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# Why Local Linkages Matter

*Findings from the Local Food Economy Study*

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Readers are invited to submit comments for the final report. Please email comments to Viki Sonntag at [viki@sustainableseattle.org](mailto:viki@sustainableseattle.org) by February 21.

Sustainable Seattle provides meaningful information for making sustainable choices to individuals and communities throughout the Central Puget Sound region.

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- Advances action around an integrated vision of sustainability;
- Promotes the use of indicator information among decision-makers for accountability, transparency and good governance;
- Builds increased capacity for community stewardship in our urban neighborhoods; and
- Shifts this region's economic priorities to support a sustainable community-based economy.

## Preface

Spending involves a choice about the kind of future we want to have. *Why Local Linkages Matter* explains why we should care about our spending choices when it comes to food and sustainability. The report provides a new approach to analyzing the economics of the food system, new support for developing strong local linkages, and new strategies for taking action to grow the local food economy. We find that locally directed spending supports a web of relationships, rooted in place, which serves to restore the land and regenerate community.

# Table of Contents

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	<b>Preface</b>	<b>i</b>
	Table of Contents	ii
	Acknowledgements	iii
	List of Study Participants	iv
	<b>Executive Summary</b>	<b>v</b>
	Following the Food Dollar: A Story About Choices	xi
<b>Chapter 1</b>	<b>Introduction</b>	<b>1</b>
<b>Chapter 2</b>	<b>Economic Impact Analysis</b>	<b>7</b>
<b>Chapter 3</b>	<b>Business Sustainability Analysis</b>	<b>27</b>
<b>Chapter 4</b>	<b>Critical Linkages Analysis</b>	<b>65</b>
<b>Chapter 5</b>	<b>Why Local Is Sustainable</b>	<b>82</b>
<b>Chapter 6</b>	<b>The Case for Local Linkages</b>	<b>101</b>
	References	<b>110</b>
Appendix A	Theoretical Model	A-1
Appendix B	Study Methodologies	B-1
Appendix C	Earlier Local Multiplier Studies	C-1
Appendix D	Local Food Economy Businesses	D-1
Appendix E	Description of Participating Enterprises	E-1
Appendix F	Work Plans	F-1

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The research and writing of this report were made financially possible through the generosity of Kat Taylor and Tim Crosby. Sustainable Seattle would also like to thank those attending the fundraising dinner supporting this work.

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Thank you to all who contributed to this report.

## LIST OF STUDY PARTICIPANTS

This list will be included in the Final Report.

## EXECUTIVE SUMMARY

### WHY LOCAL LINKAGES MATTER

Spending involves a choice about the kind of future we want to have. This report, *Why Local Linkages Matter: Findings from the Local Food Economy Study*, explains why we should care about our spending choices when it comes to food and sustainability. It finds that locally directed spending supports a web of relationships, rooted in place, which makes for healthier and more prosperous communities.

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#### THE IMPACT OF LOCALLY DIRECTED SPENDING

The report describes the dollar flows and economic linkages of food-related businesses in the Central Puget Sound region of Washington State. The analysis shows that locally directed spending by consumers more than doubles the number of dollars circulating among businesses in the community. This means that ***a shift of 20% of our food dollars into locally directed spending would result in a nearly half billion dollar annual income increase in King County alone and twice that in the Central Puget Sound region.***

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#### A NEW MODEL OF COMMUNITY ECONOMIC DEVELOPMENT

A model of a relationship-based economy emerges from the study. The model says that the more dollars circulating locally, the greater the number of community linkages and the greater their strength. The research indicates that more and stronger linkages provide for a healthier, more diverse and resilient local economy. Simply put, locally directed buying and selling connects the community's resources to its needs resulting in relationships that serve to restore the land and regenerate community.

The report makes the case that the emerging local food economy represents a fundamentally different way of organizing production and consumption. Whereas market efficiency is the focus of the industrial food economy, relationship-building is the focus of community economies. Practices in community building and care of the community's resources are key to the vitality of the local food economy.

The study's empirical findings confirm this. In general, *healthy dollar flows are associated with a greater number and diversity of local linkages that build on the small-lot variety that is characteristic of sustainable agriculture and production.* By comparison, trading in high volumes of commodity food results in low dollar flows and impoverishment of a community's resource base.

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#### THE CASE FOR GROWING THE LOCAL FOOD ECONOMY

What we are witnessing in the emergence of the local food economy is changing the idea of what makes for healthy economies – from growth based on commoditizing resources to community stewardship of resource flows. Even the perception that buying locally produced food costs more is being challenged as both businesses and their customers come to understand the benefits of community building and caring for the community's resources. In the emerging local food economy, we see the promise of a sustainable future. But this web of relationships needs to be strengthened and expanded to change the bigger picture of an increasingly unsustainable food system.

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#### THE CHALLENGES AHEAD

At present, the local food economy accounts for an estimated 1 to 2% of the region's food sales. The study concludes that *the central challenge to creating a sustainable food system in the Central Puget Sound region is to grow the web of relationships that is its foundation without sapping its vitality in the process.* The opportunity is to meet the growing demand for locally-produced food in a way that preserves and regenerates this web of relationships.

We can grow the local food economy to a scale that meets the region's needs for justly and sustainably produced food through locally directed spending, the building of relationships, and strategic public and cooperative ventures. These investments will make a difference to the economic success of our region's food producers, manufacturers, distributors, restaurants and grocers; to preserving farmland; and to providing access to healthy, affordable food in all of our communities. They are investments in a sustainable and prosperous future.

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#### RESEARCH QUESTIONS, KEY POINTS AND MAJOR FINDINGS

The following section presents the report's research questions, key points and major research findings by chapter.

## KEY POINTS

## MAJOR FINDINGS

### Introduction (Chapter 1, pages 1 - 6)

- This report takes a new approach to analyzing the economics of the food system. It looks at how the region's emerging local food economy provides for economic sustainability.
- The report is written for those interested in and committed to growing sustainable local food economies.
- Food system stakeholders took an active role in guiding the research on which this report is based.
- The report describes the dollar flows and economic linkages of food-related businesses.

### Economic Impact Analysis (Chapter 2, pages 7 - 26)

Research Question: Does spending our food dollars locally make a difference economically?

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• Communities can benefit from initiatives to localize economic activity by increasing the proportion of local to non-local spending.</li><li>• Today's spending makes a difference for what kind of economy we have tomorrow.</li><li>• Analysis of spending patterns is a tool for understanding our choices for growing a sustainable food economy.</li></ul> | <ul style="list-style-type: none"><li>✓ Distribution and, to some extent, manufacturing are major points of spending leakages from the local food economy.</li><li>✓ Dollars spent at local food economy restaurants and groceries have more than twice the usual impact of spending at restaurants and groceries on the income of backward-linking suppliers.</li><li>✓ A shift of 20% of our food dollars into locally directed spending would result in a nearly half billion dollar annual income increase in King County alone and double that in the Central Puget Sound region.</li></ul> |
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## KEY POINTS

## MAJOR FINDINGS

### Business Sustainability Analysis (Chapter 3, pages 27 - 64)

Research Question: What are the goals, strategies, practices and challenges of local food economy businesses?

- The emerging local food economy reflects a significant change in the goals, strategies and practices of local food businesses.
  - Local defines the possibilities for developing relationships that serve to restore the land and regenerate community.
  - Community-specific relationships and values figure significantly in the creation of sustainable community economies.
- ✓ Practices in community building are key to the vitality of local food economy businesses.
  - ✓ Increasing demand for local product is not seen as a problem by established LFE businesses. Instead, the challenge is how to meet growing demand with limited capacity. Two major constraints to the future growth of the local food economy stand out: the dwindling supply of farmland and the need for local distribution capacity.
  - ✓ Success for LFE businesses follows learning to manage the time involved in relationship building.
  - ✓ Locally directed buying and selling builds community. The value of community as a local food economy resource is that it is unique to the relationships involved.
  - ✓ Relationship-based practices, most notably, direct sales of farm products, have changed the economic landscape for food producers and consumers alike.
  - ✓ The perception that buying locally produced food costs more is being challenged as both businesses and customers come to understand the benefits of community building and caring for the community's resources.

## KEY POINTS

## MAJOR FINDINGS

### Critical Linkages Analysis (Chapter 4, pages 65 - 81)

Research Question: What are the critical economic linkages for developing a sustainable regional food system?

- Choices about buying and selling co-evolve as a set of relationships linking businesses to their suppliers and customers.
  - The local multiplier is both a measure of local money flows and a tool for identifying critical economic linkages for sustainable development.
  - More and stronger local linkages suggest a healthier, more diverse and resilient local food economy.
- ✓ Buying local is not only feasible but practical and profitable for food businesses. At the same time, there are structural hurdles to expanding the local food economy. A major challenge is the trade-off between volume and variety transactions.
  - ✓ Grocers, restaurants, and institutional food service cite the lack of distribution for local products as a major challenge to increasing local purchasing.
  - ✓ Restaurants and food service venues have the greatest capacity – the knowledge, skills and pricing structure – to deal with the variety offered by small sustainable producers.
  - ✓ In general, healthy local resource flows are associated with leveraging product variety through a diversity of relationships and a greater number of linkages, whereas low multipliers are associated with moving high volumes of commodified food.

## KEY POINTS

## MAJOR FINDINGS

### Why Local Is Sustainable (Chapter 5, pages 82-100)

Research Question: How do local economic linkages contribute to environmental and community sustainability?

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| <ul style="list-style-type: none"><li>• Locally directed spending supports a web of local economic activity that makes for healthier and more prosperous communities.</li><li>• In community economies, the goal is to balance resource use with meeting needs for greater sustainability.</li><li>• What we are witnessing in the emergence of the local food economy is changing our idea of what makes for healthy economies – from growth based on commoditizing resources to community stewardship of resource flows.</li></ul> | <ul style="list-style-type: none"><li>✓ Sustainably balancing resource use with meeting needs is an effect of community building.</li><li>✓ In the local food economy, resources flow through local economic linkages in relationships of mutual caring and responsibility.</li><li>✓ Relationship-based transactions provide for more adaptability in the use of local resources and thus greater self-reliance, while practices in community building are key to the vitality of local food economy business and the regeneration of resources.</li></ul> |
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### The Case for Local Linkages (Chapter 6, pages 101-109)

Research Question: What are the strategies for strengthening the local food economy based on the analyses?

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| <ul style="list-style-type: none"><li>• Buying local connects the community's resources to its needs, resulting in synergistic relationships and the circular flow of resources.</li><li>• To change the bigger picture of an increasingly unsustainable food system based on industrial production models, we need to grow community food systems, networked across the region.</li></ul> | <ul style="list-style-type: none"><li>✓ The central challenge to creating a sustainable food system in the Central Puget Sound region is to grow the web of relationships that is its foundation without sapping its vitality in the process.</li></ul> |
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# 1 INTRODUCTION

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## KEY POINTS

- This report takes a new approach to analyzing the economics of the food system. It looks at how the region's emerging local food economy provides for economic sustainability.
- The report is written for those interested in and committed to growing sustainable local food economies.
- Food system stakeholders took an active role in guiding the research on which this report is based.
- The report describes the dollar flows and economic linkages of food-related businesses.

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Spending involves a choice about the kind of future we want to have. This report explains why we should care about our spending choices when it comes to food and sustainability. Why Local Linkages Matter makes the case for developing strong local linkages as crucial to the economic success of our region's food producers, manufacturers, distributors and purveyors; to preserving farm land; and to providing access to healthy, affordable food in all of our communities. The web of relationships that makes up the local food economy is the source of its vitality. But these relationships need to be strengthened and expanded to change the bigger picture of an increasingly unsustainable food system.

## 1.1 WHY THIS REPORT

Much has been written about the economics of the food system – most of it with an eye to improving production efficiencies. By increasing economies of scale, standardizing inputs and outputs, and adopting new industrial technologies, farms and businesses can achieve greater yields and add more value, along with reducing cost to consumers. Or so the theory goes.

In practice, the price we pay at the supermarket or fast-food take-out for food produced in this way is not such a bargain. If we were to count up all the hidden costs of eating commodified food – the pollution, the subsidies, the poor health – we would find that cheap calories actually cost us more than food that is locally and sustainably produced.<sup>1</sup>

An alternative approach then to analyzing the economics of the food system would be to quantify the true costs of industrializing food production. Some excellent work is being done in this regard. This report, however, takes a different approach.

*Why Local Linkages Matter: Findings from the Local Food Economy Study* examines the economic benefits of local production for local consumption. More specifically, it looks at how the web of relationships that makes up the local food economy provides for economic sustainability and how this economic sustainability contributes to and is supported by social and ecological sustainability. In effect, this report shifts the focus of analysis to look beyond economic performance (how competitive individual businesses are) to the quality of relationships among businesses and between businesses and households (how sustainable the food system is).<sup>2</sup>

This report also makes the case that the development of a healthy food system is not only, or even primarily, a policy issue. The significant choices about what kind of food system we will have are being made in the marketplace. The report's authors believe that the approach adopted in this study leads to a different understanding of the options for developing a healthy and sustainable food system by looking at how system spending and investment choices can be used to drive this development.

## 1.2 WHO SHOULD READ THIS REPORT

This report is primarily written for those interested in and committed to growing sustainable local food economies. This includes community-based food businesses. It also includes households that support their local food economy through conscious buying. Finally, it includes policy makers, civil society organizations and non-profits that are helping to change the economic landscape to nurture local food economy businesses.

The geographical focus of the report is the foodshed of which Seattle and the eastside cities of Kirkland/Bellevue/Renton in King County, Tacoma in Pierce County, and Everett in Snohomish County are the major urban

markets.<sup>3</sup> This foodshed principally includes Central Puget Sound and Northwest Washington, but extends north to British Columbia, south to the Willamette Valley in Oregon and east to Northern Idaho. In winter, Northern California is a source of fresh produce.

While the study is keyed to Central Puget Sound, the report contains lessons for any regional food economy. The broader pattern of local spending on food in this region is likely repeated in many other places as the market forces shaping our food systems are global.

Regarding the level of information, the report aims to strike a balance between providing information sufficiently technical to satisfy the questions of an expert, but also friendly enough to be accessible to anyone interested in local food economies.<sup>4</sup> Different readers may want to focus on different parts of the report. For example, the report begins with a story about how food spending choices support local food economy businesses. For economists, a detailed model which explains the study's theoretical underpinnings can be found in Appendix A. The analyses, that make up the bulk of the report, fall somewhere between these two efforts.

Likewise, the report is not written wholly for advocacy purposes but as a factual representation of the emerging local food economy. At the same time, the vitality of the local food economy speaks for itself, as anyone who has been to a farmers market or celebration of local food knows. For that reason, it is important to portray the local food economy in terms of the region's sustainability values and not purely in the language of economics. At the end of the day, Sustainable Seattle hopes to foster an understanding of the interrelation between economic sustainability and social and ecological sustainability.

### 1.3 THE STUDY'S APPROACH

The Local Food Economy Study takes a participatory action research approach. It provides baseline data for taking action to improve our local food economy but also involves food system stakeholders in examining resource flows, (the exchange of resources such as money, skills and information), as the basis for changing policies and practices.<sup>5</sup> The intent behind this approach is to stimulate collaborative responses to local issues by ensuring that the research is relevant to stakeholders' needs.

Participatory action research gives stakeholders an active role in guiding the research. In the Local Food Economy Study, businesses and other stakeholders – policy makers, food activists, and non-profits – were included in all phases of the research, from design through data collection and analysis to making study recommendations for action.

Participating businesses put significant time into calculating the percentage of their spending that was locally directed.<sup>6</sup> This opened opportunities for participants to identify alternative policy and spending choices that would contribute to the development of a sustainable food economy. For

example, one of the participating businesses chose to use the data they collected for benchmarking their efforts to increase local purchasing.

To put the quantitative data on spending in context, businesses were also interviewed on their relationship practices – how and for what purposes they connected with other businesses – and on the corresponding challenges they saw to increasing local demand and/or supply. (The typical interview lasted an hour.) In this way, the study integrated the perspectives of businesses from different parts of the value chain into the analyses.

Three community workshops were held during the study: in the first, participants helped design the study; in the second, participants helped interpret data; in the final workshop, participants developed action plans for implementing strategies to strengthen local food economy linkages. The project team made an active effort to invite the greater majority of local food economy businesses and food-related organizations within the Central Puget Sound to attend the workshops.

Finally, a project steering committee was set up to review the progress of the study and to give support in making decisions regarding the direction of the study.

The sum of this approach is a report that weaves together the many voices of the local food economy to create a vision of economic sustainability.

## 1.4 THE REPORT'S STRUCTURE

The report consists of several analyses/syntheses drawing on the data collected in the study. As related above, this included three primary sources of data and information:

- Interviews conducted with 34 participating businesses
- An accounting-type survey used to collect data from the interviewed businesses on their spending
- Workshops designed to engage stakeholders in developing a shared understanding of the local food economy

In addition the report draws on numerous reports and articles that discuss the unsustainability of the industrial food system and the promise of emerging local food economies. In particular, the work of the New Economics Foundation informed the multiplier analyses.<sup>7</sup>

The report is organized around questions addressed through the different analyses as follows:

Chapter 2, Economic Impact Analysis: Does spending our food dollars locally make a difference economically?

Chapter 3, Business Sustainability Analysis: What are the goals, strategies, practices and challenges of local food economy businesses?

Chapter 4, Critical Linkages Analysis: What are the critical economic linkages for developing a sustainable regional food system?

Chapter 5, Why Local Is Sustainable: How do local economic linkages contribute to environmental and community sustainability?

Chapter 6, The Case for Local Linkages: What are the strategies for strengthening local economic linkages based on the analyses?

In addition, full descriptions of the local multiplier model and research methodologies are included as Appendix A and B respectively.

## 1.5 BASIS FOR THE STUDY

The Local Food Economy Study expands on earlier studies of the economic impact of local spending. These studies found that locally directed spending contributes as much as two to three times more to a community's income than spending at non-local businesses.

Specifically, the Local Food Economy Study involves using local multipliers to describe the resource (money) flows and economic linkages of food-related businesses. Local multipliers measure the impact of local spending on a community's income. Increasing local spending leads to what economists call a "multiplier effect", that is, an increase in income from additional rounds of spending. By indicating which economic linkages lead to increases in local resource flows, local multipliers provide guidance for making spending and resource investment decisions.

More generally, we can say that locally directed spending (purchasing from community-based enterprises) supports a web of local economic activity that makes for healthier and more prosperous communities. However, research on local money flows in relation to sustainability has been limited. It is the intent of this report to identify the role of local economic linkages in fostering community sustainability.

The report is also concerned with what benefits and challenges there are in building local linkages. Semi-structured open interviews were used to collect the relevant data.

Finally, the Local Food Economy Study is the first local multiplier study to examine linkages in an industry cluster. Previous studies have been limited to focusing primarily on the retail link in the value chain.

A model of a relationship-based food economy emerges from the study. The model says that the larger the local multiplier, the more dollars circulating locally, the greater the number of economic linkages and the greater their strength. More and stronger linkages suggest a healthier, more diverse and resilient local economy.

## Endnotes – Chapter 1

<sup>1</sup> In the report’s context, commodified food means industrially produced food sold in markets governed by undifferentiated price competition.

<sup>2</sup> Throughout the report, the term “household” is often used to replace the more familiar “consumer” as more expressive of the function of household actors in the food economy.

<sup>3</sup> “Foodshed” is a term used to describe the immediate bioregion from which foodstuffs flow into a consuming market.

<sup>4</sup> Terms with specific technical meanings are defined in the footnotes the first time they are introduced.

<sup>5</sup> The term “resource flows” is used to describe the exchange of resources over time.

<sup>6</sup> Depending on the size of the business and the complexity of its supply base, this could take from three to forty hours of time.

<sup>7</sup> Readers who are more generally interested in the local multiplier’s use to promote community economic development are encouraged to visit the following websites: [www.neweconomics.org](http://www.neweconomics.org), [www.pluggingtheleaks.org](http://www.pluggingtheleaks.org), and [www.lm3online.org](http://www.lm3online.org).

## 2 ECONOMIC IMPACT ANALYSIS

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### KEY POINTS

- Communities can benefit from initiatives to localize economic activity by increasing the proportion of local to non-local spending.
  - Today's spending makes a difference for what kind of economy we have tomorrow.
  - Analysis of spending patterns is a tool for understanding our choices for growing a sustainable food economy.
- 

Does spending our food dollars locally make a difference? How much of a difference does it make? And what exactly is this difference? These are some of the questions we take up in analyzing the economic impact of locally directed spending in this chapter.

The findings in this chapter support the conclusion that spending food dollars locally significantly increases regional income because local food economy businesses are likely to use local suppliers. The impact analysis also points to where dollars (and food) are most likely to leak from the local economy. These findings ask us to reconsider our choices about the production and consumption of food.

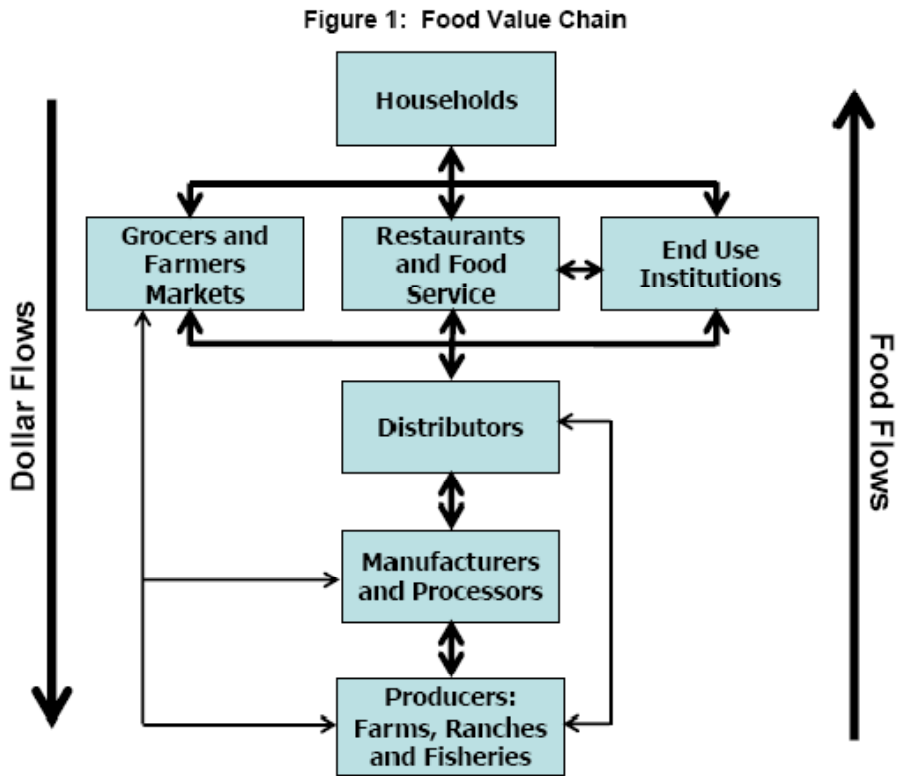
We begin the chapter by defining the local food economy for the purpose of the impact analysis. We next present a simple model of the local multiplier. Local multipliers capture the economic impact of spending on locally produced goods and services within a region. Following the model's

presentation, we compare local multipliers for different parts of the food value chain. To conclude the analysis, we put the multiplier findings in the context of the volume of food dollars being spent in our region by calculating the impact of a shift in spending.

## 2.2 DEFINING THE LOCAL FOOD ECONOMY

What we understand to be the local food economy is defined by a number of factors, some easily quantifiable and some not, that vary according to who is doing the defining and for what purposes. This chapter uses a stricter – and simpler – definition of “what is local” than later chapters.

From an economic perspective, the food system includes the production and consumption of food. On the production side, it consists of all businesses involved in the production, processing, distribution and retailing (including restaurants) of farm and food products. On the consumption side, it includes households and institutions, such as schools and hospitals, which feed people as part of what they do. (These are referred to as “end use institutions”.)<sup>1</sup> A simple schematic of the food system is shown in Figure 1.



Note: Weights of lines signify relative volumes of flow.

Figure 1 points to the importance of both buying and selling choices in analyzing the economics of the food system. Food “flows up” the value chain while dollars “flow down”. Choices producers make about what markets to compete in affect what food is available for local purchase. Likewise, the decisions of households and end use institutions to “buy local” influences the development of the production/distribution infrastructure. In effect, choices about buying and selling co-evolve as a set of relationships linking producers to consumers.

In later chapters, local is redefined to emphasize relationships, but in the analysis below we use a more focused definition of local to allow for a comparison of multipliers from different data sources.<sup>2</sup> For this purpose, local businesses are those headquartered in the Central Puget Sound region. Although we may not all agree about which businesses should be considered local by other criteria, this definition enables us to test assumptions about ownership and locus of decision-making in relation to spending patterns.<sup>3</sup>

The impact analysis uses the categories of businesses shown in the figure. The relationships between the different categories of businesses are the major linkages in the chain. (In the terminology of impact studies, backward-linking businesses are those from which products are bought and forward-linking businesses are those to whom products are sold.) Because we are primarily interested in the flow of food dollars, the analysis does not cover ancillary (or supporting) businesses who sell services to the food industry, such as food brokers or marketing firms.

In addition to business category, two other factors define which businesses were included in the study: the location of the businesses and their ownership. Thus, for the impact analysis, the definition of local businesses includes those headquartered within the four Central Puget Sound counties – King, Kitsap, Pierce and Snohomish. This definition was selected to provide data consistent with that available for all businesses in the region’s food system. In later chapters, we will consider other factors that might be used to describe local food economy (LFE) businesses such as the size of a business or its relationship to the community.

The map on the next page shows three expanding tiers of what is typically deemed local: King County, Central Puget Sound and NW Washington. While we used a Central Puget Sound location as the primary geographical criteria in the analysis, in some cases, businesses participating in the study provided us additional data related to other scales of local. These other scales, or tiers, had to do with how these businesses define local. For example, some local farmers markets consider any business headquartered in Washington State as local.

The restriction that “local” businesses be headquartered in the four county area simplifies a somewhat complex relationship between location, ownership and control. In the impact analysis, ownership is used as a practical measure of control over spending decisions. We hypothesize that locally owned companies will be more likely to spend locally, but other factors may override ownership in spending decisions, such as size.



Figure 2: “Local” Tiers by County

For example, by definition, large retail corporations headquartered in the Puget Sound region, such as Starbucks, are considered local regardless of their many world-wide store locations. Lowe’s, a national hardware chain with local retail locations, would not be considered local, but an independent, locally owned gas station would be considered local even if the product it sells is not locally produced. Franchises or cooperative stores that are locally owned (for example, True Value hardware stores, Great Harvest Bread) are also considered local.

## 2.2 LOCAL MULTIPLIER THEORY

Economic impact multipliers are frequently used in economic analysis to predict the impact of various economic decisions on a city or region. Multipliers are based on the theory that changes in spending are multiplied through the economy, that is, an increase in spending on some goods and services generates a need for additional goods and services. The multipliers express how much additional spending occurs as a multiple of the original spending.

Most impact studies are concerned with changes in the level of spending. The multiplier is applied to a projected change in the amount of spending to estimate the benefit (or loss) to the area of study. Typically, impact multipliers are derived from statistical input-output tables constructed for large metropolitan areas. Historical economic census data are used to determine the ratio of local to non-local spending (i.e., spending on imports) for different categories of spending. However, the use of these multipliers to study changes in the structure of spending is limited by the scale of the analyses, which treat all businesses in a sector as a single aggregate business. Effectively, the economic impact of locally based businesses is aggregated with that of businesses headquartered elsewhere.

The Local Food Economy Study challenges the assumption, made in calculating standard multipliers, that all spending in a region is of equal economic benefit to the community. Independent of growth in spending, multiplier theory suggests that communities can benefit from initiatives to localize economic activity by increasing the proportion of locally directed to non-local spending, that is, by changing the composition of spending.<sup>4</sup> This is the basic idea behind import substitution as an economic development strategy but it also applies for retail and service activities.

**Locally Directed Spending** is purchasing from community-based enterprises in preference to buying from businesses headquartered outside the region, but which may have local operations, such as a retail store.

A few studies are now available that calculate the economic impact of locally directed spending, that is, purchases from community enterprises as distinct from businesses that have local operations (e.g. a store or processing plant) but are based elsewhere. In these studies, local multipliers indicate the value of

local purchases to a community from subsequent local purchases (dollars generated for the local economy over initial income received). These studies, the findings of which are summarized in Section 2.2.2 and Appendix C, indicate that local spending does make a difference in the community's economic well-being.

### 2.2.1 SHIFTING OUR DOLLARS

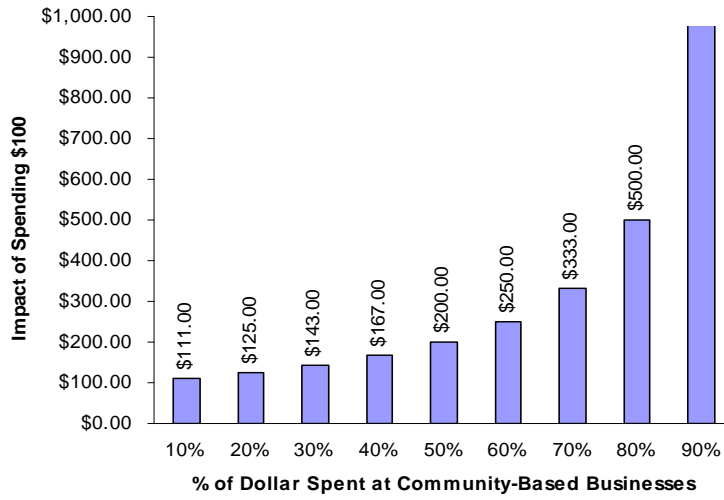
To understand the economic impact of locally directed spending on a community, it is useful to consider what happens when some portion of the community's spending is re-directed from non-local to local businesses.

Money flows into and out of a community through many different channels, such as export and import sales, tourism, taxes and tax benefits. But in the time between dollars entering and leaving the community is the possibility of circulating those dollars within the community. The significance of slowing down the throughput of dollars is that each time a dollar is spent – or re-spent – in a community, the income to a community goes up by a dollar.

The impact of this increase in income is some multiple of the initial amount spent based on the proportion of dollars spent locally, (hence the term “multiplier”).<sup>5</sup> And, because the impact is exponential, as seen in Figure 3, even a small shift in spending has a large impact.

Of course, not everyone spends the same proportion of their dollars locally. How large an impact local spending has on a community is also determined by the number of people spending different percentages of their dollars locally. If only a few people in the community buy from community-based businesses, the impact will be very small in comparison to overall economic

**Figure 3: Impact of Shifting Your Dollars**



activity, no matter how large their personal multipliers. But in terms of their personal contribution to community building, the impact is huge. For example, if Joe Know increases his locally directed spending from 50% to 80%, the impact zooms from \$200 to \$500 for every \$100 he spends – that is, he’s now contributing an additional \$300 to the community!<sup>6</sup>

**The point is this:** In estimating the economic impact of a shift in food dollar spending, we need to account for both the percent of food dollars spent at community-based businesses in an average transaction (as measured by local multipliers) and the percent of the community which shops locally. We might term these two factors the depth and breadth of local spending. Increasing the depth of local spending leads to larger impacts per dollar spent and increasing the breadth leads to a larger market share for local food economy products.

One other effect of spending bears consideration before turning to the analysis. Namely, today’s spending choices make a difference for what kind of economy we have tomorrow. A positive dynamic is created as at first a few folks, then more folks, spend their dollars supporting community-based businesses. As spending grows, the businesses grow in number and size, which provides for even more local choices. So even though it is just a small percentage of people who might buy locally to start with, this spending is critical to establishing viable local choices. Each local food business that is able to get a toe-hold in the economy leads to a greater connectedness – and, as we shall see, competitiveness – of the local food system as a whole.

Finally, it is important to remember that multipliers are but one measure of economic development. Higher local multipliers mean more local sales but not necessarily an increase in consumer spending. In addition, the impact of the local food economy on other possible development priorities, such as innovation and industrial modernization, is not reflected in local multipliers.

### 2.2.2 PREVIOUS MULTIPLIER FINDINGS

Local multiplier studies in the U.S. have largely focused on comparing the economic impact of consumer spending at local retailers with that of spending at chain stores. The findings indicate that the economic impact of locally directed spending is two to three times greater than spending at out-of-area-based businesses.<sup>7</sup>

The work of the New Economics Foundation (NEF), a think/do tank located in England, has been more extensive. Funded by a government statutory advisor for rural England, NEF developed and tested a model for calculating local multipliers in ten different communities and five

different sectors. They concluded that if the UK public sector steered 10% of everyday spending into disadvantaged areas, this would inject an additional £12.5 billion into those economies annually. In addition to confirming the significant positive impact of both private and government spending on local enterprises, the study demonstrated the usefulness of the local multiplier model as a tool for action.

**Local Multipliers** capture the impact of spending on locally produced goods and services within a region. The **Impact** is equal to the initial spending times the multiplier.

### 2.2.3 THE LOCAL MULTIPLIER MODEL

Concerned with opportunities to strengthen local economies, the NEF developed a simple methodology for calculating (micro) local multipliers as a tool to assist initiatives aimed at increasing the local circulation of money.

The NEF model estimates the local economic impact of spending based on three rounds of spending (New Economics Foundation, 2002; Manchester Metropolitan University, 2004). These are:

Round 1: Income to a business.

Round 2: Local spending by the business.

Round 3: Local spending by local recipients of Round 2 spending (e.g. businesses, staff, suppliers, others).

Accounting-type surveys are used to determine income and spending of the business. The surveys record what percentage of expenditures go to the local economy in the form of wages, contracts with local suppliers, utility bills, taxes, and so forth. The sum of the three rounds of spending divided by the initial income to the business approximates the local economic impact, that is, the additional income to the community from locally directed purchases to that business.<sup>8</sup> Figure B-1 in Appendix B presents a diagram of the model.

This study uses a local multiplier model based on two rounds of spending. This modification is referred to as the LM2 (for local multiplier 2). The LM2

results obtained from the study participants (referred to below as the Local Food Economy Survey data) are used as the basis for comparison to industry multipliers obtained from the US Census Bureau and IMPLAN, a commercially available data set of multipliers. Additional information on the model and data sources is provided in Appendix B.

#### 2.2.4 LIMITATIONS AND ADVANTAGES OF THE LM2 MODEL

Because the LM2 model estimates the impact of local spending based on two instead of three rounds of spending, it gives a less exact measure of economic impact than the LM3 model. However, the LM2 is more reliable owing to the difficulties of collecting spending information from suppliers and employees as required by the LM3. The LM3 was initially developed to assess the impact of spending with rural businesses in the U.K. In a metropolitan economy, such as that of Seattle and the Central Puget Sound region, the challenge of getting a representational sample of suppliers and employees for multiple businesses is not practical. Instead, the LM2 model allows us to calculate the local multipliers of a larger and more representational sample of food-related businesses.<sup>9</sup>

### 2.3 IMPACT ANALYSIS

When dollars are spent locally, they can be re-spent locally, raising the community's overall level of economic activity. Local multipliers capture the economic impact of an initial round of spending and successive rounds of re-spending the initial dollars within a community.

Here we present an economic analysis of the local food economy by way of analyzing the multipliers for local food economy (LFE) businesses. We first compare local multipliers for different categories of LFE businesses to each other to understand their relative impacts. We then compare the impact of locally directed spending for the same categories of businesses to the impact of all spending in the region for those categories.<sup>10</sup>

#### 2.3.1 ANALYSIS OF TWO ROUNDS OF SPENDING

Table 2.1 presents the survey results of locally directed spending for five different categories of local food economy (LFE) businesses. The category of grocers includes farmers markets and home delivery grocers, while the farms and ranches category includes CSA (community supported agriculture) farms. The table gives both LM2s and the percentages spent on food grouped by category of business. The highest possible LM2 multiplier is 2.0, which would indicate that no money leaked out of the community. The lowest multiplier is 1.0 which indicates that the business did all of its purchasing from businesses headquartered outside of Central Puget Sound.

**Table 2.1 LM2s and Percentage Spent on Food by Category of Business in the Food Value Chain**

LFE Category	Range of LM2s	% Spent on Food of All Costs
Grocers	1.48 to 1.72	55 to 70%
Restaurants and Food Service	1.67 to 1.88	27 to 36%
Distributors	1.16	87%
Manufacturers and Processors	1.37 to 1.70	33 to 67%
Farms and Ranches	1.75 to 1.93	0 to 34%
All LFE Businesses	1.16 to 1.93	0 to 70%

Source: Local Food Economy Survey data for Central Puget Sound local food economy businesses (2005). (See Section 2.2.3 above and Appendix B for additional information on source data.)

In the table, the ranges in a category correspond to the spread of results for two rounds of spending for the businesses in that category. For example, manufacturers and processors re-spent, on average for the year, from a low of 37 cents to a high of 70 cents for every dollar of income received.

The data show that a significant portion of spending by LFE businesses, with the exception of distributors, is local.<sup>11</sup> Of the downstream (food-purchasing) businesses, LFE restaurants have the highest multipliers, followed by LFE grocers. LFE manufacturers had the widest spread of local multipliers and distributors had the lowest local multipliers.

**Distribution and, to some extent, manufacturing are major points of spending leakages from the local food economy.**

The multipliers reveal that distribution and, to some extent, manufacturing are major points of spending leakages from the local food economy. The results for percent of dollars spent on food, in combination with the LM2 multipliers, also indicate distribution as the major hub of food dollar leakages.

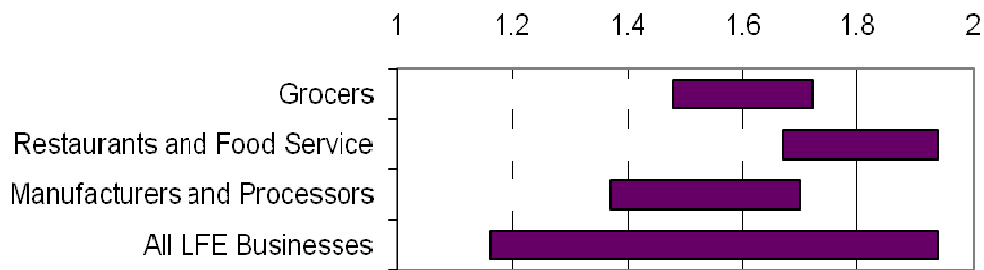
The results also reflect significant differences in impact within a category of business.<sup>12</sup> This suggests that conditions particular to a business will affect the business' choice of local versus outside suppliers. For example, not all LFE manufacturers that sell product close to home, such as local bakeries, are able to source their ingredients locally. Manufacturers with high local multipliers tend to have strong linkages to their food sources, such as farmstead cheese makers. Likewise, there is no defined pattern of locally directed spending by farms and ranches. Some farm producers purchase very few inputs other than the land itself, while farms with community supported agricultural (CSA) programs might purchase produce from other

growers and even distributors to make up their CSA bins. Restaurants that specialize in local food cuisine will have higher multipliers.

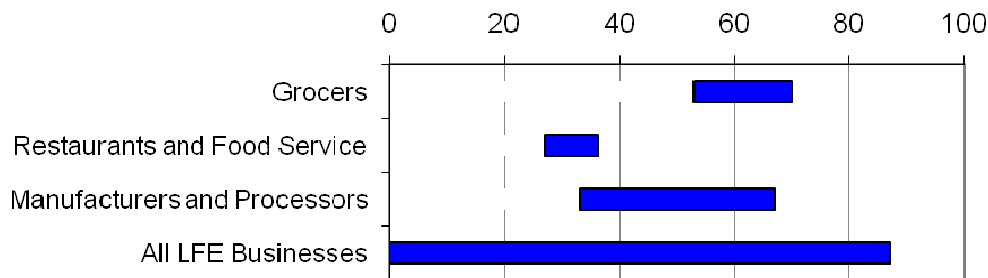
At the same time, we see that impacts also vary according to a business' position in the food value chain. For the LFE restaurants and food service businesses surveyed, locally directed spending was greater than two-thirds of all spending in all cases, but food spending as a portion of all spending was around a third. By contrast, distributors have the lowest local multiplier but the highest food spending as a percentage of total spending. These results imply that higher local multipliers are more likely in those parts of the value chain where production is decentralized, as with restaurants and food service businesses, in comparison to where production is concentrated, as with distributors, a point returned to in Chapter 4.

The values in Table 2.1 are shown in a graphic format in Figure 4 and 5 for three of the four categories of food-purchasing businesses and for all LFE businesses.<sup>13</sup>

**Figure 4 Range of LM2 Multipliers for Different Categories of Business**



**Figure 5 Range of % Spent on Food for Different Categories of Businesses**



As seen from the charts, LFE grocers and manufacturers fall to the middle of the local multiplier range and restaurants and food service businesses are at the high end. The reverse pattern obtains for the range of percent of spending on food. Also, manufacturers show a considerable spread in both ranges.

One explanation for these results is that higher volumes of food purchasing depress local multipliers. Grocers and manufacturers, for example, may contract with national distributors or larger-size farms from outside Central Puget Sound to get the necessary volumes of food to run their businesses.

The significance of the findings for the expansion of the local food economy is that they lead us to hypothesize a trade-off between purchasing large volumes and buying local. We will return to this hypothesis in Chapter 4 in the discussion of dollar flows and linkages.

### 2.3.2 COMPARISON OF INDIRECT IMPACTS

To compare the impact of the LFE businesses surveyed as part of this study to all food businesses located in Central Puget Sound, a model was developed for estimating the impact of locally directed spending resulting from the increased spending of all backward-linking local businesses. The results of this calculation are referred to as “indirect impacts” and the corresponding multipliers as “indirect multipliers”. The model sums the local contribution of all rounds of spending by LFE businesses in the food value chain (indirect impacts) with the initial spending amount (direct impact) by category of LFE business. (For a more detailed explanation of this model refer to Appendix B.)

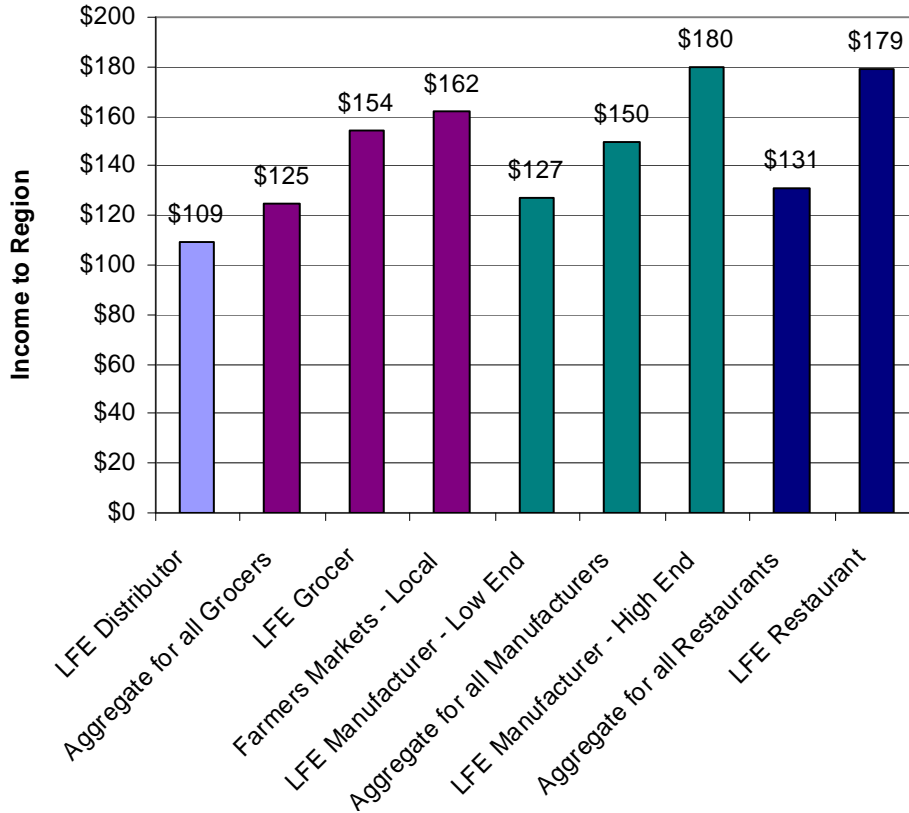
These local indirect multipliers are compared to the aggregate multipliers for all businesses in a category that are obtained from IMPLAN data.<sup>14</sup> The aggregate multipliers, in theory, include the impacts of LFE businesses, although in some categories the overall amount of LFE activity is negligible relative to total demand for goods and services in that category.

Figure 6 on the next page summarizes the results of this comparison. The figure shows the impacts for \$100 worth of spending to illustrate the relative combined direct and indirect impacts for the different categories of businesses. The respective multipliers can be figured by dividing the numbers for “Income to Region’s Businesses” in Figure 6 by \$100. For example, the multiplier for an LFE Distributor is 1.09, while the multiplier for an LFE Grocer is 1.54.

To simplify the comparison, we use a single multiplier for the LFE businesses in a given category corresponding to the lowest LM2 in the range for that category (see Table 2.1 above). This provides us with conservative estimates of the LFE indirect multipliers.<sup>15</sup> The exceptions to this approach are the inclusion of farmers markets as a separate category from grocers and the case of manufacturing businesses where the spread of LM2s called for two end points, (we show both the high and low end impacts in the figure).

As seen from the figure, the pattern in the multipliers’ distribution is related to what was found in the previous section. The results show significant differences in income for backward-linking businesses depending on the category of business. Farmers markets and LFE restaurants have among the highest multipliers, the LFE distributor’s multiplier is lowest, and the spread of multipliers is greatest for manufacturing businesses.

**Figure 6: Direct and Indirect Impacts per \$100 of Local Food Spending**



Sources: Local Food Economy Survey data for Central Puget Sound local food economy businesses (2005) and IMPLAN (2003). See Appendix B for a more detailed discussion of sources.

By category of business, we see that the results also indicate large differences based on whether the businesses' spending is locally directed or not. Most significantly, dollars spent at LFE restaurants and grocers deliver more than twice the usual impact of household spending at restaurants and grocers.<sup>16</sup>

**Dollars spent at LFE restaurants and grocers deliver more than twice the usual impact of household spending at restaurants and grocers.**

Spending at LFE restaurants results in an additional \$79 worth of income to local businesses compared to just \$31 for the average restaurant. This is an

effective premium of greater than 150% for eating locally. In the case of grocers, the premium is 123%, and for farmers markets the premium rises to 148%.

The pie graphs on the next page, Figures 7A through 7E, summarize the findings for restaurants and groceries. The percent of dollars re-spent at community-based businesses out of the total dollars spent is known as “the marginal propensity to consume locally” and is denoted by “r”, whereas the leakage rate of dollars from the community is “1-r”. In algebraic terms, the respective multipliers for each category equal 1 over the leakage rate. For example, the local multiplier for LFE restaurants is  $1/(1-.44)$  or 1.79.

For manufacturing businesses, the comparisons are less definitive. LFE manufacturers have both smaller and larger impacts compared to the aggregate impact for all businesses. The possible reasons for smaller impacts are several: one is that many artisan manufacturers use ingredients that aren’t usually grown in the Puget Sound region, for example, wheat for baked goods. But a more significant reason is that many food manufacturing facilities tend to be located close to the sources of primary inputs. For instance, sea food processing that isn’t done on ships is located on the coasts. Seattle is home port to some of the largest fishing companies in the U.S. This accounts for the higher aggregate multiplier for all food manufacturers (1.5) compared to the aggregate impacts for grocers and restaurants (1.25 and 1.31 respectively).

Likewise, the high end multipliers for LFE manufacturers are associated with value-added manufacturing and processing of local foods, for example, the production of farmstead cheeses. Place-based manufacturers also have very high indirect multipliers because they average a higher percentage of spending on food compared to restaurants and groceries.

A final note to this discussion on the multipliers for manufacturing businesses is that it would be mistaken to assume that consumers must choose between “low impact” locally-made artisan products, “very high impact” value-added LFE products, and “high impact” locally manufactured commodity products. Commodified food products are primarily for export. When the choice is between an industrially made product and a locally made artisan product, the industrially made product is likely to be imported. Starbucks’ coffee, a Seattle “local” product, is an exception rather than the rule.

To sum up, these results comparing the indirect multiplier effects of LFE businesses with all food businesses confirm that locally directed food spending is of major consequence for the economic viability of Central Puget Sound’s local food system. At the same time, the results present a more nuanced picture than what has been previously described in earlier local multiplier studies based on analysis of retail sales alone.

We will return to this discussion in the conclusion to this chapter, but for now we can surmise that consumers’ spending choices matter in achieving economic sustainability in the regional food system due to the significantly higher multipliers for LFE restaurants, farmers markets, and grocers compared to any restaurant or grocery.

### Figures 7A through 7E Indirect Multiplier Effects

(Counts Impacts of All Backward-Linking Businesses)

For every \$100 spent at your  
average grocery store ...

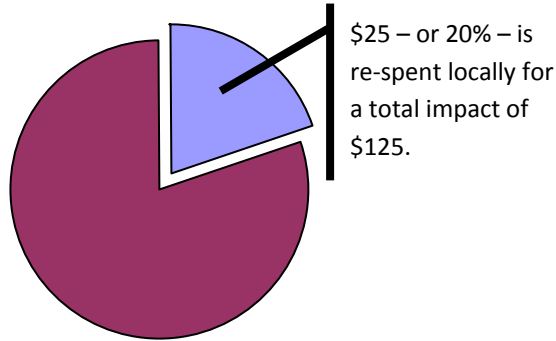


Figure 7A

For every \$100 spent at  
an LFE grocery ...

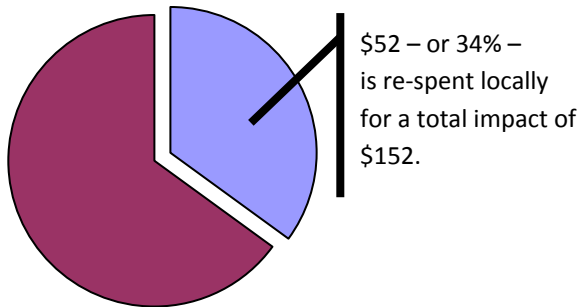


Figure 7B

For every \$100 spent at a  
farmers market ...

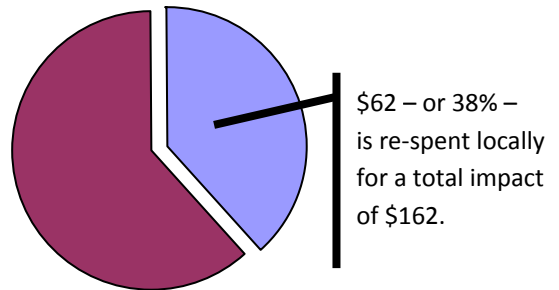


Figure 7C

For every \$100 spent at your  
average restaurant ...

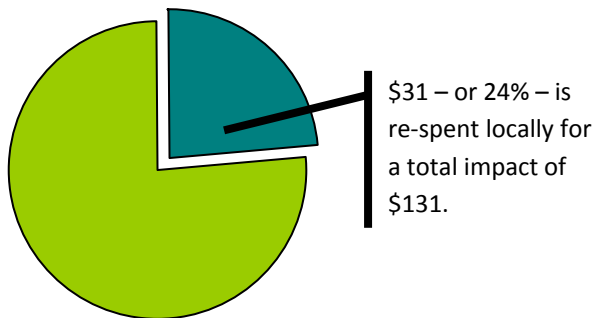


Figure 7D

For every \$100 spent at  
an LFE restaurant ...

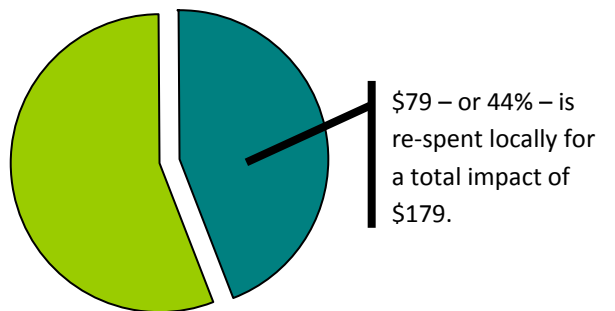


Figure 7E

### 2.3.3 COMPARISON OF THE FINAL DEMAND MULTIPLIERS

In the previous section, we estimated multipliers for different LFE businesses from a model for calculating the rise in regional income due to increased spending by all backward-linking businesses. In this section, we modify the model to include the effects from increased household spending of the income earned through these businesses.<sup>17</sup> The resulting multipliers are referred to as “final demand multipliers”.

By including household spending effects along with the direct and indirect effects, this modified model results in larger overall impacts.<sup>18</sup> It is, however, less exact in estimating the relative impacts of local directed spending compared to overall spending. The indirect LFE multipliers calculated above reflect the relative impacts more accurately because they are more heavily weighted on the survey data than the corresponding final demand multipliers.<sup>19</sup> By the same token, the final demand model underestimates the multipliers for LFE businesses since it relies more extensively on data which aggregate the effects of both local and non-local businesses.

The results for the final demand multiplier calculations are given in Table 2.2, which compares the model estimates to final demand multipliers obtained from IMPLAN for King County and to multipliers for the four-county Central Puget Sound region obtained from the U.S. Census Bureau RIMS Data.

**Table 2.2 Final Demand Multipliers by Category of Business in Food Value Chain**

<b>Category of Business</b>	<b>Final Demand Multipliers Based on Survey Data</b>	<b>King County Multipliers (IMPLAN, 2003)*</b>	<b>Central Puget Sound Multipliers (RIMS, 2003)*</b>
<b>Restaurants and Food Service</b>	2.64	2.14	2.06
<b>Groceries and Home Delivery</b>	2.34	2.02	2.14
<b>Manufacturers and Processors</b>	1.93 to 2.34	2.03	2.02
<b>Farms</b>	2.2	1.98	1.85

\* Multipliers are the aggregate multipliers for both local and non-local businesses.

Sources: Local Food Economy Survey data for Central Puget Sound local food economy businesses (2005), IMPLAN (2003), and RIMS (2003). See Appendix B for a detailed discussion of the source data.

As seen from the table, the overall multipliers are greater although the relative differences between the LFE multipliers and those for all businesses are diminished (because the model underestimates LFE impacts). For example, the premium for locally directed spending at restaurants shrinks to 55% from 154% using the final demand model versus the indirect model. Still, there is a substantial premium for locally directed spending, most notably for restaurants and food service.

The major value of these results is that they can be used to calculate the impact of a shift in consumer demand, a task for the next section. The results are also interesting in light of the findings in other studies.<sup>20</sup>

For example, the Andersonville Study of Retail Economics, using a similar final demand model to that used in this study, estimated a multiplier of 1.76 for local restaurants (their sample included three restaurants and a retail bakery) and 1.60 for chain restaurants (3 restaurants and a retail bakery).<sup>21</sup> The significantly higher multipliers found in this study may be due to the deliberate emphasis on local purchasing of the restaurants and food services that were included. In other words, LFE businesses may generate a premium over independent, local businesses as a whole.

Closer to home, Washington State University researchers have estimated the final demand multiplier for the state's agricultural export sales at 1.7, and the final demand multiplier for food processing exports at 1.68 (Ghosh and Holland, 2004). Both of these results in comparison to the LFE multipliers suggest that exporting as a growth strategy leads to lower impacts per dollar spent.

#### 2.3.4 IMPACT OF A SHIFT IN SPENDING

Currently, best estimates put the local food economy's size at between 1 and 3% of all food spending in the Central Puget.<sup>22</sup> This means that the current level of locally directed spending greatly affects the economic viability of LFE businesses but has little impact on the overall regional food economy. Effectively, the local food economy is a niche market.

To understand this point, let us consider a shift in spending. The total impact for all businesses in a given category is calculated by multiplying the initial spending at businesses in that category times their multipliers. We can thus estimate the impact of a shift in spending from non-local to LFE businesses based on overall food spending for the region.

Impacts by category are also important to note because of changing consumption patterns. Today, nearly 50% of household food dollars are spent eating out, up from 25% in 1955.<sup>23</sup> Since both the depth and breadth of spending is greater for restaurants than grocery stores, an equivalent shift of 20% results in a significantly larger impact by restaurants.

**Table 2.3 Impact of Shift of 20% in Spending from Non-Local to LFE Businesses in King County**

Category of Business	Demand (2003)	Current Impact	Shift of 20%
Restaurants and Food Service	\$2994.57	\$29.95	\$329.40
Groceries and Home Delivery	\$1135.71	\$7.27	\$79.95
Manufacturers and Processors	\$2699.61	0	0
Farms	\$236.23	\$1.98	\$24.50
<b>Total</b>	<b>\$7066.123</b>	<b>\$38.25</b>	<b>\$433.86</b>

1. All table figures are in millions of dollars.

2. Current impact based on estimated 2% share of spending.

Sources: Local Food Economy Survey data for Central Puget Sound local food economy businesses (2005), IMPLAN (2003), and RIMS (2003). See Appendix B for a detailed discussion of the source data.

These results are shown in Table 2.3, which indicate that the impact of locally directed spending in 2003 was equal to about a half of a percent of overall economic activity.<sup>24</sup> But a shift of 20% of our food dollars into locally directed spending would result in a nearly half billion dollar annual income increase in King County alone and double that in the Central Puget Sound region.<sup>25,26</sup>

**A shift of 20% of our food dollars into locally directed spending would result in a nearly half billion dollar annual income increase in King County alone and double that in the Central Puget Sound region.**

These findings clearly demonstrate that locally directed spending can make a huge difference – in the near term for the economic viability of LFE businesses and in the long term for regional prosperity.

## 2.4 CONCLUSION

Analysis of spending patterns provides a tool for understanding our choices for growing a sustainable food economy. Whereas traditional economic impact analyses focus on changes in the level of spending that result from exporting more or attracting new money in, the findings in this and other local multiplier studies indicate that increasing the amount of dollars circulating within the community also matters. The multipliers show that locally directed spending for food results in substantial increases to the region's income.

The analysis also points to where locally directed spending can be used to drive the growth of the local food system. From the comparison of LM2 multipliers, we conclude that distribution and, to some extent, manufacturing are major points of food dollar leakages from the local food economy. This finding raises the issue of what can be done to increase the depth of locally directed spending by distributors and manufacturers. At the same time, the high multipliers for LFE restaurants, food service businesses, and farmers markets, and relatively high multipliers for grocers, represent an opportunity to accelerate the growth of the local food economy through increasing access to locally produced foods. The related question is how to increase the breadth of household spending with community-based businesses.

On balance, the findings suggest that the economic potential of the local food economy is huge and exciting. The analysis shows that spending at community-based restaurants and grocers more than doubles the number of dollars circulating among businesses in the community. But granted the economic benefit to the region, there are also a number of challenges and unanswered questions concerning the odds of achieving a 20% shift in food spending that remain to be explored.

Spending also reflects the choices businesses make on what products to sell and how they produce and distribute those products, as we shall discuss in the next chapter. When we spend our food dollars at community-based businesses, we are making a choice about more than who owns the business or whether the business is located within a certain proximity. We are also considering our options for developing a healthy and sustainable food system.

## 2.5 ECONOMIC IMPACT ANALYSIS – MAJOR FINDINGS

- ✓ Distribution and, to some extent, manufacturing are major points of spending leakages from the local food economy.
  - ✓ Dollars spent at local food economy restaurants and groceries have more than twice the usual impact of spending at restaurants and groceries on the income of backward-linking suppliers.
  - ✓ A shift of 20% of our food dollars into locally directed spending would result in a nearly half billion dollar annual income increase in King County alone and double that in the Central Puget Sound region.
-

## Endnotes – Chapter 2

<sup>1</sup> Food service in end use institutions is sometimes referred to as institutional food service. Because different incentives can apply for end use institutions and the food service operators, we identify them as separate categories in this report.

<sup>2</sup> Appendix B identifies the data sources used in this study.

<sup>3</sup> For example, many local food economy proponents would not consider a large business, such as Costco, with headquarters in the Central Puget Sound region but with stores outside of the region, as local. However, Costco would be considered local by the definition used in this analysis for the purpose of data consistency.

<sup>4</sup> We use the terms local spending and locally directed spending interchangeably in this report. However, locally directed spending indicates buying from businesses headquartered in a geographical region as distinct from buying from any business located in that region, i.e., local spending. When the distinction is merited, we use the term locally directed spending.

<sup>5</sup> In algebraic terms, the multiplier is equal to  $1/(1-r)$ , where  $r$  is the marginal propensity to spend locally. Appendix A explains further.

<sup>6</sup> This assumes that the community-based businesses, on average, are spending the same proportion of their dollars locally. As we will see in the analysis that follows, this is a reasonable assumption.

<sup>7</sup> Appendix C provides a summary of the earlier multiplier studies.

<sup>8</sup> In practice, the higher the initial local spending, the more this model underestimates the impact since the impacts of subsequent rounds of spending are lost.

<sup>9</sup> The LM3 and LM2 model assumptions and limitations are discussed in Appendix B.

<sup>10</sup> Because different impact models use multiplier terminology differently, there is some difficulty in always knowing what effects are included. For a more complete explanation of the different multipliers used in this analysis, please refer to the definitions in Appendix B.

<sup>11</sup> Sixteen businesses contributed the full set of data needed to calculate the local multiplier, of which only one was a distributor. We assume this distributor's multiplier to be representative as indicated by our interviews and food spending data from the other distributors. For further discussion of the sample refer to Appendix B.

<sup>12</sup> The relationship of multipliers to business conditions is explored in greater depth in Chapter 4, drawing on the interview data.

<sup>13</sup> The one data point on distributors is not included.

<sup>14</sup> IMPLAN is a commercially available data set of multipliers as explained in Appendix B.

<sup>15</sup> As explained in Appendix B, the LFE indirect multipliers are likely higher for several reasons.

<sup>16</sup> Here “usual” refers to the IMPLAN aggregate impacts.

<sup>17</sup> Induced effects are the increased sales within the region from household spending of the income earned in food production and supporting industries. For example, restaurant employees spend the income they earn from restaurant work on housing, utilities, groceries, and other consumer goods and services. This generates sales, income and employment throughout the region’s economy.

<sup>18</sup> Household spending effects are referred to as induced effects.

<sup>19</sup> For additional discussion of this point, refer to appendix B.

<sup>20</sup> Some caution should be used in comparing results from different studies as all models are not comparable.

<sup>21</sup> Civic Economics. 2004.

<sup>22</sup> This estimate is based on dollar values for direct farm sales plus local share of distributors’ sales.

<sup>23</sup> National Restaurant Association, 2007.

<sup>24</sup> Or \$40 million divided by \$7,066 million.

<sup>25</sup> Three simplifying assumptions have been made in this calculation. One is that there would also be a 10% shift in spending from manufactured food products to fresh produce. This assumption reflects the available kinds of local foods and is consistent with household’s preferences, in going local, for fresh food. A second assumption is that other feedback effects on spending patterns, such as those resulting from a redistribution of income, would be limited. The third assumption is that there would be no impact for shifting spending in the manufacturing category. This seems a highly conservative assumption but one that is warranted in light of our limited data.

<sup>26</sup> The \$500 million, or half billion dollar, figure reflects growth in food spending from 2003 to 2007.

## 3 BUSINESS SUSTAINABILITY ANALYSIS

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### KEY POINTS

- The emerging local food economy reflects a significant change in the goals, strategies and practices of local food businesses.
  - Local defines the possibilities for developing relationships that serve to restore the land and regenerate community.
  - Community-specific relationships and values figure significantly in the creation of sustainable community economies.
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As anyone who aims to spend their food dollars locally knows, it's not always practical – or sometimes even possible. For one thing, certain foods don't grow here but few of us are ready to give up bananas. For another, the household budget might not stretch to cover local food's point-of-sale prices, a real consideration for many low-income families. Yet another major obstacle to buying local is that before the resurgence of farmers markets and the coming of CSAs, our food purchases were pretty much limited to grocery stores and, until recently, few groceries made local food sourcing a priority. In many neighborhoods in the Central Puget Sound region, mainly low income ones and the suburbs, this remains the case.

Fortunately, our options for buying locally keep expanding – but not by chance. In fact, the emerging local food economy reflects a significant change in the goals, strategies and practices of local food businesses. **In this chapter, we examine what is qualitatively different about local food economy (LFE) businesses.** Some of the questions we consider are:

What are the goals, strategies and practices of LFE businesses? How are they different? And, what challenges do local food economy businesses face?

The chapter is organized to present multiple perspectives of business sustainability alongside the different choices businesses have for buying and selling locally. What's perceived as sustainable varies in relation to the economic challenges different businesses face and the possible solutions to those challenges. The challenges hinge on market issues such as quality, price, availability and variety.

Which brings us back to the meaning of "local". Previously, in Chapter 2, we defined local businesses as those headquartered in Central Puget Sound. But other factors may also be driving the development of the local food economy. In considering these, we begin the chapter by expanding our definition of the local food economy.

### 3.1 WHAT DEFINES LOCAL?

A dairy farmer in Skagit County, two counties north of Seattle, direct markets farmstead cheese. For the farmer, Seattle is the local market of any size.

A restaurant on this side of the mountains sources grass-fed beef from ranchers on the other side. Development pressures on land in the Central Puget Sound area make raising grass-fed cattle more costly here.

A baker buys honey from Oregon because they can get the quality they want in the quantity they need.

A small, independent distributor based in Seattle buys olive oils from small, local producers in Italy. The distributor has strong ties with the producers through visiting them over the years.

A grocery store changes what it labels local by season. In winter, local is Northern California.

For households, defining local is about what foods to eat according to taste, knowledge, know-how and (sometimes) principle. For one household, local may be the equivalent of fresh, healthy and organic. For another, local may be concern over how much oil is consumed in transporting food. And for another, it may be allegiance to community.

The examples above point to why defining local is a somewhat contested issue. What's local for a household is often informed by competing intentions. What's local to a business often depends on what's economically at stake in terms of sourcing or selling. But for households and businesses concerned about food system sustainability, local also defines the possibilities for developing **relationships that serve to restore the land and regenerate community**.

Such relationships, though keyed to economic transactions, are multi-dimensional. They encompass trust, friendship, shared values, resource

sharing and more. They take time and effort – because they are as much about what goes into relationships as what can be gotten out of them. And they require experiential knowledge of the needs particular to place.

**Ownership plays a part in how many define local because it shapes the nature of a business' relationships.** Local owners are thought to have the same interests as the communities in which they are located. Yet, local ownership, although probably a determinant of community mindedness, may not be the reason why a business adopts a relationship-based business model. In other words, local ownership is not sufficient cause for a business to practice community building, but local owners are more likely to do so.<sup>1</sup>

**Distance is also a factor in forming relationships.** For example, a business will be hard pressed to make direct sales (without aid of the internet) to customers who live 300 miles away, much less 1,500 miles away.<sup>2</sup> So local may be defined by the location of those with whom it is possible to maintain relationships. One definition for local that came up frequently in the course of the study is “a day's drive”. Others define local as what's closest to home.

These definitions bring into play the subjective sense of local. What is certain is that there is no fixed center to local and that often what is geographically defined to be local is comprised of many overlapping locals from a community perspective. We might call the community perspective of local “place”.

**Place signifies shared values arising out of shared experience.** As a descriptor of identity, it has a strong influence on what is considered local. For example, food marketing programs are often built around regional identity. Think Washington apples, Puget Sound Fresh, and Pacific salmon.

Place also refers to the value we hold for our natural environment. In the case of food, place most directly concerns farm land but place is also the sense of belonging within an ecosystem. A sense of place is important in cultivating responsibility for caring for the environment in beneficial ways.

Finally, place is also defined by shared ways of living. With food, place can be contentious. The rural-urban divide that exists in Central Puget Sound, as well as many other places, can create some strong differences of thought, but there are also common interests. Michael Pollan has suggested that the Farm Bill be renamed the Food Bill so we can all see what's at stake in crafting policies that support sustainable food and farming practices.<sup>3</sup>

Regarding business sustainability, the significance of place is this: Although community-based businesses share practices in common with socially-responsible and environmentally-conscious companies, that is, what are commonly referred to as “sustainable businesses”, localization theory says that community-specific relationships and values figure significantly in the creation of sustainable community economies.

To summarize on what defines local, the meaning emerging from this study is that **local is a matter of relationships rooted in place.** By far and away, relationships are what the businesses themselves say defines local for them.

## 3.2 RELATIONSHIP PRACTICES AND CHALLENGES

Implicit in the assertion that locally directed spending benefits the community is the assumption that the economic fortunes of the community as a whole matter for community-based businesses. The question is how to tap into the community's resources – in a healthy way – to support business development. One clear answer is building local relationships.

The following sections detail the perspectives of different businesses on building relationships by their position in the value chain. The sections follow the food dollar, beginning with institutional food service and ending with the food providers – farmers, ranchers and fishermen. Appendix E describes the business and enterprises interviewed for the study.

### 3.2.1 INSTITUTIONAL FOOD SERVICE

Every day, hospitals, schools, day care centers, senior homes, and shelters serve meals as part of what they do. These meals make up a necessary share of the daily fare of their service populations – that is, the patients, children and seniors who depend on these institutions for a critical portion of their meals. Precisely because of the social and economic significance of the care these institutions provide, their food service is itself likely to be institutionalized.<sup>4,5</sup>

As anyone can guess, institutionalized food service and local food production do not easily go hand in hand. At the same time, major social concerns, such as food insecurity and a rise in obesity-related health problems, are driving a reconsideration of what it takes to increase the amount of fresh food served by these institutions. For example, starting in 2007, schools receiving federal lunch subsidies must have a wellness plan that addresses how they will meet federal nutrition requirements (Belkin, 2006). Meanwhile, recent revisions of the food pyramid are changing those very requirements in ways that favor fresh fruit and vegetable servings.

The calls for healthy food come at a time when the local food economy is coming into its own as a major source of high quality food. But how these changes play out will probably depend on the relationships local food businesses are able to forge with the institutions. These relationships are just beginning to take shape in Central Puget Sound.

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#### BUSINESS MODELS AND STRATEGIES

Public mandates, for the most part, govern the goals of institutional food service. As an example, school districts are charged with feeding children nutritious meals that provide the nutrients for academic achievement. They are also required to do this within budget. Meeting both the social and economic objectives set forth in public policy often ends in trade-offs.

As a result, few institutions in Central Puget Sound could reasonably be considered part of the local food economy with the exception of food service in a few privately run schools and care centers.<sup>6</sup> This is likely to change as public demand for healthy food grows.

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## RELATIONSHIP PRACTICES

While the interviews conducted for this study suggested that current institutional food service practices fall short of creating real demand for local food, it is worth remembering that it takes time to develop best practices and that the effort is underway.

Driven by the parallel concerns of access to healthy foods and saving farms, interest in local sourcing for institutional food service has soared in the last two years. Large players in the food system, such as the United State Department of Agriculture (USDA), are pushing farm-to-school deliveries based on the direct purchasing of food from local providers. School parents are getting into the act by advocating for fresh, local foods. And seasoned food activists have made it their mission to remake institutional food service for the sake of public health.

Progressive institutions, in turn, are responding to the calls for change by reviewing their food service operations and experimenting with local food sourcing and preparation. Often, they **turn to non-profits with ties to local farmers for help** with connecting to local producers and restructuring their institution's service around healthy food.

The most ambitious of these efforts are going outside-the-box by directing attention to students' food choices once they are in a cafeteria line and by thinking about how to instill healthy eating at an early age through **innovative educational programs**. Ideas include introducing nutrition into math, reading and science curriculums and giving school children hands-on time with growing their own food. As one interviewee commented, regardless of whether it is fresh or local, food needs to be familiar and recognizable to children if they are going to eat it.

Meanwhile, local food businesses are approaching institutions to see how they can become suppliers. For now, success mostly depends on how familiar the businesses are with the institutions' needs. On their part, institutions that take the time to talk with local suppliers about likely opportunities are building the foundation for future transactions.

A case in point is food preparation. Institutions use either their own or contracted food service operations and sometimes a mix of the two. Either way, labor is one of the biggest categories in an institution's food service budget. **Finding ways to save on labor costs in prepping food** will open the door to more local purchasing. Local food items are popular for salad bars where little preparation is needed. But if the food requires preparation, slicing onions or potatoes, for example, then it is more economical (from a budget standpoint) for institutions to buy pre-processed food. One of the institutions interviewed for the study is looking at less labor intensive ways to prep food on site, such as washing instead of peeling carrots.

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## KEY PRACTICES

- Work with outside partners to rethink food service delivery.
- Create demand for local food in schools through complementary educational programs.
- Investigate labor-saving ways to prep fresh food.

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## RELATIONSHIP CHALLENGES

Institutional food service sites vary in size from central kitchens serving large school districts to small day care centers that purchase ready-made meals from contracted food service providers. Each end of the continuum poses challenges but one factor they both share is heavy regulation of subsidized food service, from local governments on up through federal oversight.

Notwithstanding recent national legislation to promote healthier food service in public care institutions, it is not unusual for local food advocates to encounter a fair amount of institutional inertia. The fact is that the existing systems were built around objectives that often run counter to the productive use of local food.<sup>7</sup> Try to imagine serving 20,000 school lunches every day within a strict budget. There are federal nutrition guidelines to meet, state accounting procedures to follow, and local district recommendations on what is economical and cost-effective. If serving local and organic within these constraints is possible, then good. Often, it's not possible. Several major hurdles stand in the way.

To begin with, local farmers are rarely able to supply produce at either the **volume or price-level** dictated by institutional food programs. The standardized USDA reimbursement rate for child day care meals, for example, forces food service providers to serve frozen commodity vegetables. And even when programs offer fresh fruits and vegetables, local farmers are known to quote prices two to three times more than that usually paid for imported "fresh" foods.

**Contracting practices** are also problematical for local suppliers. For example, Washington State bid laws require all contracts over \$75,000 to go out for bid. This includes nearly all school district contracts since breaking down bids into smaller lots would "administratively be a nightmare", according to one interviewee. Even if they were able to meet the volume requirements, few small farmers have the time or knowledge to respond to requests for bid. But the biggest obstacle is the state requirement for contracts over \$75,000 to go to the lowest bidder.

What local food gets into schools is the result of a willingness to purchase items in less than the full quantity needed. However, even in small quantities, price can cut both ways. In one case, a local organic apple supplier did not renew a school district contract as the next year he got a higher price from the European markets.

Also, preparing cafeteria food from scratch is probably a long way off for most institutions given the emphasis on keeping costs down and the current skill set of many cafeteria workers who are used to working with pre-processed foods. Some institutions have centralized production facilities where specialization of duties makes **alternative production methods** economically possible. But, in systems with multiple production kitchens, retraining staff could very well result in a significant drop in efficiency. On the other hand, smaller kitchens often have greater flexibility in their procedures. But the biggest hurdle to purchase of local foods by institutions with multiple production kitchens is that local food providers have **no delivery service**.

Timing is another factor impacting the use of local foods. Food for large institutions is ordered months in advance and the menus don't allow for much **flexibility on when an item can be used**. Then again, contracted food service providers find it a challenge to move fresh food into the child care center market when each center decides how they will do food production. From their standpoint, the food needs to be familiar and recognizable to the children.

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**KEY CHALLENGES:**

- Price and volume of local food supplies.
- Contracting practices.
- Production practices in institutionalized food service.
- Local producers do not deliver.
- Inflexibility in what foods can be served and when they can be served.

### 3.2.2 GROCERS AND FARMERS MARKETS

It is grocers that contend most directly with consumers' beliefs about what's good to eat and what food should cost. These beliefs have been shaped by a half century of falling food prices and an increasing number of products. Pollan reports that food spending in the U.S. has declined as a percentage of household income from 24% in 1947 to less than 10% today.<sup>8</sup> Meanwhile, 17,000 new products make their way to grocery shelves every year. Yet grocery stores have one of the smallest profit margins in retail.

What this all means is that operational efficiency is critical in the grocery business. In particular for LFE grocers, the challenge is learning to balance operational efficiency with sustainability. While our food delivery system has grown increasingly efficient (lower prices! more products!), quality and freshness have been lost in the process. What is promising is that locally produced foods offer new possibilities for meeting customers' needs sustainably – but it takes developing new relationships with both customers and suppliers. Success comes of making the effort to explore the potential of these relationships.

All of the LFE groceries and retail food businesses interviewed for this study put great store in delivering exceptional quality food, contrary as it might seem to the industry's thinking about achieving profitability. In fact, a range of LFE grocery models has evolved over time in response to threats from industrialization of the food system to the availability of fresh, quality foods. The current wave of interest in local food is creating yet another period of rapid evolution in alternative models to large, national chain groceries.

These alternatives include independent local grocers, consumer food cooperatives, farmers markets, consumer supported agriculture (CSA) programs, and home delivery grocers. In the previous chapter, we reported the multipliers for CSA farms in the category of farms, but here CSAs are included as part of the discussion of businesses selling food for home eating.

**Independent local grocers** are closest to what we think of as traditional grocery stores. With a strong focus on knowing their customers' needs, they reach a wide swath of households of different income levels, cultural backgrounds, and eating habits. Additionally, regional grocery chains, such as Thriftway, have developed a healthy market position through vertically integrating with independent local distributors, keeping operational efficiency at a high level. These grocers are using their market position as an opportunity to introduce local products to their customers.

Another cornerstone of alternative choices to industrial-style groceries are **consumer food cooperatives**. Coops have been with us since the 1970's when organics became a cause. The unique strength of cooperatives is the direct involvement of their members in decision-making which lays the foundation for progressive policies and practices. The Puget Sound region has one of the largest and oldest consumer cooperatives in the country, Puget Sound Consumer Cooperative (PCC), and also the only inner city natural foods cooperative, the Central Area's Madison Market.

More recently, direct marketing and sales have dramatically expanded the possibilities for how we buy food for our homes. The current thrust of innovation in grocery models is based on shortening the supply chain and growing the portion of food dollars to reach farmers. The models include farmers markets, community supported agriculture (CSAs) partnerships and home delivery grocers. Their principle advantages to consumers are greater access to fresh food; convenience, in the case of home delivery grocers and some CSAs; and the diverse selection and community building that goes with farmers markets. Direct sales through farmers markets and CSAs also guarantee that most of the food dollar goes to farmers.

**Farmers markets** are not new but they have been newly rediscovered as a business model. From around 10 in 2000, the number of farmers markets in Central Puget Sound has grown to 55 today, with a potential for even greater numbers. Hardly a community doesn't want one of their own. While farmers are involved directly in setting market policy, many of the markets rely on the support of citizen activists for their initial organization and, later, for

operations. Market organizers look to attract the right mix of vendors while keeping the size of the markets balanced with the size of the customer base.

CSAs and home delivery groceries are also seeing an upsurge in activity. Both offer integrated services as an economic means of increasing sustainability. CSAs combine distribution with farming and home delivery groceries do distribution both backwards, from local farmers, and forwards, to households.

**CSAs** might best be described as partnerships – producers share the risks and rewards of farming with consumers (Pilley, 2001). Typically, the consumer household commits in advance to buying, in cash or labor, a share of the farm's output. The benefits of these partnerships are many, including higher returns and a more secure income for farmers. Consumers connect more directly with the sources of their food and farmers are freed to focus on farming and land stewardship.

**Home-delivery groceries** give consumers convenient options for buying local, although they also rely on foods from outside the region to support deliveries year round. Through their partnerships with a number of producers they offer variety and they save busy households time through home delivery. Smart distribution to households can also reduce food miles.

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#### RELATIONSHIP PRACTICES

Compared to traditional grocers with their focus on maximizing revenues, LFE grocers aim to offer the right products – meaning quality and freshness at reasonable cost. To do so requires developing closer relationships with both vendors and customers.

Open communication and “treating people as people” are considered key to successful **vendor-grocer relationships**. Listening to the vendor's needs and acting on them, (sometimes paying more or ordering less), while being honest about your stores' needs (e.g., reliable deliveries) allows for finding common ground. By contrast, mainstream grocers frequently use their buying power to exact concessions from vendors. This clearly fosters mistrust and undermines the possibilities of finding solutions to challenges that are to the benefit of both parties.<sup>9</sup> With open communication, mistakes might happen but they can be looked at in the light of experimentation in building a more sustainable, more secure food system.

One store in the study employs product specialists whose responsibility it is to strengthen vendor relationships with the aim of increasing opportunities to meet the store's goal of fresh and unique products. Another grocer has developed exclusive partnerships with local growers with the intent of making sure the farmers are getting what they need to survive. In return, the grocery secures a supply of high quality local produce. While exclusive agreements for perishable products are common in the industry, this LFE grocer has taken the extra step of directly consulting with the growers on their needs in making three party agreements that include a local distributor. Typically, grocers would use distributors as intermediaries in this kind of arrangement.

Grocers also give a direct hand up to many small local manufacturers by **vetting new value-added products**. As many as 20 to 40 new items may be presented for consideration to the larger grocery businesses on a weekly basis. Here too honesty about the grocery's needs is critical to the relationship. This may include a product evaluation, looking at pricing, packaging, and relative value compared to competing products. Another service is to connect new businesses with local distributors which can provide them wider access to stores.

However, the extent to which grocers will amend their purchasing standards to introduce a local product was not clear from the interviews. Some of the interviewed grocers (and distributors) see their relationships with local producers as a chance to "educate them on the opportunities to improve their products". But it may be that "improving the product" conflicts with keeping the product local. For example, packaging improvements may force an artisan manufacturer to sell to a larger market area to recoup the added costs.

Still, to an increasing extent, **buying local** is a growing priority for grocers. Preference is given to buying produce from local farms, either directly or through Northwest distributors. In an important development, some of the home delivery grocers are introducing "local only" bins in response to growing demand.

In turn, demand for fresh and local products grows as a result of grocers **using their product knowledge to increase that demand**. For example, one of the grocers interviewed competes on knowing which farmers provide quality produce by type and what vegetables are in season and using this knowledge to provide a wide variety of products to customers. By offering unique and heirloom products, the grocer engages customers' knowledge and pride in food and cooking. Another grocer takes care to educate employees on local so as to "get them behind the products they're selling".

But probably nothing has done more to revolutionize the general public's awareness of local foods than farmers markets. They offer customers access to the freshest produce, often picked that day, and a huge array of varieties. Besides the extra margin that comes from direct sales, farmers markets **give farmers the venue** to tell their own stories, a very powerful form of connecting. The market associations are careful to protect this authenticity: vendors must be represented at the stands and are only allowed to sell what they grow themselves.

**Educating customers on fresh and seasonal food preparation** also creates demand. One of the greatest challenges in selling local produce is the general decline in households' cooking skills. Grocers are testing a variety of ways to bridge the skills gap, such as in-store cooking demonstrations and taste tours. CSA's and home delivery grocers put recipes and nutritional information in the bins to help people know what to do with that week's selection of produce. Farmers markets have information tables and the farmers themselves offer help with selection and information on when and how to best use their products. The end goal is to educate customers about practical reasons for choosing local product.

Beyond consumer education, grocers are looking to **engage customers in achieving their groceries' sustainability goals**. Consumer cooperative members participate in decision-making through attending board meetings, sitting on product committees, filling out product request forms, and other ways. Another avenue of customer engagement is through employee-customer interactions. Store managers aim to create an environment that is open and safe for employees to take risks and make choices based on what customers are saying. Though not conventional wisdom on how to run a grocery, engaging customers and employees in decision-making boosts loyalty and, as a result, operational efficiency.

Grocers and farmers markets also connect to the community by donating to small and large causes. Food donations are made to local food banks and for community events. PCC's Farmland Trust has been a force for preserving farmland through land purchases dedicated to sustainable agriculture.

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#### KEY PRACTICES:

- Develop and nourish direct relationships with local vendors.
- Vet new value-added products for introduction through stores.
- Buy local first.
- Use product knowledge to increase demand for fresh and local products.
- Create venues for farmers to connect with public.
- Educate customers on fresh and seasonal food preparation.
- Engage customers in achieving sustainability goals.

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#### RELATIONSHIP CHALLENGES

Since most people shop for food at grocery stores, it is pretty clear that community access to healthy foods depends on grocers becoming full partners in the local food economy. In turn, the local food economy can only hope to grow through engaging grocers in making the case for healthy – that is, local and fresh – foods to the communities they serve. Yet, significant challenges to the operational efficiency of LFE groceries need to be addressed for the local food economy to achieve a scale that ensures ready access to local foods.

To begin with, there is a **need to define local** in ways that meets customers' needs for information on the products they are buying while also giving grocers operational flexibility. Such flexibility is necessary to ensuring supplies of quality produce. One study participant pointed out that different marketing groups for local products, such as Puget Sound Fresh and Heart of Washington, promote different but overlapping regions. Multiple labels are a challenge to grocers because they create different customer expectations. Mislabeling products can lead to a loss of consumer confidence, both in the grocery and in whether the local food system is "for real".

On top of this, there is the **perception that buying local costs more**. Because consumers typically expect a lot for their food dollars – in quantity, if not quality – perhaps the greatest challenge grocers face with going local is the often higher sales price of local products. The particular challenge is showing customers how offering the right products contributes to sustainability. In other words, consumer perceptions of value are critical to winning them over. Part of the answer is education on why supporting local farms and businesses make a difference and how the quality of local food differs from the usual supermarket options.

Households also need support with the practicalities of eating local. Many food shoppers are just starting to choose natural and organic products and could use information on what is seasonal and how to cook and store whole foods. Helping these transitional shoppers make the connection between buying habits and the longer term benefits, including saving money, will increase the demand for locally produced foods.

The benefits of eating local are especially important to **communities where there is limited access** to fresh foods. To counter the perception of being high-end, natural foods groceries and farmers markets are developing programs to connect to low-income customers. An example is Central Cooperative's Madison Market hiring a demo coordinator to develop a program around using bulk foods. Farmers markets work cooperatively with low-income service programs to distribute voucher checks for buying from farmers markets. Some of the farmers markets also do outreach through schools with large immigrant populations and print marketing fliers in Spanish and Vietnamese, among other languages.

But if healthy food is to become a viable choice for many, LFE grocers will also need to increase their cost competitiveness. This will likely require large investments in developing local infrastructure that meets the needs of both producers and retailers. For example, there is a **limit to the number of deliveries** that stores can manage efficiently.<sup>10</sup> With more deliveries there is greater congestion, resulting in more time spent receiving deliveries and thus greater operating costs. So grocers try to keep the number of deliveries down. The trade-off is the more frequent the delivery, the fresher the product.

Consolidating deliveries through purchasing from distributors is one approach to this dilemma. On the other hand, it is **difficult to get local products from distributors**. In some cases, contracts and relationships lock grocers into purchasing certain items from particular distributors and prevent them from picking local vendors.

Yet underlying these problems with efficient distribution is another basic issue. The grocery business is a **volume business**, that is, profits are made on turnover. By contrast, the majority of farms selling to local markets are small acreage because of labor intensive sustainable farming practices. As a consequence, grocers are challenged to find local producers that can consistently provide the quantity of food needed to meet demand.

At issue is how grocers can effectively manage the variety inherent to small scale farming and still satisfy their customers' expectations. Already LFE

grocers are demonstrating creative solutions to this challenge as they are committed to helping build the local food economy. One example is decentralizing purchasing to allow individual stores to make contracts with local farmers that address volume and delivery issues.

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#### KEY CHALLENGES:

- Defining what is local.
- Perceived value of local compared to industrial agricultural products.
- Serving low-income populations.
- Inefficiency of local deliveries.
- Distributors that do not actively support the local food economy.
- Volume of supply.

### 3.2.3 RESTAURANTS AND FOOD SERVICE

LFE restaurants and private sector food service businesses are defined by their commitment to serving locally produced food. This commitment frequently involves a shift in perspective – suppliers are now partners, customers are fellow community members, and the vision of building a great business includes helping to build a sustainable community food system. As a result, what these businesses expect of themselves changes. As one chef expressed it, “The system needs to provide a living business for all. Farmers are partners in our business and the dollars should be there for them.”

Not surprisingly then, LFE restaurants and food service businesses have among the highest multipliers in this study. But their impact could be even greater if their numbers were to grow. We consider these opportunities by looking at the challenges restaurants and food service businesses face in buying local. A variety of restaurants and food services (see Appendix E) were included in the study to account for the influence of market focus on practices and challenges.

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#### BUSINESS MODELS AND STRATEGIES

What stands out about the LFE restaurant owners, managers and chefs interviewed for this study is that they love what they do. This gives them the creativity, energy and stamina to work the long hours involved in running their businesses. Their passion is grounded in the experience of creating community and a sustainable food system – contributing to something bigger than just their particular business. The goal for them isn't to get rich but to become a valued resource for the community. Their success is evidenced by the slow, but steady growth in customers. In fact, more than one of the participating restaurant owners gave slow growth as the reason for their economic sustainability.

LFE restaurants and food service venues primarily differentiate themselves on the quality and freshness of the local food they serve, along with the meal's value. In the words of one chef, "We offer people more than what they expect." Many have a special relationship with their customers based on valuing them not just as customers but as community. These restaurants take care to consider their purpose in the community.

Personal contact and one-on-one interactions with their suppliers are another hallmark of LFE restaurants and food service venues. Close relationships have the result of creating a sense of community where producers respond by giving great service. The freshness and "aliveness" of the food are what counts.

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## RELATIONSHIP PRACTICES

The commitment to locally grown food usually involves a willingness to **build and maintain relationships with a greater number of producers** than is typical. Direct relationships with local farmers and ranchers are pivotal to both providing for and managing the variety of supply related to small production batches or lots. (The term "small lot variety" describes the variability from lot to lot of product produced in small lots. It does not determine product quality but can present difficulties when a large quantity of consistent quality is needed for downstream production.)

To build relationships, chefs visit producers and invite producers to visit them. In some cases, the restaurant or food service develops an exclusive partnership with a grower where the two businesses consult regularly on what to grow and serve. The resulting information flow helps the businesses align their objectives and operations for greater advantage.

For example, one chef interviewed for the study purchases a whole cow every 4 to 5 weeks. The cow is processed and stored in 25 pound cuts. This arrangement benefits the rancher, who would otherwise be selling choice cuts at the expense of other cuts, while the restaurant is able to buy at a reduced cost per pound. In production economics terms, they have optimized the use of the whole product.

Another innovative partnership is that between Primo Grill, a restaurant in Tacoma, and Cheryl Ouellette, a local pig farmer. The Primo Grill pays Ouellette a plate fee for every entrée they sell featuring pigs from her farm. Under this arrangement, Ouellette makes about \$100 more per pig.<sup>11</sup>

**Restaurant-grower partnerships** also get a boost from farmer-chef connection events whose purpose is to foster regional business-to-business networks of food producers and buyers.<sup>12</sup> In the Central Puget Sound region these events are organized by the Chef's Collaborative.

Restaurants have also worked together to consolidate orders to varying degrees of success. Food services with several venues and restaurant families (restaurants with common ownership) are able to centralize buying and thus reduce the number of transactions. One restaurant tried to organize buying a boatload of fish. The challenge is to quickly distribute that

great a volume of fish to keep them fresh. Another restaurant tried to start a purchasing cooperative.

Not all of the restaurants in the study felt they could afford to have multiple relationships with growers and ranchers (refer to the discussion below under “Challenges”). Instead, one restaurant in the study relies on a local independent distributor to source local food. This allows the chef to keep deliveries to two times a week on a regular schedule, facilitating food preparation. The trade-off is fewer choices on what’s available.

For some restaurants, the commitment to **buying as much as possible locally** extends to local independent distributors who serve as a source for cooking staples that aren’t produced locally, such as lemons, oils, and salts. In one case, a distributor was chosen because of the direct relationships they kept with small, independent producers in another country, developed through yearly visits to the source region. Similarly, another restaurant buys fair trade coffee from a Costa Rican farmer who comes to Seattle yearly. Increasing awareness of unsustainable growing practices involved in industrialized olive oil production, for example, will likely drive the development of relationship-based trade.

Along with buying locally, most LFE restaurants and food service businesses **feature a seasonal menu**. Some LFE restaurants go to the extent of working into their menus whatever food is currently available from their regular suppliers. Other restaurants offer a regular basic menu, such as soups and salads, and vary the ingredients with the season. Most of the restaurants and food services switch to out of state produce from December through February.

A practice closely related to seasonal menus is to **make everything from scratch in house**. This provides exceptional value for customers. As one restaurant owner remarked, taking advantage of what’s seasonal should keep costs down. A customer’s perception of value, however, takes education. LFE restaurants see it as part of their mission to cultivate their customers’ appreciation of seasonal and fresh food.

LFE restaurants also expressed awareness of the important role the food service industry plays in regional employment. Several of the business owners expressed commitment to decent wages and benefits for their employees. For small businesses, this commitment takes sharing the financial gains with all.

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## KEY PRACTICES

- Spend time in building relationships with producers.
- Develop partnerships with growers.
- Commit to buying as much as possible locally.
- Feature seasonal menus.
- Prep food in house.

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## RELATIONSHIP CHALLENGES

The restaurants and food service businesses interviewed for the study categorically said that demand for locally produced food is not a problem for their businesses. Nevertheless, demand is conditioned on being able to pass on the costs. Most LFE restaurants position themselves in the mid to moderately high price bracket. Restaurants at the lower end of the price range saw the point-of-sale cost of local foods as more of a problem. There is a need to **create low-cost local food options** based on local foods, particularly in low-income food service, where preparation costs are a major challenge to making fresh food affordable.

For these businesses, the most frequently cited barrier to demand was the need to **educate customers on local and seasonal fare**. While the “pendulum is swinging towards quality food” and thus favors fresh, locally produced food, restaurant goers are used to many more choices than what is available locally in any given season. There is a demand for freshness but what is available depends on the time of year. The challenge is to teach customers to anticipate the enjoyment of seasonal specialties – tomatoes in summer, squash in the fall, kale in winter. With children, the challenge is in getting them to eat unfamiliar foods.

On the supply side, the most exacting cost for LFE restaurants and food service businesses is the **time spent in maintaining local supply networks**. There are more relationships to keep up, checks to write, and pick up and delivery issues to contend with than is typical. The solution for now seems to be to work longer hours. But, while time is money, time is also in limited supply, especially for smaller restaurants where the many and diverse business responsibilities are rolled into one or two positions.

**Distribution** was also cited as a major challenge. Distributors carry a limited selection of local products but having supplies delivered to your restaurant can be significantly more convenient than going to the source. Buying at farmers markets, for instance, is less than ideal for restaurants. Many are held on weekends when chefs are busiest. Also, farmers markets are often too crowded to make bulk purchasing efficient and restaurants have to compete with the general public for the vendors’ attention. Most farmers market vendors are set up for small scale sales. They have little capacity to sell by the case and they charge retail instead of wholesale prices.

Other supply side challenges include Seattle’s infamous traffic. Deliveries are hard to schedule, especially in the downtown core. The interviewees stressed the need for a distribution point for local produce or a dedicated distribution system. Additionally, the local supply of meat is constrained by a lack of nearby processing facilities and fish is hard to source outside of the regular distribution networks, except in large quantities. These points are reinforced by the evident leakage of food dollars in distribution.<sup>13</sup>

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## KEY CHALLENGES

- Creating low-cost local food options, particularly in food service.
- Customers need to be educated on what are sustainable choices.
- Transaction costs of using multiple suppliers.
- Inconvenience of local food delivery infrastructure.

### 3.2.4 DISTRIBUTORS

Local independent distributors are taking the first steps to becoming an integral part of the local food economy. While going local is not a strategic focus of any of the distributors we interviewed, distributors are interested in supporting the local food economy's growth. By and large, they view their relationships with local suppliers as partnerships.

Many restaurants and grocers consider distributors an important link in the food system because the distributors streamline product shipments for the restaurants and grocers. Besides moving product, distributors play a crucial function in the food system by providing information for coordinating supply and demand.

Distributors were among the largest companies included in the study. Three of the four companies interviewed had over 100 employees. Their large size reflects the fact that distribution is a volume business. At the same time, independent local and regional distributors tend to specialize in product lines. The market is also bi-furcated into fresh and finished product distributors.

It is worth noting that there are no independent local distributors who deal exclusively in organic product in northwest Washington. The nearest exclusively organic produce distributor serving the Pacific Northwest, OGC, operates out of Clackamas, Oregon.

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## BUSINESS MODELS AND STRATEGIES

Customer service is of primary strategic importance to local independent distributors. Local knowledge of their customers' needs provides them a distinct competitive advantage over national distributors such as SYSCO, the country's largest distributor for meals prepared away from home.

The service focus varies according to who their customers are and what types of products they sell. Fresh produce distributors tend to emphasize quality and value. Finished product distributors tend to emphasize innovative products and helping customers to differentiate their businesses through the types of products offered as well as price.

The capacity to handle fresh perishable produce, moving it quickly to its' final destination, is dependent on building relationships with suppliers within a relatively short driving radius. A one-day's drive is often mentioned.

Some distributors also seek to develop exclusive arrangements with suppliers, a practice that is fairly common with perishable products. State law also requires all wine sales to be done through in-state distributors.

## RELATIONSHIP PRACTICES

Distributors are seeing an increased demand for local products, both fresh and finished. Local products are a growing niche market with the potential to cross over into mainstream markets.

Customer relationship practices that support the development of local linkages include **identifying local products on price sheets** and having a **sales staff "on top of" local products**. Some distributors, such as Organically Grown Company (OGC) out of Oregon but with a local office in Kent, WA, are taking marketing of local product to the next level with the development of "local" brands, (in OGC's case, produce from Pacific Northwest farms mostly located in the Willamette Valley).<sup>14</sup> Similarly, Farmer's Own, a company label of Charlie's Produce, represents 30 organic growers, many of them local, all of them regional.

As a way to build long-term relationships with customers, some distributors take direct calls without the interference of voicemail. Partners in one of the distributors interviewed are the main contacts, which makes them less salespeople and more representative of the company as a whole.

Distributors **encourage customers to buy quantities suited to their needs**, rather than larger quantities at discounted prices, as a way to reduce waste (and thereby cost) from product going bad. On occasion, they will waive minimum orders to help smaller customers who cannot use large quantities. Distributors also work with buying clubs.

Finished product distributors put effort into researching products to bring to their customers and will purchase local products upon request. An important service they offer is to provide business assistance to entrepreneurs trying to launch products. The Northwest is reputedly a test area for innovative products.

As mentioned above, distributors play an important role in the food system in **relaying market information**. One distributor tracks historical and seasonal data rather than relying on brokers for this information. Another stresses open communication with the farmers he has accounts with, telling them what worked and did not work in the past year. Communicating with both customers and vendors in the event of unintended changes is considered vital to maintaining relationships.

Exclusive contracts with growers are common, providing both the growers and distributors stability. More generally, distributors expect to pay a fair price for quality produce.

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KEY PRACTICES:

- Identify local products on price sheets.
- Sales staff is knowledgeable about local product.
- Support customers in buying quantities matched to needs.
- Supply market information to both customers and suppliers.

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RELATIONSHIP CHALLENGES

While demand for local products is increasing, distributors cited a number of structural challenges to both increasing supply and demand for local products.

One reason given was the **highly competitive nature of the distribution industry** (including wholesaling, warehousing, and trucking). In the industrialized food system, competition among distributors is centered on price. Because they purchase extremely large volumes from suppliers, national distributors, such as FSA and SYSCO, are able to pass lower prices onto their customers. This challenge may present an opportunity to increase access to local products as local distributors become more competitive price-wise because of increasing transportation costs.

Produce distributors also pointed to the **loss of farmland in the Puget Sound area** as a primary factor in decreasing local supply of produce. Pressure on land prices is putting farmers out of business. (The growing shortage of farm labor is also likely to decrease supply.) At the same time, there is a growing demand for local produce. From this perspective, the challenge then is not to increase local demand but to **develop the infrastructure** that will make it more economical for farmers, particularly mid-sized farmers, to sell to local markets.

Small farms are costly for distributors to deal with because the cost per transaction goes up with the number of transactions. Also, smaller farms typically do not have the infrastructure, such as coolers and harvesting equipment, to keep food. One distributor commented that Washington lacks regional refrigeration and shipping infrastructure like California's, giving Washington products a shorter shelf life.

The question of the economies for different scales of distribution is evident in the above responses. Small farms are more likely to do direct sales through farmers markets and CSAs, but economies of scale dictate different types of markets for mid-sized farmers who commonly sell their product through brokers and distributors. It may be useful to research the loss of farmland by farm size to identify causal factors associated selling patterns. As one distributor put it, "We will have lost the game if we have a million farmers markets but the only other place to shop is Wal-Mart", meaning mid-size groceries play an important role as markets for mid-size farms.

In terms of increasing demand, another structural barrier is the cost of labor to prepare local produce for institutional meals. School cafeterias and similar food services typically use low-cost pre-processed vegetables, for example, diced onions. Currently, there is **no volume processing of vegetables for food services**, although there are plans being developed by various LFE actors to start up a business to do this. It was also noted that, in the main, the local growing season doesn't coincide with the time kids are in school.

Demand for local finished products is also growing but distributors felt entrepreneurs often did not understand what it takes to get product into the market. According to one distributor, entrepreneurs that succeed have product, pricing, program, persons and passion. Another distributor pointed to quality as a challenge.

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#### KEY CHALLENGES:

- Highly competitive nature of distribution.
- Shrinking local supply due to increasing farm land prices.
- Lack of warehouse and refrigeration infrastructure for produce.
- Lack of pre-processing for vegetables to meet demand for local product from institutional food service.

### 3.2.5 PROCESSORS AND MANUFACTURERS

When we think of the industrial food model, what most often comes to mind is agribusinesses that combine extremely large-scale farming with manufacturing and distribution. While agribusinesses are the dominant players in the food system, economies of scale also dictate that regional mid-to large-size food processors and manufacturers continuously expand their sales reach.

Few of these manufacturers would be considered local, even though many of them are located close to their food sources. In Washington State, examples of such manufacturers are the Tree Top Apple Juice grower-owned cooperative, the world's largest apple processor made up of 2,000 orchard owners, and some very large fishing companies for which Seattle is home port.<sup>15</sup> Today, some of the state's original organic food manufacturers fall into this category as well. Cascadian Farms and Muir Glen, two well-known national organic brands, had their start in Northwest Washington.

For some time then, food manufacturing has been synonymous with economies of scale. While once small-scale food manufacturers, such as bakeries and dairies, could be found in most communities, today local markets are supplied by large industrial food manufacturers to the extent that local processing capacity is being lost. For example, the state's asparagus processors are gone.

Meanwhile, the growth in demand for organic food products has also brought on changes. Many of the state's small organic manufacturers have been bought out by multi-conglomerates.<sup>16</sup> With centralization of the industry, almost all natural or organic processed food products are trucked in from outside Central Puget Sound.

But there are signs that other models are gaining traction. Smaller-scale manufacturing businesses tend to have closer ties to their communities, if not always to their food sources. How to cultivate these ties for economic sustainability is the current focus of LFE manufacturing businesses.

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## BUSINESS MODELS AND STRATEGIES

At the heart of LFE manufacturing business models is the issue of how to build a big enough customer base to sustain operations when competing in a market shaped by subsidized, large-scale industrial manufacturing.

By convention, manufacturers differentiate themselves primarily through their product. LFE manufacturers tend to focus on niche markets and making high quality and unique products. Many specialize in organic or natural products, such as all natural cheese.

Freshness counts for a lot. A majority of LFE manufacturers make foods with short shelf-lives, such as baked goods, fresh pasta, or milk. Those which **combine manufacturing with store fronts** often rise to the status of valued community assets. Stand alone bakeries still survive in many of Seattle's neighborhoods and the region's older communities, but Central Puget Sound is struggling to hold onto its dairies.<sup>17</sup>

There are also an increasing number of **artisanal (non-industrialized) manufacturers**. Because their customers value fresh, high quality, hand-crafted foods, they are frequently able to command a premium. Many artisanal manufacturers also emphasize the distinctive qualities of their products, particularly their health attributes. For such products, branding may be an important strategy.

With fresh-made products competing in commodity markets, **franchises** are a way to tap into a ready-made customer base. Though at first glance franchises may seem contrary to the ideal of self-reliant local economies, new franchise models provide for local control. For example, instead of disallowing whatever is not specifically allowed, a "freedom franchise" allows whatever is not explicitly disallowed.<sup>18</sup> What is controlled are the things which establish the brand name, such as use of the logo.

Successful LFE manufacturers also include **entrepreneurs** who have managed to parlay their energy and business sense for finding customers into thriving businesses. This often takes entrepreneurs on a journey from manufacturing to wholesaling, then retailing. One entrepreneur who participated in this study is now selling her product's ingredients to producers in other parts of the country. Others are considering licensing as a way to grow the number of markets their product reaches.

A more traditional route to market growth is to continuously diversify the product line, a strategy that is common with the older, more established businesses. New products may be marketed under the company's name or as a retailer's private label or restaurant's proprietary product.

An emerging business development strategy for entrepreneurs is to go deeper into local markets through developing close relationships with local customers. This goes against the usual way of thinking about manufacturing which counsels making products cheaper, mass advertising, and wide-scale distribution. Many manufacturers never have contact with the end use customer. But some LFE manufacturers are asking whether direct marketing and sales, which has helped revitalize some small farms, can work for them. Others aim to grow with developing neighborhoods through nurturing close social and cultural ties.

Another model of LFE manufacturing gaining ground is **farm-based value-added manufacturing**. A number of small farmers have ventured into making artisanal products such as farmstead cheeses, dried fruits, and spreads as an additional source of farm income. These efforts are being promoted and supported by agricultural extension initiatives, such as Washington State University's cheese making program, which hope to duplicate the success of Washington's once fledgling, now \$3 billion-a-year wine industry.

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## RELATIONSHIP PRACTICES

LFE manufacturers are joining the direct marketing and sales revolution. Rather than making use of brokers as is typical, LFE manufacturers benefit in multiple ways from **direct connections and relationship building with their customers**.

One benefit is being able to give their products meaning through telling their stories. LFE manufacturers can be found launching products at regional festivals, doing product demonstrations at grocery stores, and setting up stalls in farmers markets. Beecher's Handmade Cheese has taken story telling to a new level by showcasing the cheese making process itself at their Pike Place Market retail store. Besides brisk sales, the entertainment and educational value of the exhibit results in knowledgeable, aware consumers. Direct marketing is an education process, as one manufacturer observed.

LFE manufacturers are also working directly with retailers and restaurants. One start-up company has managed to build a sizeable customer base, including some of the large LFE grocers, by cold calling potential customers to strike up relationships. By getting to know the folks selling their products, manufacturers can fine tune their customers' product knowledge for greater promotion and sales to their customers' customers. Relationships have also helped one manufacturer to find out what products he might develop to meet customers' needs. LFE manufacturers are also able to offer better customer service, leveraging their on-the-ground knowledge of the regional market.

Another advantage of direct connections for manufacturers is the reward of getting to know their customers. Even though it's time intensive, quite a few

LFE manufacturers take relationship-building upon themselves through delivering product and answering incoming calls in person.

Several of the interviewed businesses also cultivate relationships through their work in **community-building**. Many manufacturing business owners live in the neighborhood their businesses are located in, so neighbors may also be customers, employees and partners. As “local is so much about community”, they are active members of their chambers of commerce.

Examples abound. Mondo & Sons has spun off a non-profit that helps immigrants in their neighborhood with product development of native foods. The intention is to encourage economic development for immigrants and people of color. A Seattle PI article quotes company president, Mario Banchemo, as saying, “It’s about providing opportunities. We live here. We work here. We want to keep the spirit here.”<sup>19</sup> At Beecher’s Handmade Cheese, 1% of profits go to supporting food education programs. Many LFE manufacturers make regular donations of product to non-profit events and to food banks. One LFE manufacturer/retailer offers a community space for people from diverse backgrounds to make connections. Another manufacturer has made it their mission to “continuously provide more support to the community.”

LFE manufacturers also indirectly contribute to community well-being by **offering sustainably-made products and using local and sustainably-produced ingredients**. Many LFE products are handcrafted in traditional ways. In some cases, this means choosing not to use modern processing techniques such as sterilization that are requisite for industrial food manufacturing, but which strip the food of nutrients. By contrast, LFE manufacturing tends to rely on making smaller batches to provide the quality of oversight needed for fresh, safe and nutritious food.

Local processed food products are by and large certified organic and additive-free. Most of the manufacturers included in this study expressed a commitment to buying organic, if not local ingredients. A number have optimized around organic ingredients over time as pricing permitted. At least one manufacturer takes the time to research the social sustainability of the companies from which he purchases inputs.

Local manufacturers also aim to give the sense that their products are “not just mass manufactured anywhere”, but most are likely to prioritize certified organic over local ingredients because of the challenge in making a consistent product that will sell in a number of markets. The resolution is to not limit purchases to local only, but local first, that is to give preference to local suppliers when they can provide sufficient quantities of the right inputs.

A complementary philosophy is to “Do business with the community that does business with you.” For example, one manufacturer talked about his relationship with a service company as being important to his business. The service company set up an on-site system by which the manufacturer could filter and reuse his cooking oil and increase his composting and recycling. As in other parts of the value chain, manufacturers also found one-on-one conversations with local customers and suppliers about needs and expectations useful to sustaining relationships. However, LFE manufacturers

do not put as strong an emphasis on building relationships with local producers as do LFE restaurants and grocers.

Another key practice for LFE manufacturers is to **share resources**. Some examples from the interviews include forming an insurance co-operative and founding an industry association to share information. One entrepreneur was able to start her business through arranging an exchange with a local restaurant. She gave product for access to their kitchen when they were not open. Another manufacturer offers to share his product recipes.

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#### KEY PRACTICES:

- Directly connecting with customers.
- Contribute to the community.
- Offer products made with sustainable manufacturing processes.
- Share resources with other businesses for sustainability.

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#### RELATIONSHIP CHALLENGES

For most LFE manufacturers and processors, sustainable growth is the key challenge from which all others stem.

The challenge as related to end customers is their **perceptions of price, quality and value**. Often local processed food products are tagged as luxury purchases regardless of their value. Not all customers are knowledgeable about what natural food looks like. For example, how many of us know that the cheese we grew up with was orange from food coloring? People also have expectations around consistent prices for finished products like bread, making it difficult to use local ingredients whose cost fluctuates. Ultimately, shifting customers' perceptions comes down to educating consumers on what value they are getting for their money, which is why smaller manufacturers see promise in the movement towards localization. As one manufacturer put it, "The challenge is how I can develop relationships with my customers."

Though direct sales and marketing present opportunities to educate, they too are challenging. It takes **time to develop relationships**. Interviewees told us that it can take up to 8 calls to potential retail outlets to get someone to call back. Moreover, a customer's management can change at any time and the relationship needs to be restarted. For some chain grocers, manufacturers have to go to each store individually to get product through the door. (The counter problem for growers is that some chain grocers require that vendors negotiate with the chain's central management, which presents a barrier to sales for growers with small volumes).

Several manufacturers told us of poor experiences they had with **retailers using their buying power**. For example, store buyers will tell manufacturers how to remake a product along the lines of mass manufactured food items without regard to its integrity as a sustainably-

produced product. It is also common practice in the grocery industry to pay either a broker or the grocer to get your product onto store shelves. Labeling of product was an issue repeatedly raised by LFE manufacturers. There was concern over what products are labeled as local, as well as concern around too many package labeling requirements.

Product consistency is a dominant market expectation for manufactured foods which leads to concerns about consistent supply. Manufacturers consider their relationships with distributors key to getting the **right inputs in sufficient quantity**. Even then, manufacturers will keep a large inventory on hand, which ties up cash, to be prepared for shortages. (In one case, though, a manufacturer was unable to find a local source willing to sell in small enough quantities.) Other manufacturers have co-invested in developing local sources of sufficient quality and quantity, such as non-RSBT dairies.

Volume is also at issue for food processors but more so for cost reasons. Recent decades have seen the loss of processing capacity in Washington, including dairy, meat and asparagus processing. Each loss drives producers out of the respective markets, leading to further downturns in supply that make it less worthwhile for the remaining processors. In addition, crops that could grow here, such as soybeans, aren't for lack of processing facilities.<sup>20</sup>

That market feasibility studies tend to focus on economies of scale usually works against smaller local or regional processing plants getting financing. Yet, one processor estimated that a small scale juice plant could generate an extra 15% income for local fruit farmers on the 20-25% of their crops that are not of a quality suitable for the fresh market. Numbers like these should prompt a re-evaluation of using economies of scale as the deciding criteria for whether to invest in local processing infrastructure.

Scale is a defining issue in the industry's organization as well. Many of the manufacturers interviewed for the study reported that they saw no significant challenges to increasing local demand for their products, but the **pressure to increase manufacturing efficiency through increasing scale** and industry consolidation is significant. This brings home the question of what is sustainable growth.

Developing the ability to go deeper into local markets through distributed production sites sized to local markets may be one model for sustainable growth. Another may be manufacturing cooperatives. Both models need further testing. In the past, dairy cooperatives have developed complex rules requiring their producers to sell all of their milk to the cooperative, which presents a huge obstacle to farmers developing manufactured products of their own for local markets. Flexibility clearly needs to be given primary consideration for the sustainable growth of local manufacturing capacity.

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#### KEY CHALLENGES

- Consumer perceptions of price, value and quality.
- Developing direct relationships with customers.

- Product positioning by retailers.
- Getting the right amounts of the right inputs.
- Pressure to increase scale.

### 3.2.6 PRODUCERS: FARMERS AND FISHER FAMILIES

When it comes to survival, revolutions are born. The search for financial viability has driven small producers – farmers, ranchers and fisher families – to change the way they do business.<sup>21</sup> Decades of sustained losses have made it clear that the corporate model of commodified food production does not work for them. In response, small producers are opting out of the industrial food system.

The alternative choice is membership in community food systems built on the principles of sustainability and local production for local consumption. Membership includes seeing higher returns, having greater control over what to grow and how to grow it, (or what to catch and how to fish), and the rewards of caring for land, community, and life's bounty.

With the emergence of the local food economy, the future looks better to small producers than in a long while. Sales at Washington State farmers markets have swelled from \$21 million in 2002 to an estimated \$38 million for 2007.<sup>22</sup> Organic sales in the state are topping \$400 million a year and nationally the organic market is expanding at a rate of over 15% a year.<sup>23</sup>

But even as the demand for local and organic food grows, new challenges are surfacing. There is a big question about how much food small producers can supply. Most of the region's farms that sell into local markets are less than 30 acres with little capacity to meet additional demand. It can be argued that mid-size farms are necessary to growing the local food economy to a scale where it makes a difference in the amount of food available, but mid-size farmers find the transition to sustainable practices and local markets difficult going. Many have failed.<sup>24</sup>

Moreover, the pressures on farming from the larger economy are huge. Good farm land continues to disappear at alarming rates to development. It's hard to pay the taxes on land going for \$50 to \$100 thousand per acre, much less acquire new land.<sup>25</sup> And in recent years there are the added worries of severe farm labor shortages due to immigration policy and record-level flooding brought on by global warming and imprudent development.

Sustainable fisheries are in an even more fragile state. The threshold of commitment is high – it can take 20 days just to reach fishing grounds that are not compromised by over-fishing. Regulations are structured to favor large vessels and the pressure to produce pushes fisher families to make decisions that can even lead to death.

## MODELS AND STRATEGIES

LFE farmers integrate their connection to the land with ecological stewardship, a commitment to healthy food, relationship building with their customers, and economic resourcefulness and self-reliance. Perhaps in no other segment of the local food economy is strategy as holistic as with sustainable agriculturists.

As one of the LFE farmers we interviewed observed, financial viability means more than saving the farm, it involves stewardship of the land. The same holds true for ranchers and fisher folk in their relationship to pastures and fisheries. For each, stewardship is fundamental to preserving a natural resource in all its bounty. They understand that economic sustainability rests upon ecological systems and they model their own operations after the relationships they find in nature. As one fisherman put it, his responsibility is to maximize the return on the value of the fish to the source of the fish, in other words, he operates on the principle of ecological regeneration.

The care farmers and fisher folk give to the living systems they are a part of turns into safe, nutritious and tasty food. Providing fresh and organic food choices is a major incentive for farming and fishing sustainably. For farmers, local makes picking and selling in the same day possible.

Demand is up because customers value fresh, quality food but also because they value knowing where their food comes from and how it got to them. Or they may buy local to protect farmland and open space from development or to promote biodiversity. But also, many customers buy locally to support the local food economy itself.

The local food economy, in turn, is made stronger through direct sales and the community that direct sales build. Many small producers credit direct sales as having saved their livelihoods. Control over prices makes sustainable profits possible. Smaller farms cultivating a variety of products net up to \$20,000 an acre, whereas before, selling to wholesalers, a farmer was happy to earn \$2,000 in profit per acre.<sup>26</sup> In this area, farmers markets, CSAs, and direct sales to restaurants and grocers figure as major channels. Other direct sales venues include farm stands, u-pick, food buying clubs, and mail order and internet sales for farm processed foods. In Seattle, the number of farmers markets has doubled in the past 5 years to 13, King County boasts 32, and the state count now stands at 120 markets.<sup>27</sup>

Another major shift in strategy for small producers is enhancing income through value-added products.<sup>28</sup> Farmstead cheeses are but one example. The number of farmstead cheese operations has tripled in recent years from 7 to 21. Other farmstead products include wine, juice, pies, honey, sauces, cider and clothing fibers. Some producers focus on innovative products to attract customers.

As the local food economy continues to evolve, producers are also trying to incorporate full year employment into their business model. This has led to some new alliances with other members of the local food economy, such as local distributors that supply produce to round out CSA boxes.

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## RELATIONSHIP PRACTICES

The ultimate relationship for farmers is with the land and what grows on it and is nourished by it. **Ecological stewardship practices** preserve that relationship, focusing on the interrelationship of the soil, plants, and animals as a self-nourishing system. Because these interrelationships are unique to place, ecologically-minded farming is quintessentially local.

Stewardship practices are then the home ground of the sustainable agriculture movement and LFE farmers.<sup>29</sup> Technically, sustainable agriculture refers to the ability of farms to produce food, far into the future, in a socio-economically fair way and without harm to the ecosystem. In this sense, LFE farmers see what they are doing as “organic and beyond”.

The industrialization of organic farming has narrowed the definition of organic to effectively mean no chemical inputs – which allows for producing mono-culture crops in huge volumes regardless of the negative environmental impacts.<sup>30</sup> As one local farmer remarks, “In terms of sustainability, what is the point [of industrial organic farming], when they are shipping stuff from China?”<sup>31</sup> Many LFE farmers choose not to pay the costs of organic certification but at the same time practice alternatives to using chemical inputs, such as crop rotation and using cover crops and compost to build organic matter in the soil. Likewise, LFE ranchers and animal farmers stress the humane treatment of animals in addition to forgoing the use of antibiotics, hormones and non-organic feed as required for organic certification.

Other practices related to ecological stewardship include keeping only a portion of the farm’s total acreage under cultivation and restoring habitat where previously degraded. In turn, open farmland provides valuable ecosystem services such as watershed management and water and air purification. Significantly, having more control over what they produce frees LFE farmers to grow mixtures of crops and varieties, replicating the biodiversity found in natural environments. This diversity is also profitable.<sup>32</sup>

The relationship LFE farmers maintain with the land also opens that relationship to others. LFE farmers welcome visitors coming to their farms to learn how they farm. They also participate in organized farm tours open to the general public. City folks are also signed up to lend a hand on the farm or with restoration projects. By making these experiences meaningful, fun and educational, people are drawn to reconnect with the natural world. Plus, personal relationships create a trust that can’t be replaced by a label.

In fisheries, stewardship is focused on taking the right amount and utilizing the product fully in contrast to the waste associated with factory fishing. By catching only the amount needed, fishing families can make more money per fish.

All of the producers interviewed cited personal relationships as being crucial to what they are trying to do. There is reciprocity in the relationships – a “synergy” – greatly appreciated by the producers. Based on these relationships, customers buy regularly and recommend “their” farmers to friends and restaurants they frequent. Farmers also appreciated customers

for trusting them to grow food for their families and referred to the growth of their businesses as cycles of expanding relationships and circles of influence.

Tours are but one way for LFE farmers to develop personal relationships with their customers and to **build community** around farmers. Farm-to-table dinners, where LFE restaurants team with producers to offer sumptuous dishes of local fare, are popular ways to both deepen community connections and fundraise for the community. LFE farmers also take time to get together to bond with each other and share knowledge.<sup>33</sup> Other practices include sharing tips on what to do with an unfamiliar vegetable, holding classes at CSA pick-up points, such as community centers, and the all important **story telling**.

Knowing a farmer's or a fisher's story can secure a relationship between the producer and their customer. It takes stories to connect with a customer and the possibility for connecting is what draws people to farmers markets and community-building events. Customer-oriented farmers also do best, noted a farmers market representative. They actively seek new relationships as well as do their part in **building up direct marketing and sales channels**. Today, farmers markets are brimming with vendors but just ten years ago it was difficult to find the farmers to fill the stalls. Because market rules require vendors to sell only what they grow or make, vendors must be personally represented at the markets which is time away from farming. Even more time is spent advocating policy changes that support direct commerce, such as resulted in the opening of farmers markets to the selling of dairy, fish and wine over the last five years.

Other direct sales channels also require an investment of time. For example, the sales manager of one farm talks to its restaurant customers every day. CSA's regularly email their subscribers and engage them in a variety of ways. Just getting a web-based direct marketing channel set up takes research. All of these activities are on top of the many hours spent farming.

But a **strong focus on financial stability** by the region's LFE producers is paying off. There is general agreement that direct sales is hard work but building relationships with customers leads to greater income stability. As one farmer remarked, if you let go of a relationship, it's ten times harder to get a new one. Similarly, farmers are finding that cooperation with other farmers can lead to greater financial security. One common practice is to round out CSA boxes with produce from other local farms and regional distributors. This allows the CSAs to operate year round which allows for full year employment, providing employees security in turn.

The trade-off of more profit for more labor per acre is also huge, but sustainable farming practices also contribute to economic sustainability. The payback, as seen by the farmers interviewed for the study, is **becoming self-sustaining in resource use**. The smaller farmers use very few outside inputs. The goal is to create a farm's own fertility, so they use compost and clean animal manures. One farmer is considering a biodiesel facility on site and another plans to convert to windmill power. An added benefit to self-reliance is having control over the quality of the production inputs.

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## KEY PRACTICES:

- Stewardship of ecosystem.
- Build community around producers.
- Build up direct sales channels.
- Story telling.
- Focus on financial sustainability.
- Become self-sustaining in resource use.

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## RELATIONSHIP CHALLENGES

While markets are looking rosy for local producers, significant challenges remain. Most estimates place the current size of the local food economy between 1 to 2% of all food sales, both regionally and nationally.<sup>34</sup> If the local food economy is to make a lasting difference, we need to continue to grow local markets in a sustainable way.

One barrier to growth is consumer preferences. Like LFE restaurants, LFE producers are aiming to **change the buying and eating habits of households** to reflect what is locally and seasonally available. As remarked in the interviews, it's common for consumers to expect food to look a certain way but few local crops are grown for appearance.

Helping customers make the connection between their food purchases and resource stewardship is also a concern. The issue is whether consumers are willing to pay for food that is safe to eat and grown in an ecologically sustainable manner. In fact, LFE producers are coming to believe that to be truly sustainable, local markets must go beyond being niche markets for the well-off.<sup>35</sup> While it is generally agreed that farmers market customers are willing to pay a premium, the **perception holds that local food costs more**. In point of fact, media articles on the local food economy frequently headline this perception. Some examples include "Attack of the \$3 Tomato" and "Safe, Local Food: It's Yours, at a Price".<sup>36</sup> Yet, according to a recent study by a local university, a market basket of organic food from farmers markets costs less – at the point of sales – than the same basket bought from a chain grocery store.<sup>37</sup>

Changing the perception that local food is affordable to only those with more money affects the direction in which the local food economy grows. This matters for small producers who want to be paid according to their honest labor. As one producer commented, even restaurants can have an unrealistic idea of what it takes to grow food. And one interviewee observed that every time prices are not derived from cost, the integrity of the entire operation comes into question.

None of the producers interviewed for the study thought that lack of demand is a problem.<sup>38</sup> Instead, small LFE producers feel challenged to **increase their capacity**. Many are only part-time producers and have to balance

farming or fishing with salary jobs. Record level floods have also created set-backs in capacity, with some farmers only being expected to recover from the 2006 floods in 2008. Other local supply constraints include severe farm labor shortages, missing storage and food processing infrastructure, and the lack of distribution capacity. These constraints make it difficult for local produce to be cost competitive (at the point of sales) with imports from industrial food producers.

Keeping up with demand can also occasion growing pains, particularly when your customers deal in quantity. As Fred Berman, Small Farms Program coordinator for the Washington State Department of Agriculture, notes, "There's always a disconnect between the buyer, who wants to see that the producer has the capacity to fill the order, and the producer, who wants to see the order and a guaranteed price before he risks planting a crop that large and that specific."<sup>39</sup> In one case reported to us, a food service featuring local food now requires new vendors to be insured for \$6 million.

Downstream capacity is also of concern. For example, the few local meat processors are hard to access. And while Washington State boasts of a huge food processing industry, it serves the export markets. There is even a shortage of business service providers that focus on small producers. For example, it was noted that there are no locally available farm accountants.

Forward-linking infrastructure is also crucial to drawing mid-size farmers into the local food economy. For small producers, wholesale is a market, though one many small producers will have nothing to do with. For mid-sized producers, wholesale may be the market. Direct sales are less of an option in the quantities mid-size farmers need to move. Mid-sized farmers transitioning to a focus on local markets also encounter other costs, notably, a drop in yields as they learn new land management techniques.<sup>40</sup>

A growing number of non-profits and the state's agricultural extension network are focused on helping farmers make this transition to sustainable agriculture. More such efforts are wanted. On the other hand, some farmers interviewed for the study were critical of top-down government regulation of land use practices which they felt undercut their stewardship of the land.

Finally, the **rising cost of land** is a huge challenge to growing the local food supply. The return on farming isn't enough to pay \$100,000 an acre, as one piece of land next to a farm we visited sold for recently. Land prices also push up property taxes, although farmers are provided some relief through tax credits for maintaining open space. Yet, the sad reality is that, for many farmers, their land is both their retirement and insurance accounts. This decreases the chance of the land being kept as farm land, if something should go wrong or when retirement comes. The farmers at Rent's Due Ranch faced this challenge when one of them was diagnosed with a condition whose treatment would total \$200,000 or more.<sup>41</sup> Thankfully, by reaching out to the community for financial help, they were able to meet this challenge. The incident also served to bring to the public's attention the dilemma of farmers not being able to afford insurance.

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## KEY CHALLENGES:

- Changing buying and eating habits to reflect what is locally and seasonally available.
- Changing the perception that local costs more.
- Meeting demand with limited capacity.
- The rising cost of land and high property taxes.

### 3.3 IMPACT OF RELATIONSHIP BUILDING

In this chapter, we examined what is qualitatively different about local food economy (LFE) businesses. Throughout, we observe that the emerging local food economy reflects a significant change in the goals, strategies and practices of local food businesses.

Here we consider what these changes mean for business sustainability. We find that practices in community building are key to the vitality of local food economy businesses.

**Practices in community building are key to the vitality of local food economy businesses.**

Definitions of business sustainability range according to a business' understanding of sustainability. In this discussion, we use three definitions that range along a continuum from weak to strong sustainability: keeping business going; managing resources to create continuing value for stakeholders; and including stakeholders in value creation.<sup>42</sup> All of these definitions are relevant to understanding the success of the emerging local food economy.

By way of **keeping business going**, Central Puget Sound is blessed with an emergent sustainable food system of great vitality. Direct market sales are flourishing with the expansion of community-supported agriculture (CSA) programs and farmers markets throughout the Puget Sound region. Local restaurants serving locally and sustainably grown foods report a steady growth in their customer base. LFE grocers, manufacturers and distributors have discovered new market opportunities in locally produced food. And, perhaps most importantly, local farmers are starting to feel optimistic about their economic futures in response to the growing demand for local food.

**Increasing demand for local product is not seen as a problem by established LFE businesses. Instead, the challenge is how to meet growing demand with limited capacity.**

The observations of the majority of the businesses interviewed for this study confirm this picture. By and large, they report no significant barriers to increasing local demand.<sup>43</sup> Instead, the challenge appears to be how to meet growing demand with limited capacity. In the interviews, two major constraints to the future

growth of the local food economy stand out: the dwindling supply of farmland and the need for local distribution capacity.

An efficient local delivery system would make it more economical for farmers, particularly mid-sized farmers, to sell to local markets and for purveyors to buy locally. This conclusion is supported by the food multiplier findings that are the subject of the coming chapter.

The loss of farmland to development affects the sustainability of the entire food value chain. To stem the losses, we need to address a host of complex issues – flooding, labor shortages, lack of insurance, sprawl – that are embedded in competing notions of public welfare. These issues impact both LFE and export-oriented food businesses alike. For the local food economy, farmland loss is the major constraint on future supply.

The need for additional local processing infrastructure is also a major constraint on system development, particularly as food security depends to some degree on institutional food service, such as school cafeterias and subsidized day-care meals. Whether institutional food service will be able to transition to serving local foods on a regular basis depends on developing efficient local delivery and processing capacity.

Finally, as is the case in any rapidly expanding market, LFE businesses are under pressure to grow. Some of the very small LFE businesses interviewed for the study are challenged to develop to a size that allows them to comfortably manage their own growth. This is a common challenge for all micro-businesses (companies with ten or fewer employees) where the employees wear many hats. However, the interview findings suggest that LFE businesses may find more support in making this transition. An example of such support is the farmer-chef connection events whose purpose is to connect food producers and buyers.

In terms of **managing resources to create continuing value for stakeholders**, (the second definition cited above), LFE businesses, by their own accounts, are excelling. Consumers seemingly understand the value of buying local as evidenced by growing demand. Moreover, many LFE businesses explicitly embrace missions of providing value for their customers. At the same time, their stewardship of the community's resources increases the value of the resources themselves.

The interviews made clear that developing the local food economy has called for two resources in particular. The first resource is the relationships that make up the local food economy and the second is the time that it takes to build the

**Success for LFE businesses follows learning to manage the time involved in relationship building.**

relationships. These two are interrelated: Success for LFE businesses follows learning to manage the time involved in relationship building. The businesses we talked to believe that the rewards of relationship building offset the time it takes but that finding ways to free up time is a priority that could greatly promote the availability of fresh, safe and nutritious food

through local businesses. As a way to save time, the need for an efficient local distribution system came up repeatedly.

The value of relationships is that they are dynamic and unique to the local food economy.<sup>44</sup> When people shop at farmers markets or eat out at neighborhood restaurants that feature sustainably grown food, they are participating in something much greater than product consumption. They are participating in community. The same goes for local food economy businesses – they too experience community. Community is a resource that cannot be bought as a brand or copied through industrial production models. Communities are particular to the relationships involved.

**Locally directed buying and selling builds community. The value of community as a local food economy resource is that it is unique to the relationships involved.**

Local food economy relationships also support LFE businesses in responding to change. Relationship-based practices, most notably, direct sales of farm products, have significantly altered the economic landscape for food producers and consumers alike. For restaurants, direct relationships with farmers and ranchers are pivotal to both providing for and managing small lot variety in supply.

**Relationship-based practices, most notably, direct sales of farm products, have changed the economic landscape for food producers and consumers**

The final meaning of business sustainability cited above, **including stakeholders in value creation**, is perhaps best captured by the self-identification of independent, local food businesses as co-producers to farmers. LFE businesses see themselves as not just building a business but building a sustainable local food system.

Again, we find that practices in community building are key to the vitality of local food economy businesses as community-specific values are the foundation of sustainable community economies. Values matter to creating both supportive public policy and sustainable markets.

**The perception that buying locally produced food costs more is being challenged as both businesses and customers come to understand the benefits of community building and caring for the community's resources.**

Significantly, the perception that buying locally produced food costs more is being challenged as both businesses and customers come to understand the benefits of community building and caring for the community's resources. It is through their involvement in the local food economy that businesses and people grasp the interrelatedness of health, the economy, community and the

environment. But also, participation reflects the value of this experience to the participants themselves.

These findings show that while buying and selling choices are driven by economics, sustainability also matters. In the next two chapters, we will look further at the proposition that strong local relationships are crucial not only to the economic success of the region's food producers, manufacturers, distributors and purveyors, but to preserving farm land and providing access to healthy, affordable food in all of our communities. In effect, local relationships go beyond the standard economic transactions. They serve to restore the land and regenerate community.

### 3.4 MAJOR FINDINGS – BUSINESS SUSTAINABILITY ANALYSIS

- ✓ Practices in community building are key to the vitality of local food economy businesses.
  - ✓ Increasing demand for local product is not seen as a problem by established LFE businesses. Instead, the challenge is how to meet growing demand with limited capacity. Two major constraints to the future growth of the local food economy stand out: the dwindling supply of farmland and the need for local distribution capacity.
  - ✓ Success for LFE businesses follows learning to manage the time involved in relationship building.
  - ✓ Locally directed buying and selling builds community. The value of community as a local food economy resource is that it is unique to the relationships involved.
  - ✓ Relationship-based practices, most notably, direct sales of farm products, have changed the economic landscape for food producers and consumers alike.
  - ✓ The perception that buying locally produced food costs more is being challenged as both businesses and customers come to understand the benefits of community building and caring for the community's resources.
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## End Notes – Chapter 3

<sup>1</sup> This statement deserves empirical verification that is beyond the scope of this study.

<sup>2</sup> 1,500 is often cited as the average number of miles food travels to reach our tables. The figure is based on a ground-breaking case study by the Leopold Center for Sustainable Agriculture (Pirog et al, 2001). However, among other things, the distance food travels varies according to the final destination and the type of food, so the number itself, 1,500 miles should be regarded as more symbolic than actual for most localities.

<sup>3</sup> Pollan, April 2007.

<sup>4</sup> While the focus of our interviews in this category were public institutions (referred to in Chapter 2 as “end use institutions”), for profit private institutions giving like care face similar issues, where private food service venues for non-dependent customers, such as corporate cafeterias, are subject to different challenges. The latter are discussed below in Section 3.2.3.

<sup>5</sup> The failure of the existing institutional food service system to deliver healthy foods is outside the scope of this study and deserves an analysis in its own right. However, Section 5.2, discusses the contribution of the local food economy to food security in low-income neighborhoods.

<sup>6</sup> Bastyr University is one that has a wonderful cafeteria service chock full of fresh, local food at reasonable prices

<sup>7</sup> For a good account of the difficulties encountered in remaking school lunch programs, see Belkin (August 2006).

<sup>8</sup> Pollan, January 2007.

<sup>9</sup> Notwithstanding LFE grocers’ intent to develop open communication practices, several of the vendors interviewed described incidents where they felt buyers used pressuring tactics to gain unfair advantages. As this information was unsolicited, the number of times vendors expressed their frustration regarding some LFE grocers’ interaction with them indicates a large gap between policy and practice.

<sup>10</sup> PCC stores, for example, average 250 to 300 visits per week.

<sup>11</sup> Murietta, May 2007.

<sup>12</sup> Ecotrust, 2007.

<sup>13</sup> See Chapter 2, Section 2.3.1.

<sup>14</sup> OGC's operations are described at [www.organicgrown.com/about.html](http://www.organicgrown.com/about.html).

<sup>15</sup> Trade Development Alliance of Greater Seattle.

<sup>16</sup> The on-going consolidation of the organics food industry is depicted in a well-published chart that can be viewed at [www.organicconsumers.org/Organic/orgChart.pdf](http://www.organicconsumers.org/Organic/orgChart.pdf).

<sup>17</sup> Organic Valley, a dairy cooperative of family farmer-owners, was formed in 1988 to support rural communities through protecting family farms.

<sup>18</sup> The "freedom franchise" is the inspiration of the Great Harvest Bread Company.

<sup>19</sup> Wong, August 2005.

<sup>20</sup> Processing capacity is also needed to be able to supply local food to institutional end-users such as schools and hospitals. See the discussion under distributors in Section 3.2.4 above.

<sup>21</sup> In addition to the interviews, this section draws on a wealth of recent writing on the resurgence of local farming.

<sup>22</sup> Saul, August 2007.

<sup>23</sup> Stusser, February 2007.

<sup>24</sup> Integrity Systems Cooperative Co. and Sustainability Ventures Group. 1997, (3.2).

<sup>25</sup> Interview data and Saul, August 2007.

<sup>26</sup> Jonsson, February 2006.

<sup>27</sup> Jonsson, February 2006.

<sup>28</sup> See also the discussion under manufacturers in Section 3.2. above.

<sup>29</sup> Another term coming into currency is biodynamic farming.

<sup>30</sup> To be certified as an organic farmer you need third party verification of your farming practices. The practices are intended to promote ecological balance, cycling of resources, and conserving biodiversity. Certification is, in and of itself, an industrial practice.

<sup>31</sup> Tanumihardja, May 2007.

<sup>32</sup> DePhelps et al, 2005.

<sup>33</sup> Tanumihardja, May 2007.

<sup>34</sup> Jonsson, February 2006.

<sup>35</sup> Remark of panelist at Farmers-Chef Connection event, Seattle, Wa, 2007.

<sup>36</sup> Dundas, August 2005; Mapes, May 2007.

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<sup>37</sup> Gaudette, June 2007.

<sup>38</sup> This finding is echoed in a number of recent newspaper accounts of the local food economy, for example, Saul, August 2007.

<sup>39</sup> As quoted in Saul, August 2007.

<sup>40</sup> Integrity Systems Cooperative Co. and Sustainability Ventures Group. 1997, (3.2).

<sup>41</sup> Bialic, April 2006.

<sup>42</sup> Business sustainability is hard to grasp without the sense of what it takes to operationalize it. The definitions presented here emphasize operationalization first.

<sup>43</sup> The few businesses expressing concerns about increasing demand were start-ups.

<sup>44</sup> This discussion of resource use is informed by the business strategy theory, the dynamic resource-based view of the firm.

## 4 CRITICAL LINKAGES ANALYSIS

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### KEY POINTS

- Choices about buying and selling co-evolve as a set of relationships linking businesses to their suppliers and customers.
- The local multiplier is both a measure of local money flows and a tool for identifying critical economic linkages for sustainable development.
- More and stronger local linkages suggest a healthier, more diverse and resilient local food economy.

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The goal of a sustainable food system represents many different opportunities to improve our lives. It figures in our hopes for healthy families, thriving communities, social justice, environmental protection, and much more. Most everyone has such hopes. What is at issue is choosing the economic foundation on which to build.

Emerging local food economies represent a fundamentally different way of organizing production and consumption. Whereas market efficiency is the focus of the industrial food economy, relationship-building is the focus of community economies. Knowing what a relationship-based or community economy looks like from a systems standpoint, that is, what its pattern of development is, can help guide us in taking action to grow our region's local food economy.

The purpose of this chapter is to ask: What are the critical economic linkages for developing a sustainable regional food system? Drawing on the multiplier and interview data, we analyze the network – or web of relationships – that makes up the local food economy. We are interested to know which relationships/linkages will increase resource flows.<sup>1</sup> We begin by exploring the definition of local as a web of relationships.

## 4.1 DEFINING LOCAL AS A WEB OF RELATIONSHIPS

Locally directed spending involves a choice about the kind of food system we want to have. When we buy locally, we are supporting the development of a web of relationships, rooted in place. The significance of these relationships is hard to capture with numbers but their value is unmistakable when we hear stories of the local food economy like these:

The pictures of the chefs that pepper the walls of FareStart's restaurant include Seattle's finest. Originally founded as a food service to feed disadvantaged populations, FareStart has evolved into a restaurant, a food service catering nutritious food to low-income day care centers, and a job training program for Seattle's homeless. Every Thursday night, a different local chef volunteers to teach cooking skills. Many of the students get job offers on graduating from those same chefs. The benefit to the chefs is finding trained workers in a tight labor market.

Mondo and Sons started as a butcher in Seattle's Rainier Valley in 1932. While they still butcher, they now specialize in the manufacture organic sausages, mainly for local retailers and restaurants. They are also a business incubator. For over 15 years, they have opened their USDA certified kitchens to the neighborhood's immigrant food entrepreneurs, helping them to develop culturally relevant local food products.

When the flood came in the fall of 2006 in the Snoqualmie Valley, it topped the high water mark and washed away top soil, equipment and plants. The valley, a scant 30 miles east of Seattle, is one of the most intensive sustainably farmed districts in the country.<sup>2</sup> It is also home to a large community of Hmong farmers who lease bits of land to organically grow flowers and some vegetables. The flowers, bundled up in bright bouquets, are a major attraction of Seattle's historical Pike Place Market and regional farmers markets. With little advance notice of the flood, the Hmong lost huge numbers of flower tubers as well as equipment. To help them recover, the community stepped in with dollars and replacement tubers, while the county offered workshops on how to repair equipment.<sup>3</sup>

There came a time, when milk prices bottomed out, that Vic Jensen and Son's Dairy had to make a choice – sell out or do something different. Within a year, Brandy and Judy Jensen, daughter and mother-in-law, had the Golden Glen creamery up and running and contributing to the family income. Their farmstead cheese, minus the coloring and additives of mass-produced

cheese, is the color of milk. As if working a twelve hour day and a second child were not enough, Brandy helped launch the Washington State Cheese Association for the state's budding cheese-makers to share information.

These stories speak to our community values – of caring for the land, sharing good fortune, helping in times of trouble, and providing for the future. Taking an economics perspective, the stories also have something to say about how the local food economy functions. In particular, they describe resource flows within the web of relationships that make up our region's local food economy.

The list of such resource flows includes not only dollars, but knowledge, labor, operating capacity (through sharing of underutilized capacity), marketing, seed stock, information, skills, biodiesel, and much more – even manure. As the stories convey, local resource flows nourish community and contribute to the healthy functioning of the local food economy.

Practically speaking, it is this free flow of community resources, (“free” in the sense of self-organized), which gives the local food economy its vitality. Farmers markets, for example, would not be such lively places without the conversations that, reportedly, happen ten times more there than at grocery stores.<sup>4</sup>

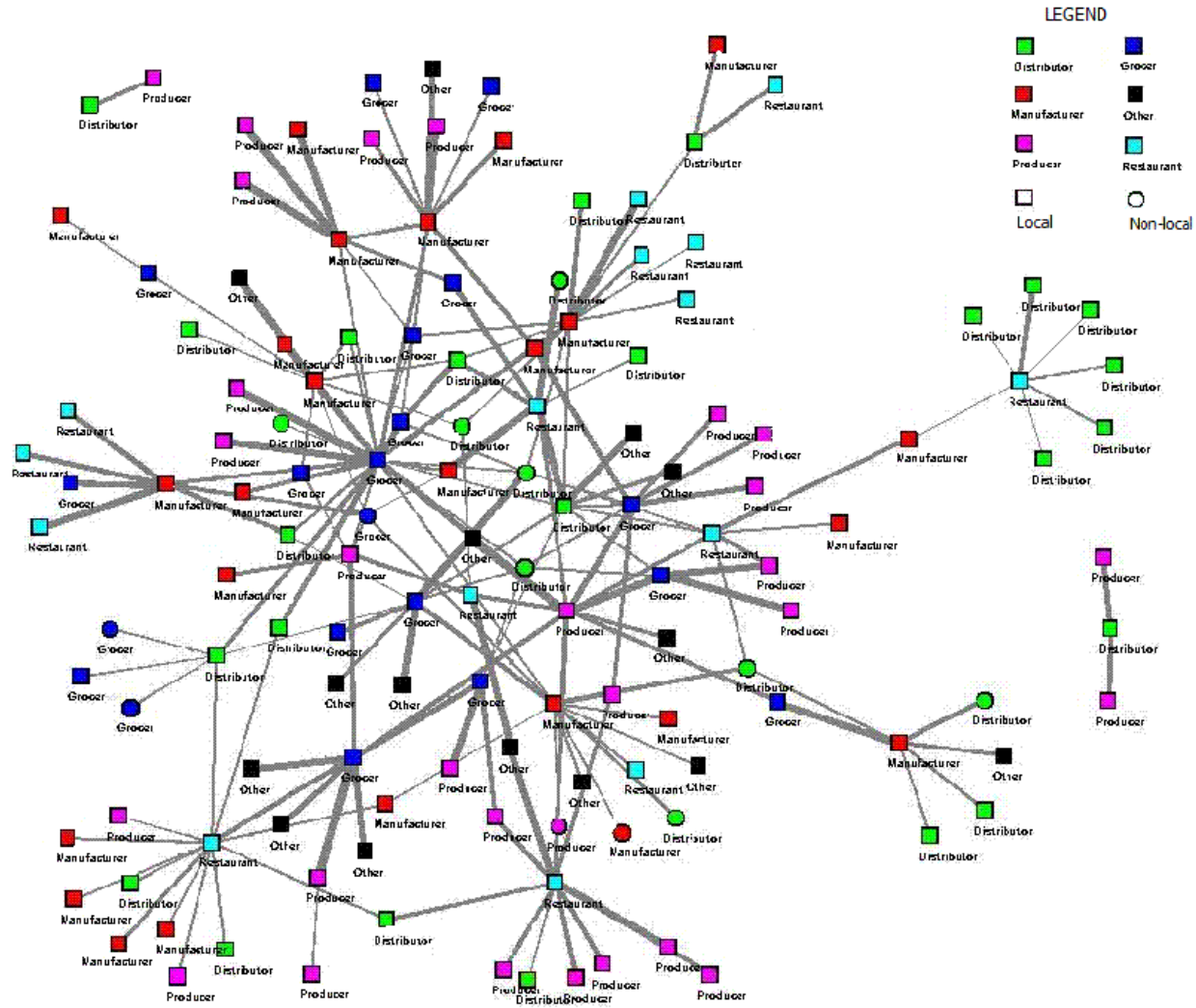
The free flow of resources, in turn, depends on the web-like organization of the local food economy, more commonly described by economics' and systems' researchers as a network. From research, we know that effective networks contain numerous and diverse nodes and linkages that allow for diverse resource flows.<sup>5</sup> Creativity and resiliency (the ability of a system to rebound from distress) are characteristic of the qualitative relationships found in networks. An effective relationship-based or networked economy is then decentralized, with a multiplicity of businesses, most of them small, yet strongly linked through common interests and values.<sup>6</sup>

Previously, it was said that choices about buying and selling co-evolve as a set of relationships linking businesses to their suppliers and customers.<sup>7</sup> The deeper significance of this dictum is that there is a choice about what kind of food system we have, be we buyers or sellers. Through locally directed buying and selling, we are making choices that connect us together in our respect for our place in the world.

## 4.2 THE LOCAL FOOD ECONOMY AS A NETWORK

Social scientists have developed tools for mapping network relationships. Figure 8 depicts the relationships described in the interviews we conducted for this study.<sup>8</sup> The map adds to our understanding of the local food economy's pattern of development.

Public Comment Draft – December 2007



As conceived by Krebs and Holley (2002), network maps provide snapshots of business ecosystems at particular stages in the community building process. In particular, they are useful for identifying opportunities to strengthen the given network by way of “connecting through similarities and innovating through diversity”.

To construct the map, we codified both LFE businesses and relationships as nodes and links (or linkages) respectively. Each node represents an LFE enterprise classified according to its position in the food value chain, e.g. grocers, producers, etc. The category “other” represents community organizations. Square nodes are local enterprises and round nodes are enterprises that are headquartered outside of northwest Washington. Linkages, shown as lines in the diagram, are weighted according to the intensity or strength of the relationship. There are three relationship intensities: weak (thinnest lines), moderate (medium weight lines), and strong (thickest lines). Weak linkages indicate standard economic (buy-sell) relationships; moderate linkages indicate relationships in which there is an additional exchange of resources (e.g. business introductions, sharing of space); and strong linkages indicate on-going (long term) reciprocal relationships.

It is worth remarking that households are not included in this analysis. Consequently, the role that consumers’ spending plays in the development of the network is likely underrepresented in the relationship map. Further research is needed to address this influence.

Our findings are shaped by the focus of the interviews, which was to identify relationship practices and challenges (see Chapter 3). However, we can draw several conclusions from the network analysis:

1. The local food economy, though still small, is reaching a fairly integrated stage of development characterized by clusters of businesses centered around several highly connected hubs.<sup>9</sup>
2. Hubs show diversity by their position in the value chain, that is, they include grocers and farmers markets, manufacturers, producers, restaurants and distributors. There is also a high degree of diversity in the network connections, signified by enterprises in different parts of the value chain connecting directly to each other.
3. There are a large number of peripheral enterprises whose awareness of opportunities (signified by the average path length, or number of links, between them and any other enterprise in the system) needs to be increased. Organizations such as the Chef’s Collaborative, whose purpose is to connect producers with buyers, serve this purpose.
4. LFE restaurants (blue squares) are frequently customer hubs for local producers (pink squares).
5. Despite their role in the food value chain as information channels, local distributors (green squares) are likely to be the least linked and most weakly linked nodes.

This snapshot of the local food economy indicates its healthy development and suggests further steps for community building in keeping with the principle of “connecting through our similarities and innovating through our diversity”. Increasing the number of connections and strengthening the weaker connections at the periphery would accelerate the spread of innovations through the network, while increasing the density of connections between different points in the network would increase the network’s robustness. Another step would be to increase the network’s resiliency through more cooperation. Stronger ties between hubs based on connecting through similarities would increase resource flows to all areas of the network. Increasing the size of single businesses, the customary way to grow markets, is not suggested. Dominance by large hubs reduces a system’s adaptability.

More and stronger connections between existing nodes speak to the depth of the local food economy, leading to larger impacts per dollar spent (see Section 2.2.1 on Shifting Our Dollars). But we also need to extend the reach, or breadth, of the local food economy, leading to larger market shares for local food economy products. Increasing the breadth calls for connecting to nodes – businesses – outside the existing network to bring them into the network.

### 4.3 DOLLAR FLOWS AND LINKAGES

The local multiplier is both a measure of local money flows and a tool for identifying critical economic linkages for sustainable development. As discussed in Chapter 2, multipliers capture the economic impact of an initial round of spending plus successive rounds of re-spending. The greater the local multiplier is, the more dollars circulating locally.

But for dollars to flow freely within the local food economy, there must be linkages in place that are more or less equal to supply and demand, that is, supply and demand need to balance out in the web. For linkages to form, then, the needs and capabilities of buyers and sellers must correspond. Effectively, dollars flow when there is reason to do business together or the intent to do business together. Typically what matters economically is the volume of supply, product variety, quality, and delivery reliability.

The relationship-building practices described in Chapter 3 play an important role in balancing the needs and capabilities of LFE buyers and sellers and thus in network development. Likewise, relationship challenges shape the direction of network development as an effect of constraining choices. By analyzing dollar flows in light of relationship practices and challenges, we can then determine which linkages are naturally strong and which need to be strengthened.

For this analysis, we used spending data from 20 of the businesses participating in the study to construct food dollar multipliers. A “food dollar multiplier” tracks the portion of spending that goes for food inputs to directly-linked suppliers.<sup>10</sup> In turn, food dollar multipliers can be used to estimate the level of food output (or volume of food flows) needed to supply the demand for locally-produced products.

**Table 4.1 Food Dollar Multipliers**

LFE Category	Food Dollar Multiplier	% Spent on Food of All Costs
Groceries and Home Delivery	1.27 to 1.93	27 to 36%
Restaurants and Food Service	1.2 to 1.94	55 to 70%
Distributors	1.05 to 1.15	87%
Manufacturers and Processors	1.02 to 1.92	33 to 67%
Farmers (CSA's)	1.8 to 1.85	30 to 34%

Source: Local Food Economy Survey data for Central Puget Sound local food economy businesses (2005).

For example, 20 to 94 cents of every dollar spent at LFE restaurants for food (from 55 to 70% of all spending) is used for local purchases. Table 4.1 compares the food dollar multipliers by category of business in the food value chain.

The wide ranges of food dollar multipliers within categories in Table 4.1 indicate that it is not only position in the food value chain, but the practices and challenges of individual enterprises, that influence the amount of dollars spent locally.

That the high end of local spending for food products is upwards of 85 cents

**Buying local is not only feasible but practical and profitable for food businesses. At the same time, there are structural hurdles to growing the local food economy. A major challenge is the trade-off between volume and variety transactions.**

on the dollar in four of the five categories is good news. It shows that buying local is not only feasible but practical and profitable for many businesses. At the same time, the low end food dollar multipliers in Table 4.1 suggest that there are structural hurdles to growing the local food economy. A major challenge is the trade-off between volume and variety transactions as the basis for making a profit.

In point of fact, the correlation between food dollar multipliers (a probable measure of variety) and percentages spent on food (a measure of volume) is a moderate  $-.47$ , indicating the likelihood of an inverse relationship between the two.<sup>11</sup> By the same token, the very low end food dollar multipliers in Table 4.1 (e.g. 1.02, 1.05) confirm what was observed in the LM2 analysis in Chapter 2, namely, that distributors and some manufacturers are major points of spending leakages from the local economy. In both cases, volume is at issue.

An analysis of each LFE category's linkages provides additional evidence of the volume-variety trade-off. The linkages are examined in view of the relationships practices and challenges discussed in Chapter 3. Table 4.2

Table 4.2 Network Linkages by Category in the Food Value Chain

LFE Category	Major Practices	Major Challenges	Operational Strategy Focus: Resource Flows	Pattern of LFE Linkages
<b>Institutional Food Service</b>	Redesign food service delivery. Experimenting with food preparation practices.	Price and volume of local food supply. Production practices. Lack of delivery.	Volume; Meeting public mandates on nutrition and price.	Weakly linked –indirect linkages only.
<b>Distributors</b>	Identify local product opportunities for customers.	Shrinking local supply. Lack of warehouse and refrigeration infrastructure. Lack of preprocessing.	Volume; Low transaction costs.	Weakly linked – small number of weak linkages.
<b>Manufacturers and Processors</b>	Directly connecting with customers. Offering sustainably made products.	Getting right amounts of right inputs. Pressure to increase scale.	Market growth; Product differentiation.	Range of weak to strong linkages.
<b>Groceries and Home Delivery</b>	Develop direct relationships with local producers. Educate customers on value of fresh and seasonal foods.	Perceived value of local food. Inefficiency of local deliveries. Quality and volume of supply.	Quality; Operational efficiency.	Many weak, mainly buy-sell linkages.
<b>Farmers and Fisher Folk</b>	Stewardship and self-reliance in resource use. Build direct sales and community.	Meeting demand with limited capacity. Rising cost of land. Price perception.	Quality and Variety.	Strong linkages involving additional resource exchanges.
<b>Restaurants and Food Service</b>	Buy local as much as possible. Develop partnerships with producers. Feature seasonal menus and prep food in-house.	Time cost to using multiple suppliers. Inconvenience of local delivery system. Creating low cost food options.	Quality and Variety.	High multipliers; Many and strong linkages.

summarizes these findings. The categories are discussed in the general order of having weak to strong linkages, where strength is indicated both by the number of linkages and the intensity of the relationships. Institutional food service is discussed in addition to the five categories from the table above and farmers markets are presented in more detail as a case study on the next two pages.

Despite the health benefits of fresh, whole, locally produced foods, **public institutions with food service**, at present, are rarely linked with other local food economy businesses. Typically, institutions contract for delivery of large quantities of food at commodity prices. From the interviews, we know that their doubts about local purchasing revolve around insufficient supplies and inefficient delivery. On the practice side, both bidding and preparation practices limit the use of local products. Consequently, locally directed spending in publicly funded institutional food service is negligible in Central Puget Sound, with the exception of spending in a few experimental programs.

Local, independent **distributors** are the least integrated members of the local food economy as reflected in their low multipliers and weak network linkages. Conventionally, distributors' profits are made turning a high volume of low margin products while keeping transaction costs low. Customers also want consistent quality. Small lot variety and multiple relationships with small producers add to the costs, which is why the loss of mid-sized farms is of particular concern to local distributors. On their part, grocers, restaurants, and institutional food service cite the lack of distribution for local products as a major challenge to increasing local purchasing.

**Grocers, restaurants, and institutional food service cite the lack of distribution for local products as a major challenge to increasing local purchasing.**

The range of food dollar multipliers is quite wide for LFE **manufacturers and processors**. Pressure on manufacturers to increase scale (volume of sales) for efficiency and price reasons runs counter to increasing local content. Many spend a large portion of their food dollars outside the local economy because either there are no local suppliers for the inputs they use (e.g. coffee roasters) or there is not enough local volume of a consistent quality for the inputs they use (e.g. bakeries). Small artisanal and farm-based value-add enterprises have developed a number of strong local ties by going deeper into local markets with niche products.

As evidenced by their high number of LFE linkages, local **groceries** have long been central to small local businesses reaching the household market. However, individual linkages are likely to be weak if the share of local food transactions is small relative to total sales. To serve their customers, LFE grocers look for reliable sources that can deliver quality product in the quantities needed. Stronger ties with local producers are the result of new practices that increase volume through allowances for small lot diversity, such as decentralizing purchasing. Grocers with very high local multipliers have strong linkages with local distributors to the extent of being vertically integrated.

## Case Study: Central Puget Sound Farmers Markets

The success of Central Puget Sound’s farmers markets has made a huge difference for local farmers – but not only farmers. Farmers markets improve access to quality food for a variety of folks, gift neighborhoods with lively meeting places, generate traffic for nearby retail stores, nurture start-up businesses, and help create a positive sense of place and belonging. In effect, farmers markets are a case study in community building.

Not surprisingly, the demand for farmers markets keeps growing. Since 2000, the number of farmers markets in the Central Puget Sound (King, Kitsap, Pierce and Snohomish counties) has soared from around 10 to over 55 today. Communities interested in economic development could hardly do better than to set up a farmers market. Our research indicates that the regional economic impact of farmers markets is two and a half times that of supermarkets (see below).

From an economic development standpoint, farmers markets are also an interesting case of the advantages of a network or relationship-based approach to economic development.

### Markets as Network Hubs

By bringing together a mix of producers and consumers, farmers markets help weave the local food economy’s web of relationships. Farmers markets support both strong relationships and a large number of relationships. In 2005, the total number of vendors for 6 Seattle markets was 129.<sup>12</sup> As but one example of the strength of the community connections markets foster, unsold goods are often contributed to local food banks.

As major hubs in the local food economy, farmers markets demonstrate the impact of “connecting through similarities and innovating through diversity”. Connecting through similarities, they unite small producers and consumers around the common cause of making fresh, healthy foods available at affordable prices. Innovating through diversity, they offer the opportunity for small producers to network with other businesses and interact with customers directly, which leads to more business prospects and more ideas on how to serve the community’s needs.

Farmers markets also bridge the divide between Washington’s urban and rural communities and return much needed income to farming communities as seen in the following data for six Seattle area markets.

**Sales by Region and Vendor Type as Percentage of Total Sales**

	King County	Central Puget Sound	Northwest Washington	Other Washington
<b>Farmers</b>	<b>0.19</b>	<b>0.16</b>	<b>0.35</b>	<b>0.17</b>
<b>Processors</b>	<b>0.08</b>	<b>0.02</b>	<b>0.02</b>	<b>0.00</b>
<b>Prepared</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

*Source: Local Food Economy Survey data*

## Markets as Business Incubators and Information Exchanges

Farmers Markets are business incubators for small farmers learning new, more sustainable business models. For example, many farmers are venturing into value-added product development as a result of their farmers market experience. Markets also provide such services as marketing, infrastructure development and sales support that make direct sales possible and they are points of market entry for entrepreneurs. One of the benefits to farmers working at farmers markets is being able to tap directly into information on market developments, information they previously got from distributors.

## Spending Our Food Dollars Locally

Locally directed spending by way of farmers markets can be seen as an investment in Washington's small, independent, family farmers and the businesses that supply them. Each time a dollar is re-spent locally it adds to the community's income. The impact of farmers markets can be seen in the following comparisons to traditional grocery stores. The indirect impact is the result of re-spending food dollars for supplies. The final impact is the result of additional household spending of income earned from the increased business activity.

### Income Generated through \$100 of Spending

	Indirect	Final
<b>Grocery Stores</b>	<b>\$125</b>	<b>\$202</b>
<b>Farmers Markets</b>	<b>\$162</b>	<b>\$280</b>
<b>% Increase in Impact</b>	<b>250%</b>	<b>176%</b>

*Sources: Local Food Economy Survey 2005 and RIMS 2003 data.*

Moreover, while the \$25 in additional spending the grocery store generates may be spread out to brokers and distributors on top of farmers, the \$62 from farmers markets goes directly into the pockets of their vendors.<sup>13</sup> The impact is even greater at the state level – \$100 spending generates an additional \$99 in re-spending.

The increase in the number of linkages at farmers markets also counts. The growing number of producer-consumer connections dramatically increases the volume of local sales, and more initial dollars spent at farmers markets means a greater final impact in terms of total dollars.

## Downstream Impacts

Because independent, local farmers are more likely to buy locally compared to agri-businesses, the downstream impacts of dollars spent at local farmers markets are much greater. While agricultural exports generate about \$1.70 of community income for every dollar of sales, we conservatively estimate a return of over \$2.80 to the state economy on farmers market sales.<sup>14</sup> The likely return, however, is well over \$3.00.

Yet another downstream impact of farmers markets is the spillover of business to nearby retail stores. Nearby businesses see substantial increases in store traffic and purchases.

From a variety of small LFE **producers** comes variety. What's more, for sustainable farmers, to protect the land is to cultivate diversity. The direct sales revolution opened local markets to this variety by multiplying the number and strength of small producer-small buyer relationships. In particular, farmers markets have stimulated network development (see the case study on the next two pages). However, mid-sized farmers, who are more dependent on distributors to move larger lots of commodity crops or volume, are far less linked into the local food economy. The moderately high local multipliers of LFE farmers indicate their self-sufficiency, where their high food dollar flows indicate local sourcing of variety for CSA programs.

**LFE restaurants and food service** venues have the greatest capacity – the knowledge, skills and pricing structure – to deal with the variety offered by small sustainable producers. This is reflected in their high multipliers and their position as hubs for producers in the local food economy. The high multipliers also suggest that local capacity and decentralization of local purchasing are interrelated.

**LFE restaurants and food service venues have the greatest capacity – the knowledge, skills and pricing structure – to deal with the variety offered by small sustainable producers.**

**In general, high local food dollar flows are associated with leveraging product variety through stronger, more highly developed relationships and a greater number of linkages, whereas low multipliers are associated with moving high volumes of commodified food.**

From this analysis, we conclude that the pattern of network linkages bears a close relationship to dollar flows. In general, high local food dollar flows are associated with leveraging product variety through stronger, more highly developed relationships and a greater number of linkages, whereas low multipliers are associated with moving high volumes of commodified food.

#### 4.4 THE LOCAL FOOD ECONOMY AS A MODEL

A model of a relationship-based economy emerges from the study of linkages and resource flows in the local food economy. The model says that the larger the local multiplier, the more dollars circulating locally, the greater the number of economic linkages and the greater their strength. More and stronger linkages suggest a healthier, more diverse and resilient local economy.

As noted in Chapter 2, when estimating the economic impact of a shift in food dollar spending, we need to account for both the percent of food dollars spent at different community-based businesses in an average transaction – the depth in local spending – and the percent of the community which shops locally – the breadth of local spending. We can increase the breadth of spending through linking to new buyers outside the existing local food

economy and the depth of spending by creating new linkages and strengthening linkages inside the existing local food economy.

The analysis in this chapter also indicates that the challenges to developing linkages generally involve the difficulty of transitioning from volume to variety as the basis of operations. It is worth noting that many food businesses are locked into a volume model through industry restrictions, such as with the milk pool (see box) and the organic foods industry after consolidation.

### **The Milk Pool**

Originally designed during the Great Depression to ensure a reliable supply of milk, the milk pool has evolved into a complex set of regulations governing the price and supply of milk. As it exists today, most dairy farmers sell their milk under contract to industrial giants who typically prohibit the milk from being used for other purposes. Those who wish to make value-added products from their own milk must first sell it to the pool then buy it back at the higher milk pool prices – plus pay the costs of shipping and handling even though the milk never leaves the farm.

Producer-handlers are dairies that still bottle and sell their own product, (almost always locally), which exempts them from milk pool prices. Their number has gone from 52 to 8 in the Pacific Northwest between 1980 and 2003.<sup>15</sup> Under pressure from agri-business, USDA moved in 2005 to remove the milk pool exemption for producer-handlers, threatening the financial viability of our region's largest sources of hormone-free milk. Also at risk from regulation are the tiny cow share dairies where share owners pay the farmer to watch over the cow and the production of raw milk.<sup>16</sup>

The emergence of the local food economy signals new possibilities for resolving the volume-variety trade-off. Instead of growing existing local food businesses to handle large volume transactions, the goal would be to scale up the web of relationships, thus allowing for variety and volume in resource flows.<sup>17</sup> Effectively, we need to increase the depth and breadth of the local food economy, though how large the local food economy can or should be is still open to question.

In this context, developing a regional food system that addresses the region's sustainability needs depends on both establishing new resource flows and increasing existing resource flows. This requires new linkages that satisfy unmet needs, and more linkages between different points in the network and with the network's more peripheral members.

Based on the analysis in this chapter, several linkages call for development.

**From the standpoint of healthy eating and social justice**, the critical linkages are those which support easy access to local foods for people in all income brackets. The focus here includes supporting the spread of farmers markets, CSA programs, and home delivery to low-income neighborhoods and

suburban and rural communities and making farm-to-school and farm-to-hospital programs viable through instituting food service practices with greater sourcing flexibility.

**From the standpoint of saving farm land from development**, LFE linkages to mid-sized farmers need to be thought out. The number of direct linkages between LFE grocers and mid-sized local farmers could be increased. The supply of local food to schools, hospitals and other institutional food service would be served by additional pre-processing capacity, but its scale should sustain the cultivation of a diversity of crops.

**From the standpoint of environmental protection and ecological stewardship**, public awareness of the ecological value of farm land and sustainable fisheries needs to be supported through expanding the opportunities for urban households to connect with small producers. Again, farmers markets are important points of connection. Public campaigns to eat fresh and seasonally also increase locally directed spending in support of sustainable agriculture. Public support for programs that help mid-sized farmers transition to sustainable agricultural practices is also needed.

**From the standpoint of system efficiency**, the critical missing linkage is a distribution system keyed to local foods. An efficient distribution system could draw more restaurants, grocers, and institutional food service into buying local. Given their high multipliers, adding more restaurants and food service businesses into the network by making it easier for them to source local food could greatly increase the impact of locally directed spending.

**From the standpoint of thriving communities**, new linkages between different parts of the food value chain lead to greater system complexity, synergies, resiliency, and self-reliance. Bringing small-scale food manufacturers into the local food economy is one such opportunity, but it will be necessary to address industry-imposed obstacles to their participation, such as the milk pool regulations. Partnerships that include farmers, farm workers and the community-at-large are basic to community stewardship of the land. Increasing hub cooperation through such initiatives as food policy councils also serves to develop system resiliency.

Finally, while network growth is crucial to fostering a sustainable food system, it may be as important not to force growth. The trade-off between volume and variety at the product level plays out as an issue of control and autonomy at the system level. Ramping up the volume of local food production through scale efficiencies could do more harm than good if diversity is lost in the process.

As this chapter makes the case, the choice of where we spend our food dollars is about the economic foundation on which to build a sustainable food system. Our contention is that locally directed spending leads to a healthier, more resilient local economy as an effect of greater system diversity and resource flows. We will explore the particular case of the local food economy's system sustainability in greater depth in the next chapter.

#### 4.4 MAJOR FINDINGS – CRITICAL LINKAGES ANALYSIS

- ✓ Buying local is not only feasible but practical and profitable for food businesses. At the same time, there are structural hurdles to expanding the local food economy. A major challenge is the trade-off between volume and variety transactions.
- ✓ Grocers, restaurants, and institutional food service cite the lack of distribution for local products as a major challenge to increasing local purchasing.
- ✓ Restaurants and food service venues have the greatest capacity – the knowledge, skills and pricing structure – to deal with the variety offered by small sustainable producers.
- ✓ In general, healthy local resource flows are associated with leveraging product variety through a diversity of relationships and a greater number of linkages, whereas low multipliers are associated with moving high volumes of commodified food.

## Endnotes – Chapter 4

<sup>1</sup> Depending on context, the term “linkages” is used to describe both the relationships of a category of businesses in the food value chain and also the relationships between individual enterprises in the network.

<sup>2</sup> For a map of King County showing salmon-safe certified farms, see [http://www.stewardshippartners.org/proj\\_salmon\\_map.html](http://www.stewardshippartners.org/proj_salmon_map.html).

<sup>3</sup> In 2007, farms along the Nisqually River near Olympia experienced unprecedented flooding. Again, the community stepped in with their support.

<sup>4</sup> McKibbin, 2007, p 105.

<sup>5</sup> Krebs and Holley (2002) have observed that five general patterns characterize networks. (1) Nodes link together because of common interests. (2) Diversity. (3) Robust networks have several paths between any two nodes. (4) The average path length contains a small number of linkages. (5) Some nodes have a greater number of connections.

<sup>6</sup> The distribution of organizations in a network follows a power rule, or exponential distribution, rather than the more familiar bell shaped distribution.

<sup>7</sup> See Chapter 2, page 9.

<sup>8</sup> The data from which the maps are constructed was collected through the interviews but the intent of the interviews was not to collect standardized data for the purpose of running a social network analysis. The results are also limited to the views of the interviewees about their relationships with specific suppliers and customers. These preliminary results suggest a fruitful line of inquiry for future research. The map was constructed with software developed by Valdis Krebs and June Holley. We are especially grateful to Steve Habib Rose for his help in generating the map.

<sup>9</sup> This stage of development is referred to as the “multi-hub, small world network”. (See Krebs and Holley, 2002.) An even higher stage of development would be a core-periphery network in which the hubs are heavily linked to each other.

<sup>10</sup> The food dollar multiplier measures the impact of a food-related businesses’ food purchases as opposed to the impact of all of their spending, such as taxes, payroll, rent, and other product purchases. It is equivalent to an LM2 for food purchases. (See Appendix B for the definition of an LM2 multiplier)

<sup>11</sup> Obtaining a full data set from distributors would probably have made this correlation stronger.

<sup>12</sup> Data from Seattle Neighborhood Farmers Markets Alliance.

<sup>13</sup> The economic impact of farmers markets has been estimated by others using standard as opposed to local multipliers with lower impacts as a result. Depending on location (e.g. city, rural) and the types of markets (e.g. farmers market , public market), impacts can vary widely. (Econsult Corporation, 2007)

<sup>14</sup> Data on exports obtained from The Role of Agriculture and Food Processing in the Washington Economy: An Input-Output Perspective, Joydeep Ghosh and David Holland, 2004. Sustainable Seattle is in process of collecting and analyzing data on independent, local farmers local multipliers.

<sup>15</sup> Grass to Glass Campaign. Available at: [www.keepmilkpriceslow.org](http://www.keepmilkpriceslow.org).

<sup>16</sup> La Corte, 2005.

<sup>17</sup> This model shares many similarities with regional industry cooperatives, such as those in the Emilio-Romagna region of Italy.

## 5 WHY LOCAL IS SUSTAINABLE

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### KEY POINTS

- Locally directed spending supports a web of local economic activity that makes for healthier and more prosperous communities.
- In community economies, the goal for development is to balance resource use with meeting needs for greater sustainability.
- What we are witnessing in the emergence of the local food economy is changing our idea of what makes for healthy economies – from growth based on commoditizing resources to community stewardship of resource flows.

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From a strictly economics point of view, there is nothing to suggest that food (of a given quality) is inherently better if it comes from one place or another, except if it can be produced more efficiently. Thus, price should tell us everything we need to know about making a choice.

From a sustainability point of view, the environmental and social impacts of resource use count too. More exactly, sustainability theory says that our economic, social and environmental interests are interrelated – that sustainability in one domain is not possible without sustainability in all domains. This suggests why local linkages matter. Once we disconnect resource use, according to some imagined ideal of market efficiency, from its specific cultural, social and environmental contexts, it is no longer sustainable.<sup>1</sup> Likewise, not knowing where our food comes from or how it gets to us prevents our caring.

In previous chapters, we have considered the economic impact of local linkages and the nature of those linkages. In this chapter, we take up the question of how local economic linkages contribute to environmental and community sustainability and why a relationship-based economy is more economically sustainable. We conclude that locally directed spending supports a web of local economic activity that makes for healthier and more prosperous communities.

We begin – once more – by defining what is local, this time with reference to economic, environmental and community sustainability. Then, using data points from the literature as benchmarks, we consider how the growing local food economy leads to greater sustainability. To this end, we contrast the dynamics of the region's local food economy with those of the industrialized food system.

## 5.1 DEFINING LOCAL AS SUSTAINABLE

In our region, as elsewhere, we see numerous signs that a food system based on industrial production models is not sustainable. Farmland is being lost to development; many Puget Sound communities lack access to fresh food; heavy use of fossil fuel and chemicals hurts farmland productivity; and commodified food is cheaper to buy than it is to grow, leaving farmers short-changed.

**Efficiency**, the gauge of industrial production, is but one measure of the sustainability of an economy. Greater efficiencies help to keep our resource use within limits but sustainability also depends on the **sufficiency** with which needs are met and the **regeneration** of resources.<sup>2</sup>

Sustainability then implies that there are practical limits to the use of resources in meeting needs. Embedded in the notion of practical limits is the notion of self-reliance – or resource sufficiency. To be resource sufficient is to limit our consumption to what we have while developing a resource base sufficient to meeting our needs. To take one example of what resource sufficiency involves in the local context, consider local food economy restaurants. Rather than depend on imported products, some local restaurants plan their menus around what produce is locally in season. In effect, the restaurants align their need for quality inputs with locally available resources.

Practical limits also require that resources not be used faster than the rate at which we replace them. This is especially the case for resources that provide essential services for which there are no markets, a category which includes many social and environmental resources. Farmland is one such resource. One estimate places the value of local farmland eco-services, such as air and water purification, at \$334 to \$1,206 per acre.<sup>3</sup> In this chapter, we make the case that dollars spent locally help regenerate the non-material services provided by community and farmland.

Differences in efficiency also depend on local factors, most of all, the context-specific organization of available resources. We consider in the next sections whether the local food economy is efficient in comparison to the industrialized food system. We make the case that the local food economy has the potential

to resolve the trade-off between volume and variety transactions (identified in Chapter 4) to bring about greater efficiencies in resource use. Diverse, flexible systems are able to reorganize themselves to adapt to change.

In community economies, the goal for development is to balance resource use with meeting needs for greater sustainability.<sup>4</sup> Our research on local linkages also finds that local resource flows nourish community and contribute to the healthy functioning of the local food economy, (see Chapter 4). The relevance then of the local food economy to sustainability is that sufficiency and regeneration are made possible through the web of resources that connect the community's resources to its needs.

We are just beginning to understand the complex interactions of our economic, social and environmental choices. What is clear is that we can no longer assume that the material wealth generated through economic activity replaces natural and social capital. At the same time, local economic transactions are seen to form the basis for relationships that generate natural and social wealth.

For communities to share and circulate resources for greater sustainability, we must respect each others' differences, but also value our interdependence. A healthy interdependence requires that we acknowledge how our choices affect others.

When we consider that sustainability means the caring for our resources, both human and natural, so that they provide for our well-being, now and in the future, the significance of buying and selling locally becomes clear. Caring happens within the context of relationships. Locally directed buying and selling is about developing relationships that build community and preserve the environment. A healthy community and environment are, in turn, the foundation for economic sustainability.

### 5.1.1 A NOTE ON CHAPTER DEVELOPMENT

The methodological approach in this chapter shifts from analysis to synthesis. Where the analysis in earlier chapters focused on how the local food economy works, synthesis focuses on understanding the value of the local food economy within the food system as a whole.

Necessarily, a comprehensive understanding of such issues as food safety, global justice, eco-service valuation and the food system's carbon footprint would involve analyses beyond the scope of this study. Our aim here is more modest. The intent is to answer the question: Why is locally-produced food good for our bodies, communities and the environment?

The format for the issue discussions in the following sections is to first define each issue through factual evidence gathered from the literature, then to explain the contribution of the local food economy to sustainability based on our research findings. The source reference for each data point is given in parentheses following its statement.

## 5.2 ENVIRONMENTAL SUSTAINABILITY

Our choices about what food to eat and who it comes from impact the environment in numerous ways critical to developing a sustainable food system.

An explicit assumption in the discussion below is that locally-produced foods are predominantly organic and sustainably farmed. While this assumption is not testable within the framework of the study, we can confidently say that the local food economy as compared with the industrialized food economy produces more organic food as measured by the percentage of organic food sales over all sales.

### 5.2.1 OPEN SPACE AND ECO-SERVICES

By preserving farmland, we are preserving wildlife and fish habitat. Farmlands also provide such eco-services as water and air purification, flood control, groundwater recharge, and soil productivity.

- Each year more than a million acres of farmland are developed in the U.S. According to U.S. Census Bureau figures, 30% of King County's 60,000 acres in farmland were lost from 1982 to 2002, although in recent years the loss has slowed as the number of small farms have grown. (Kurzweil; King County Benchmarks)
- 85% of apple varieties and 90% of lettuce varieties have been lost over the last century. One breed of cow is the source of nearly all milk and almost all eggs come from a single breed of hen. At Thanksgiving, nearly all of us eat the same turkey. (Lappé and Terry:6)
- Industrial agriculture practices have lost us approximately half of U.S. topsoil since 1960 and are draining aquifers at a rate faster than they recharge. (Kirschenmann)
- Sustainable farming supports more wildlife than conventional farming. One study puts the annual eco-service value of King County's agriculture land at \$334 to \$1,206 per acre. (Earth Economics)

Buying locally creates a strong economic base for regional agriculture by increasing the demand for local products and by returning a greater share of the food dollar to small farmers. This support allows farmers to nurture the open space, habitat and eco-services that are intrinsically local by definition – eco-services cannot be imported. One of the most important of these is the bio-region's unique genetic diversity.

Unlike commodity farmers, local farmers are not required to grow crops to a narrow standard to facilitate shipping and handling in volume. Local farmers also nurture consumers' relationship to the land through the relationships they form with their customers, leading to greater public awareness and commitment to the preservation and regeneration of our natural resources. In return, local buying signals the community's confidence in its farmers' stewardship of the land.

## 5.2.2 WASTE AND ENVIRONMENTAL DEGRADATION

Waste, pollution and environmental degradation signal inefficient resource use. They also reflect an economic “taking of the commons”, the unilateral use of our community’s resources by private interests.

- It takes more than 400 gallons of water to produce a pound of feedlot beef and many estimates put the number much higher. (Tilford)
- Insecticide use and the toxicity of insecticides increased ten fold from 1950 to 1990, even as crop loss to insects has doubled. (Brenner)
- Chemical fertilizer use tripled and herbicide use quadrupled from 1960 to 1980. (Wisconsin Food Research Project)
- The collapse of the Gulf of Mexico’s fishing industry can be traced from the gulf’s dead zones of low oxygen water, back up the Mississippi River, to the artificially fertilized fields of farm country. In the Central Puget Sound region, dead zones are now year round in Hood Canal in part due to fertilizer run-off. (Rosenberg; Louch)
- According to Seattle Public Utilities’ Waste Stream Composition Studies, food makes up 24.9 percent of Seattle’s solid waste stream. (Garrett et al)

The connection local farmers feel with place is expressed through stewardship. They are more likely to treat the land with respect, using environmentally friendly practices to prevent the gross inefficiencies in natural resource use that are common to industrialized agriculture. Our region’s local sustainable fruit and vegetable farms use few purchased material inputs other than seeds and locally produced organic fertilizers. A few already produce their own bio-diesel and more have plans to do so. Sustainable agriculture also mimics the recycling of resources found in nature for greater efficiencies.

At the system’s level, the commoditization of food has led to standards that make waste of variety, as for example in fisheries, where driftnet fishing results in huge amounts of edible fish being discarded as by-catch. Large-scale processed food manufacture, which depends on mono-culture crops, also wrecks environmental havoc. Local food systems and small-scale manufacture, by contrast, offer variety and sufficiency in resource use. As Michael Pollan has said, “The best we could do for our food supply, for the beauty of our landscape and for the quality of our water would be to decentralize meat and agriculture.”<sup>5</sup>

While fresh, local food eliminates the need for wasteful packaging, a subject that bears consideration is how to reduce the food waste associated with buying too much food at one time, whether local or non-local. Food preparation at home typically produces more scraps than industrial processing, but this is not conditioned on the food being local. Efforts are underway by local food economy restaurants to divert leftover food from becoming part of the waste stream to the low-income populations in day cares, shelters, and senior centers.

### 5.2.3 FOSSIL FUEL CONSUMPTION

Today we are close to the limit of our capacity to increase fossil fuel consumption as an effect of dwindling reserves, bringing into question the security of our food supply.

- Between 7 and 15 fossil fuel calories go into producing a calorie of commodified food, compared to the pre-industrial yield of 2 calories for every calorie of energy inputted.<sup>6</sup> (Heeter; Pollan, *The Omnivore's Dilemma*:46; Wisconsin Food Research Project)
- Growing, processing and transportation of food makes up about 17% of US fossil fuel consumption. (Rosenberg)
- For the purpose of enticing customers, supermarkets use twenty times the energy in lighting and refrigerating food products as warehouses. (Monbiot:192)
- A study done in Toronto found that supermarket foods travel, on average, 81 times farther than food from farmers markets. (Xuerub)

Nowhere is the inefficiency of the industrialized food system more apparent than with energy consumption. Locally-produced food saves on transportation, artificial fertilizers, fuel for mega-farm equipment, and refining whole foods. Almost a third of all energy inputs in commodity food production in the U.S. are in the form of fossil fuel fertilizers. With locally and sustainably produced food, the land, photosynthesis and human labor combine to make local food production energy sufficient – consumption is limited to the local distribution of goods and the running of small scale farm equipment. Bottom line, the energy required to home cook a meal from scratch is roughly the same amount used in manufacturing a ready-to-eat meal minus the energy used for fertilizers.

But this is to miss the system effects. Fossil fuels provide the energy needed to attain high yields, but cheap energy also encourages farmers to over-produce by driving down prices. Too large of a supply of any single crop is inefficient relative to needs and unsustainable when we are using fossil fuels faster than our current ability to replace them with other energy sources.

### 5.2.4 CARBON FOOTPRINT

The carbon footprint for food is the sum of all global warming gas emissions associated with the production and consumption of food.

- Not only do organic crops retain more carbon dioxide in the soil, organic farming also produces higher yields under drought and flood conditions. (Lappé and Terry: 58)
- If Americans converted all the land we used to grow corn to pasture, we would sequester 14 billion pounds of carbon each year, the equivalent of taking 4 million cars off the road. (Pollan, *The Omnivore's Dilemma*:197)

- Fresh food out of season depends on shipping by refrigerated plane, the fastest growing segment of the global food economy. A pound of grapes from Chile is equivalent to 6 pounds of carbon dioxide. (McKibbon:65)
- Every ten pounds gained by Americans on average requires an additional 350 million more gallons of airline fuel annually. (Lappé and Terry, 20)

Many are familiar with the statistic that food travels 1500 miles, on average, to reach our tables.<sup>7</sup> This distance is, in part, due to the growing complexity of the industrialized food system that depends on large-scale efficiencies to keep dollar costs low. But carbon emissions from transportation are only a small part – around 10% – of the total emissions related to food. The lion's share comes from the use of fertilizers in conventional agriculture. Moreover, large-scale agricultural techniques disrupt the carbon cycle, contributing to global warming beyond what is caused by the direct consumption of fossil fuels in the production and transportation of food.

Alternatively, sustainable agriculture practices fit closely with the carbon cycle through the use of native species and the regenerative recycling of resources. Still, the distribution of locally-produced food needs to be redesigned for additional advances in cutting carbon dioxide emissions.

## 5.3 SOCIAL SUSTAINABILITY

The organization of production and consumption affects the ways food is a part of our everyday lives besides the issue of how much it costs. Understanding how the economy is embedded in social practices informs our choices.

### 5.3.1 FOOD SAFETY

Food is safe when it is free from contamination and hazards potentially harmful to human health.

- 76 million Americans fall ill every year from food-borne illnesses. Salmonella incidents have doubled since the 1970's. (McKibbon:61)
- In corn farming states, blue baby alerts are sent out to let parents know when not to let children drink water because of an excess of nitrates from field run-off. The nitrates compromise the ability of the blood to carry oxygen, producing blue babies. (Pollan, *The Omnivore's Dilemma*: 47)
- 25 millions pounds of antibiotics are given each year to livestock to prevent rather than treat their diseases, damaging their natural immune systems and ours in turn. (Kurzweil: 56)
- A Washington State study found that five days after switching children to an organic diet, the pesticides in their urine disappeared. (Stiffler)

That food safety is compromised by industrial methods of food production, particularly by the use of pesticides, has been an issue going back to Francis Moore Lappé and Rachel Carson. The deaths of 3 people from E. coli-infected spinach in 2006 raised concerns that industrial methods of production when applied to organic foods are no less dangerous. Moreover, we have designed a regulatory system that promotes the use of potentially harmful production and safety practices, such as irradiating food during processing and bagging fruit and vegetables in plastic, by controlling for the effects of these practices.

By comparison, the food safety principle governing local production for local consumption is to do no harm to begin with, thereby eliminating harmful effects by eliminating causes. For example, by treating farm animals humanely, there is no need for massive doses of antibiotics in their feed. Local production also puts the responsibility for food safety back into the hands of producers by making them answer directly to their customers. Ultimately, this creates proactive consumers whose increased knowledge is their best protection.

Still, many consumers rely on safety standards to know that the food they eat is safe for them, particularly when dietary, nutritional or medical conditions are involved. A fully evolved local food economy would self-govern food safety through community standards and local health departments that are part of the local food network.

### 5.3.2 FOOD QUALITY

Food quality, from a sustainability perspective, primarily refers to nutritional value and flavor, but also more broadly to the impact of food culture on our bodies.

- Empty calories of refined, concentrated sugars account for up to one-fourth of our food intake, displacing whole foods with their vitamins and minerals. The average American eats only 27 percent of the recommended daily amount of fruits and vegetables, and for lower-income people, it is much less. (Lawrence; Garrett et al)
- The freshest food has the highest nutritional value. 3 days after harvest, green beans have lost 60% of Vitamin C and leeks have lost 50% of their carotene. (Lappé and Terry:76-78)
- Since the widespread adoption of synthetic nitrogen fertilizers in the 1950s, the nutritional quality of produce in America has, according to U.S.D.A. figures, declined significantly. Organic food contains substantially more vitamins and minerals than does commodity food. (Pollan, Unhappy Meals)

Locally-consumed food is almost always fresh. Taste is an obvious benefit to eating food picked the same day, but fresh and whole foods also contain more nutrients. Because of their short shelf lives, whole foods (food that is unprocessed or unrefined) often come from local or regional sources. Eating whole and fresh foods then contributes to resource sufficiency.

Processing food greatly reduces its nutrient content, but also industrially processed foods tend to contain the cheapest ingredients. As many of us now know from reading Michael Pollan, high-fructose corn syrup is a staple of processed foods. Moreover, commodity agricultural products are frequently bred for commerce, sacrificing taste and nutrition to efficiency. In comparison, the local food economy serves as a storehouse for diversity, especially produce varieties, which are of great value, both taste-wise and nutritionally. In turn, this diversity serves as a basis for a community's food culture, that is, its prevailing beliefs, practices and knowledge about agriculture and food.<sup>8</sup>

### 5.3.3 FOOD SECURITY

A community is food secure when its members have access at all times to enough quality food for an active, healthy life.

- The US grows enough food to meet our calorie needs almost two times over, yet 35 million Americans (the population of Canada) worry when they might get their next meal. (Lappé and Terry:4)
- From 1996 to 2003, Washington State consistently ranked in the top five hungriest states in the US Census Bureau's food security survey. Surveys show that between 12.5 and 19.7% of Seattle's population are food insecure or hungry. (Garrett et al)
- In Seattle, the average monthly household food stamp benefit of \$183 is far less than the maximum of \$525 that it takes to buy a food basket meeting federal nutrition standards. (Le)
- Even as food insecurity grows, obesity has reached epidemic proportions. The Center for Disease Control now predicts that obesity will overtake tobacco as the number one killer, and since 1980, the rate of obesity in adolescents has tripled. Overeating high-calorie cheap foods causes both obesity and hunger at the same time. (Belkin, McMillan)

As many critics of industrial agriculture have pointed out, farm policy is at odds with food policy. While nutrition groups support subsidies for fruit and vegetables, anti-hunger specialists are worried about alienating commodity groups who support food-assistance programs.<sup>9</sup> But pushing inexpensive foods as the solution to hunger has proved short-sighted: increasing food production and cost availability has resulted in an overabundance of cheap, but nutritionally empty calories.

With local production, nutritional quality is not supplanted by quantity, but there is the challenge of making local foods widely available. Supported by the growth of the local food network, advocates are working on a number of fronts to increase availability, particularly in schools and hospitals. At the same time, the concurrent growth of public consciousness around the value of local food and the local food economy is shifting perceptions of what is possible.

Food banks now take unsold vegetables and fruit from farmers markets where before they were wary. The state issues checks redeemable at farmers markets for distribution in low-income neighborhoods through social service agencies, bringing those organizations into the local food network. The return to farmers and farming communities is nearly three times that spent investing in the welfare of the check recipients, and with local farmer's financial success, the network continues to grow, making more local food available to the community.

#### 5.3.4 FOOD JUSTICE

Food justice means that “no one should live without enough food because of economic constraints or social inequalities”.<sup>10</sup>

- Large chain groceries are more likely to close stores with lower profit margins creating “food deserts” – low income communities without access to healthy food. (Mamen)
- Rates of obesity go up with an increase in distance to the nearest grocery. Low-income neighborhoods have a third fewer grocery stores than wealthier areas and there is less produce and less fresh produce. (Proscio)
- The poor pay more for a much narrower, less nutritious range of food choices. The delis and small neighborhood stores common to inner city neighborhoods reserve shelf space for longer shelf-life items. Two-thirds of food items are more expensive in small stores. (McMillan)
- A greater percentage of people of color prefer organic foods than European-Americans. A Los Angeles Times survey found that some of the city's busiest farmers markets serve its ethnic communities. (McKibbon:90)

What prevents the just distribution of food is a reflection of both global and local inequalities associated with racial and class disparities. Agri-business and the industrialized food economy perpetuate the inequalities, whereas the emerging local food economy represents a more distributed, and thus more equitable, pattern of resource use.

One indication of increased equality is that the local food economy engages low-income populations and communities of color not just as consumers, but as producers. They are organizing to recover food left in the fields after harvest – a practice called gleaning – in many Puget Sound communities.

There are also more opportunities for small entrepreneurs to plug into the local food network and more community enterprises. One example is Marra Farm, a community farm located in a low-income neighborhood in Seattle. In addition to selling at farmers markets, Marra Farm gives donations to local residents, WIC clients, immigrant community members, local food banks, and elementary students and their families, demonstrating the socially regenerative possibilities of urban agriculture.

Because food touches everyone's lives, the local food economy is also fertile ground for social action. As but one example, Lettuce Link, an innovative social service program, "provides fresh organic produce, vegetable seeds, plant starts, organic gardening supplies, assistance and information to low-income people throughout Seattle, ... connecting people with the resources they need to grow their own nutritious foods."<sup>11</sup>

### 5.3.5 FARM AND FOOD WORKERS RIGHTS

Farm and food workers rights include the rights to a decent income, safe working conditions, and a sustainable livelihood.

- Nationally, farm workers make an average of \$8,000 per year. An estimated 300,000 to 800,000 farm workers are under 18 years old.
- Agricultural work often involves exposure to high levels of toxics with consequent higher rates of cancer for farmers and farmworkers. (Lappé and Terry:70)
- Washington apples account for over half of out-of-state apple exports. Workers in the state's fruit packing industry, mostly Latinas, earn far below a living wage. They also suffer more than 3 times the rate of hand-wrist repetitive motion injuries than workers in all other industries. (Chinitz)
- Washington State saw an 88% increase in the number of Hispanic/Latino farmers from 1997 to 2002 to over 1,500 farms. (DePhelps et al)

Social justice for farm and food workers is rarely served in the industrial food system. Although immigration is debated fiercely, little attention is given to the commodity dumping practices that lead to forced migration. Once here, immigrants are hired to drive down wages in agriculture and the food processing industry. In recent years, this play of forces has resulted in a shortage of farm workers in Washington State.

For decades, farm workers have been organizing for their rights. Small farmers have a reason to engage with farm workers as their allies. Sustainable agriculture methods are more labor intensive and labor is the largest farm expense amounting to up to 2/3 of a farm's budget.<sup>12</sup> Today, the farm workers movement includes a focus on protecting the livelihood of local farming communities as essential to gaining the right to participate in community decision-making. On small local farms, the owners are more accountable by virtue of being nearer.

For newer immigrants, such as the Hmong, farming is a familiar way of life. Local farming preserves their traditional skills and the community benefits as well. As DePhelps and her colleagues observe, "For traditional Latin American farmers human health and soil health are seen to be intimately interconnected, so deciding to raise crops organically [seem] only logical."

### 5.3.6 GLOBAL JUSTICE

Localized food systems form the foundation for health, economies, and culture throughout the world.

- Since the passage of the North American Free Trade Agreement, Mexico has gone from a country that fed itself to being a major importer of food. (Durand)
- Three times as much energy per person is spent on food in the U.S. as developing countries spend per person for all energy needs combined. (Wisconsin Food Research Project)

The globalization of corporate agriculture has affected the livelihood of local farming communities the world over. Relocalizing the food system in the U.S. will help to protect local food economies in developing countries from being converted to commodity export economies. Perceived tradeoffs between local and fair trade speak more to the effects of globalization rather than a difference in principles. In truth, fair trade and localization are complementary in their aims and values.

## 5.4 ECONOMIC SUSTAINABILITY

Mainstream economics tends to narrowly define economic success as a matter of growth and profits. Increasing efficiency is seen as the source of rising living standards, including the ability to pay for environmental protection and community welfare.

While increases in productivity have brought about important benefits, mainly greater material security and individual autonomy, the loss of community and damage to the environment argue for a more integrated approach to creating economic well-being. In this section, we examine the benefits of efficiency, sufficiency and regeneration as they apply in the local food economy.

### 5.4.1 ECONOMIC SECURITY

Economic security exists when businesses show profits sufficient to their contribution to sustainability.

- From 1986 to 1999, farmers' share of the food dollar dropped 36%, while prices went up 3%. (Mamen)
- Commodified foods cost more to grow than what they sell for. From 1998 to 2001, US farmers lost \$43 billion producing crops and livestock. (Meter)

- More dollars flow out of agricultural communities through purchase of farm inputs and food for household consumption than flow in through commodities' sales. (Meter)
- Organic corn and soybean farmers see superior average returns: 52% more gross sales, 18% more labor income and 56% more jobs per acre. (Swenson et al)

People buy locally for the sake of the products' value but also to support their local economies, preserve farmland, shrink their footprint, and build community. They pay a point-of-sale premium for local versus commodity purchases but receive much higher returns on their spending. Significantly, they experience a strong sense of place and belonging through participating in the local food economy.

For local producers, locally directed spending means more sales; a higher price for their products (that they set); a network of mutually beneficial business relationships; and consumer loyalty. Moreover, an increasing number of local, independent food businesses depend on their relationships with local farmers to provide a unique competitive edge for their business, one that can't be copied by chain stores and restaurants. And in times of crisis, local food economy businesses can rely on each other for help. In sum, economic security in a local food economy derives from diverse and supportive relationships as well as profit.

That relationships are central to economic sustainability is brought home by the industrialization of the organics industry. As the demand for organics grew, the connection between small farmers and consumers stretched to the point of breaking. To maintain consumer confidence, certification was introduced. Many small farmers have decided organic certification is an unnecessary cost, relying instead on sharing information about their practices with customers directly.

While locally directed spending supports farmers' stewardship of the land, it may not be enough to stem the loss of farmland. Because family farming and farmland are undervalued in relation to their environmental, social and economic benefits, farmland is bought up for other higher profit uses, usually development. This makes the land too expensive to buy, but also urban expansion into nearby farmland puts pressure on farmers to sell, because as Pollan says, "Land is so valuable they decide to sell it and retire on the income."<sup>13</sup> At the same time, meeting the growing demand for local, fresh, quality food will require investing in farmland preservation, sustainable agriculture and local infrastructure.

#### 5.4.2 CONSOLIDATION

The corporatization of food has meant greater availability of consumer products but it has also resulted in the bottom falling out of prices.

- Increased concentration in food processing has increased food prices in 24 of 28 sectors. Since the 1950's, the nation's top 20 food

manufacturers have doubled their share of the processed food market to more than 50%. (Mamen)

- From 1997 to 2003, the share of the top five grocery chains increased from 24% to over half of all retail sales. Walmart earns more than 1 in 3 US food dollars. (Mamen)
- To keep their business, suppliers pay additional fees to retailers, including slotting fees, retroactive discounts, exclusive rights, promotional expenses, and display fees. One estimate puts the value of these fees at 50 to 75% of retailers' net profits. (Mamen)
- 12 of 16 billion dollars in farm subsidies went to the top 10% of producers by size in 2003. The bottom two-thirds got nothing. (Lappé and Terry:24)

The effects of consolidation over the long term are often different from the short term advantages of increasing productivity. Once large corporations are in place there is considerable pressure to keep them intact, as we witnessed in the recent passage of the 2007 Farm Bill. Moreover, the expansion of larger businesses into new territory often comes at the expense of smaller businesses. As McKibbin writes, "Subsidies essentially underwrite consolidation." Of late, this has been particularly evident in the grocery industry with the arrival of mega-retailers such as Wal-Mart.

For some time, the disappearance of family farms and small food-related manufacturers and retailers has been rued as progress, but progress nevertheless. The vitality of the emerging local food economy communities, in comparison to communities dominated by agri-business and giant retailers, contradicts this assessment. Local businesses tend to contribute more to the regeneration of the community's resources, while corporations headquartered out of the community tend to drain those resources for their own advantage.

#### 5.4.3 SYSTEM EFFICIENCY AND DISECONOMIES OF SCALE

Efficiency measures system performance in terms of input and output flows. Efforts to maximize industrial efficiency through economies of scale result in a decrease in the adaptability of the overall system.

- Despite doubling productivity, farmers earned less in 2002 than they did in 1969. (Meter)
- Small, multi-crop farms yield more per acre, measured in tons, calories, or dollars. (McKibbin:67)
- Oregon Country Beef is an example of a cooperative of small ranchers with the ability to supply restaurants and supermarkets with grass-fed beef in the quantities needed. (Andrée)

Low consumer prices based on scale efficiencies are often cited to explain why industrialization of the food economy is for the better. Yet, economies of scale

often prove inefficient at the system level because they decrease the system's ability to respond to change. This is apparent in such problems as the unavailability of fresh, healthy food in our schools – despite the costs of poor nutrition and concerned parents' demand for change. Scale efficiencies also invite regulation of a one-size-fits-all kind, undercutting local producers' ability to create viable solutions of their own. Moreover, scale efficiencies are based on eliminating variety, where variety is the source of increasing system efficiency as an effect of flexibility in resource use.

#### 5.4.4 ECONOMIC INDEPENDENCE AND SELF-RELIANCE

Economic independence refers to the freedom to make business decisions autonomously, where self-reliance describes the community's ability to meet its own needs while maintaining independence.

- As farms grow bigger, farmers take on more debt than they can handle. For the past 35 years, farmers have increased their debt every year except one. From 1913 to 2000, US farmers paid out \$500 billion more in interest payments than they received in subsidies. (Meter)
- Over a third of farms have disappeared since the 1970's. Of those left, many work as contract growers for agribusiness. (Lappé and Terry:4)
- The United Nations Development Agency estimates that 15-20% of the world's food production takes place in urban and peri-urban farms and gardens. Berlin boasts 80,000 community gardens. (McCaughey)

Economies of scale present a major dilemma. Many small businesses highly value control over their own fortunes but are challenged to retain control within the industrial economy. Because marginal price falls with increasing economies of scale, to maintain cash flow, farmers plant more, plant more marginal lands, and use more nitrogen. To finance this growth, farmers go into debt. Similar trade-offs occur in manufacturing where increasing plant scale pushes up the break-even sales volume.<sup>14</sup> To reach break-even, price needs to come down, whereupon producers become more exposed to the dictates of their large-order customers, as has happened with many small food manufacturers that sell to the giant chain stores.

Studies show that sustainable agriculture practices produce equivalent and sometimes higher yields and new information-based technologies have brought down the cost of small lot manufacturing and distribution. This still leaves the question of whether volume needs can be met through local buying and selling.

The solution is to cultivate the local food economy's web of relationships to increase the number and strength of its linkages, thereby increasing the volume of transactions. Our findings indicate that locally directed buying and selling provides for a diverse range of opportunities involving small volume transactions. Relationship-based transactions, in turn, provide for more adaptability in the use of local resources and thus, greater self-reliance. At 20 families per acre on average, we estimate that the Snoqualmie Valley in Eastern

King County could produce enough fruits and vegetables to supply the needs of 400,000 people in King County for seven months of the year.<sup>15</sup>

As the local food economy has grown, small farmers are no longer totally isolated. Where before farmers had to wear all of the hats, they now belong to a network that promotes local buying and selling. The network also supports their co-producers – the community-based restaurants, grocers and artisan manufacturers. The potential is to increase the food-related income in Central Puget Sound by a billion dollars annually by shifting 20% of our food dollars into buying local.

#### 5.4.5 SUSTAINABLE CONSUMPTION

Economic growth in the U.S. depends on making consumption our way of life. Sustainable consumption is based on the idea of having enough, yet no more.

- Americans spend, on average, less than 10 percent of their income on food, down from 24 percent in 1947 and 15% in 1984, and less than the people of any other country. (Pollan, *You Are What You Grow*)
- As a country, we have the economic means to make eating local a priority. Cable t.v. is found in 96% of American households despite the monthly fees and a non-fee alternative. (Rosenberg)
- Americans eat, on average, substantially more calories than what nutritionists say are needed to maintain body weight. (Waters et al)

Food expenditures as a percentage of the average American household's income have fallen dramatically over the past century, from 42.5% in 1901 to 13.1% in 2002.<sup>16</sup> This historical decline is often cited as a justification for the industrialization and globalization of the food system.

Sufficiency as a principle of sustainable economies seems counter-intuitive within a system dependent on growth. In the industrial food economy, success is measured in bushels per acre but people don't eat more because food is cheaper – unless you can find a way to raise the ceiling on consumption. This is what has led to the explosion of processed food products. We have essentially traded off nature's variety for artificial variety. In turn, the capacity of households and institutions to use fresh food has diminished as cooking for ourselves becomes rarer.

Whether increased food consumption, beyond what is needed to meet nutritional requirements and our desire for good tasting food, has led to greater satisfaction is highly debatable. It seems more probable that a local food culture that focuses on quality, not quantity, will cause a greater sense of well-being, especially when we are connected to the places and people that give us our food.

## 5.5 SYSTEM CHOICES

The local food economy offers us a distinct choice when it comes to organizing our resource use. All indications are that the industrial food system has

**Sustainably balancing resource use with meeting needs is achieved as an effect of community building.**

exceeded the limits of sound resource use, causing a great deal of environmental and social harm. By comparison, the goal of the local food economy is to balance resource use and needs for greater sustainability. This balance is achieved as an effect of community building.

What we are witnessing in the emergence of the local food economy is a fundamental shift in the idea of what makes for healthy economies – from growth based on commoditizing resources to community stewardship of resource flows. Herein lies the promise. Cultivating community economies concerns the care, regeneration, and cycling of the community's resources (money, materials, knowledge, values) in ways that nourish the community's life. In the local food economy, resources flow through local economic linkages in relationships of mutual caring and responsibility as evidenced by the local food economy's greater vitality.

**In the local food economy, resources flow through local economic linkages in relationships of mutual caring and responsibility as evidenced by the local food economy's greater vitality.**

**Relationship-based transactions provide for more adaptability in the use of local resources and thus greater self-reliance, while practices in community building are key to the vitality of local food economy business and the regeneration of resources.**

In sum, local linkages matter for the free flow of resources within the community. Relationship-based transactions provide for more adaptability in the use of local resources and thus greater self-reliance, while practices in community building are key to the vitality of local food economy business and the regeneration of resources.

The beauty of local food economies is farmers markets and restaurants who embrace saving farmland as part of their business mission, growers who protect salmon habitat, social entrepreneurs who give meaningful jobs to the youth in their communities, and backyard gardeners who grow a row or more of vegetables for others than themselves. In this growing web of relationships, there is the experience of much, much more than economic transactions. There is the experience of a near perfect joy in creating a life-centered community, of being part of a greater whole, of knowing economic vitality.

By skillfully growing the web of relationships that is the local food economy, we can increase the social, environmental and economic sustainability of our food system. In the next chapter, we consider strategies for doing so.

## 5.6 MAJOR FINDINGS – WHY LOCAL IS SUSTAINABLE

- ✓ Sustainably balancing resource use with meeting needs is an effect of community building.
- ✓ In the local food economy, resources flow through local economic linkages in relationships of mutual caring and responsibility.
- ✓ Relationship-based transactions provide for more adaptability in the use of local resources and thus greater self-reliance, while practices in community building are key to the vitality of local food economy business and the regeneration of resources.

## End Notes – Chapter 5

<sup>1</sup> See Karl Polanyi for an analysis of the destructive impacts of the rise of markets (1944).

<sup>2</sup> Meadows, 1998.

<sup>3</sup> Earth Economics, 2005.

<sup>4</sup> Curtis (2004) has presented key propositions as to why place matters for sustainability in an “explicit, alternative theoretical paradigm” to both mainstream and ecological economics.

<sup>5</sup> Boudway’s Salon interview with Michael Pollan.

<sup>6</sup> This comparison points to the huge increase in fossil fuel usage with the industrialization of agriculture. However, caution should be applied in using this comparison in calculating impact of fossil fuel consumption as estimates of the number of calories consumed are system-specific and comparing system averages may not take into account the specifics.

<sup>7</sup> The figure of 1500 miles was calculated for a community in Iowa. The average number of food miles will vary by location of the community.

<sup>8</sup> This definition of food culture is found in Making Waves, published by the Canadian Centre for Community Renewal (2006).

<sup>9</sup> Perkowski, Stronger Ties Encouraged for Farm, Food Policy

<sup>10</sup> Quoting Brahm Ahmadi, Executive Director of People’s Grocery. Available at: [www.peoplesgrocery.org/brahm/peoples-grocery/why-we-call-it-food-justice](http://www.peoplesgrocery.org/brahm/peoples-grocery/why-we-call-it-food-justice)

<sup>11</sup> Lettuce Link, [www.cityfarmer.org/lettucelink.html](http://www.cityfarmer.org/lettucelink.html)

<sup>12</sup> DePhelps, et al, 2005.

<sup>13</sup> Boudway’s Salon interview with Michael Pollan.

<sup>14</sup> The break-even sales volume is the amount of goods needed to be sold to turn a profit.

<sup>15</sup> Based on personal communications with farmers in the Snoqualmie Valley.

<sup>16</sup> 100 Years of U.S. Consumer Spending, Bureau of Statistics, U.S. Department of Labor. Note that this indicator does not mean that food prices have declined as measured by constant dollars.

## 6 THE CASE FOR LOCAL LINKAGES

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### KEY POINTS

- Buying local connects the community's resources to its needs, resulting in synergistic relationships and the circular flow of resources.
- To change the bigger picture of an increasingly unsustainable food system based on industrial production models, we need to grow community food systems, networked across the region.

Spending involves a choice about the kind of future we want to have. This report explains why we should care about our spending choices when it comes to food and sustainability. It finds that locally directed spending supports a web of local relationships, rooted in place, which makes for healthier communities all round – economically, socially, and environmentally.

Mainstream economists believe that giving preference to local suppliers diverts purchases to less efficient suppliers. Over time, preferences will lower income and employment through a feedback effect that has higher prices getting passed onto consumers and businesses with consequent decreases in spending.

The emerging local food economy tells a different story. Rather than create inefficiencies, buying local connects the community's resources to its needs, resulting in synergistic relationships and the circular flow of resources that serve to restore the land and regenerate community. The community's stewardship of resource flows in relationships of mutual caring and responsibility is the source of the local food economy's vitality. This vitality, in and of itself, is evidence of the power of a relationship-based approach to community economic development.

## 6.1 THE CASE FOR LOCAL LINKAGES

The Central Puget Sound region is blessed with an emergent sustainable food system of great vitality. This food system is made up of a web of local relationships rooted in place. It includes not only small and mid-sized farmers, but local, independent grocers, distributors, restaurants, and food cooperatives, as well as an increasing number of conscious consumers.

In 2006, our state produced more than 300 different foods and crops and organic agriculture is growing at 20% per year. Direct market sales are mushrooming with a growing number of community-supported agriculture (CSA) programs and farmers markets throughout the Puget Sound region. Local restaurants serving locally and sustainably grown foods report a steady growth in their customer base and local grocers are benefitting from educating their customers about the health benefits of eating local. Perhaps most importantly, local farmers are beginning to feel optimistic about their economic futures in response to the growing demand for local food.

In sum, locally directed spending supports a web of economic activity that makes for healthier and more prosperous communities. The study's findings confirm this vitality. Specific findings include:

- ✓ Locally directed spending by consumers more than doubles the number of dollars circulating among businesses in the community.
- ✓ Increasing demand for local product is not seen as a problem by established local food economy businesses.
- ✓ Buying local is not only feasible but practical and profitable for food businesses.
- ✓ Healthy dollar flows are associated with a greater number and diversity of local linkages.
- ✓ Locally directed spending builds community by providing for stewardship of the community's resources.
- ✓ Relationship-based transactions provide for more adaptability in the use of local resources and thus greater self-reliance.
- ✓ Practices in community building are key to the vitality of local food economy business and the regeneration of resources.
- ✓ A shift of 20% of our food dollars into locally directed spending would result in a nearly half billion dollar annual income increase in King County alone and double that in the Central Puget Sound region.

While these findings are highly promising, much more needs to be done. The local food economy comprises but a tiny fraction of the Central Puget Sound's food system. Various estimates put the size of the local food economy between 1 and 2%, both locally and nationally. But to be truly sustainable, local markets must go beyond being niche markets for the well-off.

In addition, most of the region's farms that now sell into local markets are small with little capacity to meet additional demand, though mid-size farms hope to enter regional markets. Other local supply constraints include severe farm labor shortages, missing storage and food processing infrastructure, repeated flooding of farmlands, low bid purchasing policies in institutional food service, and the lack of distribution capacity for locally produced goods. These constraints make it difficult for local produce and value-added food products to compete with imports from industrial food producers.

Meanwhile, in our region, as elsewhere, the commoditization of food is sucking the life out of our resource base. To change this bigger picture of an increasingly unsustainable food system based on industrial production models, we need to strengthen and expand the web of relationships that can provide for the region's environmental health, economic self-reliance, and community well-being. In short, we need to grow community food systems, networked across the region, as a sustainable alternative to the current model of the globalized industrial food system.

## 6.2 SYSTEM CHALLENGES

The central challenge to creating a sustainable food system in the Central Puget Sound region is to grow the web of relationships that is its foundation without sapping its vitality in the process. The opportunity is to meet the growing demand for locally-produced food in a way that preserves and regenerates this web of relationships.

Much of the growth in the local food economy will come from mid-size farmers and other independent local food businesses (manufacturers, distributors, grocers, restaurants and food service vendors) shifting their business to focus on local markets. This shift, or transition, involves "transition costs" – the costs of converting from unsustainable, but "efficient" industrial system practices to sustainable, but often unproven relationship practices.

Examples of such transition costs include:

- Start-up costs of direct marketing and sales venues (e.g., farmers markets and CSA's) to reach all Puget Sound communities.
- Costs of learning to manage the greater number of business transactions inherent to small lot sustainable food production.
- Cost of creating a "smart" distribution system that can efficiently move local product to grocers, restaurants, and institutional food service kitchens.

We can help meet the transition costs of growing the local food economy to a scale that meets the region's need for justly and sustainably produced food through locally directed spending, the building of relationships, and strategic public and cooperative ventures. These investments will make a difference to the economic success of our region's food producers, manufacturers, distributors, restaurants and grocers; to preserving farmland; and to

providing access to healthy, affordable food in all of our communities. They are investments in a sustainable and prosperous future.

Specific challenges identified in this study to transitioning to a sustainable regional food system in Central Puget Sound are:

### **Perception of Higher Costs for Locally Produced Food**

A shift in public perception of the value of locally produced food is critical to the development of a sustainable regional food system. Otherwise, we can expect locally produced food to remain a niche market. As businesses and their customers come to understand the social and environmental benefits of a relationship-based economy, the perception that buying locally produced food costs more will change. The bigger dilemma is that we pay more than we can afford socially and environmentally for low prices at the checkout stand and that the high costs of commodity food fall disproportionately on the poor.

### **Access and Availability**

Making healthy foods a viable choice for everyone is predicated on the availability of affordable choices throughout the region. While the decentralized structure of the local food economy supports increasing income equality, linkages which support easy access to local foods for people in all income brackets are missing or weak. Easy access includes being able to shop at times convenient to working families. Farmers markets improve access to quality food for a variety of folks but existing farmers market locations are currently being slated for re-development and there are no secure locations for the future.

### **Tradeoff between Variety and Volume**

For dollars to flow freely inside the local food economy, there must be linkages in place that are proportionate to supply and demand. For linkages to form, the needs and capabilities of buyers and sellers must correspond. Typically what matters is the volume of supply, product variety, quality, and delivery reliability. Our analysis indicates that the business challenge to developing local linkages generally involves the difficulty of transitioning from volume to variety as the basis of operations.

### **Missing Distribution and Processing Infrastructure**

An efficient delivery system keyed to local foods would make it more economical for farmers, particularly mid-sized farmers, to sell to local markets and for purveyors to buy locally. An efficient distribution system could draw more restaurants, grocers, and institutional food service into buying local. Given their high multipliers, adding more restaurants into the network by making it easier for them to source local food could greatly increase the impact of locally-directed spending.

The need for additional local processing infrastructure is also a major constraint on system development, particularly as food security depends to some degree on institutional food service, such as school cafeterias and subsidized day-care meals.

### **Demand Not Being Met due to Capacity Constraints**

Increasing demand for local product is not seen as a problem by established LFE businesses. Instead, the challenge is how to meet growing demand with limited capacity. Moreover, increasing demand puts local food economy businesses under pressure to grow too fast and to too large a scale. The solution to more demand is to cultivate the local food economy's web of relationships to increase the number and strength of its linkages, thereby increasing the volume of transactions.

### **Urban Expansion Leading to Higher Land Prices**

The loss of farmland to development affects the sustainability of the entire food value chain. Because family farming and farmland are undervalued in relation to their environmental, social and economic benefits, farmland is bought up for other higher profit uses, usually development. This makes the land too expensive to buy, but also urban expansion into nearby farmland puts pressure on farmers to sell. To stem the losses, we need to address a host of complex issues – flooding, labor shortages, lack of insurance, sprawl – that are embedded in competing notions of public welfare. These issues impact both LFE and exporting food businesses alike, but, for the local food economy, farmland loss is the major constraint on future supply.

## **6.3 SUSTAINABLE GROWTH STRATEGIES**

In order to move to a sustainable food system, Lang and Caraher (2003) suggest that there would need to be change in at least five key respects:

1. How food is produced and distributed [the nature of production].
2. What people eat and consumers demand [consumer culture].
3. A broadening of the definition of the environment to include other notions of health.
4. Modernization and transformation of institutions and policies [institutional reform].
5. Introducing an element of food citizenship into our lifestyles.

Process strategies that focus on how to expand the local food economy are also needed. New systems are not planned or implemented through top-down decision-making but “grown”, relying on feedback and decentralized decision-making. Their development depends on the exploration of multiple options and adaptive policies. This is especially the case for supporting the development of a sustainable regional food system, which is itself a decentralized, relationship-based system.

In this respect, the common thread in the strategies for growing a sustainable regional food system identified below is to build on and strengthen the existing resources and capabilities of our region's emergent

community food systems. Effectively, we accelerate change by aligning and supporting what people are already doing to make change happen.

The strategies are based on the research findings. They are specific to the Central Puget Sound region but will have applicability in many other locations. Appendix F in the final report will contain a work plan, developed by study participants, for each strategy.

### **Create a Shared Understanding of What Is Local**

Development of a sustainable regional food system calls for a shared understanding of what is local. When we buy locally and sustainably produced foods, we are supporting the development of a web of relationships, rooted in place. These relationships reflect a significant change in the goals, strategies and practices of local food businesses. A shared understanding of what makes for a healthy community food economy will help to align development strategies and change the public's perception that locally produced foods cost more.

### **Set Goals for Transitioning to a Sustainable Regional Food System**

Transition goals guide change and generate action by measuring both what needs to be done and the impacts of doing it. The end goal is to catalyze measurable growth of the local food economy to a size that meets the region's need for justly and sustainably produced food. In turn, developing a system that addresses the region's sustainability needs depends on both establishing new resource flows and increasing existing resource flows. An effective scale is one that provides the resources for its own self-sufficiency and for regeneration of community and the environment.

### **Develop Food Value Chains Based on Relationships**

The interest in farm-to-school, farm-to-food bank and similar initiatives signals a need for food value chains that can fill the increasing demand for local food. Our research shows that stronger ties with local producers are the result of learning new practices that allow for small lot diversity. A case in point is making farm-to-school and farm-to-hospital programs viable through instituting food service practices with greater sourcing flexibility. New relationship-based practices are also needed in established value chains. For example, training is needed for grocery store buyers on how to work collaboratively with local manufacturers in bringing their products to market.

### **Give Transition Support to Mid-Sized Farms and Local Independents**

Indications are that much of the growth in the local food economy will come from mid-size farmers and other independent local food businesses going deeper into local markets. Public resources are needed to support innovation and ecological modernization. Supporting businesses as they gain the necessary skills in managing relationships is a priority as these businesses will fall back into old practices if the transition costs are too high.

### **Build a Distribution System Keyed to Local Foods**

Our research shows that distribution keyed to local needs and resources is absolutely critical to expanding the local food economy. An efficient distribution system could draw more restaurants, grocers, and institutional food service into buying local. Given their high multipliers, adding more restaurants into the network by making it easier for them to source local food could greatly increase the impact of locally-directed spending. One proposal is a wholesale farmers market open 2 to 3 hours in the mornings.

Another idea is to create a “smart” web-based information system that could efficiently move local product to grocers, restaurants, institutional food service kitchens, and food banks.<sup>1</sup> The system would be an on-line resource for matching needs with capacity, taking into account efficient distribution routing, thereby helping to cut carbon dioxide emissions associated with local distribution.

Securing the future of our region’s neighborhood farmers markets should also be another priority. This would include finding permanent locations for markets and finding ways to lower the costs of cashless transactions.

### **Establish the Country’s First Sustainable Agricultural Preserve**

The Central Puget Sound region has one of the highest concentrations of sustainable farms in the country. Creating a sustainable agricultural preserve would guarantee a land base for our region’s local food economy. The preserve could also be a demonstration of regional self-reliance, the capacity to meet the region’s needs for justly and sustainably produced food through the stewardship of local resource flows.

### **Increase Access and People’s Buying Power**

A sustainable food economy is inclusive. There is a need to create new and expand existing programs that increase people’s access and buying power, such as the WIC (Women, Infants, Children) and Senior Farmers Markets Nutrition Programs.<sup>2</sup> People’s Grocery in Oakland is an example of where taking an inclusive and holistic approach to building a local food system focused on improving the health and the economy of a low income community resulted in transformational change. Farmers markets, buying clubs, CSA programs, and home delivery should be options in all low-income neighborhoods and suburban and rural communities.

### **Change Public Policy to Champion the Local Food Economy**

Some of the biggest constraints on growing the local food economy come from its outside. Over-development, climate change, and the lack of affordable insurance are among the persistent challenges. Having a voice for the local food economy in policy-making on these issues is essential to finding sustainable solutions. Increasing cooperation within the local food economy through such initiatives as food policy councils also serves to develop system resiliency. Financial support for the local food economy could come in the form of buying preferences for local producers with sustainable practices.

## **Engage the Community in Growing the Local Food Economy**

We need to change the way we learn about food. Through participating directly in the local food economy, people come to understand the interrelatedness of health, the economy, community and the environment and the value of self-reliance. Teaching cooking skills to youth and young adults is a radical act. School gardens, whole food cooking, and farmers markets create commitment to the values of community. Urban agriculture and community kitchens are emerging as new frontiers in the local food economy.

## **End Notes – Chapter 6**

<sup>1</sup> Based on the study for Access to Healthy Foods Coalition, 2006.

<sup>2</sup> These programs give redemption checks for spending at farmers markets to income qualified populations.

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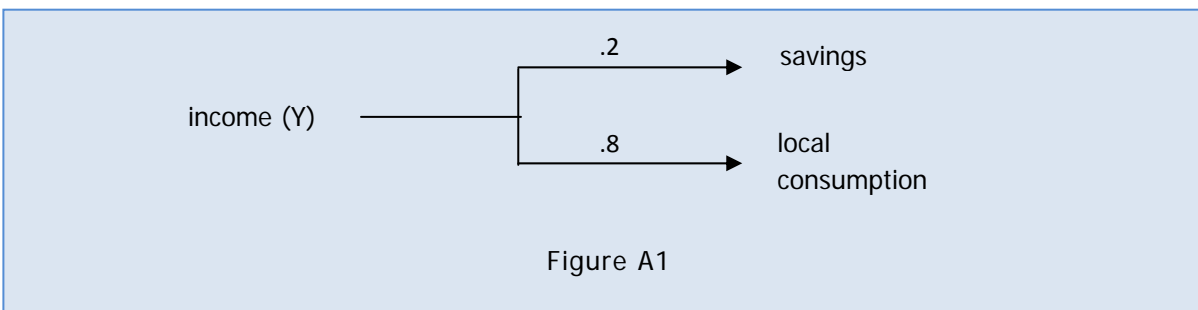
## APPENDIX A: THEORETICAL MODEL

The multiplier model used in this report is derived from the income-expenditure model for constructing economic impact analyses. This model is also called the Keynesian multiplier model in reference to the economist John Maynard Keynes, the architect of multiplier theory.

To illustrate the model, let us imagine an increase of \$100 in income to an economically self-sufficient community where income is re-circulated as local spending. The impact of this increase in income is some multiple of the initial amount – each time a dollar is spent (or re-spent) in a community, the income to the community rises by a dollar.

### SIMPLE SELF-RELIANT COMMUNITY ECONOMY

Suppose also that the community's income is spent in the proportions shown in Figure A1. That is, out of the initial \$100, \$80 is spent locally for consumption goods and \$20 is saved.



The \$80, however, does not all go into the banks of the retailers from whom the goods are purchased. Instead, the dollars are, in turn, income to other local businesses. The retailers re-spend \$64 (80% of \$80) of it for goods from local distributors, manufacturers, and other businesses, who then re-spend 80% of the \$64 locally, and so on. The increase to the community's income of this local circulation of dollars is:

$$\$100 (1 + .8 + .8^2 + .8^3 + \dots + .8^n) = \$100 + \$80 + \$64 + \$51.20 + \$40.97 + \dots = \$500$$

Which is to say that the impact of every \$100 spent at a "marginal propensity to consume locally" of 0.8 is a \$500 increase in the community's income.

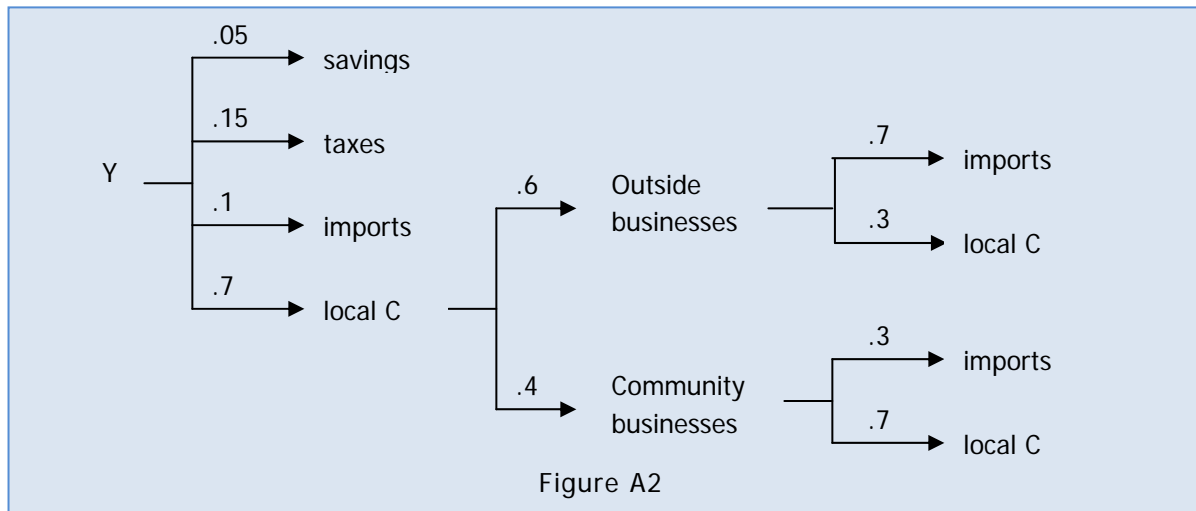
Let  $r$  represent the marginal propensity to consume locally. In algebraic terms, equation 1 can be expressed as:

$$\$100 \times 1 / (1 - r) = \$100 \times (1 / (1 - .8)) = \$100 \times 5 = \$500$$

where  $1/(1-r)$  is the local multiplier and  $1-r$  is the leakage rate. In this example then, the local multiplier is 5.

## IMPORT-EXPORT ECONOMY

Not all communities are as self-reliant – or constant – in their spending as our self-sufficient community. Let us calculate a multiplier for a community that spends a good portion of its income on imports and in which the community's businesses are more or less likely to spend locally according to whether they are (1) community-based businesses or are (2) headquartered elsewhere. (In addition to whether the business is headquartered in the community or outside the community, its local spending will probably also depend on its size and where the business is at in the value chain.) The graphic model for one such community is shown in Figure A2.



For this community, the marginal propensity to spend locally,  $r$ , is:

$$r = .7[(.6)(.3) + (.4)(.7)] = .322$$

And the local multiplier for the community (LM) is:

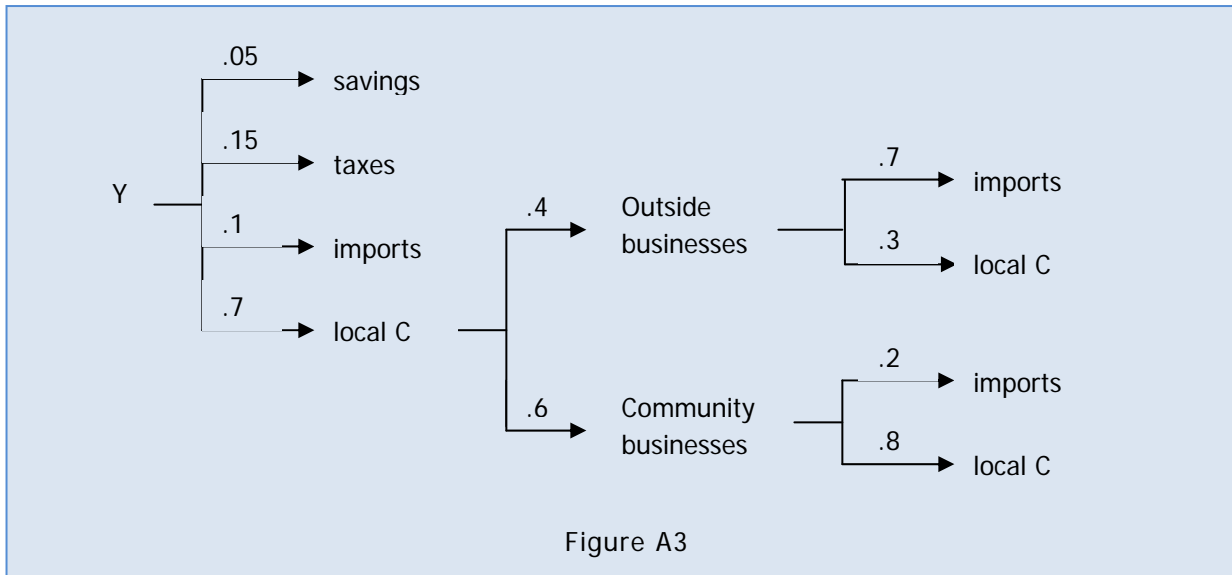
$$LM = 1/(1-.322) = 1.475$$

Figure A2 is, of course, an extremely simplified picture of a local economy. Note that the community businesses spend more locally than do the outside businesses, but the amount of spending at community businesses is less. In other words, though the community businesses' multiplier is substantially higher (3.33 compared to 1.43 for the outside businesses pictured in Figure 3), their initial income is smaller.

This indicates the need to use caution in comparing the impact of local spending by multipliers alone. The increase to the community's income is the product of the dollar amount of initial spending at individual businesses and their respective local multipliers.

## IMPORT-SUBSTITUTING ECONOMY

Finally, consider what the impact would be if we were both to shift some local spending from outside to community businesses, (a strategy often referred to as import substitution), as well as increase the multipliers of the community businesses, (that is, they too would spend more locally). This is depicted in Figure A3.



In this scenario,  $r$  increases to 0.42, while the community's local multiplier increases to 1.724. The dollar impact on the community would be an additional \$25 for every \$100 worth of additional initial spending, that is,  $\$25 = \$100 * (1.724 - 1.475)$ .

Figures A2 and A3 trace the money flows within and leakages from the local economy. The same results can be calculated using the algebraic model expanded to consider export income, taxes and non-local consumption (or imports). The magnitude of the community's local multiplier will be inversely dependent on the leakage rates, which, in turn, are dependent on the tax rate, the marginal propensity to import, and the marginal propensity to save.

**MODEL ASSUMPTIONS, LIMITATIONS AND ADVANTAGES**

Davis (1990) lays out four principal assumptions of the income-expenditure model that are relevant for the analysis undertaken in this report.

- The model assumes constant proportions of spending, (e.g., the marginal propensity to spend locally). However, there is considerable empirical evidence to show that these proportions are dependent on the level of income. Also, the proportions of spending are unlikely to be constant in successive rounds.
- It is assumed that each producing sector is homogenous.
- It assumes that there are no capacity constraints on the producing sectors of the model.
- It assumes interregional feedback is negligible.

The principle advantage of the model is that it "explicitly details the spending leakages from the economy and thus reveals particular areas of potential stimulation to local income generation". (Davis, 1990)

## APPENDIX B: STUDY METHODOLOGIES

This appendix describes the participatory action research approach and research methodologies used in the Local Food Economy Study.

### B.1 INTRODUCTION

The Local Food Economy Study takes a participatory action research approach with the intent to stimulate collaborative responses to local issues. To this end, businesses and other stakeholders – policy makers, food activists, and non-profits – are included in all phases of the research, from design through data collection and analysis/synthesis to making study recommendations.

The research methodologies used in the study provide for analysis (studying the parts) and synthesis (studying the whole) of the local food economy. The analyses (Chapters 2, 3 and 4) focus on how the local food economy works and the synthesis (Chapter 5) on understanding the value of the local food economy within the food system as a whole. The analysis/synthesis draws on both qualitative and quantitative data.

### B.2 PARTICIPATORY ACTION RESEARCH AND ENGAGING STAKEHOLDERS

The first step of a participatory action research project is to connect with and engage the participation of stakeholders. Several sustainable-food-related non-profit organizations publish directories which were used as a starting point for identifying local food economy stakeholders. Later, extensive searches were made on the internet to identify particular types of food businesses (e.g. butchers) that were primarily local in their market orientation. The compilation of businesses identified through these sources is included as Appendix D.

An active effort was made to invite all stakeholders within the Central Puget Sound area, as they were identified, to attend workshops as a means of engaging their participation in the study. Each workshop was held at a different stage of the research as follows:

First Workshop (November, 2005) – participants help to design the study;

Second Workshop (June, 2006) – participants help to interpret preliminary data;

Third Workshop (February, 2008) – participants develop action plans for implementing strategies to strengthen local food economy linkages.

The workshop process centers on linking what the stakeholders want from the study to how to do the study and how to implement the study findings.

The project's steering committee of ten, consisting primarily of representatives from local food economy businesses, also provided continuous input.

In the first workshop, we followed the process outlined in the New Economics Foundation workbook, *The Money Trail* (2004), for involving key stakeholders in a local multiplier study. The process centers on convening stakeholders to answer questions such as:

- Which linkages are we interested in?

- Why are we interested?
- What do we want to know about these linkages?

This process informed the selection of businesses for the study and the goals for their participation while helping to develop a shared understanding of the local multiplier's potential uses.

The second workshop was attended by over 40 representatives of business, government and non-profit local food economy (LFE) stakeholders. The workshop focused on an analysis of preliminary data and represented an opportunity for stakeholders to identify questions to address in the analysis in addition to voicing their perspectives on what the preliminary results indicated. These perspectives informed the analysis going forward.

The third workshop will be held in February 2008 at the publication of the draft report for public comment. This workshop will focus on developing action plans to implement the strategies suggested by the research findings, (see Chapter 6).

### B.3 RESEARCH METHODOLOGIES AND BUSINESS PARTICIPANT SELECTION

The research methodologies used in the study included complementary quantitative and qualitative methods to form a more holistic picture of the emerging local food economy. In particular, we were interested to understand the meaning of local multipliers by interpreting them in the context of changing food economy practices and the emergent local food economy.

Participants in the first workshop endorsed four main categories of food-related businesses – purveyors, processors, distributors, and producers – as relevant to the study of food dollar flows. In addition, end use institutions, particularly schools, hospitals, day care and senior care facilities, were of interest to the workshop attendees.

The four main business categories were further divided into 16 sub-categories representing businesses with distinct markets: grocers, farmers markets, restaurants, caterers, and home delivery retailers in the purveyors category; fresh produce and value-added distributors; artisan manufacturers, manufacturers, butchers/meat processors, cheese-makers, and tea/coffee manufacturers in the processors category; and growers/farmers, CSAs, livestock/dairy farmers and fisher folk in the producers category.

The project's steering committee made recommendations on businesses to invite to participate in the study. Business selection focused on obtaining a rounded sample of businesses spanning the food value chain and balancing the number of business needed for the quantitative and qualitative portions of the study. We interviewed businesses from each of the sixteen sub-categories.

Because the study focused on food dollar spending, a smaller number of producers were included in the study (ie their spending is directed at other purchases than food). The smaller number of distributors reflects that industry's relative consolidation.

The final sample included 5 producers, 4 distributors, 12 processors and manufacturers, 14 purveyors, and 2 end-use institutions, for a total of 37 interviews. Of the businesses, 22 provided multiplier data. However, it should be noted that several of the businesses had more than a single facility or business unit. For example, the multiplier data we obtained from the Farmers Market association represented six farmers markets. By business unit, this increases the total number of business supplying data to 35.

The businesses included in the study are located primarily in the Central Puget Sound region and secondarily in Northwest Washington.

#### B.4 QUALITATIVE METHODOLOGIES

The data used for the business sustainability analysis (Chapter 3) and for the critical linkage analysis (Chapter 4) was generated through the series of interviews with the LFE businesses described above. An introductory letter requesting an interview was sent to potential study participants outlining the benefits of participating in the study. Over half of the requests for interviews were granted, which is a high rate of participation. In general, interviews lasted an hour or more. A semi-structured format of open questions was used, (see the interview protocol at the end of this appendix).

Of the interview questions, several helped to characterize the business in terms of the study's local food economy focus, e.g. the locations of the business' customer and supplier bases. The interview then turned to questions concerning practices in and challenges to building a local food economy. At the end of the interview, we reviewed the local multiplier calculation and explained what participation in providing the survey data would involve.

The interview notes were transcribed, compiled and analyzed using content analysis techniques. These techniques provide for summarizing a mass of narrative data in a systematic way. They are particularly useful in understanding the meaning of the part (the goals/strategies/practices of an individual business) in relation to the whole (the local food economy).

#### B.5 BASIC QUANTITATIVE METHODOLOGY

Concerned with opportunities to strengthen local economies, the New Economics Foundation (NEF) developed and verified a straightforward methodology for calculating micro local multipliers as a tool to assist initiatives aimed at increasing the local circulation of money (New Economics Foundation, 2002; Manchester Metropolitan University, 2004). The Local Food Economy Study uses a modification of this methodology as explained below.

NEF's Local Multiplier 3 (LM3) model estimates the economic impact of local spending based on three rounds of spending (New Economics Foundation, 2002; Manchester Metropolitan University, 2004). These are:

Round 1 – Direct Income: Income to a business (or study group).

Round 2 – Indirect Income: Local spending by the business (or study group) or income to suppliers and employees.

Round 3 – Induced Income: Local spending by area recipients of Round 2 spending (e.g. staff, suppliers, others).

Figure B.1 summarizes this basic methodology.<sup>1</sup> The sum of the three rounds of spending divided by the initial income to the study group approximates the local economic impact for the selected category of spending, that is, the additional income to the community from locally directed purchases.

This study uses a local multiplier model based on two rounds of spending. This modification is referred to as the LM2 (for local multiplier 2). Accounting-type surveys were used to collect the income and spending data for each participating business. The survey form is reproduced at the end of this Appendix.

## B.6 MODEL APPLICATION

As explained above, the LM2 model was used to calculate the local multipliers of participating LFE businesses. Because the LM2 model estimates the impact of local spending based on two instead of three rounds of spending, it captures less of the economic impact than does the LM3 model. However, the LM2 is a more reliable indicator than the LM3 owing to the difficulties of collecting spending information from suppliers and employees as required by the LM3.

Also, because the LM2 multiplier is more easily generated, it was possible to include a more representational cross-section of businesses in the study. The larger sample was judged to contribute more to the study's objectives than the more exact measure of final impact provided by the LM3 model.

However, it should be noted that even the simpler LM2 methodology does not allow for a statistical sampling of businesses. A statistical multiplier study would entail a level of resources several orders of magnitude greater than is currently available for multiplier studies. It is worth noting that all of the multiplier studies performed in the U.S. have been based on two rounds of spending and none have included more than 10 businesses. The Local Food Economy Study involves the largest sample of businesses to date for a single study in the U.S.

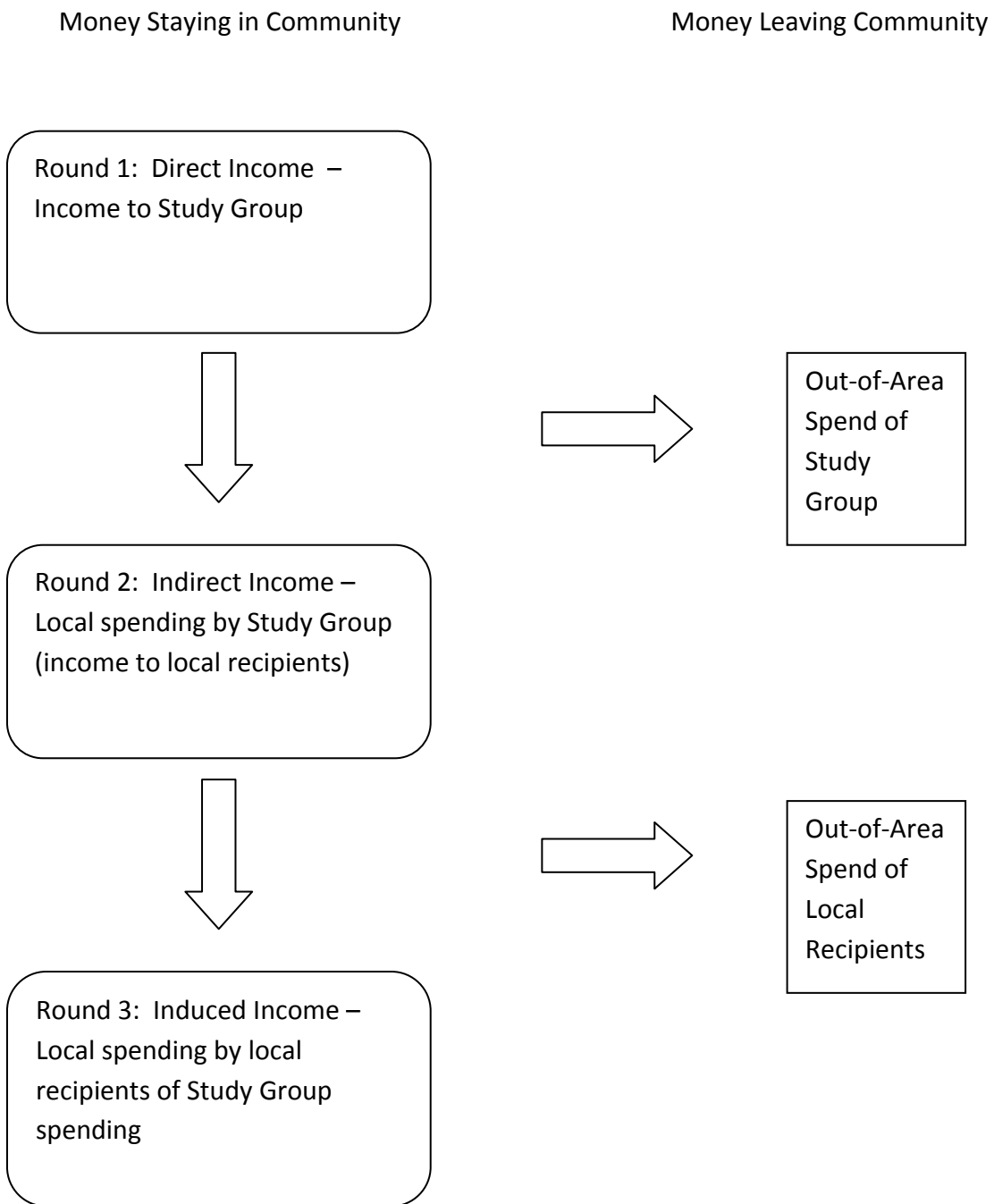
Also, the sample is also thought to be representational as LFE businesses are a smaller subset of the economy than has been used previously. The sample is predominantly businesses who consciously buy locally as opposed to independent, locally owned businesses.

A related issue to sample size is the methodology for comparing local with non-local food economy businesses. Previous studies have handled this by estimating multipliers for non-local businesses by making assumptions about their spending based on information extracted from annual reports. This study uses industry multipliers (see the discussion below).

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<sup>1</sup> It is important to note that different models use the same terminology differently. For example, in the popular IMPLAN model, induced effects are changes in regional household spending patterns caused by changes in household income generated from the direct and indirect effects of changes in final demand. (Lindall and Olson, 2004).

**Figure B.1**  
**Basic Local Multiplier Methodology**

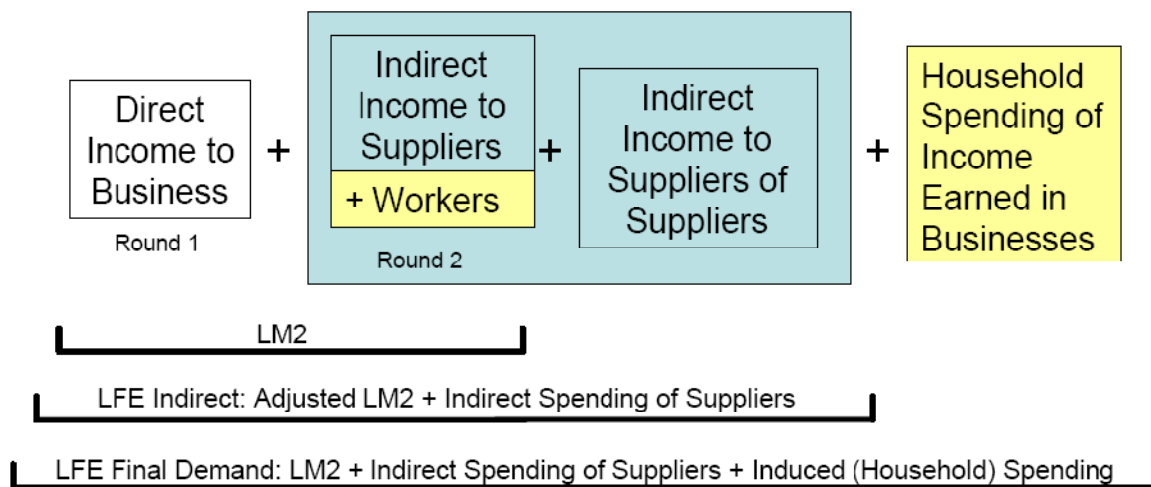


$$\text{Local Multiplier} = \frac{\sum \text{Direct} + \text{Indirect} + \text{Induced Incomes}}{\text{Direct Income}}$$

## B.7 COMPARISON WITH INDUSTRY MULTIPLIERS

To compare the impact of LFE businesses surveyed as part of this study to all food businesses located in Central Puget Sound, we developed a model for estimating local indirect and final demand multipliers by adding the indirect and induced spending effects of locally directed spending to the LM2 multipliers. The model is diagrammed below.

### Model for Calculating LFE Indirect and Final Demand Multipliers



The model makes use of industry multipliers as well as the surveyed data. The various multipliers derived from the model are defined as follows.

**LM2 Multipliers:** LM2 multipliers are calculated from the Local Food Economy Survey data for two rounds of spending. As referred to in the basic model's explication above (Section B.5), the LM2 multiplier includes both the direct and indirect income resulting from initial spending. The highest possible LM2 multiplier is 2.0, a result of which would indicate that no money leaked from the community.

**Indirect Multipliers:** Indirect multipliers equal the direct effect plus the indirect effects of business spending divided by the direct effect, where the indirect effect refers to the sum of spending by all backward-linking businesses. Backward-linking businesses are all businesses upstream of the business in which the initial spending occurred. For example, for a restaurant, the distributors, grocers and farmers the restaurant buys directly from, plus all the businesses from which the restaurant's suppliers buy, and so on until all the initial dollars have leaked from the local economy.

In the model in the figure, IMPLAN industry indirect multipliers for King County (Type I multipliers) were used to calculate the indirect spending of suppliers. They include the effects of business spending by both local and non-local businesses. The adjusted LM2 in the expanded model includes indirect income to suppliers but not employees. Everything equal, the IMPLAN multiplier will be larger than the adjusted LM2 because the IMPLAN multiplier counts impacts of all backward-linking businesses.

**Final Demand Multipliers:** “Final demand” is the term for sales to final consumers (households or government), as opposed to intermediate sales which are sales between industries. Final demand local multipliers then reflect the increased sales within the region from household spending of the income earned in food production and supporting industries. This is referred to as the “induced” demand. For example, restaurant employees spend the income they earn from restaurant work on housing, utilities, groceries, and other consumer goods and services. This generates sales, income and employment throughout the region’s economy. In the model, IMPLAN SAM multipliers were used to estimate the contribution of household spending to the LFE Final Demand Multiplier.

The local indirect and final demand multipliers are compared to industry multipliers in Sections 2.3.2 and 2.3.3 respectively. Several comments on the interpretation of the results are warranted:

First, what is referred to as the “impact for an average food business” or “aggregate impact for all businesses in a category (Figure 6, Chapter 1) includes both the impact of LFE businesses and that of non-local food businesses with locations in Central Puget Sound, for example, Whole Foods and Trader Joe’s . Since the volume of spending at LFE businesses is small compared to all businesses in a given category, we can expect that aggregate multipliers are fairly close to the multipliers for non-local businesses. Where the multipliers of LFE business are significantly higher than non-local businesses as is the case with restaurants and grocers, the aggregate multiplier may actually be slightly higher than the non-local businesses multipliers.

Second, the estimated impacts of LFE businesses shown in the figures in Chapter 1 are conservative for two reason. The lowest LM2 in a given range is used to estimate the direct plus indirect impact for a given category of LFE business. In addition, IMPLAN numbers are used to calculate the contribution of the backward-linking businesses. As most of these are LFE businesses by definition, the effect is to underestimate their contribution.

## B.7 MODEL INTERPRETATION

This report uses a sustainability framework. The focus is on why local linkages matter for sustainable resource use in the food system. As such, the model presented in this report and the implications of the multiplier results are best understood from a sustainability perspective. The extent to which the model applies to other industries needs further research, particularly in industries where inter-sectoral effects are important for economic development.

## LOCAL FOOD ECONOMY STUDY BUSINESS INTERVIEW PROTOCOL

Thank you for visiting with us today to learn about our study. We appreciate your time and interest in building a stronger local food economy.

Our purpose today is to explain the study and answer any questions you might have about it and your participation in it. We would also like to hear how your business got started and what challenges you face to put a story to the data we are collecting.

The goal of the study is to make the economic case for supporting the development of local food economy linkages. By linkages, we mean the business relationships and infrastructure that connects local buyers and sellers together.

We are asking over 40 businesses to calculate their local multiplier, a measure of the return to the community of dollars spent to buy from local businesses. The multiplier is an indication of how strong the local economic linkages are. We need a representative sample of local businesses, from growers to grocers, to participate in the study to develop a good understanding of how these linkages need to be developed for a strong local food economy.

We think that there are a number of benefits to participating that we would like to go over with you now. After that, we would like to learn more about your business. At the end of the visit we will go over the local multiplier calculation and what your participation would mean. [Provide information packet and review reasons for participating].

Any proprietary information we collect from you in the time we talk today and in the data that you provide to us will be kept confidential. Please let us know if there is any particular information you don't feel comfortable sharing.

Before we ask you some questions about your business, do you have any for us?

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We'd like to begin by getting to know about your business, but first we'd like to verify the contact information for your business.

Principal Contact: \_\_\_\_\_ Position: \_\_\_\_\_

Name of Business: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Date of Interview: \_\_\_\_\_

1. How long have you been in business and how has your business grown since you got started?
2. How many people are working in the business?

3. Is ownership local?
4. Who are your principal customers and where are they located?
5. What are your key product inputs, who supplies them and where are they located?
6. How would you define local and why?

We'd like to know – in a general way – about your business strategy and relationships as a way to understand how these affect the development of local economy linkages.

7. What are your principal goals for the business?
8. How would you describe your business' strategy to reach those goals?
9. What are the principal business relationships that support those goals? Please tell us about any relationships you've developed with local customers or suppliers that have been key to your business and why.
10. These next few questions are about the challenges involved in developing local relationships. What do you see as the biggest challenges to increasing local demand for your products and what do you think can be done to overcome those challenges?
11. What do you see as the biggest challenges to getting the right inputs for your products from local sources and what do you think can be done to overcome those challenges?
12. Are there any business practices that you have found help to build strong local business relationships?
13. Before we go over the multiplier calculation, is there anything else that you think is important for us to know about your business?



## Sustainable Seattle

### Local Food Economy Study

### Business Spending Survey Form

*Thank you for taking the time to complete this survey!*

This form is used to record the percentage spent for each item using the dollar figures from the worksheet. Please note your results will be kept in strictest confidence.

**Company Name** \_\_\_\_\_

**Main Business Location** \_\_\_\_\_

**Contact Name and Position** \_\_\_\_\_

**How many years have you been in business?** \_\_\_\_\_

**For purposes of this survey, local includes the following CENTRAL PUGET SOUND counties: King, Pierce, Snohomish and Kitsap Counties**

#### Business Expenses

Please use annual figures for 2005.

This worksheet is used to record the % spent on each item.

For each row (e.g., 'Wages and Salaries'), the 'Total %' should be the sum of '% Local' and '% Non-local'

Item	Total % (Local + Non)	% Local	% Non- local	Please name the main local business/es you use for each category.
<i>Example - using % figures</i>	14.00%	5.60%	8.40%	<i>Localpalooza</i>
Food Product Supplies (Input Purchases)	50.0%	50.0%	0.0%	
Food Product-Related Services	50.0%	50.0%	0.0%	
Non-Food-Related Finished Products Purchased for Retail	0.0%	0.0%	0.0%	
Wages and Salaries	0.0%	0.0%	0.0%	
Benefits	0.0%	0.0%	0.0%	

Supplies (Non-Food)	0.0%	0.0%	0.0%	
Marketing	0.0%	0.0%	0.0%	
Outside Services	0.0%	0.0%	0.0%	
Rent or Mortgage	0.0%	0.0%	0.0%	
Utilities	0.0%	0.0%	0.0%	
Insurance	0.0%	0.0%	0.0%	
Taxes	0.0%	0.0%	0.0%	
Loan repayments	0.0%	0.0%	0.0%	
Other (please specify)	0.0%	0.0%	0.0%	

**Total Expenses =**  Should equal 100% -

## APPENDIX C: EARLIER LOCAL MULTIPLIER STUDIES

Study	Investigator	Sponsors	Date Published	Purpose	Methodology	Findings	Outcomes
The Money Trail: Measuring Your Impact on the Local Economy Using LM3	Justin Sachs, New Economics Foundation	New Economics Foundation (NEF) and The Countryside Agency (government statutory advisor on rural England)	December 2002	Develop methodology to track local money flows as a tool for actions promoting the development of local economic linkages.	LM3: Survey of study groups on amount of money spent locally in 3 rounds of spending. Study included local government procurement programs, organic farmers, cash point users, welfare recipients, and social enterprises (non-profits).	Valuable tool for analysis of procurement policy and business practices. Importance of cash point access to local spending.	Established usefulness of LM3 as policy tool for promoting initiatives that increase local money circulation.
An Analysis of the Potential Economic Impact of Austin Unchained	Civic Economics	Austin Independent Business Alliance	December 2002	Determine economic effect of shifting spending from chain stores to local retailers.	Applied industry multipliers to direct spend of bookstore and music store and compared to estimate of Border's impact.	Impact of shifting spending for one day equaled millions of dollars, dozens of jobs for local economy.	Highlighted critical missing information necessary to change long term policy.
The Economic Impact of Locally Owned Businesses vs. Chains: A Case Study in Midcoast Maine	Stacey Mitchell, Institute for Local Self-Reliance	Institute for Local Self-Reliance and Friends of Midcoast Maine (grassroots smart growth organization)	September 2003	Influence economic development policy by comparing economic impact of spending at local retailers to that of typical big box store.	2 round analysis of expenditures of cross section of 8 local retail businesses; Compared to estimate for typical big box retailer.	\$100 worth of local spending generated another \$45 of spending compared to \$14 from big box retail spending. Over a 5 year growth period estimated that additional spending would generate 500 jobs.	

<b>Study</b>	<b>Investigator</b>	<b>Sponsors</b>	<b>Date Published</b>	<b>Purpose</b>	<b>Methodology</b>	<b>Findings</b>	<b>Outcomes</b>
Santa Fe Independent Business Report	Angelou Economics	Santa Fe Independent Business & Community Alliance	November 2003	Preserve uniqueness and diversity of local economy.	Estimates for different sectors based on economic census data.	Chains growing 2.5 times faster than independents. Impact of dollars spent at independent businesses 2 times impact of spending at national chains	Consultant hired by city to draft economic development plan
West Somerset Railway: Local Economic Impact Study	International Centre for Research and Consultancy, Manchester Metropolitan University	West Somerset Railway, West Somerset Railway Association, et al	February 2004	Evaluate local multiplier effect of spending associated with tourism railway and proposed upgrades.	LM3 survey and calculation of micro-multiplier.	LM3 of 1.9	Demonstrated impact of Buy Local policy to sustain local employment, businesses and culture.
Toledo-Lucas County Merchant Study	Dr. Gbenga Ajilore, Urban Affairs Center; University of Toledo	Lucas County Commissioner and bookstore	June 2004	Analyze impact of locally owned bookstore compared to national chain store.	Compared direct spending of local bookstore to estimated spending of chain store.		
The Cornwall Food Programme: Evaluating the Economic Impact of Local Procurement in the NHS	Jenny Thatcher		2004	Assess impact of local procurement policies and evaluate the LM3 model as a tool for making the assessment.	LM3 (see above)		

<b>Study</b>	<b>Investigator</b>	<b>Sponsors</b>	<b>Date Published</b>	<b>Purpose</b>	<b>Methodology</b>	<b>Findings</b>	<b>Outcomes</b>
The Andersonville Study of Retail Economics	Civic Economics	Andersonville Chamber of Commerce; Anderson Development Corporation, and Andersonville Special Service Area #22	October 2004	Evaluate impact of locally-owned businesses compared to that of comparable national chains.	Applied industry multipliers to direct spend of retail stores and compared to estimated impacts of chain competitors.	Premium average of 70% for local stores	Used findings to support policy changes including property tax reform, formula retail ordinance and down zoning.
LM3 Progress Report	BJ Mitchell	Northumberland, UK	June 2005	Measure impacts of contracting locally and assess effectiveness of LM3 as a public procurement tool.	LM3 (see above)	76 % re-spend in area by area suppliers compared to 36% re-spend by out of area suppliers	Split food contract into lots resulting in 4 of 7 product categories awarded to local suppliers
Public Spending for Public Benefit	Justin Sachs, New Economics Foundation	Commission for Rural Communities	July 2005	Assess opportunities to promote regeneration (economic development) through public spending.	LM3 (see above)	Redirecting 10% of UK public spending to disadvantaged areas would result in an increase of community income equal to 17 times the amount of what is currently spent on economic development.	

## APPENDIX D: LOCAL FOOD ECONOMY BUSINESSES

This appendix will be published with the final report.

## APPENDIX E: DESCRIPTION OF PARTICIPATING ENTERPRISES

The following enterprises provided data for the analyses in Chapters 2, 3 and 4.

### 2 INSTITUTIONAL FOOD SERVICE

1. Large School District
2. Food Service Enterprise Serving Institutions

### 7 GROCERS AND FARMERS MARKETS

1. Home-Delivery Organic Produce Grocer
2. Home-Delivery Organic Produce Grocer
3. Home-Delivery Organic Produce Grocer
4. Farmers Market Association (6 markets)
5. Mid-Sized Natural Foods Cooperative Grocery
6. Large Natural Foods Cooperative Grocery (7 markets)
7. Independent Large Grocer

### 7 RESTAURANTS AND FOOD SERVICE

1. Mid-Price Neighborhood LFE Restaurant
2. Mid-Price Neighborhood LFE Restaurant
3. Low-Price Neighborhood Pub
4. Low-Price Small Café
5. High-End Downtown LFE Restaurant Family (4 restaurants)
6. High-End Food Service (>10 Accounts)
7. Low-End Food Service

### 4 DISTRIBUTORS

1. Small Fresh Produce Distributor
2. Large Produce Distributor
3. Independent Specialty Foods Distributor
4. Independent Cheese and Specialty Foods Distributor

## 12 PROCESSORS AND MANUFACTURERS

1. Butcher and Meat Processor/Manufacturer
2. Small Beverage Manufacturer
3. Cheese Manufacturer
4. Cheese Manufacturer
5. Neighborhood Natural Foods Bakery
6. Organic Baked Good Manufacturer
7. Tea Manufacturer
8. Organic Tea Manufacturer
9. Artisan Specialty Product Manufacturer
10. Artisan Specialty Product Manufacturer
11. Juice Product Developer
12. Seed Packet Manufacturer

## 5 PRODUCERS

1. Mid-sized Organic Vegetable Farm
2. Small-sized Organic Vegetable Farm
3. Mid-sized Organic Fruit Farm
4. Small Grass-fed Livestock Farm
5. Small Fisher

## APPENDIX F: WORK PLANS

This appendix will be published with the final report.