percent	Valid Percent
High school education not needed	1	33.30%	33.30%
High school needed	2	67%	67%
Missing Data	0		
Total	3	100	100

The majority of those seeking employment in the recycling sector need to have high school diplomas. Some businesses in this sector do employ people without high school degrees.

Consulting	Frequency of response	Percent	Valid Percent
High school education not needed	1	10%	10%
College degree needed	4	40%	40%
Graduate degree needed	5	50%	50%
Missing Data	0		
Total	10	100%	100%

Employment for those without high school degrees in the consulting sector is not a possibility as employees with college, graduate, and professional degrees dominate this sector.

Green Building	Frequency of response	Percent	Valid Percent
High school education not needed	1	9.10%	10%
High school education needed	3	27.30%	30%
College degree needed	4	36.40%	40%
Graduate degree needed	2	18.20%	20%
Missing Data	1	9.10%	
Total	11	100%	100%

Employment for those without high school degrees in the green building sector is a small possibility; however, this sector is dominated by employees with high school, college, graduate, and professional degrees.

Industrial manufacturing	Frequency of response	Percent	Valid Percent
High school education needed	2	100.00%	100%
Missing Data	0		
Total	2	100%	100%

A high school diploma is a necessity for employment in the industrial manufacturing sector.

Service-oriented businesses	Frequency of response	Percent	Valid Percent
High school education needed	1	33.30%	33.30%
College degree needed	2	66.70%	66.70%
Missing Data	0		
Total	3	100%	100%

The majority of the service-oriented business employees have college degrees.

Alternative Energy Sector	Frequency of response	Percent	Valid Percent
College degree needed	1	50%	100%
Missing Data	1	50%	
Total	2	100%	100

The majority of the alternative energy sector's employees have college degrees; however, this analysis is based on one survey response.

Investment	Frequency of response	Percent	Valid Percent
College degree needed	2	100%	100%
Missing Data	0		
Total	2	100%	100%

The employees in the investment sector all have college degrees.

Question #8

Question eight asked: *To assess the size of the local sustainability sector, please state your total sales in 2002?*

This question was intended to determine the economic impact of the local sustainability sector. Respondents were given five different ranges from which to choose: \$25,000-\$50,000, \$51,000-\$75,000, \$76,000-\$100,000, \$100,001-\$200,000, and \$200,000+. Question eight had a response rate of 96.3%, with fifty-two respondents answering the question.

- Ten respondents, or 19.2% of businesses reported that their sales for 2002 fell between \$25,000 and \$50,000.
- Two respondents, or 3.8% of businesses reported that their sales were between \$51,000 and \$75,000.
- Two respondents, or 3.8% of businesses reported that their sales fell between \$76,000 and \$100,000.
- Seven respondents, or 13.5% of businesses reported to have sales between \$100,001 and \$200,000.
- Thirty-one respondents, or 59.6% of businesses reported to have sales above \$200,000.
- Of the thirty-one who reported sales above \$200,000, twelve shared their approximate sales in phone interviews. The range of sales for 2002 of those twelve businesses was \$300,000-\$15,000,000. The average for these twelve businesses was \$4,111,363.64.

Question # 9

Question nine asked: *Where are your major markets?*

There were five categories offered to respondents: local, state, regional, national, and international markets. This question has a response rate of 96.3%, with fifty-two respondents answering the question.

- Twenty respondents, or 38.5% of businesses reported that their major markets were located in the local area.
- Eight respondents, or 15.4% of businesses reported that their major markets were statewide.
- Eleven respondents, or 21.2% of businesses reported to have regional markets.
- Twelve respondents, or 23.1% of businesses reported their major markets to be nationwide.
- One respondent, or 1.9% of businesses reported to have major international markets.

The majority of sustainable businesses in Lane County serve markets located in the Lane County area.

B. Business and Industry Trends

Question # 10

Question ten asked: *How has your business grown over the past five years?*

The question offered three response options: increased over past five years, decreased over past five years, stayed the same over past five years. Question ten has a response rate of 96.3%, with 52 respondents answering the question.

- Forty-two, or 80.8% of businesses reported increased growth over the past five years.
- Four respondents, or 7.7% of respondents experienced decreased growth over the past five years.
- Six respondents, or 11.5% of businesses reported that their growth has stayed the same over the past five years.

Even in times of poor economic conditions, the sustainable business sector is showing signs of unique resilience; 92.3% of businesses experienced increased or equal growth.

The question then asked respondents to report the percent of growth their business had been experiencing.

- Thirty-nine respondents, or 72.2% of businesses reported the percent growth of their business.
- The range of growth was from 0%-113% growth, and the average growth rate was 26.9%.

The charts below summarize the response to this question based on business category.

Natural food farm	Frequency of response	Percent	Valid Percent
5 year growth increase	3	50.00%	50.00%
5 year growth decrease	1	16.70%	16.70%
5 year same growth	2	33.30%	33.30%
Missing data	0		
Total	6	100%	100%

The majority of natural food farms have experienced equal or increased growth over the past five years.

Natural food manufacturer/producer	Frequency of response	Percent	Valid Percent
5 year growth increase	9	81.80%	90.00%
5 year same growth	1	9.10%	10.00%
Missing data	1	9.10%	
Total	11	100%	100%

An overwhelming majority of natural food manufacturers and producers have enjoyed increased growth over the past five years.

Natural food retail	Frequency of response	Percent	Valid Percent
5 year growth increase	3	100.00%	100.00%
Missing data	0		
Total	3	100%	100%

All natural food retailers have experienced increased growth over the past five years.

Recycling	Frequency of response	Percent	Valid Percent
5 year growth increase	3	100.00%	100.00%
Missing data	0		
Total	3	100%	100%

All businesses in the recycling sector have enjoyed increased growth over the past five years.

Consulting	Frequency of response	Percent	Valid Percent
5 year growth increase	7	70%	70%
5 year growth decrease	1	10%	10%
5 year same growth	2	20%	20%
Missing data	0		
Total	10	100%	100%

The majority in the consulting sector have enjoyed increased growth over the past five years.

Green Building	Frequency of response	Percent	Valid Percent
5 year growth increase	11	100.00%	100%
Missing data	0	0.00%	0%
Total	11	100.00%	100%

All of the businesses in the Green Building sector have enjoyed growth over the past five years.

Industrial manufacturing	Frequency of response	Percent	Valid Percent
5 year growth increase	1	50.00%	50.00%
5 year growth decrease	1	50%	50%
Missing data	0		
Total	2	100	100

Firms in the industrial manufacturing sector have experienced both increased and decreased growth over the past five years.

Service-oriented businesses	Frequency of response	Percent	Valid Percent
5 year growth increase	1	33.30%	33.30%
5 year growth decrease	1	33.30%	33.30%
5 year same growth	1	33.30%	33.30%
Missing data	0		
Total	3	100%	100%

Firms in the service-oriented business sector have experienced increased, decreased, and equal growth over the past five years.

Alternative Energy Sector	Frequency of response	Percent	Valid Percent
5 year increase	1	50%	100%
Missing Data	1	50%	
Total	2	100%	100%

The one valid response from the alternative energy sector reported increased growth over the past five years.

Investment	Frequency of response	Percent	Valid Percent
5 year increase	2	100%	100%
Missing Data	0	100%	100%
Total	2	100%	100%

All the businesses in the investment sector reported increased growth over the past five years.

Question # 11

Question eleven asked: *Do you expect increased or decreased sales this year (2003)?*

Respondents had three responses from which to choose: increase, decrease, and stay the same. Question eleven had a response rate of 96.3%, with fifty-two respondents answering the question.

- Twenty-seven respondents, or 51.9% of businesses expected increased growth.
- Twelve respondents, or 23.1% of businesses expected decreased growth.
- Thirteen respondents, or 25% of businesses expected their growth to stay the same.

During this year of increased unemployment and poor general revenues, 75% of the businesses that responded to the survey expected the same level of sales or increased growth.

Thirty-four respondents, or 63% of businesses reported their expected percent growth for 2003. The range of expected growth was 0%-80%, with the average of 15.8% average growth for 2003.

The charts below summarize the responses to this question broken down by business category.

Natural food farm	Frequency of response	Percent	Valid Percent
Increase	1	16.70%	16.70%
Decrease	3	50.00%	50.00%
Stay the same	2	33.30%	33.30%
Missing data	0		
Total	6	100%	100%

The majority of those in the natural food farm sector expect to have decreased or equal growth this year.

Natural food manufacturer/producer	Frequency of response	Percent	Valid Percent
Increase	9	81.80%	100.00%
Missing data	2	18%	
Total	11	100%	100%

The majority of those in the natural food manufacturing and processing sector expect increased growth in 2003.

Natural food retail	Frequency of response	Percent	Valid Percent
Increase	1	33.30%	33.30%
Decrease	1	33.30%	33.30%
Stay the same	1	33.30%	33.30%
Missing data	0		
Total	3	100%	100%

Natural food retailers expect different amounts of growth this year, the responses were split equally between increase, decrease and stay the same.

Recycling	Frequency of response	Percent	Valid Percent
Increase	1	33.30%	33.30%
Decrease	1	33.30%	33.30%
Stay the same	1	33.30%	33.30%
Missing data	0		
Total	3	100%	100%

Those in the recycling sector are also split on their expected growth for 2003, the responses were split equally between increase, decrease and stay the same.

Consulting	Frequency of response	Percent	Valid Percent
Increase	5	50%	50%
Decrease	2	20%	20%
Stay the same	3	30%	30%
Missing data	0		
Total	10	100%	100%

Half of the consulting firms expect increased growth in 2003, the other half were split between expecting decreased or same growth.

Green Building	Frequency of response	Percent	Valid Percent
Increase	5	45.50%	45.50%
Decrease	3	27.30%	27.30%
Stay the same	3	27.30%	27.30%
Missing data	0		
Total	11	100.00%	100.00%

A large percentage of those in the green building sector expect increased growth in 2003.

Industrial manufacturing	Frequency of response	Percent	Valid Percent
Increase	1	50%	50%
Stay the same	1	50%	50%
Missing data	0		
Total	2	100	100

The two businesses in the industrial manufacturing sector were split between expecting increased or same growth in 2003.

Service-oriented businesses	Frequency of response	Percent	Valid Percent
Increase	1	33.30%	33.30%
Decrease	1	33.30%	33.30%
Stay the same	1	33.30%	33.30%
Missing data	0		
Total	3	100%	100%

Businesses in the service-oriented business sector were equally divided between expecting increased, decreased or same growth in 2003.

Alternative Energy Sector	Frequency of response	Percent	Valid Percent
Increase	1	50%	50%
Decrease	1	50%	50%
Missing data	0		
Total	2	100	100

The two businesses in the alternative energy sector were split between expecting increased and expecting decreased growth in 2003.

Investment	Frequency of response	Percent	Valid Percent
Increase	1	50%	50%
Stay the same	1	50%	50%
Missing Data	0		
Total	2	100	100

The two businesses in the investment sector were split between expecting increased growth and same growth in 2003.

Question #12

Question twelve asked: *Do you expect any change in the number of full time employees (FTE) needed in the next year? In the Next Three Years?: Increase Decrease Stay the Same Expected Change (+ or - # of FTE)_____*

The question gave respondents three options: increase, decrease, or stay the same. This question had a response rate of 92.6%, with 50 answers to the question.

- Twenty respondents, or 40% of businesses expected to hire more employees in 2004.
- Three respondents, or 6% of businesses expected to let employees go in 2004.
- Twenty-seven respondents, or 54% of businesses expect to employ the same amount of workers in 2004 as they are currently employing.

The charts below summarize this portion of question twelve based on business category.

Natural food farm	Frequency of response	Percent	Valid Percent
Decrease	1	16.70%	20.00%
Stay the same	4	66.70%	80.00%
Missing data	1	16.70%	
Total	6	100%	100%

There were no natural food farms that identified that they plan to hire new employees in 2004. However, the majority of natural food farms expect to keep employment levels the same in 2004 as they are now. Only one farm stated that they plan to let workers go in 2004.

Natural food manufacturer/producer	Frequency of response	Percent	Valid Percent
Increase	9	81.90%	90.00%
Stay the same	1	9.10%	10.00%
Missing data	1	9.10%	
Total	11	100%	100%

The majority of manufacturers and producers of natural foods expect to hire new employees in 2004. None of these businesses plan to let workers go in 2004.

Natural food retail	Frequency of response	Percent	Valid Percent
Increase	1	33.30%	33.30%
Stay the same	2	66.70%	66.70%
Missing data	0		
Total	3	100%	100%

Retailers of natural food plan to hire new workers or keep the number of employees the same in 2004. None of these businesses plan to let workers go in 2004.

Recycling	Frequency of response	Percent	Valid Percent
Increase	1	33.30%	33.30%
Stay the same	2	66.70%	66.70%
Missing data	0		
Total	3	100%	100%

Businesses in the recycling category plan to hire new workers or keep levels of employment the same in 2004. None of these businesses plan to let workers go in 2004.

Consulting	Frequency of response	Percent	Valid Percent
Increase	2	20%	20%
Decrease	1	10%	10%
Stay the same	7	70%	70%
Missing data	0		
Total	10	100%	100%

The majority of businesses in the consulting category plan to hire new workers or to keep the number of employees the same in 2004. Only one consulting business plans to let workers go in 2004.

Green Building	Frequency of response	Percent	Valid Percent
Increase	4	36.40%	40.00%
Decrease	1	9.10%	10.00%
Stay the same	5	45.50%	50.00%
Missing data	1	9.10%	
Total	11	100.00%	100.00%

The majority of businesses in the green building category plan to hire new workers or to keep the

number of employees the same in 2004. Only one green building business plans to let workers go in 2004.

Industrial manufacturing	Frequency of response	Percent	Valid Percent
Increase	1	50%	50%
Stay the same	1	50%	50%
Missing data	0		
Total	2	100%	100%

The businesses in the industrial manufacturing category plan to hire new workers or to keep the number of people employed the same in 2004. None of these businesses plan to let workers go in 2004.

Service-based businesses	Frequency of response	Percent	Valid Percent
Increase	1	33.30%	33.30%
Stay the same	2	66.70%	66.70%
Missing data	0		
Total	3	100%	100%

The businesses in the service-based sector plan to hire new workers or to keep the number of employees the same in 2004. None of these businesses plan to let workers go in 2004.

Alternative Energy Sector	Frequency of response	Percent	Valid Percent
Increase	1	50%	50%
Stay the same	1	50%	50%
Missing data	0		
Total	2	100%	100%

The businesses in the alternative energy sector plan to hire new employees, or to keep the number of employees the same in 2004. None of these businesses plan to let workers go in 2004.

Investment	Frequency of response	Percent	Valid Percent
Stay the same	1	50%	100%
Missing Data	1	50%	
Total	2	100%	100%

There was only one valid response in the investment category, this business plans to keep the number of people employed the same in 2004.

When asked to note the expected number of workers they expected to hire or let go in 2004. Nineteen respondents, or 35.2% of businesses answered this portion of the question. The expected change in number of employees ranged from negative 6, to positive 10. On average, 2.3 new employees will be hired by each of the nineteen businesses in 2004.

When respondents were asked to forecast their change in full time employees for the next three years 81.5% of the respondents answered this question (43 responses):

- Thirty-two respondents, or 72.2% of businesses answered that they expected to hire more full time employees in the next three years.
- Twelve respondents, or 27.3% of respondents reported that they expected to keep the number of full time employees constant over the next three years.
- No respondents reported that they expect to decrease the number of full time workers they

employ over the next three years.

Twenty-five respondents noted their expected change in full time employees over the next three years. The expected change ranged from 0 new hires to 50 new hires in the next three years, with an average of 6.4 new hires by each of the 25 businesses.

Question # 13

Question thirteen asked: *Do you expect to see growth in your industry as a whole over the next five years?*

Respondents were given three options: yes, no, and unsure. Question thirteen has a response rate of 98.1%, with fifty-three responses.

- Thirty-six respondents, or 67.9% of businesses expected the industry as a whole to grow over the next five years.
- Six respondents, or 11.3% of respondents do *not* expect the industry to grow over the next five years.
- Eleven respondents, or 20.8% of respondents reported that they were unsure about the growth of the industry over the next five years.

Twenty-eight respondents gave an average percentage by which they expect the industry to grow over the next five years. The expected growth rates range from 0.5%-50%, with the average 20.8% expected growth rate for the sustainable business industry as a whole over the next five years.

Question # 14

Question fourteen asked: *In the next 1-3 years, do you plan to: stay at current location, expand at current location, relocate to new local location, or relocate out of town?*

Respondents were given four response options for this question: stay at current location, expand at current location, relocate to new local location, and relocate out of town. Question fourteen had a response rate of 94.4%, with fifty-one responses.

- Thirty-one respondents, or 60.8% of businesses reported that they plan to keep their business at its current location.
- Ten respondents, or 19.6% of businesses expect to expand at their current location.
- Eight respondents, or 15.7% of respondents plan to relocate to a new local location in town.
- Two respondents, or 3.9% of businesses plan to relocate out of town.

Of those businesses planning to relocate to new local locations in town, most are operated out of the owner's home and the owner is planning to move to a new home. The two respondents that are planning to move out of the local area plan to relocate to Portland to capture the lower operation costs there. These respondents specifically mentioned the high cost of electricity, and air travel as factors in determining locational decisions.

The charts below summarize the responses to this question based on business category.

Natural food farm	Frequency of response	Percent	Valid Percent
Stay at current location	4	66.70%	80.00%
Expand at current location	1	16.70%	20.00%
Missing data	1	16.70%	
Total	5	100%	100%

The majority of natural food farms will stay at their current location. One farm will be expanding at its current location.

Natural food manufacturer/producer	Frequency of response	Percent	Valid Percent
Stay at current location	4	36.40%	40.00%
Expand at current location	4	36.40%	40.00%
Relocate to new location	1	9.10%	10.00%
Relocate out of town	1	9.10%	10.00%
Missing data	1	9.10%	
Total	11	100%	100%

The majority of manufacturers and producers of natural foods plan to keep their operations at their current location and to expand at this location. One business in this category plans to relocate to a new local location, and one plans to relocate out of town.

Natural food retail	Frequency of response	Percent	Valid Percent
Stay at current location	1	33.30%	50.00%
Expand at current location	1	33.30%	50.00%
Missing data	1	33.30%	
Total	3	100%	100%

The retailers of natural food plan to stay or expand at their current locations.

Recycling	Frequency of response	Percent	Valid Percent
Stay at current location	2	66.70%	66.70%
Relocate to new location	1	33.30%	33.30%
Total	3	100%	100%

The majority of the recycling businesses plan to stay at their current location; one business plans to relocate to a new local location.

Consulting	Frequency of response	Percent	Valid Percent
Stay at current location	9	90%	90%
Relocate to new location	1	10%	10%
Total	10	100%	100%

The majority of consulting business will keep operating out of their current locations. One consulting business plans to relocate to a new local location.

Green Building	Frequency of response	Percent	Valid Percent
Stay at current location	8	72.70%	72.70%
Expand at current location	1	9.10%	9.10%
Relocate to new location	2	18.20%	18.20%
Total	11	100.00%	100.00%

The majority of the green building businesses are going to remain at their current location. One business will expand at their current location and two plan to relocate to new local locations.

Industrial manufacturing	Frequency of response	Percent	Valid Percent
Stay at current location	1	50%	50%
Relocate to new location	1	50%	50%
Total	2	100%	100%

Of the two businesses in the industrial manufacturing sector, one plans to stay at their current location and one plans to relocate to a new local location.

Service-based businesses	Frequency of response	Percent	Valid Percent
Stay at current location	2	66.70%	66.70%
Relocate to new location	1	33.30%	33.30%
Total	3	100%	100%

The majority of the service-based businesses plan to stay at their current location. One service-based business plans to relocate to a new local location.

Alternative Energy Sector	Frequency of response	Percent	Valid Percent
Relocate to new location	1	50%	50%
Relocate out of town	1	50%	50%
Total	2	100%	100%

Of the two businesses in the alternative energy sector, one plans to relocate to a new local location and one plans to relocate out of town.

Investment	Frequency of response	Percent	Valid Percent
Expand at current location	2	100%	100%
Total	2	100%	100%

Both of the investment firms plan to expand at their current location.

C. Current Practices and Competitive Advantages

Question # 15

Question fifteen asked: *What sustainability practices have you adopted?*

The question listed eleven options and respondents were asked to circle all practices that applied to their business. 100% of businesses answered this question; however, because respondents could circle all practices that apply to their businesses, the total percentages add up to more than 100%.

- 72.2% of respondents reported that their business reuses and recycles material extensively.
- 4.4% of respondents reported that non-toxic materials are used extensively in their business operations.
- 40.7% of businesses reported that their business uses third party certified products or feedstock.
- 37% of respondents reported that their business employs zero waste and/or waste reduction strategies.
- 27.8% of respondents reported that their business adopted a comprehensive energy efficiency program.
- 25.9% of respondents reported that their businesses' production practices have been certified as sustainable by a third party.

- 24.1% of respondents reported that their business uses renewable energy.
- 22.2% of respondents reported that their business follows the natural step or other sustainability principles.
- 16.7% of respondents reported that their business has adopted a formal company sustainability policy.
- 13% of businesses reported to have comprehensive water efficiency programs.
- 7.5% of respondents reported to use other sustainable practices in their business operations.

The most commonly used practices among all firms are reuse and recycling. The extensive use of non-toxic materials is the second most common practice used, and the use of third party certified products or feedstock is the third most commonly used practice. The remaining practices are not currently widely used by businesses in Lane County.

The charts below summarize the results of this question based on business category.

Natural food farm	Percent using practice
Formal sustainability policy adopted	0%
Follow natural step or other sustainability practices	33.30%
Comprehensive energy efficiency program adopted	16.70%
Use renewable energy	33.30%
Use of third party certified feedstock or products	66.70%
Third party certification of production practices	83.30%
Extensive use of non-toxic materials	83.30%
Reuse and recycle extensively	66.70%
Zero waste/waste reduction strategies used	16.70%
Comprehensice water efficiency program	16.70%
Other sustainability practices used	0%

The two most commonly used practices in natural food farms are third party certification of feedstock or products and extensive use of non-toxic materials. Natural food farms use a wide variety of sustainability practices.

Natural food producer/manufacturer	Percent using practice
Formal sustainability policy adopted	27%
Follow natural step or other sustainability practices	36.40%
Comprehensive energy efficiency program adopted	45.50%
Use renewable energy	9.10%
Use of third party certified feedstock or products	63.60%
Third party certification of production practices	45.50%
Extensive use of non-toxic materials	54.50%
Reuse and recycle extensively	54.50%
Zero waste/waste reduction strategies used	36.40%
Comprehensice water efficiency program	18.20%
Other sustainability practices used	0%

The use of third party certified feedstock or products is the most widely used practice by natural food producers/manufacturers. Natural food producers/manufacturers use a wide variety of sustainability practices.

Natural food retail	Percent using practice
Formal sustainability policy adopted	33%
Follow natural step or other sustainability practices	0.00%
Comprehensive energy efficiency program adopted	33.30%
Use renewable energy	33.30%
Use of third party certified feedstock or products	66.70%
Third party certification of production practices	0.00%
Extensive use of non-toxic materials	66.70%
Reuse and recycle extensively	66.70%
Zero waste/waste reduction strategies used	33.30%
Comprehensive water efficiency program	0.00%
Other sustainability practices used	33%

The use of third party certified feedstock or products, extensive use of non-toxic materials, and reuse and recycling are the most common practices used by natural food retailers.

Recycling	Percent using practice
Formal sustainability policy adopted	33%
Follow natural step or other sustainability practices	0.00%
Comprehensive energy efficiency program adopted	33.30%
Use renewable energy	0.00%
Use of third party certified feedstock or products	0.00%
Third party certification of production practices	0.00%
Extensive use of non-toxic materials	33.30%
Reuse and recycle extensively	100.00%
Zero waste/waste reduction strategies used	100.00%
Comprehensive water efficiency program	0.00%
Other sustainability practices used	0%

Extensive reuse and recycling and zero waste/waste reduction strategies are used by all of the businesses in the recycling category.

Consulting	Percent using practice
Formal sustainability policy adopted	10%
Follow natural step or other sustainability practices	20.00%
Comprehensive energy efficiency program adopted	20.00%
Use renewable energy	20.00%
Use of third party certified feedstock or products	10.00%
Third party certification of production practices	0.00%
Extensive use of non-toxic materials	40.00%
Reuse and recycle extensively	90.00%
Zero waste/waste reduction strategies used	30.00%
Comprehensive water efficiency program	10.00%
Other sustainability practices used	0%

The majority of the businesses in the consulting category reuse and recycle extensively.

Green building	Percent using practice
Formal sustainability policy adopted	18%
Follow natural step or other sustainability practices	27.30%
Comprehensive energy efficiency program adopted	36.40%
Use renewable energy	36.40%
Use of third party certified feedstock or products	10.00%
Third party certification of production practices	36.40%
Extensive use of non-toxic materials	54.40%
Reuse and recycle extensively	72.20%
Zero waste/waste reduction strategies used	45.50%
Comprehensive water efficiency program	18.20%
Other sustainability practices used	0%

Extensive reuse and recycling is the most commonly employed practice by green building businesses.

Industrial manufacturing	Percent using practice
Formal sustainability policy adopted	0%
Follow natural step or other sustainability practices	0.00%
Comprehensive energy efficiency program adopted	0.00%
Use renewable energy	0.00%
Use of third party certified feedstock or products	0.00%
Third party certification of production practices	0.00%
Extensive use of non-toxic materials	0.00%
Reuse and recycle extensively	100.00%
Zero waste/waste reduction strategies used	50.00%
Comprehensive water efficiency program	0.00%
Other sustainability practices used	0%

Extensive reuse and recycling is practiced by all businesses in the industrial manufacturing category. Businesses in this category do not use many of the practices mentioned in the survey.

Service-based sector	Percent using practice
Formal sustainability policy adopted	0%
Follow natural step or other sustainability practices	0.00%
Comprehensive energy efficiency program adopted	33.30%
Use renewable energy	0.00%
Use of third party certified feedstock or products	0.00%
Third party certification of production practices	0.00%
Extensive use of non-toxic materials	0.00%
Reuse and recycle extensively	66.70%
Zero waste/waste reduction strategies used	0.00%
Comprehensive water efficiency program	0.00%
Other sustainability practices used	0%

The service-based sector does not use many of the practices listed in the survey. The majority of these businesses do reuse and recycle extensively.

Alternative energy sector	Percent using practice
Formal sustainability policy adopted	0%
Follow natural step or other sustainability practices	0.00%
Comprehensive energy efficiency program adopted	0.00%
Use renewable energy	100.00%
Use of third party certified feedstock or products	50.00%
Third party certification of production practices	0.00%
Extensive use of non-toxic materials	0.00%
Reuse and recycle extensively	0.00%
Zero waste/waste reduction strategies used	0.00%
Comprehensive water efficiency program	0.00%
Other sustainability practices used	0%

The alternative energy sector does not use many of the practices listed in the survey. 100% of these businesses do use renewable energy.

Investment	Percent using practice
Formal sustainability policy adopted	0%
Follow natural step or other sustainability practices	50.00%
Comprehensive energy efficiency program adopted	0.00%
Use renewable energy	50.00%
Use of third party certified feedstock or products	0.00%
Third party certification of production practices	0.00%
Extensive use of non-toxic materials	0.00%
Reuse and recycle extensively	0.00%
Zero waste/waste reduction strategies used	50.00%
Comprehensive water efficiency program	50.00%
Other sustainability practices used	0%

Four practices appear to be used equally in the investment sector: following The Natural Step principle, use of renewable energy, zero waste/waste reduction strategies and comprehensive energy efficiency strategies.

Question # 16

Question sixteen asked: *How do the sustainability practices circled above create a competitive advantage for you?*

The question offered nine response options and respondents were asked to circle all responses that applied to their business. 100% of businesses answered this question; however, because respondents could circle all reasons that apply to their businesses, the total percentages add up to more than 100%.

- 61.1% of respondents use sustainability practices to better their public image.
- 43.4% of survey respondents use sustainability practices to reduce costs in the operation of their business.
- 40.7% of respondents use sustainability practices to make happy and more productive workers.
- 40.7% of respondents use sustainability practices to meet customer demand.
- 35.8% of respondents use sustainability practices to increase their sales.

- 18.5% of respondents use sustainability practices to reduce risk of accident and lawsuits.
- 14.8% of respondents use sustainability practices because there are fewer regulations associated with the practices. 7.4% of respondents use sustainability practices for other reasons.
- No respondents reported that sustainability practices offer no competitive advantage for their business.

Sustainability practices are used by the majority of survey respondents to help their public image. The second most common reason why the practices are used is to reduce costs. The third most common response was that the practices are used to make more happy and productive workers and that they are used to meet customer demand (tie).

Though this question had a response rate of 100%, some of the respondents reported that none of our options applied to their business. These same businesses did not indicate that sustainability practices offer no competitive advantage for them. In these cases it can be deduced that the response options did not include the reasons why the businesses adopted sustainability practices.

Question # 17

Question seventeen asked: *What competitive advantages do you see for your business in Lane County?*

100% of businesses answered this question; however, because respondents could circle all advantages that apply to their businesses, the total percentages add up to more than 100%.

- 66.7% of respondents feel that the good quality of life available in Lane County offers a competitive advantage for their business.
- 53.7% of respondents believe that Lane County's local market for sustainable products offers a competitive advantage for their business. 33.3% of respondents think that Lane County's educated workforce offers a competitive advantage for their business.
- 27.8% of respondents feel that Lane County's proximity to interstate 5 offers their business a competitive advantage.
- 25.9% of respondents reported that Lane County's abundant water and natural resources offer a competitive advantage for their business.
- 24.1% of respondents feel that the access to research centers in Lane County offers a competitive advantage for their business.
- 20.8% of respondents feel that Lane County's mild weather offers a competitive advantage for their business.
- 9.3% of respondents reported that Lane County's proximity to the airport offers a competitive advantage for their business.
- 7.4% of respondents feel that Lane County offers no specific competitive advantage.
- 5.6% of respondents reported that the proximity to the railroad offers a competitive advantage for their business.
- 3.8% of respondents reported that Lane County offers other competitive advantages that were not included in the response options.

The majority of respondents believe that the good quality-of-life available to them and their employees is the greatest competitive advantage that Lane County offers. Respondents feel that the local market for sustainable products is the second most important competitive advantage offered in Lane County.

Question # 18

Question eighteen asked: *Do you believe Lane County is a good place to operate a sustainable business?*

The question offered two responses: yes and no. The question had a response rate of 81.5%, with 44 responses.

- 93.2% of respondents feel that Lane County is a good place to operate a sustainable business.
- 6.8% of respondents feel that Lane County is not a good place to operate a sustainable business.

Question eighteen also provided respondents with a blank space in which to expand on their answer. All responses were studied to determine if there were any common themes. In order to determine the common themes, seven response categories were created. If a written response contained one of the categorized themes then the category received a check mark. If a written response contained more than one theme, all of the themes received a check mark. This information was then analyzed in the same manner as the other data.

- 57.4% of respondents who provided answers to this question said that Lane County was a good place to operate a sustainable business because the community is informed and places value on health and sustainability.
- 7.4% of responses noted that Lane County is *not* a good place to operate a sustainable business because of the poor local economy.
- 7.4% of respondents noted that Lane County is a good place to operate a sustainable business because there is a large sector to work in/with.
- 5.6% of respondents noted that Lane County is a good place to operate a sustainable business because it is centrally located.
- 5.6% of respondents mentioned that Lane County is *not* a good place to operate a sustainable business because the local costs associated with running a business are too high.
- 3.7% of responses mentioned that Lane County is *not* a good place to operate a sustainable business because the community lacked education about sustainability practices and its' environmental impacts.
- 3.7% of respondents feel that Lane County is a good place to operate a sustainable business because there is political support for sustainable operations.

D. Business Needs and Climate

19. Question nineteen asked: *What local factors constrain the ability of your business to succeed?*

100% of businesses answered this question; however, because respondents could circle all factors that apply to their businesses, the total percentages add up to more than 100%.

- 24.1% of respondents noted that the high cost of housing in Lane County constrains their businesses' ability to succeed.
- 18.5% of respondents noted that the high cost of labor in Lane County constrains their businesses' success.
- 18.5% of respondents mentioned that the high utility costs in Lane County limit their businesses' ability to succeed.
- 16.7% of respondents believe that lack of responsiveness/lack of support from government limits their businesses' ability to succeed.
- 13.2% of respondents feel that state taxes constrain their businesses' success.
- 13% of respondents think that excessive regulations in Lane County limit their businesses' ability to succeed.
- 11.3% of respondents noted that the quality of the workforce in Lane County limits their businesses' success.
- 11.1% of respondents noted that the public education system in Lane County limits their businesses' ability to succeed.
- 11.1% of respondents thought that the fees and taxes in the Eugene area limit their ability to succeed.
- 11.1% of respondents think that the public attitude towards their business constrains their businesses' success.
- 9.3% of respondents noted that the limited access to capital in Lane County constrains their businesses' ability to succeed.
- 9.3% of respondents noted that the high transportation costs in Lane County limit their businesses' success.
- 3.7% of respondents mentioned that the lack of industrial space in the County was a constraining factor.

Question # 20

Question twenty asked respondents the question: *What actions would you suggest local governments and/or economic development agencies take to overcome barriers and help your company and/or the local sustainability sector grow?*

Respondents were provided with a blank space to write their answer. Six common themes were identified in the responses that were used as categories. If a written response contained one of the categorized themes then the category received a check mark. If a written response contained more than one theme, all of the themes received a check mark. This information was then analyzed in the same manner as the other data.

- 53.1% of responses noted that governmental officials should give incentives for local sustainable businesses such as tax breaks.
- 22.4% of the responses noted that the local government should help the sector by making government purchases in the sector and by educating the public about the sector.

- 8.2% of responses included themes not captured by these categories. 4.1% of responses noted that there should be more communication and interaction between the sector, the government, and the community.
- 6.1% of responses noted that the K-12 education system should be improved. 4.1% of responses noted that the government should speed-up the land permit process.
- 2% of responses noted that power costs need to be lowered.

PART II

Analysis of Survey Results of Sustainability Practices within the Public Sector in Lane County

In June of 2003 a survey was mailed to 113 public agencies in Lane County seeking to determine the extent to which the agencies have applied sustainability practices, the financial, social, and environmental outcomes of those applications, and their interest in doing more. The survey included 17 questions. The survey was mailed to the City of Eugene, Springfield, Creswell, Cottage Grove, Oakridge, Coburg, Lowell, Junction City, Florence, and Lane County government. In addition, the survey was mailed to hospitals, schools (e.g. public school district, administration), and special government units (e.g. utilities, council of governments) in Lane County. The analysis was completed using the Excel.

This was not a random survey. Public agencies were selected to receive the survey based on the belief that they managed a significant number of buildings and properties so as to play a significant role in the economy, quality-of-life, and environment in Lane County.

Out of 113 surveys mailed, a total of 19 completed surveys were received. This equates to an 18% response rate, which is a decent response for a survey of this type. It should be noted that a response rate of 18% means that 82% of those that received the survey did not respond. It is therefore possible that the results discussed below might not provide an accurate picture of current practices, results, or desires. However, we found remarkable consistency between the answers provided by the 19 respondents. This strongly suggests that the results are probably a fairly accurate snapshot of existing conditions, trends, and future desires of the public sector in Lane County.

Overall, the information generated by the survey suggests that the public sector in Lane County has not comprehensively applied sustainability practices. Reuse and recycling and energy efficiency and conservation are the most dominant practices. Yet, the limited data that was received indicates that the public sector is a major generator of waste and a major user of energy and water. This could suggest that comprehensive efforts to assist public agencies to apply sustainability practices could potentially save significant sums of money while reducing the amount of waste produced and energy and water used locally. At the same time the limited size of the pool of respondents could mean that the data we have is inaccurate and that many more agencies could have adopted sustainability practices and found different outcomes.

Because we had only 19 respondents to the survey, we did not analyze them in the same manner as we did with the survey of the private sector. Below we describe the responses we received and offer some of the written comments that were included under each question.

Summary of Survey Results

Question 1: *Briefly Describe Your Organization*

A majority of survey respondents were from the local governments, followed by public school districts. One special government unit replied to the survey. No hospital responded. The majority of public buildings are owned and managed by the local governments.

Question 2: *How Long Has Your Organization/Agency Been In Operation?*

All nineteen respondents have been in operation over 20 years

Question 3: *How Many Full Time Workers Do You Employ Locally?*

The 19 respondents employ from 20-200 full-time employees. Approximately 16% of the respondents employed over 200 people.

Question 4: *How many buildings and sites does your organization/agency own or maintain for its use and how large are those facilities?*

The total square footage for buildings owned by the agencies totaled close to 4,547,363 square feet.

Question 5: *How much water and energy do all of your facilities combined use annually?*

Total energy use of the 19 organizations that responses to the survey indicate that approximately 20,037,744 Kwh are used by the agencies. School districts appear to use the most energy, realizing nearly 60% of the total annual energy costs generated by the 19 respondents. Total annual energy costs for the 19 respondents is approximately \$3,762,384.

Total water use was not calculated from this survey as for the data provided did not allow us to make such calculations. However, total annual water costs for the local governments and school districts that responded is approximately \$1,555,790, with school districts generating about 87 % of these annual costs.

Question 6: *How much waste is generated annually at all of your facilities combined?*

Local governments produce the majority of the waste generated by the 19 respondents, generating close to 500 tons annually. Total annual costs for waste management for the 19 respondents are close to \$255,000. The largest types of wastes range from office paper for local government to paper and organics (e.g. food scraps) for school districts. No data was received from the special government unit on waste generation.

Question 7: *Does your organization/agency have formal sustainability policies in place?*

Local government comments:

- The City has had a comprehensive recycling program in place over the past 10 years. Recently a formal reuse & recycling policy was implemented in the public works and development services departments.
- City council adopted policies (see attached)
- Paper recycling

Question 8: *Does your organization currently have a comprehensive energy, water, or materials conservation or efficiency program in place?*

Almost 30% of all respondents felt they have comprehensive efficiency and conservation programs in place for energy, water, and solid waste.

Local government comments:

- Energy conservation policy program in place since 1995-Comprehensive stormwater management program incorporating water quality goals and BMP's adopted in 1994
- Low flow toilets and faucets in all city hall restrooms, recycled paper towels & toilet paper purchased – Incandescent bulbs are replaced with fluorescent
- Stated policy in city comprehensive plan
- New building (fire station) has newest codes for energy
- Thermostat at 68 degrees winter, 72 degrees in summer, recycle plastic, paper, cardboard

School comments:

- An energy program

Special government unit comment:

- Use of alternative vehicles (hybrid) janitorial service/landscaping cannot use gas-powered lawn equipment. Recycle paper, glass, etc. switched out lighting to high-efficient fluorescent ballasts

Question 9: *Does your organization/agency use renewable energy such as wind or solar?*

Almost all of the 19 respondents said they did not use renewable energy such as wind or solar.

Local government comment:

- No purchase of renewable power-but we have solar water heating at two pools

Question 10: *Does your organization/agency have or follow “sustainable purchasing” policies for office, facilities, public works, parks, and other agency supplies and materials?*

About 20% of the local government respondents said they have or follow “sustainable purchasing” policies for office facilities, public works, parks and other agency supplies and materials. Roughly 80 % of the 19 respondents said they *do not have* or follow such policies.

Local government comments:

- We have a policy favoring the purchase of recycled content items if they are within 5% of the cost of competing items –However, much of the city’s purchasing is de-centralized (see attached)
- The purchase of minimum 30% post consumer recycled office paper is required in the reuse & recycling policy. The policy also requires other paper conservation practices such as duplexing & email
- Try and purchase recycled products and/or “green” products

Question 11: *Has your organization/agency adopted energy efficient or alternative energy transportation strategies for fleet management or employee commuting?*

Close to 17% of all respondents have adopted energy efficient or alternative transportation strategies for fleet management or employee commuting. Approximately 83% of the respondents *have not* adopted such strategies.

Local government comments:

- Electric/hybrid vehicles added to fleet; initiating use of bio-diesel for heavy vehicles
- The City encourages public transportation through a 40% reimbursement of LTD bus pass cost- The city also provides convenient designated parking spaces for carpoolers and secure bicycle storage- The city has purchased a hybrid Prius pool car
- Traffic signal management; LEED signal heads; bus passes
- Bus pass program, car pool parking

Special government unit comment:

- Hybrid vehicle

Question 12: *Has your organization/agency utilized or adopted ‘green building’ practices such as following the U.S. Green Building Council’s LEED standards?*

Nearly 24% of the local governments and school districts utilize or have adopted ‘Green Building’ practices such as following the U.S. Green Building Council’s LEED standards. Results suggest about 76% of all respondents do not utilize or have not adopted such standards.

Local government comment:

- New construction and major building rehabilitations are to be equivalent to LEED standards
- Not extensively, however the recent library remodel used ‘green’ carpeting and special efficient lighting fixtures
- Install energy saving devices whenever possible

School comment:

- Replaced old lights with new energy efficient fixtures, new insulation

Question 13: *Has your organization/agency adopted comprehensive reuse, recycling, and waste reduction strategies?*

A majority of survey participants answered yes to their organization/agency adopting comprehensive re-use, recycling and waste reduction strategies.

Local government comment:

- Newspaper, office paper, batteries (citywide), motor oil (fleet); Fluorescent tubes and ballasts, construction materials and building demolition, metals – Facility Management Program
- As mentioned previously the public works and development services department has adopted formalized reuse 7 recycling policies: the policy requires the recycling of paper, cardboard, batteries, tin, plastic, glass and newspaper, - Office fixtures are reused through e-mail notification of available fixtures- Less formal recycling practices are in place throughout the city
- Newspaper, office paper, plastics, cardboard, batteries, tin/metal, wood products, organics
- All recyclables Newspapers, office papers, plastics, cardboard, batteries, metals, motor oil, carpet – mandatory recycling for employees
- Newspapers, glass, office paper, plastics, motor oil, cardboard, metal of all type

School comment:

- Newspapers, office papers, plastics, glass, cardboard, ballasts, batteries, metals, wood, motor oil, lights, worm beds
- Newspapers, office paper, cardboard, furniture, batteries, tin/metal, motor oil – all buildings are on the program –we no longer recycle cans and plastic b/c of the cost of processing. B/C of our location we must haul our own material ten miles to the disposal site - Volunteers do most of the transporting

Special government unit comment:

- Newspaper, office paper, plastics, cardboard, batteries, electronics

Question 14: *Can you provide data on the investment costs and savings generated from the programs described above?*

Two local government respondents provided data on the investment costs and savings generated from the following programs:

- \$2,500 *cost savings or return on investment* related to formal sustainability policies
- \$10,000 *cost savings or return on investment* related to comprehensive energy, water, materials or conservation – efficiency programs
- \$2,500 *cost savings or return on investment* related to green purchasing policies and practices
- \$3,000 *start up or investment costs* related to energy efficient transportation strategies
- \$5,000 *start up or investment costs* and \$10,000 *cost savings or return on investment* related to green building practices
- \$5,000 *start up or investment costs* and \$27,500 *cost savings or return on investment* related to comprehensive re-use, recycling and waste reduction

Most of the cost savings appear to be attributed to the utilization or adoption of comprehensive re-use, recycling and waste reduction strategies. There also appears to be substantial cost savings/investment return as well as start up/investment cost associated with utilizing or adopting ‘green building’ practices. Likewise, significant cost savings exist while using conservation – efficiency programs for energy, water or materials.

Question 15: *What made you decide to use the sustainability practices described above?*

The survey results indicate that dedication to the environment positively influence why these public organizations/agencies decide to use the sustainability practices described above. Likewise, close to a third of the total responses suggest cost savings and improving public image play more of a role than public demand in their decision to apply sustainability measures.

Local government comment:

- In house ad hoc green team lead to some formalized examination of policies and practices
- It makes economic sense.
- City of Junction City has worked to recycle for many years

School comment:

- Re-laying with energy saving units

Question 16: *Would you like to expand the use of sustainable practices in your organization/ agency?*

About 70% of respondents are interested in expanding and in some cases beginning the use of sustainable practices. The majority of responses indicate the desire to reduce costs within reasonable use of existing resources as the primary reason to expand the application of sustainable measures within their organization. However, some indicate they would like to know more and that their decision would be based on the cost of such programs. Finally, while there is interest in doing more, some respondents claim there is “variation among departments and divisions with regard to commitment”.

Local government comments:

- The City is lacking a centralized effort regarding sustainable practices. Variation among depts & divisions with regard to commitment
- The city of Springfield is interested in increasing and implementing sustainable practices wherever possible and feasible. The city must be a champion of internal sustainable practices in order to provide leadership in the community at large
- Expand existing programs. Implement new programs to reduce costs
- Would have to know more about it
- There is interest in the organization
- Paper is almost the only thing discarded
- Not sure, would be based on cost of program
- Within reasonable use of existing resources

Schools comments:

- Begin use
- We want to reduce costs and the use of materials that are detrimental to the environment

Question 17: *What type of assistance do you need or would you want to expand your practices?*

There are a variety of responses relating to the types of assistance necessary for expanding sustainability practices. It appears local governments want technical assistance; special government units want Board or Council support; while Public School Districts are equally distributed between these options. Schools prefer a mix of the following: revolving loan fund, grants, technical assistance, training for employees, and support from Board or Council. One Public School District respondent specified long-term funding while another noted they would expand if funds were available.

Local government comments:

- None
- Not sure
- Uncertain

School comments:

- Begin practices
- Long-term funding
- We would expand our program if funds were available. The program needs to be evaluated now that our reconstruction is complete. At this time we do not have the personnel to evaluate or expand the program