

Food For Growth

A Community Food System Plan for Buffalo's West Side

MASSACHUSETTS AVENUE PROJECT

IN COLLABORATION WITH

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TABLE OF CONTENTS

Acknowledgment			
		3. Strengthening the Community Food System on the West Side of Buffalo	29
Executive Summary		3.1. Enhancing Local Food Production through Land Use planning	29
		3.1.1. Existing Land Use	
		3.1.2. Existing Planning Mechanisms Governing Land Use	
1. Introduction	1	3.1.3. Key Organizations Affecting Land Use Decisions and Foo	ď
1.1. Statement of Significance		Production	
1.2. Food for Growth Studio Practicum	1	3.1.4. Strengths, Weaknesses, Opportunities, and Threats	
1.3. Purpose	1	3.2. Promoting Food-Based Economic Development	39
1.4. Goals & Objectives	2	3.2.1. Profile of Businesses in the West Side Target Area	
1.5. Study Area	2	3.2.2. Assessing the Economic Impact of West Side Businesses	
1.6. Report Layout	2	3.2.3. Assessing the Economic Impact of West Side food Related	1
		Businesses on the Local Economy	
2. Assessing Food Security in the West Side	4	3.2.4. Existing Food Based Economic Development Programs or	1 the
2.1. Demographic Profile of the West Side Target Area	4	West Side	
2.1.1. Population		3.2.5. Strengths, Weaknesses, Opportunities, and Threats	
2.1.2. Households		3.3. Improving Transportation Access to Food	50
2.1.3. Housing		3.3.1. Walking to Neighborhood Stores	
2.1.3. Income and Poverty		3.3.2. Use of Private Vehicles for Accessing Grocery store	
2.1.4. Immigration		3.3.3. Use of Public Transportation for Accessing Grocery Stores	3
2.1.5. Diversity		3.3.4. Strengths, Weaknesses, Opportunities and Threats	
2.2. Community Perspective	12	3.4. Promoting Youth Development through Food Based Projects	59
2.3. Trends in Hunger	15	3.4.1. West Side Youth	
2.4. Affordability and Quality of Food	16	3.4.2. Youth Education Development Project Examples	
2.4.1. Quantitative Results		3.4.3. Strengths, Weaknesses, Opportunities, and Threats	
2.4.2. Qualitative Results		3.5. Conclusion	68
2.5. Conclusion	28		
		4. Recommendations	69

4.1. General Recommendations4.2. Specific Recommendations

Appendices

Appendix A	City of Buffalo's Food System: A Resource Guide	78
Appendix B	For Chapter Three	119
Appendix C	For Chapter Four	122
Appendix D	On-Line Resources	135
Appendix E	Focus Group Guiding Questions and Store Survey	137
References		140

List of figures

Chapter 1
Figure 1.a. West Side Target Area
Figure 1.b. Location of West Side Target Area in Buffalo
Chapter 2
Figure 2.a. West Side Target Area Demographic Indicators, Census 1990 and 2000
Figure 2.b. Households in the West Side Target Area, 2000
Figure 2.c. Racial Composition of the West Side Target Area, Census 2000
Chapter 3
Figure 3.a. Land Use in the West Side Target Area
Figure 3.b. Percentage of Land Use Distribution in Buffalo's WSTA
Figure 3.c. Aerial Photo Map of WSTA Soil Types
Figure 3.d. Generators of Hazardous Waste in the WSTA
Figure 3.e. Land Utilized for Community Gardens in the West Side Target Areas
Figure 3.f. Land Zoning within the WSTA
Figure 3.g. Business size
Figure 3.h. Number of Food Businesses in and around the West Side Target Area
Employing 1 to 100 Employees
Figure 3.i. Annual Sales of Businesses in and around the West Side Target Area
Figure 3.j. Business Categorized by Ownership
Figure 3.k. Credit Ratings of WSTA Businesses
Figure 3.1. Educational Attainment for the West Side Study Area Population Study Area
Figure 3.m. Medium and Small Sized Supermarkets within Walking Distance
Figure 3.n. Large Supermarkets Serving Buffalo and Surrounding Region
Figure 3.o. Medium Sized Stores Serving Buffalo and Surrounding Region
Figure 3.p. Discount Stores Serving Buffalo and Surrounding Regions
Figure 3.q. Density of Crime around Food Businesses on the West Side
Figure 3.r. Number of Vehicles Owned, Leased or Rented in the West Side
Figure 3.s Transportation: Bus Routes and Bus Stops in and around WSTA
Figure 3.t. Transportation: Bus linkages to large supermarkets
Figure 3.u. Property-related Crime and Location of Bus Stops
Figure 3.v. Neighborhood Quality-related crime and Location of Bus Stops
Figure 3.w. Drug-related Crime and Location of Bus Stops
Figure 3.x. Violent Crime and Location of Bus Stops
Figure 3.y. Percentage of Youth by Race on the West Side of Buffalo

List of tables

Chapter 2

- Table 2.a. Population within West Side Target Area
- Table 2.b. Population of Different Age Groups within the West Side Target Area
- Table 2.c. Population and Families within the West Side Target Area
- Table 2.d. Diversity in the West Side Area and the City of Buffalo
- Table 2.e. Food Stores Studied in or near the West Side Target Area
- Table 2.f. Average Percent Difference from the Study Mean Price for Each Item
- Table 2.g. Comparative Analysis of Food Expiration Dates on the West Side Target Area, City of Buffalo and Amherst Stores
- Table 2.h. Comparative Analysis of Food Expiration Dates on the West Side Target

 Area between Independent Stores and Chain Stores

Chapter 3

- Table 3.a. Land Use Areas on Buffalo's West Side
- Table 3.b. WSTA Vacant Lots Owned by a Public Agency
- Table 3.c. Type of Food Businesses in and around the West Side Target Area
- Table 3.d. Total Employment and Output Impacts of West Side Food Businesses
- Table 3.e. Employment and Output Multipliers
- Table 3.f. Educational Attainment of Residents in the West Side Target Area
- Table 3.g. Housing Units with Vehicles
- Table 3.h. Housing Units Occupied by Seniors with Access to Vehicles

EXECUTIVE SUMMARY

The importance of food cannot be overstated; it sustains our existence and accompanies our celebrations. It also defines the communities in which we live. When the supply and quality of food is poor, our neighborhoods are threatened. Therefore, food is unequivocally a community planning issue.

For over ten years, the Massachusetts Avenue Project (MAP) has worked within the West Side neighborhood of Buffalo to help to revitalize the neighborhood. More recently, MAP has undertaken projects that have positively influenced food security in the neighborhood *and* spurred urban revitalization. To guide MAP's future work in the area of community food system building, this report presents recommendations based on an assessment of food security in the West Side and a comprehensive analysis of the opportunities and shortcomings in the local food system. This plan is also an example of how planning can be used to improve the food security of within an urban neighborhood.

According to the United Nations:

"Food security means that food is available at all times; that all persons have means of access to it; that it is nutritionally adequate in terms of quantity, quality and variety; and that it is acceptable within the given culture. Only when all these conditions are in place can a population be considered food secure." (United Nations' Food and Agriculture Organization)

The residents of the West Side neighborhood of Buffalo are not food secure. An extensive survey of food stores conducted for this plan reveals that fresh nutritious foods are difficult to find or absent in many West Side food stores. On average, food stores in and around the West Side neighborhood charge residents more for food that is lower in quality and closer to expiration than food stores elsewhere in Buffalo and within the suburban town of Amherst. The impact of this disparity is felt acutely in the West Side neighborhood, where 40% of residents within the neighborhood live in poverty. Additionally, a considerable number of children are caught in this downward spiral since nearly 50% of families with children aged 18 and younger live in poverty (Census 2000). Focus groups and interviews conducted with the residents revealed that poor transportation access was a further impediment to food access. Many residents feel unsafe walking to local corner stores either due to crime or poor sidewalk upkeep during the winter months. Access to food stores outside the neighborhood is further hindered by a markedly low rate of access to an automobile (43%) and poor public transit.

Although charitable organizations and government programs play an invaluable role in alleviating hunger, they do not address the systemic shortcomings of the existing food system within this neighborhood. One way that these systemic issues can be addressed is through the establishment and strengthening of the community food system. This plan makes recommendations to strengthen the West Side neighborhood's community food system such that following four strategic objectives are met.

- 1) Enhancing local food production through land use planning
- 2) Promoting food based economic development
- 3) Increasing transportation access to food
- 4) Promoting food-based youth development through food based projects

First, local food production should be enhanced within the region as well within the West Side neighborhood. To do so, this plan recommends that MAP promote consumer and farmer linkages through Community Supported Agriculture (CSA) and new farmers' markets. Furthermore, to enhance neighborhood food production, this plan recommends the creation of community gardens on suitable vacant lots. Not only do expanded community gardens increase self-sufficiency through the greater accessibility of fresh food, but can also help achieve other goals such as public safety and neighborhood beautification. To help facilitate this, the plan recommends that Buffalo city government must recognize urban agriculture as a valuable and beneficial land use deserving of the city's protection, promotion and investment.

Second, food based economic development should be promoted in the neighborhood and the city. This plan assesses the possibilities for strengthening food businesses as an incomegenerating opportunity for West Side residents, at the same time providing greater access to local food within the neighborhood. Currently, the food sector in the West Side currently contributes an astounding \$42.9 million in economic activity within Erie County's economy. To further local food business development on the West Side, the plan recommends that MAP should expand its micro-enterprise program, which provides a commercial kitchen and a loan for entrepreneurs to make food products. The unique cultural diversity of the West Side makes this neighborhood fertile ground for businesses specializing in ethnic delicacies.

Third, improving transportation access to food can strengthen the community food system. Existing public transportation and private vehicle ownership restricts the ability of many West Side residents to shop for food. Therefore, this report recommends that food access be a primary consideration for the NFTA in the determination of public bus service frequency and routing. Additionally, the city should ensure that neighborhood residents feel safe enough to walk to corner stores therefore public safety must be ensured and city laws requiring sidewalk maintenance must be enforced. Furthermore, the variety of transportation options open to seniors living within the West Side need to be better promoted to allow more seniors to take advantage of them.

The final strategy is to educate and involve youth in the promotion of food security and a community food system. This will not only ensure that future residents of the West Side have an appreciation and knowledge about growth and preparing food, but will provide safe and productive activities for children after school and during the summer recess. Furthermore, Growing Green has proven that children can play an important role in the maintenance of community gardens and the growth of urban agriculture.

Overall, this plan provides an outline of how planning can be used to address food insecurity and help establish/strengthen a community food system. Moreover, it reaffirms the capacity of the West Side and other similarly challenged inner city neighborhoods to work from within to improve the lives of its residents.



INTRODUCTION



Artwork courtesy of Alize Cooley

CHAPTER 1 Introduction

1.1. Statement of Significance

The importance of food cannot be overstated; it sustains our existence, defines our days, and accompanies our celebrations. Food's central role transcends all social divisions as it unites everyone in its fundamental necessity. The supply and quality of food reflects the social and economic health of communities and measures our most basic well-being.

Within the US, the food system, defined as "the chain of activities connecting food production, processing, distribution, consumption, and waste management, as well as the associated regulatory institutions and activities" is intricate and complex (Pothukuchi and Kaufman, 2000). It is compartmentalized into disparate processes in which responsibilities are shared by a disconnected set of actors. Such a food system, frequently referred to as the 'conventional' food system, often fails to serve each person equitably.

The United Nations' Food and Agriculture Organization has outlined the conditions that must be met before a community is considered food secure.

"Food security means that food is available at all times; that all persons have means of access to it; that it is nutritionally adequate in terms of quantity, quality and variety; and that it is acceptable within the given culture. Only when all these conditions are in place can a population be considered food secure" (Koc et al., 1999, p. 1).

Community food security is a fundamental indicator of residents' quality of life. Since planning is concerned with the well being of people and their quality of life, food security is a planning objective.

Ensuring food security differs from the concept of feeding the hungry. Although feeding the hungry is a necessary and praiseworthy activity, it is a short-term and reactionary measure, which only treats the symptom of a societal problem. Becoming food secure, on the other hand, requires proactive steps to create a community food system which enhances citizens' access to nutritious and affordable food at all times.

A community food system is rooted in the cooperative spirit and oriented to serve and benefit everyone within the community. In this system, food is grown, produced, processed and disposed at a local level. Since locally produced and distributed food reduces dependence on long-distance food sources, a community food system also increases community self–sufficiency. A community food system has the potential to promote ecologically friendly food cultivation methods and encourage community development. Such a system can also have a significant impact on economic development because it creates locally based employment and provides opportunities for people to raise themselves out of poverty.

Creating a community food system and working to realize the goal of food security is a long process requiring a common vision, leadership, and planning. Community residents know their needs best and can envision the most acceptable solutions. Therefore, community members' involvement and guidance is critical for planners and other professionals when planning and implementing a sustainable community food system.

1.2. Food for Growth Studio Practicum

The community food system plan for the West Side of Buffalo was developed by graduate students in the Department of Urban and Regional Planning at the University at Buffalo, under contract with the Massachusetts Avenue Project (MAP) –a neighborhood revitalization organization in Buffalo, New York. The plan was produced during the course of a studio practicum held in the fall of 2003.

1.3. Purpose

The primary purpose of this plan is to provide the Massachusetts Avenue Project with recommendations to guide its ongoing efforts to achieve food security and revitalize Buffalo's West Side. For over ten years MAP has been addressing food security and

neighborhood revitalization issues in this community through a variety of programs: by cultivating community gardens, through Food Ventures, an innovative food entrepreneurship program, and through Growing Green, a youth development program. This plan's recommendations build upon and complement these programs.

The immediate stakeholders of this community food system plan are the residents, business owners, community organizations, and elected officials of the West Side, and the studio's client, Massachusetts Avenue Project. There is a more expansive audience for this plan as well; it includes the leaders elected at the city, county and state levels, planners, and other interested members of the public.

Additionally, this plan intends to demonstrate the importance of food security in the practice of planning, and provide a model for how planners and communities may assess their food security needs and develop a community food system plan.

1.4. Goals and Objectives

The long-term goal of this plan is for the West Side to achieve food security through the creation and sustenance of a community food system. This involves ensuring that quality, nutritious, affordable, and culturally acceptable food is available and accessible to the residents of the West Side at all times through a local, sustainable, and socially equitable food system. The plan identifies four specific objectives for strengthening such a community food system on Buffalo's West Side. These include:

- 1) Enhancing local food production through sustainable land use planning
- 2) Promoting food-based economic development
- 3) Increasing transportation access to food
- 4) Promoting youth development through food-based projects

1.5. Study Area

street to the northwest and West Ferry street to the north (see figure 1.a). Within this report, this region is referred to as the West Side Target Area $(WSTA)^1$.

1.6. Report Layout

The remaining four chapters of this report outline a plan for achieving short and long term food security goals for the West Side Target Area. Chapter two provides an overview of the West Side Target Area and assesses the extent of food security in this community. The chapter reports WSTA residents' perspectives on food security in their neighborhood. The chapter also includes an assessment of the availability and affordability of food in WSTA grocery stores. Chapter three focuses on the four planning objective of increasing local food production, enhancing transportation access to food, encouraging food-based economic development, and promoting youth development through food based projects. The chapter assesses the strengths, weaknesses, opportunities and threats in the WSTA to achieve these objectives. Based on analysis presented in chapter three, chapter four makes recommendations for MAP as well as for other relevant entities that can support the strengthening of a community food system on the West Side.

In addition to the plan for the West Side, this report contains a 'Guide to Buffalo's Food System', located in appendix A. The authors hope that this guide will serve a useful reference for MAP and other organizations attempting to affect positive change in Buffalo's food system.

Finally, supplementary information, including research methodology, for chapter two and three is provided in appendices B and C. The last appendix D provides a list of on-line resource related to food system planning. Throughout the report there are workspace areas. Please use this as an opportunity to jot down thoughts.

The area considered in this plan is a specific portion of the West Side of Buffalo (see figure 1.b). It includes the service area of the Massachusetts Avenue Project (MAP), and expands upon it to the east, south and west. This area is bounded by Richmond Avenue to the east, Porter Avenue to the south, Fargo Avenue to the southwest, New Hampshire

¹ The West Side Target Area (WSTA) is larger than the original MAP service area of 10 blocks (shown as 'Massachusetts Avenue Project boundary' in figure 1.a). The WSTA overlaps the boundaries of the West Side Community Collaborative (WSCC), a non-profit organization which brings together diverse community groups in a collaborative community partnership. The WSTA plan boundary was chosen so that MAP could complement the work of other neighborhood organizations through the Food For Growth plan.



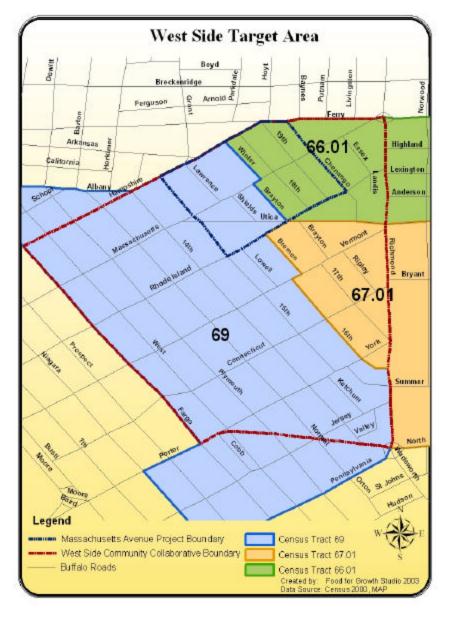
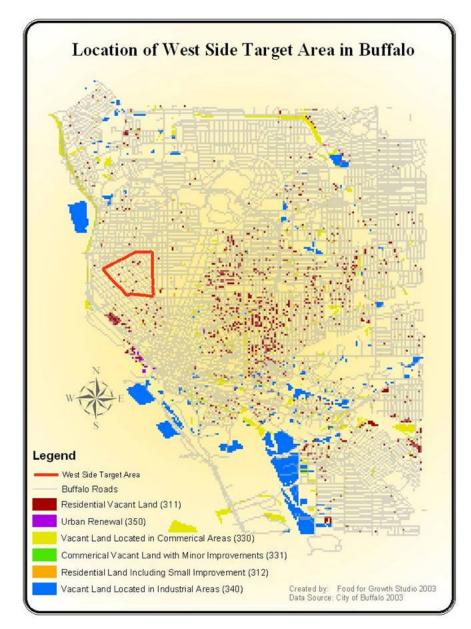


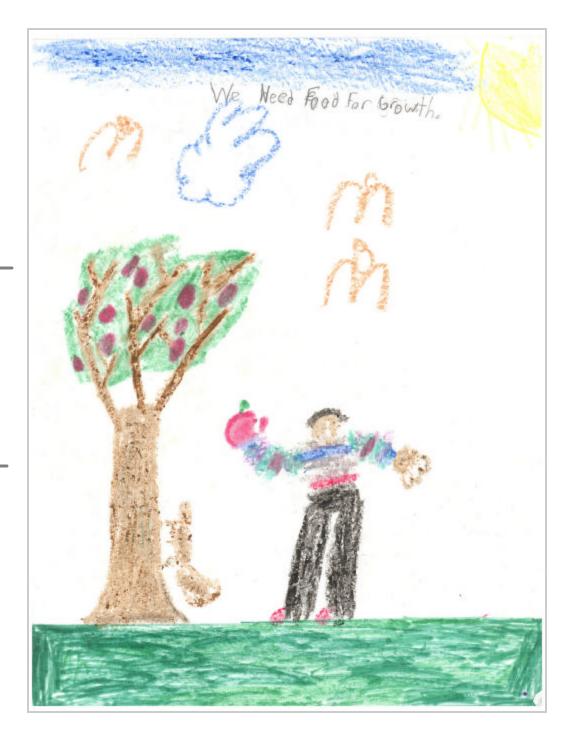
Figure 1.b



CHAPTER ONE – INTRODUCTION

CHAPTER TWO

ASSESSING FOOD SECURITY IN THE WEST SIDE



Artwork courtesy of Nars Abdullah

CHAPTER 2 Assessing Food Security in the West Side

Food security is a matter of concern for residents of the West Side Target Area. Food insecurity in this neighborhood is exacerbated by both inadequacies in the food system and challenging economic and demographic trends. This chapter provides a snapshot of the West Side Target Area's existing economic and social conditions, compares the availability and cost of food in the West Side with other neighborhoods, and reports WSTA residents and food businesses perspectives on food security in their neighborhood.

2.1. A Demographic Profile of the West Side Target Area

Buffalo's West Side Target Area is a dynamic area rich in cultural and ethnic diversity. However, the area continues to experience significant demographic and economic decline (see figure 2.a). Although the weakening demographic and economic trends seen in the West Side reflect in part those in the city of Buffalo as a whole, the magnitude of the problems are larger within the West Side neighborhood.

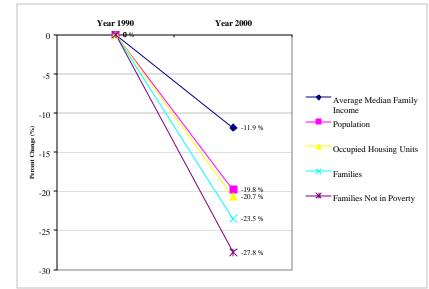
The demographic analysis¹ of the West Side Target Area focuses on six specific areas:

- 1. Population
- 2. Household composition
- 3. Housing
- 4. Income and Poverty
- 5. Immigration
- 6. Racial and Ethnic Diversity

"Food security means that food is available at all times; that all persons have means of access to it; that it is nutritionally adequate in terms of quantity, quality and variety; and that it is acceptable within the given culture. Only when all these conditions are in place can a population be considered food secure."

Koc et al., 1999





¹ Detailed methodology and data sources are available in appendix B, section B.1.

2.1.1. Population

The population of the West Side Target Area has declined by 2,257 people over the course of the last decade, from a total of 11,403 people in 1990 to 9,146 in 2000. This drop in population of 19.8% is nearly twice the 10.8% drop experienced in the city of Buffalo as a whole over the same period (see table 2.a). This suggests that the decline in population in the West Side is not just part of a citywide trend, but that the neighborhood is facing greater challenges than other parts of Buffalo.

Table 2.a

Population within West Side Target Area

	West Si	City of Buffalo		
	2000	1990	Percent Change 1990-2000	Percent Change1990-2000
Population	9,146	11,403	-19.8%	-10.8%
Families	2,000	2,614	-23.5%	-14.3%
Households	3,567	4,497	-20.7%	-10.1%

Source: US Census 1990 and 2000

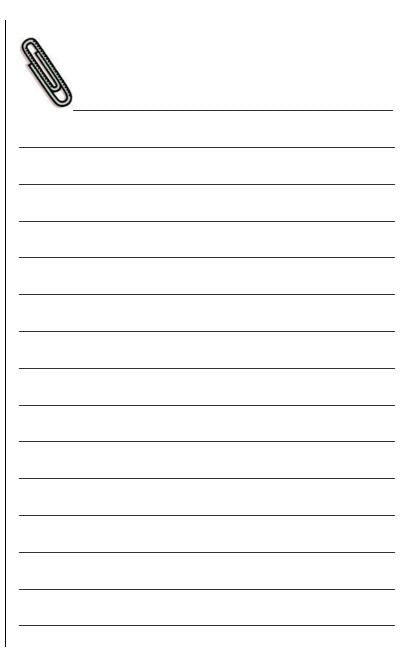
Table 2.b

Population of Different Age Groups within the West Side Target Area

	1990	2000	% Change	% Point Difference from Mean Population Change 1990 – 2000
Children (15 and younger)	2936	2635	-11.4%	8.4% points
Elderly (65 and over)	1461	955	-34.6%	-14.8% points
Ages 16-64	7006	5652	-19.8%	0% points

Source: US Census 2000 SF-1

Although the number people in all age groups dropped, the decline was not uniform. The variation in the decline in the number of children (15 years and younger) and elderly persons (over 65) demonstrates this unevenness. Between 1990 and 2000 the number of children living in the West Side Target Area decreased 11.4%, which is far less than the 19.8% decrease seen in the population as a whole (see table 2.b). Therefore, during the 1990s the proportion of children as a percentage of all the West Side's residents increased significantly. On the other hand, the number of elderly residents dropped by nearly 35% over the same period. This drop in the elderly population is significant because seniors are



long term members of the community, who bring stability and continuity to the neighborhood. Furthermore the increase in the proportion of children living in the West Side means that there are fewer adults per child within the neighborhood. Since children rely on adults for food access, this means that children living in the WSTA have on average fewer adults/parents, from whom to get food. It also means that adults, in particular parents, in the neighborhood face a greater demand of feeding more children. Therefore both parents and children living in the West Side have become acutely more vulnerable to the impacts of food insecurity, since more is expected of fewer parents.

2.1.2. Households

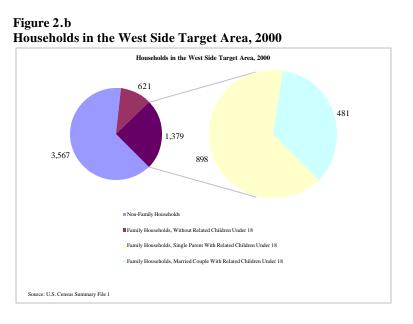
The number of households in the West Side Target Area dropped 20.7% between 1990 and 2000, twice the rate of decline experienced by the entire city. Over the same period, the number of families² declined 23.5%, but the percentage of families with related children less than 18 years of age grew from 36.5% to 38.7%. These statistics suggest that between 1990 and 2000 family households in the West Side got younger in composition since the percentage of families with children increased over the course of the 1990s. However, the percentage of single parent households increased by 25.2% during the same timeframe. This means that a greater percentage of families are non-traditional in composition, with more children being raised by a single parent or relatives that are not their parents. In 2000, of all the families in the West Side Target Area with related children under 18, 65.1% were headed by a single parent or adult (see figure 2.b).

Single parents and other adults (such as grandparents) raising children face greater challenges due to time and monetary constraints in obtaining fresh and healthy food. Therefore, West Side families with children are acutely vulnerable to the effects of food insecurity.

2.1.3. Housing

The West Side Target Area lost only 6.5% of its housing stock in the 1990s, compared to the 19.3% loss seen throughout Buffalo. However, many of those remaining housing units were left empty, with a year 2000 vacancy rate of 22.3%. In fact, while the number of total housing units in the WSTA has declined, the number of vacant units has only increased.

Contemporaneously, when inflation is accounted for, median rents and median owner occupied home values have dropped 4.2% and 16.1% respectively during the 1990s. Although the decline in median home values was close to the 3.6% drop seen throughout the city, the West Side Target Area's decreasing rents were in stark contrast to the



 $^{^{2}}$ Defined by the U.S. Census as more than one related or married people living together.

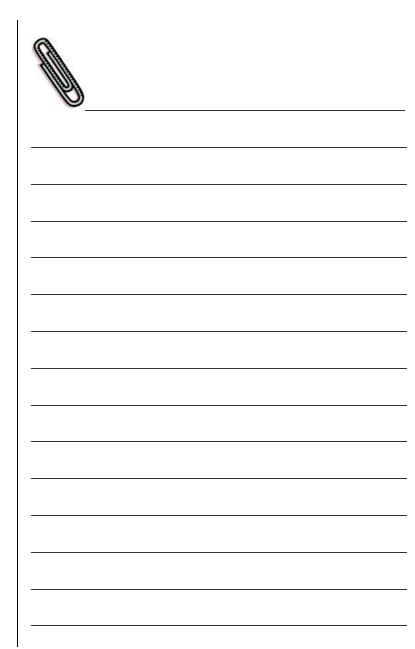
40.5% rise in median rents seen throughout the city of Buffalo during the same period. This conflict in rental market values is not surprising, since the 22.3% vacancy rate has flooded the WSTA neighborhood with excess housing units and a dwindling number of households has reduced the demand for rental units – both of these factors have likely contributed to suppressed rents within this area. While the collapsed rental market keeps rents low, it also dissuades upkeep and investment in rental properties by landlords. However, one positive result of this declining real estate market is that there is little to no development pressure to threaten established and future community gardens, which can play a significant role in improving food security in the WSTA.

2.1.4. Income and Poverty

The average median family income in the West Side Target Area is \$19,665, more than a third less than the median for the city as a whole (US Census 2000). Average median household income is \$16,968, only 69.2% of the median income for all of Buffalo's households (US Census 2000). When inflation is factored in, the average median incomes for both families and households dropped between 1990 and 2000; average median income for families declined 11.9% compared to a drop of only 2.7% for the city as a whole. Among all households, income dropped 9.9% during the 1990s, while throughout the entire city the median increased slightly by 0.8%.

Table 2.c	
Population and Families in Poverty within West Side Ta	rget Area

	West Side Target Area				City of Buffalo		
		2000)	% of Total	2000	% of Total	
Population in Poverty		3,70	3	40.5%	75,120	26.6%	
Families in Poverty	1,260			62.3%	15,478	23.0%	
West Side Targ	get Area	1990	% of Total	2000	% of Total	% Point Change	
Families		2,614	-	2,023	-	NA	
Families in Pov	verty	869	33.2%	763	33.7%	4.5%	
Families with I Children Unde	16/2 62.8%		62.8%	1,396	69.0%	6.2%	
Families in Povertywith Related ChildrenUnder 18		816	31.2%	690	34.1%	2.9%	
Source: Census	Source: Census 2000 SF-2						



In the year 2000, 40.5% (3,703 people) of the population of the West Side Target Area lived in poverty (see table 2.c). Although the absolute number of families in poverty decreased between 1990 and 2000, the percentage of all the West Side families living in poverty increased from 33.2% in 1990 to 37.7% in 2000. In 2000, the percentage of families living in poverty for the entire city of Buffalo was only 23.1%. Most shockingly, over 90% of the WSTA's families living in poverty have related children under 18 within them. Additionally, nearly two thirds (64.4%) of families living in poverty in 2000 were comprised of a single parent and related children under 18. Although the incidence of poverty increased between 1990 and 2000 in the West Side Target Area, the percentage of households receiving public assistance actually decreased 42.1% due to the enactment of federal welfare reform legislation in the mid-1990s.

Overall, the decreases in median incomes earned by West Side households during the 1990s and the high rates poverty, especially among families with children, underscore the fact that the West Side Target Area is facing greater economic challenges than the city of Buffalo as a whole. It also highlights the fact that the economic status of families and households in this portion of the city has declined over the course of the last decade. Lower incomes reflect to decreased food security, since income directly determines what food can be afforded.

2.1.5. Immigration

The West Side Target Area's increasing immigrant population is a positive demographic trend that has continued over the course of the 1990s. During the last decade, the West Side has attracted new immigrants from literally all corners of the world with the absolute number of foreign-born residents in the neighborhood growing by 22.3%. In 2000, 9.2% of all West Side residents had emigrated from another county; this is a third more than the figure from 1990 (6.1%) and over double the 4.5% percent immigrant composition of the city of Buffalo in 2000. This means that as domestically born West Side residents left the neighborhood, new immigrants moved in to replace some of them. This translates to an increase of 155 foreign born persons residing in the West Side between 1990 and 2000 despite an overall decline in the neighborhood's population. This is undoubtedly a positive occurrence for the neighborhood, since immigrants bring new energy, optimism and potential into a community. More specifically, immigrants often bring with them the skills and desire to be urban gardeners.

2.1.6. Diversity

The West Side Target Area is far more diverse than the city of Buffalo as a whole and continues to become more so. Residents of Asian and Hispanic decent are concentrated in the West Side. The most dramatic growth between 1990 and 2000 among all the racial and ethnic groups within the neighborhood was the 93.4% growth in the number of West Side residents that identified themselves as being Asian. The number of people identifying themselves as African American also increased by nearly 30% over the same time period. At the same time the population of white residents

on the West Side decreased by 46.2% (see table 2.d).

Table 2.d

Diversity in the West Side Target Area and the City of Buffalo

	2000	WSTA	City of Buffalo	1990	WSTA	WSTA
		% Composition	% Composition		% Composition	% Change 1990-2000
Total population	9,146	100.00%		11,403	100.00%	-19.79%
Population of one race	8,543	93.41%				
Population of one race; White alone	4,250	46.47%	54.40%	7,894	69.23%	-46.16%
Population of one race; Black or African American alone	1,680	18.37%	37.20%	1,295	11.36%	29.73%
Population of one race; American Indian and Alaska Native alone	152	1.66%	0.80%	386	3.39%	-60.62%
Population of one race; Asian alone	466	5.10%	1.40%	241	2.11%	93.36%
Population of one race; Some other race alone	1,995	21.81%				
Population of two or more races	603	6.59%				
Total population: Total	9,146	100.00%		11,403	100.00%	-19.79%
Total population: Hispanic or Latino	3,276	35.82%	7.50%	2,700	23.68%	21.33%
Total population: Not Hispanic or Latino	5,870	64.18%		8,703	76.32%	-32.55%



Source: U.S. Census, 1990 and 2000

In 2000, residents identifying themselves as white comprised 46.5% of the total population within the West Side Target Area. This percentage is significantly smaller than the percentage of people (54.4%) within the entire city of Buffalo that identified themselves as white in 2000. Also this is a marked change since 1990 when the West Side Target Area was home to proportionately more white residents (69.2%) than the city of Buffalo as a whole (64.8%). Overall, this demonstrates that the West Side has been acutely impacted by "white flight" during the 1990s³. However, this also means that the West Side Target Area has become increasingly racially diverse over the course of the 1990s.

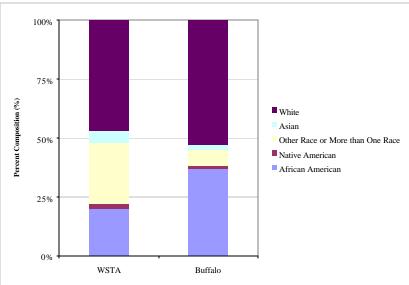
Overall, the demographic indicators show that the West Side Target Area is facing serious threats from declining population, decreasing incomes, reduced reliance on public assistance, and higher rates of poverty. Although the weakening demographics trends seen in the West Side are for the most part also taking place throughout the city of Buffalo as a whole, in nearly every case the magnitude of the problems are more acute within the West Side neighborhood. Therefore because of the more critical nature of the West Side's decline, this neighborhood merits and requires extra attention, planning, and assistance in ensuring food security.

Finally, the negative trends observed in the West Side Target Area during the 1990 belie the fact that the neighborhood possesses an important strength: the diversity of its residents. The West Side is far more racially, culturally and ethnically diverse than the city of Buffalo as a whole and this can be capitalized upon most directly in the area of food (see figure 2.6). The growing numbers of immigrants within the community bring with them diverse and interesting foods and traditions that are not common to the Buffalo region.

³ Besides "white flight" another reason for the greater decrease in the number of people identifying as white, could be that in 2000, the U.S. Census' questionnaire for the first time allowed people to more freely identify their race by permitting respondents to check multiple race categories and/or to identify themselves as being of some "other" race.







2.2. Community Perspective

Public involvement is an essential component of any planning process. Without community involvement, a food system plan runs the risk of being cursory, irrelevant, misguided or ineffective. Because their personal accounts most accurately reflect the community's existing food security issues, residents must guide the planning process to ensure short and long term community food security.

In October 2003, the researchers conducted focus groups with WSTA neighborhood youth, senior citizens, business owners and other residents. Residents were asked to share their thoughts and concerns about their neighborhood food choices, general food quality and what would help them improve their access to healthier food. In addition, community gardeners and regional farmers were interviewed to gain a perspective of the challenges they face in growing and supplying food to city residents. The following sections summarize the perspectives of the various stakeholders; these perspectives have been instrumental in shaping the remainder of the report.

Residents

WSTA residents, including homeowners and renters, commented on the lack of fresh, good quality produce in the area. Residents got their food from various sources: corner stores, delis, other specialty food stores and their private gardens. Of all these food sources, most residents found the food at corner stores to be of the worst quality and sold at the highest prices. As one senior put it, "[they] rob you blind!" Because most people have limited transportation options and no private garden, corner stores are the closest food sources. Residents perceive food at medium to larger sized supermarkets to be of better quality, and took extra time and money to travel outside their neighborhoods for food purchases.

Some homeowners garden on their residential lots. They report growing foods they like and enjoy the mental health benefits of horticulture. With personal gardening experience, they understand the time and work needed to tend their gardens. People who rent homes or apartments grow plants in planters or generally do not garden.

Most WSTA residents interviewed were aware of community gardens in their neighborhood. These gardens were recognized as sources of pride in the West Side community. As such, they also cited the need for protecting community gardens from vandalism. Many residents also acknowledged the gardens' educational role and hoped more youth would become involved in gardening. Most renters do not consider food grown in the community gardens to be safe for consumption because they question the soil's safety.

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WSTA residents identified land ownership as an important land use issue. Residents felt that land ownership often leads to greater community involvement.

Senior residents

Seniors are the most vocal about their food and nutritional needs and were the most dependent on others for food access. Some seniors have a wealth of food preparation knowledge, but cite the lack of fresh ingredients in their neighborhoods. When fresh ingredients are bought, seniors lack adequate storage space and are limited to 'cooking for one' which often means that produce will expire before consumption. Physical disabilities limit some seniors' food shopping choices and make them dependent on community services or relatives for their food shopping needs.

Most senior residents knew their neighborhood community garden locations, but say the walking distance prevents them from fully enjoying their benefits. Senior participation in community gardening is practically non-existent. Many seniors identify their disabilities, particularly knee and back problems, as reasons why they do not garden. Others who would like to participate feel there is no good location to garden. When asked about gardening possibilities closer to their residence, some seniors stated they might be interested. Others restated that their physical disabilities would continue to prevent them from gardening.⁴

Youth

During a focus group the WSTA youth reported that they and their families relied on corner grocery stores for basic items and snack foods. The youth reported that they preferred to go to larger supermarkets for better choices.

Some WSTA youth are involved in MAP's Growing Green Program, which teaches children from 11 to 18 to cultivate gardens, research local food preferences and create value added food products for distribution and sale. Prior to program involvement, most of them lacked the knowledge of where and how food was produced. Having produced their own vegetables, they acknowledge the benefits of community gardening. However, many cite the difficulty of working in hot weather conditions and the concerns about the safety of food grown in community gardens as limitations of the program. Many of the youth felt that they were taking care of their environment by participating in the Growing Green Program. The youth valued the income they received by participating in Growing Green as well as other intangible benefits – such as learning to cook and volunteering in local food pantries.

⁴ Buffalo Community Market Garden supports a horticultural therapy program whereby seniors and disabled gardeners are aided by the use of beds raised several feet off the ground and special tools for gardeners with disabilities (Nowicki, 2003).

Recent Immigrants

Most WSTA recent immigrants interviewed lived in the US for about 4 years. They are primarily apartment renters with reliable sources of transportation. One of their major concerns is the lack of fresh food ingredients and the poor variety of produce. Many have maintained gardens in their home country and miss the daily availability of fresh produce. If given a plot of land and some horticultural most immigrants would grow their own gardens. Most are also concerned about the lack of a suitable climate to grow plants indigenous to their varied cultures.

Community Gardeners

Gardeners were very interested in food-related issues, such as food production and community gardens. All the gardeners interviewed experience some personal benefit from the gardening experience; from relaxation, to nostalgic feelings, to a love of working in the dirt and watching things grow. It is primarily this personal benefit and belief in the healing powers of gardening that motivates these gardeners to share their horticultural enthusiasm with the larger community. Some gardeners cite community food security, food quality issues and urban soil remediation as additional gardening motivations.

The gardeners' definitions of community gardens were generous: any garden that is open to the larger public qualifies as a community garden; its lack of reticence toward the public being its most important characteristic. Some community gardens are fenced while others are left open for anyone in need to take produce. Gardeners of fenced community gardens cite theft and vandalism as challenges to be overcome. Those working in open gardens felt they were serving the needy.

Nearly all gardeners cited the important role community gardens play in the educational and personal development of its neighborhood youth. Many felt valuable job skills were being taught in the process of tending a garden and marketing its produce. Others felt the youths' participation in gardening worked to improve the residents' perception of neighborhood youth. Most organizers cited the current lack of youth involvement, and their lack of continued, annual participation as a challenge to community gardening.

Most residents were aware of community gardens and find them a source of community pride. As such, they also cited the need for protecting community gardens from vandalism. Some residents, renters in particular, questioned the quality of vegetables grown in the gardens. Many residents also acknowledged the gardens' educational role and hoped more youth would become involved in gardening.

West Side youth, especially those involved in MAP's Growing Green program, knew about MAP and its role in the community; however, most other residents did not know about MAP or their community services. Children who participated in youth based food projects have become more food aware, but lack knowledge about preparing garden grown vegetables for meals.

Some food businesses on the West Side have a large customer base—Guercio's is often mentioned by residents as a source of fresh, quality produce. Many smaller independent stores serve an ethnic niche market, offering culturally specific food items to Hispanic and Southeast Asian communities, but most of their food inventories originate from outside New York State. Businesses themselves find the lack of neighborhood care and upkeep a concern.

In summary, WSTA residents are aware of their limited food choices, and want better quality food in their neighborhoods. One senior citizen summed it up nicely: "I want my vegetables!"

2.3. Trends in hunger

In 2002-2003, Erie County was the largest recipient of emergency food aid in the WNY Food Bank network, 67.7% of all recipient sub-agencies (and 65.2% of people served) were located in this county. In 2002-2003, these 352 sub-agencies located in Erie County served on average 63,116 people and 844,344 meals per month (http://www.foodbankwny.org). Therefore, on average each sub-agency in Erie County served about 178 people per month.

On the West Side, five sub-agencies received food from the WNY Food Bank, with two of them located in the 14213 zip code, which contains the West Side Target Area.⁵ Given that the poverty levels in the WSTA are higher than the city of Buffalo and Erie County, it is highly probable that Food Bank food recipients at the two sub-agencies in the study area greatly outnumber the countywide average of 178 people per month per sub-agency.

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⁵ They are the Salvation Army -West Side Corps on 187 Grant Street, and Rhode Island Food Center at 318 Rhode Island Street.

Another staggering finding is the disparity found among different racial groups served by the food bank's agencies. Agencies that distribute WNY Food Bank food is frequented by a majority of African American clients. Based on a survey completed in 2001 of 381 adult clients, 57.1% (217) were African American, 34.3% (130) were Caucasian, 7% (26) were Puerto Rican, 1% (4) were American Indian, with the remaining 0.6% from other racial or ethnic groups (http://www.foodbankwny.org/).

Many clients of the WNY Food Bank have had to choose between food and other necessities at some time. Although food is one of the basic requirements for life, people are faced with the choice of choosing between eating and other necessities, such as shelter or medicine. Of all WNY Food Bank clients, 48.1% reported in 2001 that they have had to choose between paying for food and paying for utilities, 41.9% had to choose between paying for food and paying their rent or mortgage for that month, and 26.5% of clients have had to choose between paying for food and paying for medicine/medical care (http://www.foodbankwny.org/).

2.4. Affordability and Quality of Food in the West Side Target Area

WSTA residents are concerned about the availability, quality and pricing of food within the WSTA neighborhood (Focus Group, 2003). These concerns indicate a certain level of food insecurity within the West Side community. Therefore, a survey of grocery stores was conducted to assess food price and quality within the WSTA neighborhood.

The questions included in the survey were based on the community's beliefs and impressions as shared in the focus groups and interviews. Community members were concerned about the price of food in the neighborhood. Worries about food quality were as important as food cost, with many residents valuing food quality above all other concerns. Comments regarding the safety and attractiveness of the shopping experience in neighborhood stores were also raised. Based on community input, the following general questions shaped the survey questions:

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- Does food cost more on the West Side, than elsewhere in the area?
- Is food closer to expiration, than elsewhere in the area?
- How available are fresh and healthy foods in stores?
- What products are most prominently sold?
- What is the overall comfort, ease, and general impressions of the shopping experience?
- What roles are the stores playing within the community and to whom are they catering to?

Researchers surveyed twenty-six grocery stores in the study area, the city of Buffalo, and the adjacent suburb of Amherst. Store locations were as follows: 13 food stores within or near the West Side, 4 stores elsewhere in the city of Buffalo, and 7 stores in the Town of Amherst. These same 26 stores included eleven small and independent stores, while the remaining 15 were comprised of 6 chain convenience stores / pharmacies and 9 chain supermarkets.

Table 2.e Food stores studied in or near the West Side Target Area Independent Stores

- Corner Stores
 Asian Markets
 Hispanic Market
- 1 Italian Market

Chain Stores

- 2 Supermarkets
- 2 Pharmacies
- 1 Convenience Store

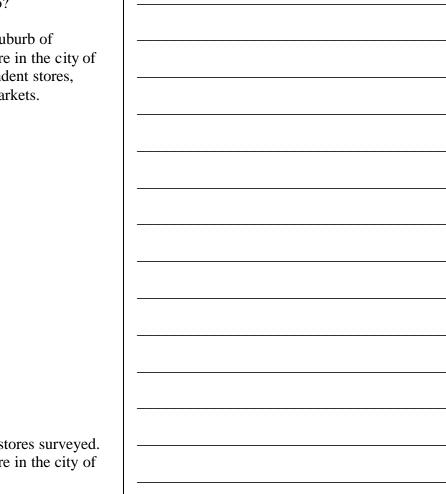
2.4.1. Quantitative results

There are two significant quantitative findings from the food price and quality study:

1. The total cost of the 22 food items surveyed was on average greater among the 13 West Side stores surveyed.

2. On average, food was closer to expiration in West Side stores than in the four stores elsewhere in the city of Buffalo and the seven stores in town of Amherst.

These findings are elaborated in the following section.



Food Pricing

The West Side had a greater variety of store types (corner stores, ethnic markets, chain convenience/pharmacies, and supermarkets) than the suburbs, which were dominated by convenience, pharmacy and supermarket store chains. However, on average, food costs⁶ more in the West Side study area (see table 2.g).

Food items purchased from small independent stores were higher priced than the same food items found in chain stores. Conversely, food sold in the Amherst survey stores was less expensive than food sold in the 17 stores surveyed in the city of Buffalo.

Fresh produce, when available, was less expensive in the West Side. However, its quality was often observed by the shopper/investigators as average to poor. Apples were cheaper per pound (\$0.97 to the average \$1.00 per pound, or \$1.33 in Amherst), but bananas were more expensive, mostly due to the high price of one independent store. Tomatoes were, on average, less expensive because one Asian Market sold low priced tomatoes.

High-low pricing, which involves under pricing one item and over pricing another, was evident in the stores surveyed; high demand food brands and culturally specific food items were possibly under priced in the WSTA. The West Side is home to both Asian and Hispanic communities whose diets both include rice as a staple. Rice is approximately \$0.09 or 8.2% cheaper on the West Side than the \$1.11 per pound study average price. Canned tomato sauce was also found to be 19.7% cheaper than elsewhere. In regard to meat, packaged bologna was sold in the West Side for 19.2% less than the study's average, while fresh chicken was 17.4% more than the study's average per pound price for a whole chicken.

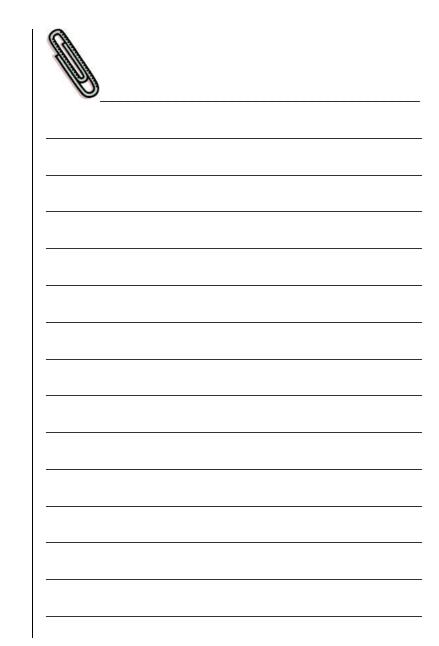
These study results suggest that food items in the West Side were on average more costly because of the high prevalence of small independent stores and convenience/pharmacy chains. Independent stores have less bulk buying power, fewer customers and limited selection of food items than supermarkets. Buffalo's supermarkets had, on average, lower prices than the study average prices. There were only small difference in the average total cost of the 22 food items among the four supermarket chains studied in Buffalo and Amherst, however individual food item prices varied.

⁶ Arriving at comparable "total costs" was a difficult task. Not every store sold all 22 items on the shopping list; or, many small independent stores on the West Side did not label or post prices. For this reason, some food category average prices were based on only one store. This posed a problem when comparing food prices between specific geographic areas or types of stores. Consequently, the average difference from the mean was calculated only for those food items that were priced successfully at three or more stores.

Table 2.f

Average Percent Difference from the Study Mean Price for Each Item

Produce	West Side Stores	Buffalo City Stores	Amherst Stores	Independent Stores	Convenience Stores / Pharmacies	Supermarkets	Buffalo ChainAmherst Ch Supermarkets Supermarket	
Apples	-2.9%	-12.4%	33.2%	No Data		17.7%	14.6%	33.2%
Bananas	10.7%	4.3%	-13.0%	27.2%		-13.0%	-13.0%	-13.0%
Carrots	-4.9%	-8.1%	12.2%	No Data	ND	4.5%	0.7%	12.2%
White Potatoes	0.9%	-15.3%	24.5%	-39.3%	No Data	16.0%	8.6%	37.2%
Tomatoes	-16.2%	-5.3%	13.3%	-27.2%		15.1%	14.2%	13.3%
Meat								
Bologna, sliced	-19.2%	-7.5%	13.4%	-42.7%	85.1%	-34.2%	-9.1%	-16.1%
Ground Beef, 80% lean	-3.4%	10.1%	-12.7%	Nol	Data	-4.1%	-17.7%	-12.7%
Chicken, whole	17.4%	20.2%	-30.3%			-11.9%	-14.4%	-30.3%
Canned Goods								
Sweet Peas, canned	-12.2%	12.4%	-26.9%	-3.0%	6.5%	-1.9%	52.4%	-51.6%
Tuna, solid white	13.7%	12.3%	-19.3%	25.8%	4.7%	-16.4%	-9.6%	-23.3%
Tomato Sauce, canned	-19.7%	-2.6%	5.3%	-0.3%	No Data	4.7%	19.8%	2.5%
Chicken Noodle Soup	2.8%	-7.5%	13.9%	9.2%	1.9%	-6.4%	-25.8%	20.2%
Red Kidney Beans	11.6%	7.8%	-23.3%	8.5%	No Data	-19.0%	-0.1%	No Data
Dry Goods	Dry Goods							
White Bread	10.8%	10.3%	-22.6%	38.0%	No Data	-23.4%	-25.8%	-33.1%
Elbow Macaroni	-1.9%	-2.6%	5.1%	-2.3%	20.5%	-5.3%	-33.7%	1.3%
Rice, white enriched	-8.2%	-14.8%	29.6%	5.1%	25.1%	-11.7%	-44.5%	14.0%
Peanut Butter	9.8%	-3.0%	5.4%	11.2%	19.4%	-13.6%	-15.7%	0.3%



Dairy								
Milk, 2%	8.5%	6.6%	-12.1%	15.4%	-2.3%	-3.9%	3.6%	-15.6%
Orange Juice, from concentrate	11.2%	-1.1%	3.3%	13.8%	3.9%	-10.1%	-17.7%	-0.5%
Eggs, large	3.1%	3.1%	-7.3%	7.9%	-12.9%	1.9%	-1.0%	-0.8%
Yogurt, plain	6.7%	5.8%	-6.9%	No	Data	-10.1%	2.7%	-16.6%
Cheddar Cheese	0.1%	5.4%	-11.9%	17.7%	4.8%	-9.6%	-1.6%	-26.0%
Average Per Item Sold	0.85%	0.83%	-1.24%	3.82%	14.24%	-6.13%	-5.13%	-5.03%

Legend:

FOOD COSTS MORE	Average Price between 5% and 15% Greater than the Study Average					
FOOD COST IS AVERAGE	Average Price between -5% and 5% Difference from the Study Average					
FOOD COST IS LESS	Average Price between -5% and -15% Less than the Study Average					
The average price percentages in bold are either 15% or greater than the Study Average or -15% or less than the Study Average.						

Source: Food for Growth Food Pricing and Quality Study, Nov. 2003

Food Expiration Dates

Expiration dates were compared for 17 non-produce food items. Expiration dates vary in importance. Meat and dairy's expiration dates are extremely important because they protect consumers from eating harmful spoiled food. On the other hand, the expiration dates of canned foods and most dry goods (except for bread) are not as important. Rather, the expiration date may signify the date after which the quality of the food, but not necessarily its safety, is comprised. Only foods that are perishable, such as meat, dairy and bread were consistently found to have expiration dates. Furthermore it is illegal to knowingly sell spoiled food in New York State, there is no state law requiring expiration dates to be affixed to food packaging.

Food items⁷ purchased from small independent stores were closer to their expiration dates than the same food items found in chain stores. Conversely, foods sold in the Amherst stores were further from their expiration dates than food items sold in the 17 stores in the city of Buffalo (see table 2.g).

Food was found to be closer to expiration in stores on the West Side than at other stores surveyed in Buffalo and Amherst. Most importantly, fresh chicken and ground beef were found to be 26.7% and 22.2%, respectively, closer to expiring than the study mean. Similarly, milk and bread were found to be 15.9% and 15.8%, respectively, closer to expiration dates. This could mean that the West Side, which is dominated by small independent stores, has fewer sales than chains in Buffalo and Amherst causing food, on average, to stay longer on the shelves before being purchased. The distinction between independent and chain stores is underscored by the fact that for each of the items that significant averages were presented, the independent stores had food closer to expiration (see table 2.h).

Overall, of the food items that had significant sample sizes, food sold on the West Side had fewer days to expiration than the study average days to expiration⁸. Being closer to expiration does not necessarily mean that the food is any less wholesome or less safe than food further from expiration. However, food closer to expiring increases the risk that when the food is consumed it will be spoiled, unhealthy, or dangerous. Nevertheless, this study does not statistically prove that food sold in the West Side is more likely to be spoiled.

⁷ Only 14 food items were compared in the food expiration date analysis. If expiration dates for an item were found in less than three stores of one category, this item was excluded from the analysis All produce, canned tuna, canned tomato sauce, and dry macaroni were excluded from the food expiration data analysis.

⁸ The average days to food expiration was compared to the mean of three stores. The categories of the 24 stores studied were as follows: West Side Stores (14 stores), Buffalo City Stores (18), Amherst Stores (6), Independent Stores (9), and Chain Stores (supermarkets, pharmacies, and convenience stores) (15). West Side Stores consisted of all the independent and chain food stores in and near the West Side, while Buffalo City stores included all of the West Side stores, one independent store and two additional supermarket chain stores within Buffalo. Amherst Stores consisted entirely of chain stores.

With that said, there were four instances that food past expiration was seen for sale at a store. Though the discovery of these items may not accurately represent the expiration status of the vast majority of food items sold at each store, only a single discovery can fuel a consumer's impressions about the store's food quality. Immigrants interviewed conveyed such an impression. They said that they did not trust the quality of the meat at a particular discount supermarket in the city of Buffalo; in fact during the course of the study, ground beef 13 days past expiration was indeed found for sale at that particular store.

On the other hand, the other three expired items were found in stores that do not specialize in selling such items. A container of yogurt that expired 416 days prior was found for sale at an ethnic market on the West Side of Buffalo. This was one of only four yogurt containers found in the store. Yogurt seemed out of place considering the type of produce, fish, meats, and groceries being sold there. Likewise, expired conventional white bread and cheddar cheese were found for sale at a food store, which specializes in whole grain organic breads and hormone-free dairy products. These two conventional items were nine and 113 days past expiration, respectively. Again, the sale of spoiled food items is inexcusable, though the lack of demand for these items by the average shoppers at these stores may possibly be the reason why they remained on the shelves.

Overall, it must be pointed out that of the four spoiled food items discovered during the pricing and quality study, all of them were for sale at retail stores within the city of Buffalo. No expired food was found being sold within the stores surveyed in the town of Amherst.

Table 2.gComparative Analysis of Food Expiration Dates on the West Side Target Area,City of Buffalo and Amherst Stores

Average Days Until	Average	West Side	e Stores	Buffalo City Stores		Amherst Stores	
Food Item Expiration $(n = 3)$	Days Until Expiration	Average Days	Percentage Difference From Mean	Average Days	Percentage Difference From Mean	Average Days	Percentage Difference From Mean
Meat							
Bologna, sliced	59.9	66.0	10.2%	62.0	3.5%	61.6	2.9%
Chicken, whole	5.0	3.7	-26.7%	4.8	-5.0%		
Ground Beef, 80% lean	2.1	1.7	-22.2%	2.2	2.7%	ז	No Data
Dairy							
Cheddar Cheese	142.3	133.9	-5.9%	133.8	-6.0%	159.4	12.0%
Eggs, large	28.6	28.4	-0.8%	27.7	-3.1%	31.5	10.2%
Milk, 2%	8.0	6.7	-15.9%	7.8	-2.9%	8.6	7.5%
Orange Juice, from concentrate.	30.4	25.1	-17.3%	29.4	-3.2%	33.3	9.6%
Yogurt, plain	24.9	24.6	-1.2%	27.0	8.5%	25.3	1.8%
Canned Goods							
Chicken Noodle Soup	523.2	532.4	1.8%	527.6	0.8%	510.0	-2.5%
Red Kidney Beans	623.7	No D	ata	No	No Data		No Doto
Sweet Peas, canned	657.2		ala	608.0	-7.5%	No Data	
Dry Goods							
Peanut Butter	367.3	307.3	-16.3%	382.8	4.2%	1	No Data
Rice, white enriched	430.7		No Da	ata		328.0	-23.8%
White Bread	5.8	4.9	-15.8%	5.5	-4.7%	6.2	7.5%
Average Per Item Difference From the Mean		103.2	-10.0%	151.5	-1.1%	129.3	2.8%

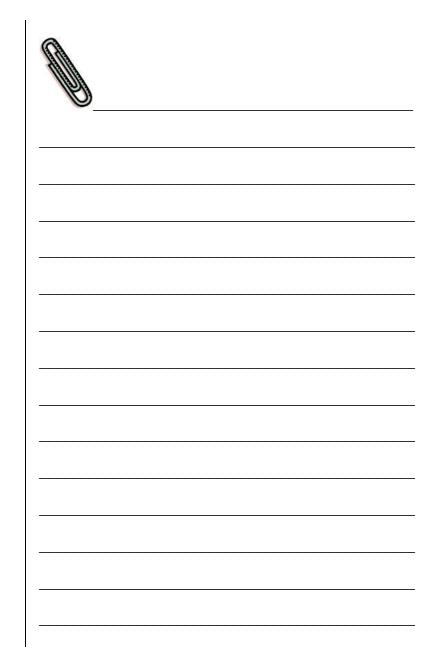
Source: Food for Growth Food Pricing and Quality Study, Nov. 2003

Table 2.h

Comparative Analysis of Food Expiration Dates on the West Side Target Area between Independent Stores and Chain Stores

American Dama Uniti	A	Independ	lent Stores	Chair	Chain Stores	
Average Days Until Food Item Expiration (n = 3)	Average Days Until Expiration	Average Days	Percentage Difference From Mean	Average Days	Percentage Difference From Mean	
Meat						
Bologna, sliced	59.9			59.9	0.0%	
Chicken, whole	5.0	No	Data	5.0	0.0%	
Ground Beef, 80% lean	2.1			2.1	0.0%	
Dairy						
Cheddar Cheese	142.3	No	Data	154.9	8.8%	
Eggs, large	28.6	26.4	-7.7%	29.5	3.2%	
Milk, 2%	8.0	7.2	-10.0%	8.3	3.8%	
Orange Juice, from concentrate	30.4	22.0	-27.7%	33.2	9.2%	
Yogurt, plain	24.9	No Data		21.4	-14.1%	
Canned Goods						
Chicken Noodle Soup	523.2			501.6	-4.1%	
Sweet Peas, canned	657.2	No	Data	778.3	18.4%	
Tomato Sauce, canned	692.3			692.3	0.0%	
Dry Goods						
Peanut Butter	367.3	No	Data	375.2	2.1%	
Rice, white enriched	430.7	No Data		430.7	0.0%	
White Bread	5.8	4.0	-30.7%	6.6	13.6%	
Average Per Item Difference From the Mean	103.2	14.9	-19.0%	221.3	2.9%	

Source: Food for Growth Food Pricing and Quality Study, Nov. 2003



2.4.2 Qualitative results

The Shopping Experience on the West Side

Corner Stores

The most common type of store in and around the WSTA was the small corner store. These stores were not places where people typically did not shop for groceries, but rather a place where a couple of items were bought "in a pinch." Due to their small size, two stores did not price many of the food items, presumably because they were exempt from Erie County's pricing law. Because of the lack of labeled prices, it seemed that in at least one store prices were negotiable. Two of the four stores were clean, albeit worn, while the other two were dirty and cluttered. Three of the stores did not feel safe to the researchers, due to men loitering outside, barred windows and/or suspicious employees watching them.



Dusty and damaged food packaging was observed in at least one of the stores. Overall, the role of these corner stores seemed to be as grocery stores of last resort. Although people may go there to buy a few items such as milk, eggs, or orange juice, only people unable to go elsewhere would probably do more extensive grocery shopping at these stores. The white bread and 2% milk sold at these stores was further from their expiration dates than the study average; this indicates there may be higher turnover for those items. In turn, this indicates that these stores are where residents buy perishable foods. Additionally, since tobacco, alcohol, and lottery tickets are the most prominently displayed products in the stores, in all likelihood selling these non-food items is what probably keeps the se corner stores in business.

Asian Markets

Two Asian Markets in the West Side were visited in the course of the pricing and quality study. These stores provide a great variety of foods from the Far East and Southeast Asia. Fresh Asian produce, imported canned and packaged foods, and refrigerated frozen specialty meats and fish were the primary food items sold. Fresh fish and live crabs were sold at one of the stores. Although apples and bananas could not be found, cases of persimmons and plantains were available. Carrots, potatoes and tomatoes were also available in the stores, and sold for markedly less cost than at supermarkets. This may be due in part to some of the produce being homegrown. This seemed to be the case at one of the stores. Incidentally, these stores did not seem to sell cigarettes, alcohol or lottery tickets, and lacked the assortment of processed and junk foods one would expect to find at a small neighborhood store.



Overall, these two stores seemed to serve a very specific Asian niche market. They are family run stores with owners whose native language is not English. A customer in one of the stores was observed conversing in a language other than English with the owner. It may very well be that these stores play a significant social role in the East and Southeast Asian community of the West Side neighborhood.

However, these stores may be at a disadvantage in attracting customers from outside the Asian community. This is particularly evident by the fact that much of the stores' interior signage for frozen and fresh foods was not in English. The store's employees gave mixed receptions to the non-Asian customers sent to shop at their store, with one being looked at with suspicion and the other with curiosity. Although the worn and cluttered nature of the stores that sold, in addition to food, Asian compact discs, bamboo plants, and Buddha statues may strike typical Buffalo shoppers as strange, the unique offerings of these stores give them the potential to attract food tourists from elsewhere in the city and across the region.

Hispanic Market

The single store in this category is similar to the Asian Markets because it serves a particular ethnic group; the West Side's Hispanic community. The store's items cater to Hispanic tastes and the most prominent foods sold were meat, fish, chicken and Hispanic foods, and in particular, Goya products. Many store customers were speaking Spanish, which set it apart from typical corner stores. Also distinguishing this store was its cleanliness, orderliness, high food quality, and diversity of fresh produce, fish, and meats. Although this store's prices were higher than the study average, the store was quite busy. People in the West Side may be willing to spend more money on food in a store that is clean, sells more culturally acceptable foods, and/or has quality fresh produce and meats.

Italian Market

The Italian Market visited in this survey is a remnant of the Italian community that was once centered in Buffalo's West Side. This store, which seemed like a neighborhood institution, sold a great variety of foods to a great diversity of people. The store had a family atmosphere, both in regard to those working there and those shopping. Fresh produce was the most prominently displayed items, and was located outside in front of the store along the sidewalk. The store was crowded; people of all ages, classes, and ethnic groups were observed in the store. Even a car with Ontario plates was observed parked in front of the store. There was a feeling of "family chaos" within the store, which the study researcher characterized as frenzied but somehow orchestrated, and found to be generally "very nice." This store has re-created, on a small scale, the sights, smells, tastes and interactions associated with marketplaces elsewhere in the world.

Chain Supermarkets

There are two chain supermarkets that serve the West Side. In many ways these stores are polar opposites. One opened in 2003 while the other was on the verge of closing. The new store prominently displayed fresh produce, while the other placed processed foods in high visibility areas. In addition, the new store was considered to be clean and "very nice," while the other was "fairly clean," but smelled bad. While the quality of the produce at the new supermarket was considered "very good," the produce at the other supermarket was deemed only "decent." Overall, the store that was closing was not necessarily spectacular, but did sell fresh produce, meat and whole grain foods; if no store replaces it, these food items will be less available on the West Side.

Convenience Store and Pharmacies

A convenience store and two pharmacies comprise the final type of stores visited on the West Side. These establishments were members of large chains; the convenience store was owned by a local supermarket chain, one pharmacy was owned by a large national department store and the other pharmacy was its own large corporation. While the pharmacies sold a limited selection of staple foods, the convenience store actually sold produce and a great variety of foods which surprised and pleased the study researcher. Pharmacies were included in the study because these stores advertised, in one instance on a large exterior banner, their acceptance of EBT (electronic benefit transfer), which is the successor to paper food stamps. Although these stores may advertise EBT acceptance to attract lower income residents, their food is sold at a premium price.

Role of Stores in the Community

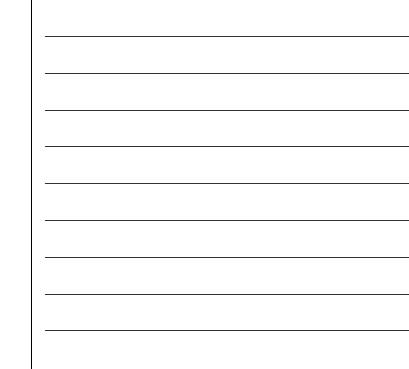
It became apparent that the food stores in and around the West Side serve specific niches within the community and probably do not directly compete with one another. Corner stores seem to play the role of a convenience store in parts of the neighborhood where chains are not able or willing to open stores. Small corner stores are also the most immediate purveyors of cigarettes, beer and lottery tickets within much of the community. On the other hand ethnic markets connect immigrant communities back to their native countries by providing an environment where a vast assortment of culturally acceptable foods is sold and store workers speak the immigrant communities' native tongue. The community's supermarkets provide a mainstream and rather aseptic shopping experience, where quality food is abundant and relatively cheap. The convenience stores and pharmacies provide basic food essentials in the corporate aesthetic of the supermarkets, but did so right within the neighborhood. However, these stores charge a premium for their convenience, but also accept food stamp payment.

2.5. Conclusion

The West Side is home to people and families who lack access to affordable and quality food. Although neighborhood residents are on average poorer, food prices within the WSTA are higher. This limits access to food. Finally, the health and safety of West Side residents is threatened by a lesser availability of fresh nutritious foods and by food closer to expiration.

Some West Side residents are currently relying on emergency sources of food such as food pantries and soup kitchens. The demand for emergency sources of food is increasing over time, suggesting that the problem of hunger is not going away and that emergency food programs, although important, are not able to eliminate hunger.

Current hunger prevention efforts attempt to alleviate the problem of hunger on a short-term basis. By building and strengthening its community food system, the West Side community can work toward long-term change and complement the short-term immediate relief that the emergency food system provides to people who are experiencing hunger. The next chapter presents four strategies to build and strengthen such a food system in the West Side.





STRENGTHENING THE COMMUNITY FOOD SYSTEM ON BUFAFLO'S WEST SIDE



Artwork courtesy of Noah Green

CHAPTER **3**

STRENGTHENING THE COMMUNITY FOOD SYSTEM ON BUFFALO'S WEST SIDE

Based on the assessment of food insecurity in the West Side outlined in Chapter two, this chapter devises four planning strategies to improve food security in the West Side Target Area (WSTA) by strengthening its community food system. Strategies in the following chapter focus on four areas:

- Enhancing local food production through land use planning
- Promoting food-based economic development
- Improving transportation access to food
- Promoting West Side youth development through food-based projects

3.1. Enhancing Local Food Production through Land Use Planning

Land is not only a prerequisite for food production but provides a resource for economic development and the achieve ment of a healthier, more socially equitable community. As such, a community food system plan must consider where, how and when neighborhood land can best be used to achieve a sustainable, healthier food system and ensure community food security. This plan re-envisions and reconsiders urban agriculture as a sustainable food source. Local food production can be strengthened within existing urban neighborhoods, through the establishment of community gardens, greenhouses, and community market gardens.

3.1.1. Existing land use

An understanding of land and its soil conditions, i.e. the quantity and quality of land available is necessary to strengthen local food production. This section analyzes the WSTA's current land uses and reflects upon legislative and institutional mechanisms which govern land use and zoning within the city of Buffalo, to ultimately yield recommendations (outlined in chapter 4) for implementing a sustainable food system plan in the West Side Target Area.

3.1.1 1. Current Land Use Designations

The West Side Target Area covers 225 acres of land (see table 3.a). As seen in figure 3.a and 3.b, almost 70% of the total land area is designated for residential use¹. Commercial land use occupies the second largest amount of land in the WSTA (14.7%). Community services and vacant lots cover 8.57% and 5.24% respectively. Industrial, public services

Figure 3.a

Land Use in the West Side Target Area BRECKENRIDGE ST FERGUSON AV ARKANADS ST CAL FORNIA ST ted by Ented for Greath Budie 200 lost Hate Patient Balance MAP Garries Inventory I

¹ Land Use designations reflect the land use as classified for property tax purposes and do not necessarily reflect land use.

and sports and amusement land uses occupy the remainder of WSTA land (City of Buffalo, Parcels Data 2003).

Table 3.aLand Use Areas on Buffalo's West Side

	AREAS	
Land Use	West Side Area (feet ²)	Percentage - %
Community Services	838,250.47	8.57
Vacant lots	513,029.61	5.24
Commercial	1,438,185.18	14.70
Industrial	24,665.58	0.25
Public services	16,030.58	0.16
Residential	6,838,695.71	69.89
Sports and Amusement	116,064.29	1.19
TOTAL	9,784,921.41	100

Source: City of Buffalo, Parcels Data 2003

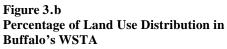
3.1.1.2. Vacant Land

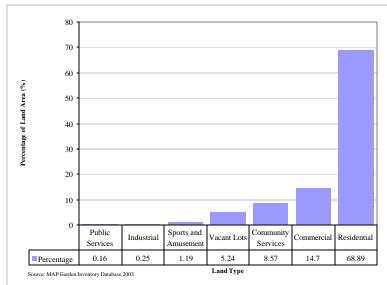
If utilized, vacant land parcels in cities can be sites for local food production. In the WSTA, there are 152 vacant land parcels, of which 129 (85%) are designated for residential land use. This is an opportunity for future planning and development of urban agriculture sites. As shown in table 3.b, out of 129 residential land use vacant parcels, 16% are owned by the city of Buffalo. Forty five percent of the commercial vacant lots and 100% of the industrial vacant lots are owned by the city of Buffalo as well (City of Buffalo, Parcels Data 2003). Since 85% of the vacant parcels are small residential use lots, there is a great opportunity to enact a small scale community market garden system, with empty commercial lots serving as food processing or food co-op locations.

Table 3.b WSTA Vacant Lots Owned by a Public Agency

Vacant Parcels in Buffalo West – Side Target Area						
Residential Commercial Industrial						
Total Vacant Parcels	129	20	2			
Owned By Public Agency2092						

Source: (City of Buffalo, Parcels Data 2003)





3.1.1.3. Soil Types and Conditions

The WSTA's soil is mostly comprised of the urban land-collamer soil complex²; which is good for grain and seed crops, grasses and legumes, wild herbaceous plants, and hardwood and coniferous trees (Soil Survey Erie County, 1986). The soil in the WSTA is nearly level or gently sloping (see figure 3.c) and is good for lawns, vegetable gardens and parks. The soil in the WSTA poses only a slight risk of erosion hazard, seeding mortality and wind-throw hazards (Soil Survey Erie County, 1986).

3.1.1.4. Soil Toxicity

Existing information about the soils of the WSTA originates from the Erie County Soil survey, which was conducted between 1977 and 1986. However, this survey did not test soil for toxicity or pollution; hence the presence and severity of toxins in the soil of the West Side in largely unknown.

Lead is a serious concern since virtually all the houses within the West Side Target Area were built prior to the 1977 ban on lead paint. Hence, it is probable that these houses were painted with lead paint and some lead paint chips have since made their way into the soils surrounding standing or demolished West Side houses. Another source of concern is from asbestos in the soil surrounding demolished houses. Asbestos shingles could have been damaged during demolition, releasing fibers into the soil. Although not harmful while in the ground, gardening or any earth moving activity can make the asbestos fibers airborne. This could put people in risk and should be taken into consideration. An additional source of possible soil contamination within the West Side is from old heating oil tanks that may be no longer used or were left underground after the demolition of a house. As these tanks corrode, they release the remaining oil into the ground. Therefore these tanks should be sought and remedied by closure or removal and any contamination must be assessed and remediated.

In general, the demolition of older houses increases the likelihood of toxins being released into the soil. Therefore, soil testing is necessary before the establishment of gardens using ground soils on vacant lots in the WSTA. The authors strongly urge that soil toxicity be further investigated and monitored before the soils³ on any vacant lots are used for urban agricultural purposes in this area.



 $^{^{2}}$ Details on the appropriateness of soil types for specific types of development are available in appendix C, section C.1.

³ Alternative growing practices, such as raised bed gardening, or hydroponics may minimize or eliminate the threat of toxicity resulting from ground soil.

Source: Soil Survey Erie County, 1986

According to an on-line database maintained by the US Environmental Protection Agency, as of November 2003, there were 83 establishments that generate hazardous wastes⁴ within the 14213 ZIP Code. Eighteen of them are located within the WSTA (see figure 3.d). Fortunately, there are no EPA designated Superfund Sites within the WSTA or all of the 14213 ZIP Code (<u>http://oaspub.epa.gov/enviro/</u>). Additionally, none of these generators of hazardous wastes are classified as "large generators" by the EPA (<u>http://oaspub.epa.gov/enviro/</u>). However, it is essential that the New York State Department of Environmental Conservation and the Federal Environmental Protection Agency ensure that all hazardous waste generated within the West Side is handled and disposed of properly.

3.1.1.5. Community Gardens

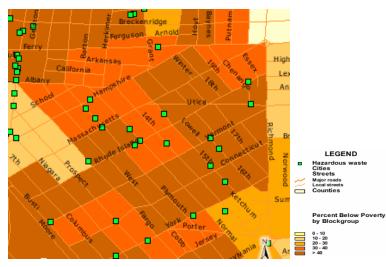
Food is being grown on community gardens in the West Side Target Area. An analysis of MAP's Community Garden Index 2003 database reveals that the WSTA community gardens comprise a significant portion of Buffalo's community gardens (see figure 3.b). As of 2003, 25% (13) of all (51) operational community gardens in Buffalo were located within the West Side Target Area (WSTA) region. However, less than 1% of WSTA land is devoted to community gardening uses. In the WSTA, more gardens are exclusively dedicated to neighborhood beautification than to food production and mixed use⁵ gardens are less prevalent in the WSTA than in the city in general. However,

Source: Food for Growth Studio, 2003.

encouraging a higher proportion of gardens to grow food crops or to grow ^{Source: Food for} both food crops *and* ornamental plants, would ensure greater food security in the WSTA.

Community gardens have the potential to revitalize urban neighborhoods through providing a local source of food, encouraging neighborhood maintenance, building a sense of community, and re-using vacant land parcels. Gardens also serve as a communication medium for neighbors. They bring people together and foster neighborly acquaintances. The gardens also create of sense of community ownership and personal investment in a public space. Gardens' visual impact is powerful. For example, ornamental gardens strategically placed along the Connecticut Street Commercial Zone have improved neighborhood aesthetics and the public's perception of the West Side community.

Figure 3.d Generators of Hazardous Waste in the WSTA



Source: Enviromapper at <u>www.epa.gov/enviro</u>

⁴ In general, all entities that generate, transport, treat, store, and dispose hazardous waste are required to provide information about their activities to state environmental agencies. With Envirofacts – the on-line mapping engine used to gather this information - one can determine if any of these facilities are in a specific geographic area of interest (EPA http://oaspub.epa.gov/enviro/ef_home2.waste).

⁵ Gardens that are used both for growing ornamental plants and food crops.

One of the biggest challenges facing community gardeners (and garden organizers) in Buffalo is the lack of financial resources. With sprinkler systems costing upwards of \$5,000 and start-up garden costs running as high as \$15,000 for a 500 square foot garden, combined with the increasing competition for grants, funding is a prime concern. Maintenance costs for the gardens also pose a financial challenge. Another challenge for community gardening in Buffalo is the lack of people involved in or informed about community gardening. Without a strongly committed group of residents, community gardens face very low success and survival rates.

3.1.2. Existing Planning Mechanisms Governing Land Use

The feasibility of the implementation of a food system plan is enhanced if it is supported by the community's existing land use plans, policies, and zoning codes. This sub-section analyzes the existing land use planning/policy mechanisms and assesses their impact on local food production.

3.1.2.1. Existing Plans

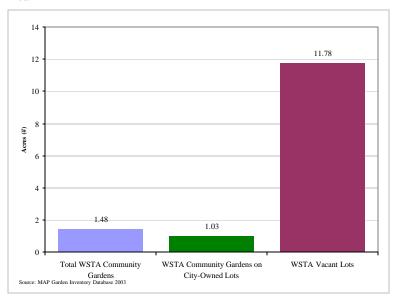
There are two main plans which are designed to guide land use and development in the WSTA: Queen City in the 21^{st} Century: Buffalo's Comprehensive Plan and the West Side Community Collaborative Five Year Action Plan, 2001 – 2005. ⁶

Queen City in the 21st Century: Buffalo's Comprehensive Plan⁷

The city of Buffalo's Comprehensive Plan is intended as a general guide with an overall goal to integrate community, economic and environmental objectives in order to build Buffalo into a green regional center of Buffalo-Niagara region. Urban revitalization is a core objective of the Comprehensive Plan. The plan states that "Growth should occur within the urbanized areas of the region first," (Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2003, p.12). However, growth projects focus on preparing "developable land for business expansion and attraction" (Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2003, p.14). The plan as set forth would promote the development of community gardens and urban agriculture only if these are formally recognized as viable urban revitalization tools.

The plan includes a discussion of community issues, with emphasis placed on social equity issues. "Neighborhood regeneration is not just a physical challenge. It is also a matter of economic necessity, social equity and environmental

Figure 3.e Land Utilized for Community Gardens in the West Side Target Area



⁶ In addition to these two draft plans, the city of Buffalo has also designated planning communities arranged by census tracts and planning neighborhoods. The WSTA overlaps the Front and Bryant Planning Neighborhoods and the West Side and Elmwood Planning Communities.

⁷ The 'Queen City' comprehensive planning draft document was submitted for public review in June, 2003, and closed for review and comment on October 1, 2003.

justice" (Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2003, p. 90). A sustainable food system would provide ample means for such neighborhood regeneration.

Suggestions for addressing public safety issues include crime prevention through environmental design techniques; creating and sustaining community gardens as part of a neighborhood food system would assist in reducing the prevalence of crime, as experienced and reported by area community gardeners.

Buffalo's green infrastructure is to be preserved through a City Greenway Plan. Although much of this plan involves the preservation of the Olmstead Parks System, lands that could potentially be added to existing green infrastructure – such as vacant residential, industrial, commercial sites - are also identified. However, the plan goes on to state that in reality such properties will be redeveloped for uses other than green infrastructure. This prediction does not bode well for the fate of the city's current and future community gardens.

Nevertheless, as part of the City's community preservation goals, \$ 3.8 million is allotted annually for vacant land management over a ten year period (Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2003). The plan recommends that a portion of that money be used for community or market garden development, therefore vacant land could be managed in a more cost effective and efficient manner to obtain the set community preservation goals.

The 'Building on Assets' developmental priority identifies many optimistic goals for the future. One envisioned result of a unified regional economic strategy for transforming Buffalo's economy is a:

Healthy, viable, sustainable core cities, financially sustainable governments, agricultural land retained and developed for agricultural purposes, and continued attention to environmental issues in all area (Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2003).

A community food system connects urban and rural areas, capitalizes on the region's strong agricultural assets, and ensures agricultural land is kept for agricultural purposes.

Overall, does the comprehensive plan articulate support for a sustainable community food system? No. But, many of its goals require that such a system be in place.

West Side Community Collaborative Five Year Plan

A more local plan governing land use and development within the WSTA is the West Side Community Collaborative (WSCC) Five Year Action Plan, published in 2002.⁸ The recommendations within the WSCC Five-Year Action Plan were written to guide future land use and zoning choices. The plan argued that conventional land use planning tends to disregard green and recreational spaces in the WSCC target area. Pertinent to this report, one recommended project of WSCC plan was specifically to plan community gardens in the West Side (WSCC Five Year Action Plan, 2001 – 2005, p. 12).

The five-year increment of the WSCC plan easily lends itself to planning for community gardens. For example, the WSCC can consider seeking/supporting five-year leases for community gardens in the area. A five-year time period would be sufficient to administer community gardening and food preparation educational programs, test and prepare the garden soil, and realize short term economic and social benefits⁹. However, more sustainable long term benefits for the community as a whole can only be realized through a greater time commitment to urban agricultural land use. Long term community sustainability is an objective of both the City Comprehensive Plan and the WSCC Five Year Action Plan.

Community visions and goals in the WSCC plan include a peaceful community; clean, healthy and beautiful physical environments; and appropriately integrated and mutually supportive residential and commercial communities (WSCC Five Year Action Plan, 2001 – 2005, p. 6). A community food system, using community gardens as a source of community beautification, public safety and economic development, will help West Side residents and the WSCC work toward achieving these visions and goals.

planning process (www.communitygarden.org).

⁸ The plan is the result of the vision and collaboration of a number of West Side organizations and residents in the area bounded by Porter, Hampshire, West and Richmond Streets. The WSTA boundaries are, by design, coterminous with the WSCC area boundaries.
⁹ In fact, the American Community Garden Association suggests a minimum three year land lease be secured as part of the community garden

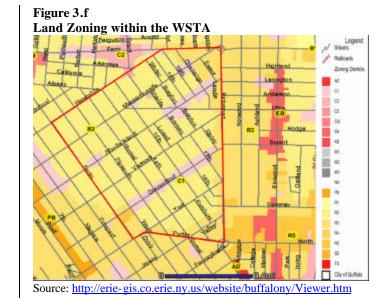
3.1.2.2. Zoning

Zoning refers to the laws which regulate property uses within a municipality. Zoning regulations dictate how and for what property can be used. As seen in Figure 3.f, the WSTA includes the following zoning designations:

- R2 Dwelling District
- R3 Dwelling District
- R5 Apartment-Hotel District
- C1 Neighborhood Business District
- C2 Community Business District.

Local food production could potentially occur within all zoning districts since the zoning code does not clearly permit or prohibit it.

3.1.3. Key organizations Affecting Land Use Decisions and Food Production in the West Side



Institutions and agencies, both governmental and non-governmental, serve two complementary roles: 1) they design land use plans, policies and zoning codes, and 2) work to implement the recommended community development projects. Community food system projects are best implemented at the grassroots level, with community support and leadership. However, the support of other municipal and non-governmental agencies is also crucial in the success of a food system plan. This section provides an overview of the role of key agencies in land use planning and food production in the West Side Target Area.

3.1.3.1. Massachusetts Avenue Project (MAP)

The Massachusetts Avenue Project (MAP) works to improve the physical and social landscape of the West Side. MAP occupies a parcel designated for sports and amusement uses, and grows vegetables in a community garden located across the street on a formerly vacant residential parcel. Adjacent to MAP's garden is the Indigenous Women's Garden, located on two former vacant land parcels, and one Buffalo Community Market Garden, also located on a former vacant parcel on Brayton Street. The four former vacant lots now form a community space with garden sites. In the future these parcels may be developed into a larger garden and a venue for outdoor performances for the West Side community.

Five Year Action Plan. The WSCC classifies community gardening as a quality of life/safety related project. However, the WSCC could promote community and market garden expansion by additionally classifying these projects as community education, neighborhood investment and economic development. In this way, community gardens and urban agriculture may have more immediate and sustainable land use effects in the WSTA.

3.1.3.3. Grassroots Gardens

Grassroots Gardens, created in 1995, is a non-profit organization which helps offset the costs of establishing a community garden by offering free insurance, free or low cost starter seeds and plants, soil, tools and gardening education. Its free insurance service is offered on the condition that food grown in the gardens is not sold. Insured vacant lots for community gardens could be privately held or owned by the city of Buffalo. By easing the start-up process with low to no cost horticultural services and technical support, Grassroots Gardens could further enhance interest in community gardening.

3.1.3.4. Buffalo Coalition of Community Gardeners

The Buffalo Coalition of Community Gardeners (CCG) provides a forum for community gardeners in Buffalo to discuss a variety of issues related to community gardens. The forum also provides a political voice to gardeners for land use and zoning issues. This grassroots organization is an effective tool in the promotion of community gardening because of its members' dedication and belief in the benefits of gardening. Its members increase awareness of community gardening within neighborhoods and may also influence future land use choices. The CCG holds monthly meetings at MAP.

3.1.3.5. Community Market Garden Project

The Community Market Garden Project (CMGP), administered through the United Neighborhoods Community Market Gardens Division, assists Buffalo's inner city neighborhoods with high crime and unemployment rates to "revitalize, strengthen, and make urban communities sustainable" (Community Market Garden informational brochure). Their method involves the cleaning and clearing of rubbish from vacant lots for use as organic food producing community gardens. The CMGP investigates soil quality, teaches gardening and marketing skills, and provides direction in setting up a community garden which will provide subsistence and cash crop organic produce. The marketing and processing of food products and the business development portions of CMGP are essential components of the program as it involves residents with making value added food products. Food produced in the garden is sold at local farmers' markets and food stands across Buffalo. Youth and senior participation is especially encouraged. CMPG gardens are located on privately owned lots in order to more easily facilitate the marketing of surplus produce. A CMGP garden exists on Brayton Street in the WSTA and is maintained and cultivated by MAP.



3.1.3.6. Cooperative Life and the Cooperative Development Institute

The Cooperative Life and the Cooperative Development Institute (CLCDI)¹⁰ helps communities set up cooperative food stores. The Community Market Garden Project is currently in discussions with the CLCDI in the hopes of opening a food cooperative in the West Side, thus creating a partnership between community gardens and local businesses. In this way, some WSTA commercial and residential vacant lots could be developed.

3.1.4. Strengths, Weaknesses, Opportunities, and Threats

The following analysis incorporates resident interviews and the preceding survey of land use, soil conditions, institutions and policies governing land use to determine the strengths, weaknesses, opportunities and threats faced by the West Side Target area with regard to food production.

Strengths

- There is ample available land for gardening.
- Small size lots lend themselves to the creation of a viable community garden system in the WSTA.
- WSTA soils are nearly level or gently sloping which is good for lawns, vegetable gardens and parks.
- The diverse origins of WSTA residents offer a great variety of land cultivating knowledge and techniques.
- Existing plans, such as the WSCC Five Year Action Plans, recognize the important role communal gardening has played in the past and recommends the strengthening of the community garden system.
- Common Council Member Nick Bonifacio supports the Community Market Garden Project activity in the Niagara District.

Weaknesses

- Soil safety is not known for many parcels and requires testing for toxic substances.
- There is a lack of participation in community gardening among West Side residents.

Opportunities

- Vacant land can be utilized for creating urban gardens and farms.
- Vacant commercial properties provide ample space for the creation of greenhouses and aquaponic facilities.

¹⁰ CLCDI is located at 277 Federal Street Greenfield, Mass. 01301 ph. 877-266-7543/413-774-7599 info@cooplife.com

- The youth and senior populations are interested in community gardening.
- Community gardens can serve as outdoor educational spaces for environmental issues and food nutrition.

Threats

- The city of Buffalo does not officially recognize urban food production as a viable land use and foresees development of vacant land parcels for other uses.
- There is a lack of adequate funding for community garden start-up and maintenance.

3.2. Promoting Food Based Economic Development

Food-based businesses offer significant opportunities for economic development of the West Side Target Area. Employment in the food service sector is expected to grow¹¹ nationally through 2010. With this in mind, this section evaluates food-related businesses in the West Side Target study area to identify their impact upon the community, as well as their ability to support jobs in the local economy. This analysis serves as the basis for recommendations (presented in chapter 4) for promoting food-based economic development in the West Side Target Area.

3.2.1. Profile of Food-Related Businesses

The West Side has a diverse base of food-related businesses including restaurants and specialty shops serving different ethnic groups living in the area. This diversity presents an opportunity for local food producers and suppliers to connect with these businesses. The following provides a snapshot of current food related businesses in and around the West Side Target Area¹².

Types of Food Businesses

Of the 118 food businesses located on the West Side, restaurants form the largest category of food businesses with 50 establishments (see table 3.d). Retail grocery stores form the next largest category with 12 establishments. Delicatessens and retail bakeries are

CHAPTER THREE -	- STRENGTHENING THE	COMMUNITY FOOD SYSTEM	ON BUFFALO'S WEST SIDE

¹¹ Employment for chefs, cooks, and food preparation workers is expected to be plentiful, but this is partly due to high turnover in the field. The remainder of jobs in the food business sector will vary by occupation, with the most job growth occurring among lower skilled jobs (*Occupational Outlook Handbook*, http:64.106.160.140:8080/lmi/oeswage.html).

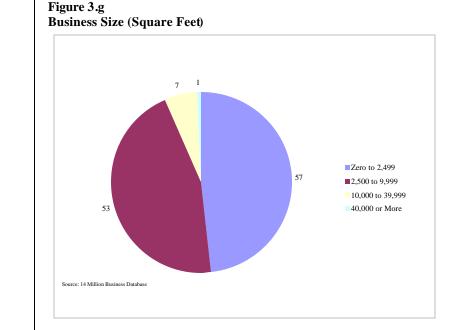
 $^{^{12}}$ All businesses within a half-mile (determined by a GIS buffer) around the WSTA boundaries were included in this profile, under the assumption that residents were likely to visit and use businesses outside of the study boundary as well. Within this area, 118 food business establishments were counted. Data used in this section was obtained from the *InfoUSA*, a subscription Internet database; data was accessed in September and October of 2003.

ranked third with six establishments each. Bars, convenience stores, and retail meat establishments are the fourth largest food business type, with four establishments each (InfoUSA, 2003).

Table 3.c

Type of Food Businesses In and Around the West Side Target Area

Type of Business	#	Type of Business	#	Type of Business	#
Bagel Shop	1	Grocers – Wholesale	1	Delicatessens	6
Bakers – Retail	6	Health & Diet Foods	3	Frozen Food Processors	1
Bakers – Wholesale	1	Ice Cream & Frozen Desserts	1	Fruits & Vegetables & Produce	1
Bars	4	Ice Cream Parlors	1	Grocers - Retail	12
Candy & Confectionery – Manufacturing	1	Liquors – Retail	1	Tea Rooms	1
Candy & Confectionery – Retail	3	Meat – Retail	4	Convenience Stores	4
Cocktail Lounges	1	Meat – Wholesale	1	Dairy Products - Wholesale	1
Coffee & Tea	1	Pharmacies	4	Sausages	2
Coffee Shops	3	Restaurants	50	Service Stations	3



Source: InfoUSA, 2003

Size of establishment

The physical space occupied by a business is a general indicator for how much room it has for producing or selling its goods, as well as what kind of business may operate in small, medium, and large areas of space. To determine business size, the actual square footage of existing businesses in the WSTA was assessed.

Businesses in the study area tend to be small and medium sized in terms of square footage.¹³ Of the businesses in the study area, most are small (48%) and medium (45%) sized businesses (see figure 3.g). Only six percent are large businesses and only one business is over 40,000 square feet (InfoUSA, 2003).

¹³ Businesses that are 2,499 square feet or less are classified as small businesses and those between 2,500 and 9,999 square feet are classified as medium businesses. Businesses that are between 10,000 and 39,999 square feet are classified as large businesses and businesses over 40,000 square feet are classified as extra large.

Business types in the study area that are in the small square footage range tend to be convenience stores, mini marts, specialty food stores, service stations, delis, and restaurants. In the medium business range, business types are restaurants, retail candy stores, grocery stores, health food stores, bagel shops, convenience stores, and specialty food retail stores. Those in the large and extra large category are pharmacies, wholesale meat producers, wholesale bakers, candy manufacturers and frozen food processors.

Number of employees

The number of people employed is an indicator of the size of the business as well. Food businesses in the study area on average employ less than 20 people (see figure 3.h).

Sales

Annual sales for all 118 businesses are estimated between 1.1 to 2.9 billion dollars¹⁴. This is the estimated sum that contributes to the economy in general. It is undetermined how much, if any, of the estimated annual sales contributes to the local economy of the West Side.

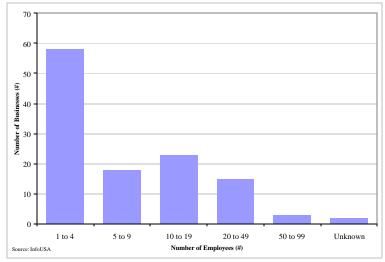
Due to the greater number of smaller food establishments in the study area, average annual sales are not very large. A majority of businesses (70) have annual sales of under \$500,000. These 70 businesses comprise 58% of the total 118 food related businesses. Figure 3.i shows the detailed breakdown of annual sales for area businesses.

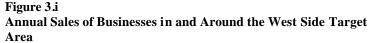
Ownership

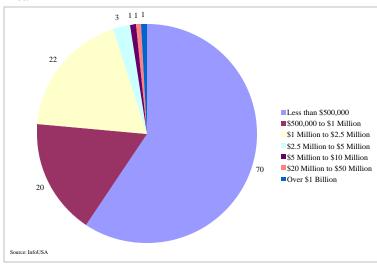
Food based businesses in the study area are predominantly (89%) independently owned and operated. This translates to 105 of food business establishments. Of the remaining 13 businesses, twelve (10%) are franchise businesses or chain

Figure 3.h

Number of Food Businesses in and around the West Side Target Area Employing 1 to 100 Employees







¹⁴ The two estimates for annual sales were calculated as follows: the lower estimate of 1.1 billion dollars was calculated by taking the middle dollar amount for each category and then multiplying it by the number of businesses in each category. The 2.9 billion dollars was calculated by taking the highest dollar amount in each category and multiplying it by the number of businesses in each category. This figure includes Rich's, an international dairy foods manufacturer, which contributes over \$1 billion to these sales figures.

stores (see figure 3.j) such as gas stations, Rite Aid Pharmacies, Burger King, Subway, Tops Friendly Markets, and McDonald's (InfoUSA 2003).

Credit Ratings

A majority (59%) of food businesses in the study area have a credit rating¹⁵ of 'Very Good' or higher (see figure 3.k). Businesses that have 'Very Good' or higher credit ratings may have an easier time in qualifying for loans to improve their business. This may prove to be beneficial when new business owners apply for loans or grants as most lending institutions look closely at surrounding business credit ratings, along with other criteria to determine whether a proposed business has a good chance of succeeding. However, this does not indicate that persons interested in establishing a food-based business will be able to secure funding due to personal credit history and other financial factors.

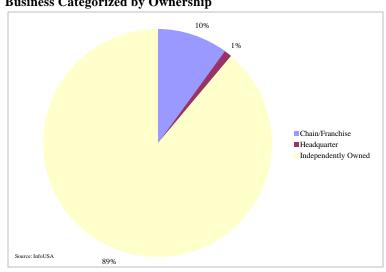
Overall, businesses are small both in physical size and in the number of persons employed. A majority of businesses on the West Side employ between one and four people. West Side businesses generate an estimated 1.1 to 2.9 billion dollars annually in sales. Roughly 89% of businesses are independently owned. This suggests that the environment exists to support independent entrepreneurs of small businesses. Fifty nine (59%) percent of businesses have 'Very Good' or 'Excellent' credit ratings, suggesting that funds for business improvements could be easily obtained (InfoUSA 2003).

While there is great diversity in the type of food related businesses located in the West Side, there is a lack of small scale and specialty food processing businesses. This is one possible area where, in conjunction with local micro-enterprise training programs, business opportunities could be expanded and benefit people in the West Side.

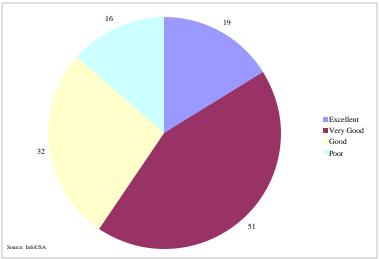
3.2.2. Assessing the Economic Impact of West Side Food Related Businesses on the Local Economy

Food based businesses increase the availability of food and spur economic development. All economic activity is interconnected, and the activity within the food sector is no different. This sub-section presents the economic impact of 53 West Side food based businesses¹⁶ on Erie County economy. The impact was calculated using an Input Output economic model.¹⁷









¹⁵ A rating of Poor is equivalent to a score of 69 or less. A rating of Good is equivalent to a score ranging between 70 and 79. A rating of Very Good is equivalent to a score ranging between 80 and 89. A rating of Excellent is equivalent to a score ranging from 90 to 100.

¹⁶ For a conservative estimate, the I/O model includes only those businesses that are located within ZIP code 14213, which encompasses the West Side Target Area. Furthermore, the model excludes Rich Industries because its inclusion would have greatly skewed the results due to the company's considerably large size.

¹⁷ The model was run using the IMPLAN v.2 software; details regarding methodology, the source of data for the IMPLAN analysis, and the methodology are available in appendix C, section C.2.1.

Input/Output Analysis

Input/Output analysis models the linkages between various business sectors and predicts the impact of change in demand for good and services of a particular business on all other sectors of the economy. Two types of impacts are predicted through input/output analysis. The first is the direct impact, which refers to the direct impact of West Side businesses on the food sector of Erie County economy. The second is indirect impact, which estimates the impacts on all economic sectors due to change in economic activity in the food sector.

Table 3.d

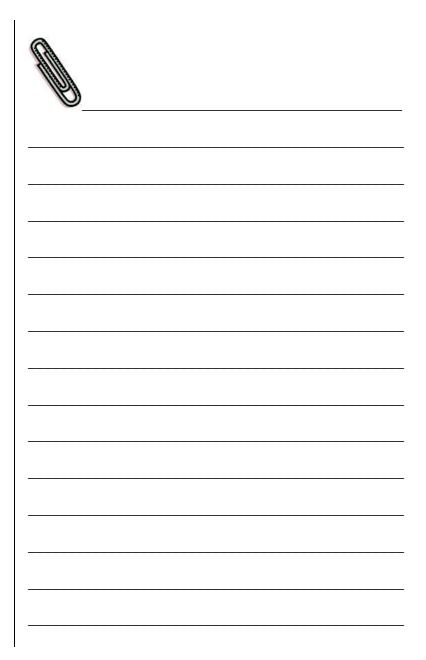
Total Employment and Output Impacts of West Side Food Businesses

Food Sectors	Number of Employment			Output (in millions)			
roou sectors	Establishments	Direct	Indirect	Total	Direct	Indirect	Total
Bread Manufacture	1	34.5	21.3	55.8	\$6.4	\$2.4	\$8.8
Confectionary	1	2.5	2.7	5.2	\$0.6	\$0.3	\$0.9
Manufacture	1	2.3	2.7	5.2	ψ0.0	ψ0.5	ψ0.7
Food Wholesale	5	49	12.8	61.8	\$5.1	\$1.3	\$6.4
Food Retail	19	157	3.9	160.9	\$5.9	\$0.4	\$6.3
Food Service	27	416.5	49.8	466.3	\$14.9	\$5.5	\$20.4
Total (not including Rich's)	53	659.5	90.5	750	\$33.3	\$9.9	\$42.8

Sources: Food for Growth IMPLAN Model Output

In the West Side Target Area, 53 food based businesses employ 660 people. Direct sales by West Side food businesses are projected to be close to \$33 million dollars in 2003.

The West Side's economy is connected to and intertwined with the economy of the entire county and because of this, sales in the West Side food sector generate nearly \$10 million dollars of additional activity in all economic sectors of Erie County. These \$10 million dollars in local economic activity supports 90 additional jobs in other sectors of local economy; this is the indirect effect of West Side food sector businesses (see table 3.e).



In other words, if these 660 West Side food sector jobs did not exist, there would be a total loss of 750 jobs and nearly a \$43 million dollar loss in sales in all of Erie County.¹⁸

Multipliers

Another way of restating the interconnection between the West Side food businesses and the Erie County economy is through the use of multipliers. For example, the employment multiplier of 2.09 for Confectionary Manufacturing implies that every one job in Confectionary Manufacture supports an additional 1.09 jobs in the local economy (see table 4.f). A similar implication can be drawn from the output multiplier of 1.5 for Confectionary Manufacture. For every dollar of sales in the confectionary sector, an additional \$0.50 in sales is generated throughout Erie County's local economy.

Some types of food based businesses have a greater economic impact than others, as reflected in their multipliers. For example, the manufacturing of food clearly spurs more economic activity than the selling of food (see table 4.f). In fact, the IMPLAN results point to the confectionery and bread manufacturing sectors as having the greatest impacts on the local overall employment and economy. This is, in part, because these two industrial sectors add value to raw materials through processing and use of labor, which results in higher output and employment multipliers. This demonstrates that businesses that engage in processing food from raw ingredients are more effective at stimulating additional economic activity than the food retail sector since it causes little additional employment and output among other businesses within Erie County. Therefore, promoting establishments solely involved in food retail may not be the best utilization of economic development efforts. However, if the retail establishment sells locally produced food and/or engages in food service or wholesaling, the combination of all the indirect impacts may create an extremely worthwhile target of economic development activities and funding. Overall, when planning for food based economic development, food manufacturing businesses appear to be preferabable.

¹⁸ These estimates are conservative because they do not include the induced impact which may which may be felt due to change in spending by households whose incomes are affected by the direct and indirect economic activity.

Table 3.e
Employment and Output Multipliers

Food Sectors	Number of Establishments	Employment Multiplier	Output Multiplier
Bread Manufacture	1	1.62	1.37
Confectionery Manufacture	1	2.09	1.50
Food Wholesale	5	1.26	1.26
Food Retail	19	1.02	1.07
Food Service	27	1.12	1.37
Total (not including Rich's)	53	1.14	1.30

Sources: Food for Growth IMPAN model output

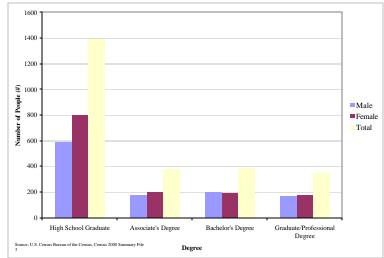
Overall, food based businesses are important drivers of Erie County's economy, but some food sectors have a greater impact than others. Such specialty niche businesses could draw upon the ethnic and cultural diversity of the West Side, creating fresh, quality foods that are unavailable to the Buffalo market. This type of development exploits the unique strengths of the neighborhood and could provide the impetus for food tourism and cause for the growth of further jobs and wealth by the community, for the community, and within the community.

3.2.3. Education Attainment Levels of West Side Residents

An assessment of the educational attainment levels of West Side residents contributes to the understanding of the residents' ability to join the workforce and the local economy. Comparing this with educational requirements for food-business sector jobs provides an assessment of the potential local workforce.

Compared to the city of Buffalo, residents in the WSTA have lower levels of educational attainment (see table 3.f).¹⁹ Overall, 26 % of all 25 and older WSTA residents have earned a high school degree or equivalency. A mere 7% of residents 25 and older have obtained a Bachelor's degree and another 5% have obtained a graduate degree (see table 3.f). Interestingly, women generally outnumber men in educational attainment²⁰ (see figure 3.l).

Figure 3.1 Educational Attainment for the West Side Study Area Population 25 Years of Age and Older



¹⁹ Data on educational attainment of residents 25 years and older was obtained by block groups in the West Side Target Area from Census 2000, SF3.

²⁰ In all but one degree category.

Compared to the city of Buffalo, the West Side has an overall lower level of educational attainment – particularly at the Bachelor's degree level. A mere 7% of the West Side's population age 25 and older have earned a Bachelor's degree, which is about 3% points lower than the city's educational attainment for that degree (see table 3.f). The lack of an education seriously hinders residents' entry into the local workforce since many lack basic math, writing, communication and organizational skills that employers seek. Furthermore, the residents' educational attainment compared to the rest of the city puts them at a comparative disadvantage in being able to join the local workforce.

Table 3.f

Education Attainment of residents (25 and older) in the West Side Target Area

	West Side		City of Buffalo	
Educational Attainment	Number	Percentage ²¹	Number	Percentage
Total population	5,123		182,662	
High School degree	1,366	26.7%	53,222	29.2%
Bachelor's degree	374	7.3%	19,215	10.5%
Graduate degree ²²	297	5.8%	14,220	7.8%

Source: US Census 2000, SF3

3.2.5. Existing Food Based Economic Development Programs on the West Side

Economic development within the city of Buffalo is directed through the Buffalo Economic Renaissance Corporation (BERC). It focuses on neighborhood strengthening through small business economic development. The BERC can be instrumental in supporting economic development on the West Side by incorporating existing and future food-based projects in its overall economic development strategy.

A number of creative food-based economic development initiatives have been established on the West Side in the past decade. These initiatives assist in building capacities and providing resources that would have otherwise been unavailable to West Side food entrepreneurs and residents.

Food Ventures

Food Ventures, a micro-enterprise development run by the Massachusetts Avenue Project (MAP) is a training and technical assistance program, which creates opportunities for self-employment and business ownership for low-income

²¹ The total for this column does not add up to 100% because not all educational degree categories are reported here.

²² The graduate degree includes those with Master's degree, doctorate, and other professional degrees

entrepreneurs. The program was established in 2000 with grants from the Federal Enterprise Community (FEC) of Buffalo and the US Department of Health and Human Services' Job Opportunities for Low Income Individuals (JOLI).

Food Ventures uses the facilities located at MAP's outreach center, which include a communal commercial kitchen²³ and community room to run its program. Here caterers, pushcart vendors, civic groups and producers of specialty items can prepare and market foods legally and affordably. As part of Food Ventures, MAP also offers 12-week business training in collaboration with Buffalo State College. The training program equips the business entrepreneurs with skills necessary to develop a complete business plan. The classes include sessions on customer identification, marketing, sales presentations, distribution options, product pricing, recordkeeping, financial projections, and how to obtain a business loan. In addition, optional sessions are available for computer training including word processing, spreadsheet development, and accounting software. A culinary expert is also available at MAP to assist the food entrepreneurs in product development, choosing appropriate packaging material, sourcing ingredients, perfecting recipes, and minimizing ingredient costs. Consumer food tasting and focus groups can also be arranged through MAP to gain feedback on product formulation and presentation. At the time of graduation, participants of the 12-week program are eligible for a micro-business loan. The program is available to participants at no cost to the low-income business entrepreneur.

As of August 30, 2003, the program has created 38 new micro-enterprises, double of what it had expected to create. The program has also created 56 new jobs, however, the number of new jobs has fallen short of the grant requirements. The 56 jobs were created due to the creation of new micro-enterprises, but due to the lack of initial startup funds and low patronage these businesses have failed to hire additional employees. Since the program has yet to achieve their stated goals of job growth by the third year deadline ending in September 2003, Food Ventures has received an extension until June of 2004. The program directors hope the initial inability to create jobs from the micro-enterprise businesses will dissipate after the entrepreneurs generate greater revenue and increase their clientele.

New World Street Market

The New World Street Market, which began in the summer of 2003, is an attempt to encourage the growth of small businesses on the West Side. The market includes street vendors along Connecticut Street who sell ready-to-eat ethnic food, organic produce, and hand made crafts on pushcarts. Street performers and public art installations enliven this previously overlooked stretch on Connecticut Street. The pushcart idea on the West Side builds on the strengths of growing ethnic diversity in the neighborhood. According to founder Paula Rosner, "With all the entrepreneurial activity happening in the Latino and other ethnic communities, we wanted to create a venue for those wishing to sell

²³ The commercial kitchen is licensed by the FDA.

their wares to a larger audience, while still making it affordable for those without a great deal of startup capital...pushcarts provide us with that avenue."

Food Ventures has played an integral role in the development of the New World Street Market. The micro-enterprise loans and business training provided through Food Ventures has helped ease the transition of entrepreneurs' current skills into successful micro-enterprise businesses. According to Judith Einach, "the hope [was] that by steering project participants into the Food Ventures program, they will be able to develop the skills not only to successfully operate a pushcart enterprise, but a larger business venture in the future."

The first summer of its operation the New World Street Market had a mixed success. Some vendors were successful while others were not. The market organizer speculates that the specific location of the pushcarts on the street affected the success of the vendors. Originally, the market was planned such that 10 vendors would be spread along 12 blocks of Connecticut Street. Vendors located near some blocks were more successful than others. In the future, organizers plan to cluster the pushcarts in a central block such that the vendors form a critical mass and all profit from the surrounding residents and business purchases.

West Side Collaborative Business Directory

Starting in 2002, the West Side Community Collaborative (WSCC) has begun publishing an annual business directory to facilitate business development in the West Side. This directory, which is organized by the business sector, provides information on assets and resources that are available within the West Side community. The directory serves as an advertising tool for individual businesses allowing them to increase business and add to the area's economic development as well as also serving as a valuable information source for community members.

West Side Collaborative Youth Apprentices & Job Databases

The West Side Community Collaborative also compiles a job database for jobs within the West Side. The goal is to identify available jobs and then train individuals for them through apprenticeships and skill development courses. This project is being developed as part of the WSCC's five-year plan²⁴.

²⁴ As of November 2003, this database was in the early phase of development.

West Side Collaborative Commercial Façade Improvements

The West Side Community Collaborative and the West Side Task Force is currently working with several local agencies to undertake commercial façade improvements. The assumption is that aesthetic improvements will bring interested business developers into the area and improve the vitality of existing businesses.

3.2.6. Strengths, Weaknesses, Opportunities, and Threats

In this section personal interviews with local business owners and community focus groups, along with strengths, weaknesses, opportunities, and threats (SWOT) to local food based economic development have been identified.

Strengths

- There are a large number of food-related businesses/entrepreneurs on the West Side that reflect the ethnic and cultural diversity of the neighborhood. Many food-based businesses sell both in retail and wholesale markets, such as Quaker Bonnet Catering, Minnio & Sappio Meats and Rich products.
- Many businesses have been in operation for a considerable period of time; for example, Guercio's, an Italian specialty market has been in business for 40 years. Such stores have retained their client base in spite of the changing demographic and dwindling economy, which points to the ability of niche markets to flourish in the area.
- Some businesses have created a regional food network since they buy from suppliers in the West Side and as well as the local region. Small corner stores purchase the produce they sell from specialty markets such as Guercios (Italian) and Pellicano's (Hispanic).
- The linkages between West Side food retailers and regional farms are evident as well. For example, Guercios, Pellicano's, and Minnio & Sappio Meats purchase some of their products from local farmers and farmers' markets.
- The greatest strength of grocery stores on the West Side is that they capture niche markets. The Hispanic, Laotian, and Middle Eastern markets all carry specialties native to unique cultures, which make for attractive shopping for residents of this culturally diverse neighborhood as well as for shoppers from elsewhere who are interested in specialty foods.

Weaknesses

- Many storefronts have uninviting facades that discourage customers.
- There is a lack of corner stores that carry quality and affordable produce.
- Only a few businesses form part of a producer-supplier network.

• The educational attainment of area residents does not meet the expectations of area businesses – therefore reducing employment opportunities for residents.

Opportunities

- The Food Ventures programs offer a great opportunity for individual who would like to start a micro-enterprise even if they have little or poor credit history.
- There is an opportunity to embrace and build on the cultural diversity of the neighborhood. If business owners gain greater trust in each other and the residents in the community, then a solid system of community interdependence could be established.

Threats

- Business owners fear that the safety and security of the neighborhood negatively affects their businesses.
- Vandalism, robbery and theft particularly in evening hours are the three major concerns of West Side business owners.
- Business owners suggest that these threats continue to persist because the city government has failed to promote adequate anti-crime and business development programs.
- Blighted areas continue to suffer further decline because few residents and businesses wants to shop, eat, or live in them.

3.3 Improving Transportation Access to Food on the West Side

Residents' access to available food depends on their ability to reach area grocery stores. Their ability to reach grocery stores is in turn mediated by the location of the stores and the transportation options available to them. This section uses focus group results as well as secondary sources of data to review the transportation options available to West Side residents for accessing area grocery stores.²⁵

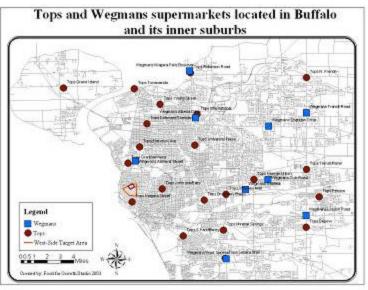
3.3.1. Walking to grocery stores

West Side residents often rely on walking as their primary means of accessing grocery stores. Therefore, neighborhood corner stores are a primary source for food shopping, since no medium and large grocery stores (including discount stores) exist within walking distance for many residents. As seen in figure 3.m, Quality Markets on









²⁵ Grocery stores (excluding corner stores) were divided into 3 categories:

Large sized supermarkets - this included Tops and Wegmans (shown in figure 3.n)

Medium sized supermarkets - this included Jubilee and Quality Market (see figure 3.0)

Discount supermarkets - this included Aldi and Save-a-lot (see figure 3.p)

West Ferry and Elmwood Avenues, two medium small sized supermarkets, were the only grocery stores located within a ¹/₄ mile walking distance of the WSTA. Unfortunately, these stores closed at end of 2003.

The youth and seniors mostly frequent neighborhood corner stores because of their close proximity. The seniors find shopping at corner stores convenient because they do not have to rely on others for transportation. Instead of arranging for a ride to a more remote market, they prefer the independence of walking and shopping on their own. Seniors with physical disabilities, however, reported that visiting the neighborhood grocery store was a challenging proposition – particularly during the winter when the many sidewalks are left covered under ice and snow. Seniors most emphatically emphasized the need for more convenient and less costly transportation alternatives.

Overall, most adult residents, including the seniors, reported that they felt restricted by the limited variety of food stores and the quality of the food available in the WSTA. ²⁶ They preferred traveling to larger, medium supermarkets as well as discount stores (see figures 3.n, 3.o, and 3.p) that are located farther away from the WSTA.

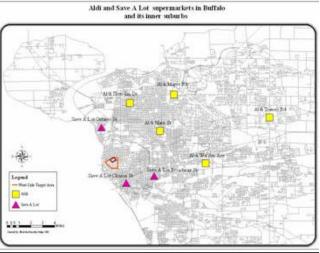
Residents also perceive some corner stores to be inaccessible on foot due to high rates of crime and drug activity surrounding them. A GIS analysis of crime 'hotspots' indicates that some WSTA food businesses are indeed located in areas of high densities of property crime arrests (see figure 3.q).

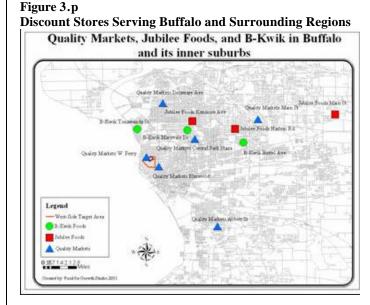
3.3.2. Use of private vehicles to access grocery store

Residents often rely on vehicles or a carpooling system for grocery shopping. For example, adult and youth residents in the focus groups reported driving their own car or riding with relatives or friends to reach supermarkets including Tops on Niagara Street or Tops on Sheridan Drive. Since the larger grocery stores and supermarkets tended to be located farther from the WSTA (see figures 3.n, 3.o, 3.p), youth and seniors were especially dependent on their families to transport them. For many seniors, limited access to vehicles compels them to buy all of their food at one location.

The veracity of the focus group participants' responses is confirmed by the lack of vehicular access reported for the WSTA²⁷ in US Census 2000. Of the 3685 occupied housing units on the West Side, residents of only 2195 (56.8%) units owned, rented and leased vehicles²⁸ in the year 2000 (US Census Bureau, 2000). An area







²⁶ Although the seniors find it enjoyable to have meals delivered by area restaurants, seniors find these food establishments charge 'very high' delivery charges.

²⁷ Data was collected for census tract 69, block groups 1, 2, 3, 5, 6, 7, 8, 9; census tract 66.01, block groups 3, 4; and census tract 67.01, block group 2.

 $^{^{28}}$ The total number of vehicle includes passenger cars, vans and trucks of one ton capacity or less which are kept at home and are available for use by the household members. Only vehicles rented or leased for one month or more, company vehicles, police and government vehicles if kept at home and used for non-business purposes are included.

wide comparison reveals that West Side residents' vehicle possession is 12 percentage points lower than that in all of the city of Buffalo and 28.1 percentage points lower than that in all of Erie County. Figure 3.r. illustrates the disparity in vehicle ownership within the study area. The lighter shades - which indicate a lower number of households that have access to vehicles - within the WSTA further illuminates the geography of unequal access to cars, and thereby food. Richmond Avenue in particular serves as a stark dividing line.

A comparison between vehicular ownership of residents living in rental and owner-occupied housing units within the West Side reveals an inequity as well. Among the1060 owner occupied units in the West Side Target Area, 80% (858) of units are inhabited by households with vehicles, whereas in the 2805 rental units, only 47% (1337) of units are inhabited by households with vehicles. Clearly, renters are associated with lower vehicular ownership; therefore, holding all else equal renters is likely to have a more difficult time in accessing food in distant grocery stores.

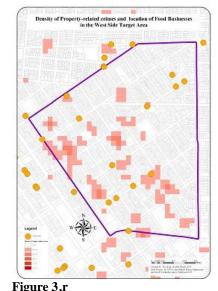
Access to vehicles also differs by age groups. Residents in over half (52.9%) of all housing units occupied by seniors on the West Side reported that they did not possess any vehicle. This was about 12 percentage points less than the number associated with housing occupied by seniors in the city of Buffalo (Census 2000). Given that seniors constitute over 10% of the total WSTA population, it is imperative that suitable arrangements be put in place to ensure seniors' access to grocery stores.

Table 3.g

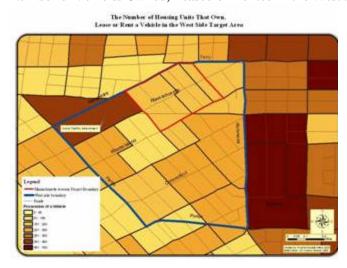
Housing Units with Vehicles

	West Side		City of Buffalo		Erie County	
		Percentage		Percentage		Percentage
Total Occupied Housing Units	3,865	100%	122,720	100%	380,873	100.00%
Total Occupied Housing Units with Vehicles	2,195	56.80%	84,160	68.60%	323,424	84.90%
Total Occupied Housing Units with No Vehicles	1,670	43.20%	38,560	31.40%	57,449	15.10%
Total Owner Occupied Housing Units	1,060	100.00%	53,339			
Owner Occupied Units with Vehicles	858	80.94%	45,901	54.50%	233,666	72.20%
Owner Occupied Units with No Vehicles	202	19.06%	7,438	19.30%	15,114	26.30%
Total Renter Occupied Housing Units	2,805	100.00%	69,381			
Renter Occupied Units with Vehicles	1,337	47.66%	38,259	45.50%	89,758	27.80%
Renter Occupied Units with No Vehicles	1,468	52.34%	31,122	80.70%	42,335	73.70%

Figure 3.q Density of Crime around Food Businesses on the West Side



Number of Vehicles Owned, Leased or Rented in the West Side



Source: Census 2000

Table 3.h	
Housing Units Occupied by Seniors with Access to Vehi	icles

	West Side		City of Buffalo		Erie County	
		Percentage		Percentage		Percentage
Total Housing Units Occupied by Seniors	945	100.00 %	42,692	100.00%	153,059	100.00%
Housing Units with vehicles	500	52.91%	27,755	65.01%	125,236	81.82%
Housing Units with no vehicles	445	47.09%	14,937	34.99%	27,823	18.18%
Total Owner-Occupied Units inhabited by Seniors	448	100.00%	25855	100.00%	115470	100.00%
Owner Occupied Units with Vehicles	328	73.21%	20,621	79.76%	104,064	90.12%
Owner Occupied Units with No Vehicles	120	26.79%	5,234	20.24%	11,406	9.88%
Total Renter-Occupied Units inhabited by Seniors	497	100.00%	16837	100.00%	37589	100.00%
Renter occupied Units with Vehicles	172	34.61%	7,134	42.37%	21,172	56.32%
Renter occupied Units with No Vehicles	325	65.39%	9,703	57.63%	16,417	43.68%

Source: Census 2000

3.3.3. Use of Public Transportation to Access Grocery Stores

West Side residents who do not own or have access to a vehicle, and prefer larger supermarkets often use public transportation, specifically buses, to get to them. However, access to grocery stores through public transportation may be achieved *only* if bus lines, bus stops and timely service connect neighborhoods to grocery stores. Supermarkets are spatially dispersed across Buffalo's suburbs, accessing these supermarkets from the WSTA proves extremely difficult. Figure 3.u maps all bus stops within ¼ mile of the WSTA since federal guidelines recommend that residents are likely to walk for a quarter mile to reach a bus stop. The analysis reveals that bus routes tend to border the West Side Target Area, therefore residents who live in the central areas of the target area would have to walk nearly ½ mile in order to access a bus stop along the West Side Boundary – a daunting task for those carrying grocery bags. The situation is especially difficult for parents with young children and the elderly. Therefore, West Side residents without personal vehicles have limited transportation options for their grocery shopping.



The effectiveness of public bus transportation in facilitating access to grocery stores also depends on the time spent by residents in bus trips from neighborhoods to grocery stores. Therefore, a 'bus chaining' analysis was conducted to examine the trip time and convenience that WSTA residents are likely to experience when travelling to large-sized supermarket destinations, namely Tops and Wegmans. Bus chaining²⁹ considers the number of buses available, the waiting time between bus transfers, the travel time, and the total time it takes for a shopper to arrive at his/her destination. Bus chaining, therefore, helps illustrate the time expended and the convenience experienced by West Side residents who use buses as their primary means accessing food. The bus chaining analysis reveals:

Of the nine large grocery stores included in the bus chaining analysis, two-way trips take an average of 147 minutes, not including the time residents would spend shopping in the grocery store³⁰. Of the nine large grocery stores included in the bus chaining, only two grocery stores - Tops on Grant Street and Tops on Niagara Street – would be somewhat convenient for WSTA residents. Buses to these destinations generally operate twice an hour³¹, with some variation depending upon the day of the week and time of day.

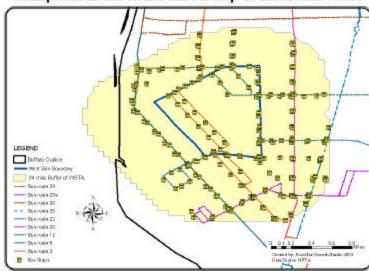
The Tops grocery store on Niagara Street is geographically the closest to the West Side Target Area, but no direct bus goes there. The bus schedules and routes for reaching this store are less than convenient for residents who work during the day/week. On weekday mornings – the time when most working adults are less likely to go grocery shopping - it takes a reasonable 22-26 minutes to reach the store by bus. On weekday evenings as well as on Saturday and Sunday mornings – the likely time when residents would shop - it takes about 45 minutes to 1.5 hours for a one way trip to this store. Furthermore, shoppers would be required to make two bus transfers to reach this store – not an easy task when the shopper is carrying grocery bags, particularly while chaperoning young children.

Although the Tops grocery store on Grant Street is geographically farther from the one on Niagara Street, it is the most practical option for West Side residents. The trip to Tops on Grant Street takes approximately 20-30 minutes, however bus riders who use this option do not have to transfer any buses to reach their destination.

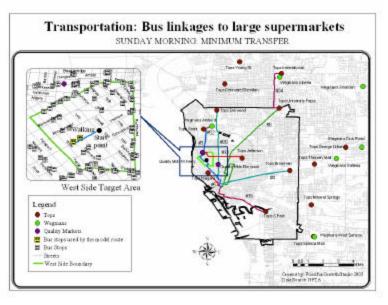
The Tops store on Jefferson Street is also geographically close to the West Side, however no direct bus is available for shoppers traveling from the West Side Target Area. It requires a minimum of two buses to reach this supermarket, and between 40-65 minutes to arrive at the store.

Figure 3.s









²⁹ Details on bus chaining methodology are available in appendix C, section C.3.1

³⁰ Detailed results of bus chaining analysis for trips to large grocery stores are provided in appendix C, table C.6.

³¹ With the exception of early morning (before 6 a.m.) and between 9 p.m. to 11 p.m.

CHAPTER THREE – STRENGTHENING THE COMMUNITY FOOD SYSTEM ON BUFFALO'S WEST SIDE

The Tops International store on Maple Road, which several residents report to be a desired shopping venue, requires the longest travel time from the WSTA. On weekends, trips can take about 173 minutes. On weekday evenings, a trip from West Side Target Area can take over an astounding three hours (110-191 minutes).

Safety near bus stops

The lengthy distance one must walk to reach a bus stop deters residents from using buses for traveling to grocery stores; residents' willingness to walk is also negatively impacted due to perception of crime around bus stops (Food for Growth Focus Groups, 2003). To verify this perception, study authors compared the location of WSTA bus stops with crime 'hotspots³²'. Figures 3.w through 3.z suggest that although most bus stops and routes are not located in areas of high crime density, some areas – such as one bus stop at the intersection of Massachusetts Avenue and Normal Street - are clearly located in drug crime hotspots. Among the various types of crimes, neighborhood quality related crimes -which were dispersed along 14th street and Massachusetts Avenue – appear to be most prevalent around the WSTA bus stops.

Alternative Transportation Options

Residents also use alternative modes of transportation to access area grocery stores. A few residents use bicycles for traveling to grocery stores; however, these residents believe that existing bike routes are unsafe due to major road intersections and the lack of sufficient and continuous bike paths. Some senior residents report the use of wheelchairs for traveling to nearby grocery stores. However, to reach grocery store located farther away, they are forced to use taxicabs. A few seniors also rely on the Red Cross shopping tour van to take them to Tops on Grant Street at Amherst Street. The residents express particular difficulty in accessing grocery stores during the winter months. For a delivery charge of five dollars, many utilize services provided by Guercio's to deliver fresh produce to their homes. They hope for and encourage the creation of more such delivery services (Food for Growth Focus Groups, 2003).

3.3.3. Current Efforts to Improve Transportation Access to Food

Despite the inefficient transportation system that constrains West Side residents' ability to reach grocery stores, a limited number of services and programs exist to help WSTA residents, particularly the seniors to access grocery stores.

NFTA Metro Para Transit Access Line (PAL)

The NFTA Metro Para Transit Access Line (PAL) serves disabled residents in Erie and Niagara Counties. It offers transportation to individuals with permanent or temporary disabilities who cannot access the regular Metro bus and rail

CHAPTER THREE – STRENGTHENING THE COMMUNITY FOOD SYSTEM ON BUFFALO'S WEST SIDE

³² It is important to note that these hotspots depict the location of the density of arrests for crimes and <u>not</u> the actual scenes of the crimes.



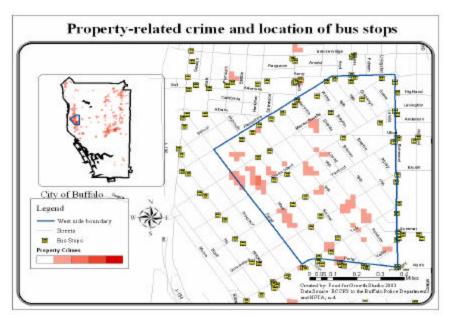


Figure 3.v

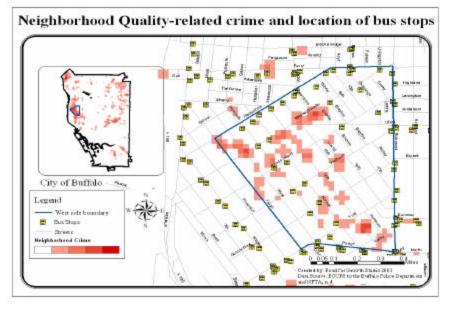


Figure 3.w

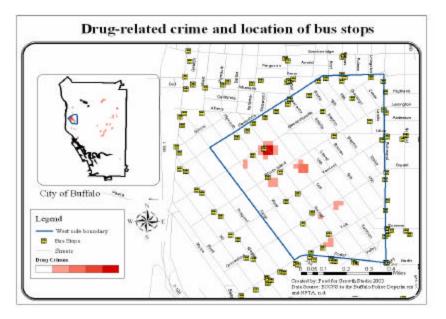
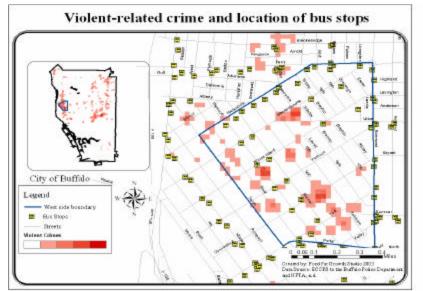


Figure 3.x



system; however, it does not provide trips if services to the desired destination are already offered by another agency. In order to be eligible to use this service, individuals must comply with the guidelines set forth by the Americans with Disabilities Act of 1994. Seniors must also live within ³/₄ mile of an existing bus route. Fares are \$2.50-\$3.70 each way, which is twice the regular fare of the fixed route system. Thus, these high fares tend to exclude low-income seniors. Reservations for this service must also be made at least a day in advance.

Father Belle Community Center

This community center, which asks for no fees or donations, provides seniors (60 years and older) with access to transportation for medical, shopping and social activities. Unlike other programs, it does not have any handicap accessible transportation. The program exclusively serves the Lower West Side of Buffalo.

Going Places Van

Erie County Department of Senior Services provides transportation services for seniors 60 years and older. 'Going Places Van' provides transportation necessary for seniors to shop, obtain medical and socialize. The suggested donation for a one-way trip is two dollars for a regular van and five dollars for wheelchair accessible van. Seniors can use this van for pre-scheduled trips to grocery shopping. For example, the van takes seniors to Tops at 9:00 am, to Wegmans at 10:00 am, and to Quality grocery stores at noon. 'Going Places Van' does not provide services for grocery shopping outside the city of Buffalo.

Hispanics United of Buffalo

Hispanics United of Buffalo serves people 60 years and older to travel to grocery stores. Their program accepts donations.

Lifeline to Independence for the Elderly (LIFE) Project

The Greater Buffalo Chapter of the American Red Cross organizes 'Lifeline to Independence for the Elderly (LIFE)' Project - a program designed to help seniors live independently. LIFE's services include weekly grocery shopping at no cost. The LIFE Project also organizes volunteers to assist the seniors with shopping.

Van Service through Buffalo's Senior Citizen Services

The Buffalo Office for Senior Citizen Services sponsors van services from its nine senior centers throughout the city of Buffalo. These vans are primarily intended to take seniors to their medical appointments although the vans may also be used for trips to grocery stores. Reservations for the van service must be made three weeks in advance and trips within the city of Buffalo cost three dollars while those to the suburbs cost four dollars. On the West Side, senior residents of the Santa Maria Towers and the Baptist Towers make use of the service. The van's only supermarket destination is the Tops on Grant and Amherst Streets. Therefore, seniors residents have little choice in where they shop.

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WNY Independent Living Center

The Western New York Independent Living Center provides physically disabled people with a transportation service to assist them with daily tasks, such as medical appointments and shopping. They charge a fee of eight dollars plus an additional half dollar/mile for a trip within Erie County. Although the service has a wide coverage area, its high cost makes it difficult, if not impossible, for low-income seniors to take advantage of it.

3.3.4 Strengths, Weaknesses, Opportunities, and Threats Strengths

- A number of corner grocery stores exist within walking distance of the West Side
- A number of transportation services exist for senior residents.

Weaknesses

- A majority of West Side residents do not have vehicular means to reach traditional grocery supermarkets which tend to be located far from the West Side Target Area.
- The public transit system, i.e., buses offer limited access to larger grocery stores. Bus trips to these stores take an average of 147 minutes, and often require residents to transfer twice.
- Ill-maintained sidewalks prohibit easy walking and wheel chair access to corner grocery stores.
- Lack of contiguous bike paths constrain bicycle-users' access to area grocery stores.

Opportunities

- Corner grocery stores present an opportunity to increase walkable access to food. People can be encouraged to walk to corner grocery stores if sidewalks are well maintained and street lighting is improved.
- There is an opportunity to inform WSTA seniors about available transportation services so they may take advantage of these services to increase their access to grocery stores and farmers markets.
- Low vehicle ownership in the WSTA suggests that creative public and/or private transit services for accessing grocery stores will be welcome in the WSTA community.

Threats

• The perception of crime affects residents' willingness to walk to corner grocery stores. Bus stops and walkable routes to corner grocery stores are sometimes the sites of arrests for criminal activity which also deters residents from using buses to access grocery stores.

3.4. Promoting West Side youth development through Food-Based Projects

Youth play a critical role in the future of West Side food security. Youth have boundless energy and lofty expectations. Opportunities for youth to become active community members can be cultivated through food-based programs and activities. In fact, many youth development programs incorporate agriculture and food related projects because such projects contain inherent community building lessons that teach a variety of life skills. An examination of such programs in this section reveal their benefits to both youth and the community. This section also explores how youth development programs can be further implemented in the WSTA neighborhood.

3.4.1. West Side Youth³³

The West Side youth are an extremely large and diverse segment of the population. According to the 2000 US Census, there were 3,284 youth, ages 19 and younger, living in the West Side Target Area. With 9,146 total residents in the Census Tract Block Groups comprising the West Side Target Area, youth accounted for 35.9% of the total population. Overall, the distribution of the youth between males and females was roughly the same, with 1,473 males and 1811 females. Young males made up 39.1% of the entire West Side male population and young females comprised 33.0% of the female population. Nearly fifty percent (1,629) of all youth in the study area identified themselves as Hispanic or Latino, 17.2% (556) as White alone, 23.1% (757) as Black or African American, 1.9% (64) as American Indian and Alaska Native, 5.1% (167) as Asian and 0.09% (or 3)as Native Hawaiian and Other Pacific Islander (see figure 3.y) (Census, 2000). The West Side youth attended a number of different schools, located both inside and outside the area. Primarily, kids ages 6-15 attended one of four Buffalo public elementary schools within the West Side region: Public School 33, 18 and 18A, 38 or 77. High School age residents attended Grover Cleveland High School and Leonardo Da Vinci High School, both located within the West Side, while other students attended McKinley High School, and other surrounding area private and parochial schools.

Agencies/Organizations

4-H Youth Development Program

Numerous national and local organizations exist to actively emphasize and encourage youth's connection with food. Perhaps the oldest organization to do so is the 4-H Youth Development program. Celebrating its centennial in 2002, the 4-H program initially taught farm youth about agriculture and subjects related to their everyday lives on the farm. It has since evolved into the largest US youth development program. The program seeks to empower all youth by focusing on the 4 Hs: head, heart, hands and health. Four-H strives to teach youth decision making skills, greater loyalty and care for others, larger service and technical skills and healthier habits, respectively (4-H Youth Development Facts in Brief,

CHAPTER THREE – STRENGTHENING THE COMMUNITY FOOD SYSTEM ON BUFFALO'S WEST SIDE

The world does not need more rootless symbolic analysts. It needs instead hundreds of thousands of young people equipped with the vision, moral stamina, and intellectual depth necessary to rebuild neighborhoods, towns, and communities around the planet.

(Orr, 1944)

³³ West Side youth includes young adults aged 19 and under.

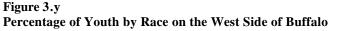
2002).³⁴ The 4-H educational agenda has expanded over time. By 1960, non-farm youth comprised more than half of the K-12th grade 4-H participants. Of all the states, New York had the third highest enrollment with 347,049 youth involved in 4-H; 163,263 males and 183,786 females. The greatest number of these youth were in the 4th grade (42,478) and lived in a town (146,033), as opposed to a farm, rural area, suburb or city (4-H youth Development Facts in Brief, 2002). Locally, there is a Cooperative Extension 4-H branch in East Aurora, New York.

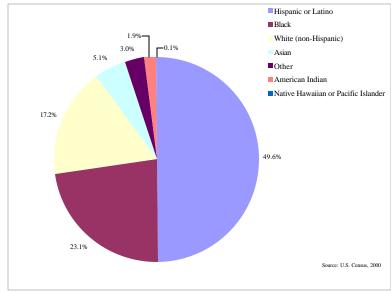
Rooted in Community National Network

Like the 4-H Youth Development program, the Rooted in Community (RIC) National Network is an organization that focuses on positive youth development. However, unlike the 4-H program, RIC continues to strongly emphasize agriculture and food related projects in its programming. Founded in 1998 by The Food Project and the American Community Gardening Association, RIC firmly believes that youth should play an active role in building strong communities and viable community gardens. It is a "...diverse movement of young people and adult advisors who are committed to building a sustainable food system through urban and rural agriculture, community gardening, and food security work" (The Rooted in Community National Network, 2003). Rooted in Community works directly with local organizations which include youth in their community improvement projects; such efforts include establishing gardens where healthy, safe and accessible food is planted. RIC provides support to other organizations through biannual newsletters, a database of contacts and collaborators, technical assistance, conferences, workshops and start-up money. After its initial successes, RIC selected a National Advisory Council in 2001 as a means to improve its coordination and leadership.

YO! Buffalo and Weed and Seed

Besides national organizations, there are also numerous local efforts that encourage youth development. While some emphasize agriculture and gardening more than others, each endeavors to make Buffalo's youth positive and active members of society. For instance, the Youth Opportunity Movement of Buffalo (YO! Buffalo) provides 14 - 21 year olds living on the city's East Side, Lower West Side and the area south of Downtown Buffalo with opportunities for further education, personal growth and career training. In addition to helping youth with core skills, such as reading and math, and helping high school dropouts earn their General Equivalency Diploma (GED), YO! Buffalo assists youth in the college application process. While some workshops, seminars and staff members help participants with their leadership skills, others provide counseling in the areas of violence, parenting, substance abuse and responsible sexual behavior. Funded by the United States Department of Labor, YO! Buffalo Youth Opportunity Program works with area





³⁴ The 4-H program became a component of the Cooperative Extension Service (CES) soon after the unit was created by Congress' passage of the Smith-Lever Act in 1914. The CES is a publicly funded educational network supported nationally by the Cooperative State Research, Education and Extension Service (CSREES), an agency in the US Department of Agriculture, and at the state level by the 105 land-grant universities and more than 3,500 county and city offices. Based on 7 Base Programs, Agriculture, Community Resource and Economic Development, Family Development and Resource Management, Leadership and Volunteer Development, Natural Resources and Environmental Management, Nutrition, Diet and Health, the 4-H Club is the only Base Program entirely devoted to youth's development.

CHAPTER THREE – STRENGTHENING THE COMMUNITY FOOD SYSTEM ON BUFFALO'S WEST SIDE

employers to establish work experience, internships, on-the-job training and direct employment opportunities for the area's youth. This provides youth with the opportunity to acquire work-related skills and therefore make them more marketable when applying for jobs. Furthermore, each Youth Opportunity Center also provides sports; recreation and social programs that help youth develop relationships and a sense of belonging.

Partnering with YO! Buffalo, Buffalo's Weed and Seed program also works to improve local neighborhoods, primarily by "weeding" out crime and providing "seeds" for neighborhood revitalization. Its various programs help communities in targeted areas remove crime by introducing enforcement efforts and neighborhood restoration. As a Department of Justice initiative granted to the city of Buffalo in 1997, Weed and Seed administers an integral youth development component—Safe Haven. Its Safe Haven Program operates in three corners of the target area boundaries and each Safe Haven offers a range of services. The two most beneficial programs to the area's youth include tutoring and recreational programming. Weed and Seed is also getting involved in gardening projects; it has recently established a community garden on the site of a former drug house, which is across the street from one of the Safe Havens. Through the Mayor's Summer Youth Opportunities and Internship Program, Weed and Seed was able to hire 30 youth to work in community-based organizations and businesses, including MAP's Growing Green program (Buffalo Weed and Seed Initiative, n.d.).

Growing Green

Growing Green is a food-based youth development, entrepreneurial program run by the Massachusetts Avenue Project in Buffalo, New York. In September 2003, Growing Green completed the second year of its three year pilot project. The main goal of Growing Green is to change the lives of West Side teens while involving them in transforming their neighborhood. The program works toward this goal by involving youth in redeveloping vacant lots into gardens, teaching marketable skills related to urban agriculture, business development and food, and directly involving youth in changing their own food system. The youth grow specialty (cultural delicacies) crops to be sold to local restaurants, farmers' markets, and local co-ops throughout the summer and fall months. A plan for the distribution of profits has been hypothesized; 50% will go back into the business, 50% to a possible education fund. The MAP youth development program has progressed steadily in the past two years from a gardening skills program to a youth based business development program.

The Growing Green program answers a great need within the community. Buffalo's West Side experiences a high rate of poverty, along with a high rate of youth unemployment and crime. There is a lack of opportunities for youth to obtain marketable skills, exacerbated by the fact that many technical schools in the Buffalo school district are closing their doors. This puts West Side youth at a severe disadvantage when they enter the workforce. Growing Green is a program which addresses this problem. The end result is a program that satisfies the needs of youth as well as the surrounding community. The youth design and cultivate gardens on vacant lots and the neighborhood experiences revitalization through the creation of beautiful garden plots.

Throughout an eight-week summer schedule, the Growing Green youth learn many life-enhancing skills. One of the primary goals is to raise their awareness of proper nutrition, cooking skills and the benefits of eating a well balanced diet. Achievement of this goal was evident during a focus groups session during which Growing Green participants noted the importance of nutritious food for them and cited the advantages of eating one type of food over another. Most Growing Green participants also reported learning to cook a meal together as one of the most satisfying activities in the program

A second goal of the Growing Green program was to provide the youth with a clear depiction of where their food comes from and an opportunity to grow, process, and preserve their own food. Again, the focus group interviewees confirmed that this goal had been met; youth found it rewarding to grow their own food but also acknowledged that gardening was very time consuming and a lot of hard work. Through these interviews, it became apparent that they enjoyed the Growing Green program and came away from it with practical skills related to gardening and interacting with other youth and staff members.

At the conclusion of the second year of the program MAP did a self-inventory of its work, which identified the following program strengths:

- Hands on learning model combined with attention to teen identity issues made this work meaningful for teen participants.
- Strong mentoring relationships were formed and continue after the summer program ends.
- The commitment and skills of volunteer staff was excellent.
- The goals of creating gardens in vacant lots and constructing demonstration models for composting were met.
- MAP's resources (gardens, kitchen, partnerships) allowed for a broad-based curriculum that introduced youth to all sectors of the food system. Youth were exposed to new experiences, foods, and information that they otherwise probably would not have had.

(Massachusetts Avenue Project: Growing Green, Report on summer 2003.)

The strength of the program is in the interaction and relationship development of the program participants combined with the positive mentoring relationships that the teachers form with them. The development of trust by West Side youth is a significant accomplishment in this area and is a great indicator of the potential that the Growing Green program has to spur greater community organization and participation. The program continues year round with 10-12 youth participating in fall harvest and business development. As business owners of tomorrow, the youth learn socially responsible business ethics. These instilled business ethics and the results of their manual labor have empowered them to set goals for the future for themselves and to envision an improved community to live in.

As with any successful program, there is always room for improvement. Challenges can be envisioned as opportunities for growth. Many challenges could be identified only after working on a daily basis with the youth in the program. MAP identified the following challenges and opportunities for program improvement:

- Logistical problems delayed the start of the bioremediation project and the vermiculture project.
- Scheduling of work was complicated when the work relied on supplies from other programs. Some days there was not enough work to keep everyone busy.
- Barriers to obtaining vacant lots continue to exist.
- Plans for indoor activities when the weather was inclement.
- Funding is a significant challenge. Without funding, MAP's program cannot be implemented. (Massachusetts Avenue Project: Growing Green, Report on summer 2003.)

Growing Green teaches youth that they are integral to their community. The program provides youth with tools with which they can shape and mold their community. There are many opportunities available for personal growth within the program. Through the Growing Green school- year program, youth participate in business training and launch food-based micro-enterprises. There are also plans to establish a Community Food and Urban Agriculture Resource Center, where youth trained by Growing Green can apply their skills in the larger community.

3.4.2. Youth Education Development Project Examples

Research and findings from the focus groups confirm that food-based youth educational development projects have a positive impact on youth. They improve students' social behavior, academic performance and their appreciation for healthy foods and the environment. A 1992 study found that participants in a garden-based language arts program demonstrated an increase in positive attitudes toward school, an increase in achievement test scores and an increase in self-esteem (School Gardening Research, 2003). A 1998 Texas A&M University research project found that an implemented school garden curriculum improved students' interpersonal skills and environmental attitudes (Waliczek, 1998). Another Texas A&M University study in 1999 also found that school gardening and nutrition curricula improved students' attitude towards vegetables and fruits (Lineberger, 1999). Youth education programs which incorporate agriculture help empower youth and give them a greater political voice within their communities.

In addition to numerous research studies, school and youth projects from all over the country have shown that with patience and time, youth can become wonderful assets and transformative forces for a community. The following case studies offer some ideas for projects that can be implemented by MAP on the West Side. The Peabody Charter School in Santa Barbara, California manages edible gardens; this teaches food production. The Edible Schoolyard at Martin Luther King Middle School in Berkeley, California uses learning/classroom kitchens, where food processing is taught.

Finally, Laytonville Elementary and Middle School in California teaches composting and vermiculture to help improve food growth and food waste disposal.

Edible Gardens: The Peabody Charter School Garden Project

Edible gardens can take many forms, but their common goal is to grow, produce, and consume foods cultivated within them. Many schools across the country grow and cultivate food in nearby vacant parking lots or abandoned spaces. This produce is then distributed to the students or used in the classroom. The sixth grade class at the Peabody Charter School in Santa Barbara, California has put a different twist on the edible garden. In conjunction with their cafeteria staff, the students' Garden Project produces lettuce, spinach, tomatoes, cucumbers and other vegetables which are sold to the cafeteria. Students make \$3,000 annually from their produce; this money funds a class trip to science camp.

The Garden Project has reaped many benefits. The most significant bene fit is that children eating cafeteria food, roughly 450 of the 650 students that attend Peabody Charter School, are receiving organically grown vegetables on a regular basis. Gone are the days of instant mashed potatoes and less than appetizing canned peas and carrots. The organic produce is fresh from the garden. It creates a win-win situation on a daily basis; the cafeteria staff cooks with fresh produce, students eat fresh produce as part of their diet, and the sixth grade participates in a wonderful educational venture.

The cafeteria staff welcomes the students into the kitchen. Every Friday the students of the Garden Project are given the opportunity to help the staff create pizzas using their fresh picked garden produce. The students not only observe but also participate in the full cycle of food processing, from tiny seed to edible vegetable, to lunch; what a wonderful way to show young people that you can enjoy eating your vegetables and have fun growing them.

Learning/Classroom Kitchen: Edible Schoolyard at Martin Luther King, Jr. Middle School

What began as a chef's curiosity has turned into a productive national model for integrating school gardens into youth education. Ten years ago Alice Waters, a chef at the well-known Chez Panisse in Berkeley, California had a vision of creating a school garden that would feed the children that grew its plants. She pitched the idea to the principal of her neighborhood school and, with a few parent volunteers, the idea became a reality. As of the 2003 school year, the garden covers an acre of school property and employees eight full-time staff.

The centerpiece of the garden is the classroom kitchen, which highlights food processing. Waters felt that it was important to make the connection from garden to kitchen, kitchen to table, and table to garden. A full-time cooking instructor teaches classes in the kitchen. The children are responsible for preparing the meal, setting the table, serving

the meal, and cleaning up afterwards. The skills learned in the classroom kitchen can be applied at home. It gives youth a sense of responsibility and the knowledge that they can prepare healthy meals for themselves and their families.

School gardens play an important role in the health of our country. If youth are able to learn how to eat healthy food and maintain healthy habitats in school, they can bring this knowledge home and share them with their families. The Edible Schoolyard is a model that should be emulated by schools across the country.

Vermi-Composting in Laytonville Elementary and Middle School

The Laytonville Elementary and Middle School in California has become a locally and nationally recognized model for vermi-composting programs in its school garden. The school garden is based on recycling; all reusable items are integrated into their composting garden. In 2002, compost piles in the school garden took over 2500 pounds of cafeteria food waste over a ten-month period. The school garden also takes all of the school's paper waste and uses it as bedding for the worms. Any paper product that is not used in the composting is taken to the local recycling center. It is the school's understanding that compost makes healthy soil. In turn, healthy soil makes healthy plants, which are then consumed by healthy kids. The cycle is continuous and dependent on the composted food waste. The composting garden provides each student with an opportunity to contribute to the process. The students, with their teachers' aid complete these tasks on a daily basis. More school garden programs need to incorporate food waste recycling into their curriculums. When this aspect of the food cycle is ignored, wasted food and food scrapes only exacerbate our country's larger solid waste disposal problem.

Although these programs are inspiring, some may face tremendous challenges when implemented; the local government, existing laws and a lack of resources can pose serious obstacles. This was exemplified in the implementation of the Hamilton Organic Mentorship Experience (HOME) of Hamilton, Ontario, Canada. In 1997 when Ryan Kraftcheck began the Hamilton Organic Mentorship Experience (HOME) in Hamilton, Ontario, Canada, to assist youth in skills development, education and creating community gardens, he faced tremendous opposition in procuring municipal land, gaining political support and obtaining financial assistance. With municipal support limited, HOME's youth participants devised creative strategies to gain support from other community groups. "As municipal support was negligible, the youth ...were determined to have their case heard and demonstrate the worth of their vision by example, against all odds" (Botelho, 1999, p.211). Their work raised public awareness of the importance of food security and land use issues. With increased community awareness and involvement, the local government began supporting their efforts. As a result of their grassroots organizing, the youth learned valuable lessons about local politics, how to assert their rights, create a voice for themselves, and influence decision-making.

3.4.3. Strengths, Weaknesses, Opportunities, and Threats

Based on the assessment of youth development research and current conditions on Buffalo's West Side, numerous strengths, weaknesses, opportunities and threats for the continued growth and success of food related youth development programs were identified. Recognizing and understanding these factors reveal strengths and opportunities on which to build, and helps outline recommendations that can further educate and support youth in the West Side and across the city of Buffalo, while also creating a more food secure environment.

Strengths

- The West Side youth are a large and viable human resource for their community. Their increasing involvement in agriculture and food-related development programs could tremendously impact the West Side community's future. Participation in programs like Growing Green can enhance their own academic performance and social skills, help beautify their neighborhood, and empower them with a political voice.
- The presence of organizations already concerned and interested in supporting West Side youth with food sustainability programs and projects is a considerable strength. MAP's efforts have already led to the successful Growing Green project and the planting of numerous community gardens on the West Side. As learnt in the focus group with Growing Green youth participants, the program has taught them a great deal about planting and cultivating gardens, pesticides, how to prepare food and how to work with fellow youth (Food for Growth Focus Group, 2003). Their involvement in Growing Green has distanced them from crime plagued streets and instead surround them in a positive environment. Many eagerly look forward to spending next summer in the gardens, despite the heat and manual labor.

Weaknesses

• Despite the benefits of innovative and productive youth development programs, requisite funding is often unavailable and threatens a program's continuity and survival. Securing the necessary financial resources that support and provide opportunities for America's youth is trying.³⁵

³⁵ In "Policy Implications of the Cost of Youth Development", the Center for Youth Development (CYD) analyzed spending on youth development programs, suggesting both ideal and realistic costs necessary to make a true financial commitment to America's youth. In analyzing current spending, the CYD identified some trends. Their observations suggest that 1)adolescents are an undervalued segment of the population, 2) spending is fragmented and lacks a comprehensive strategy, and 3)there is a lack of adequate, designated and protected funding available (Center for Youth Development, 2003). In an effort to determine how much states and cities should spend on youth development, the CYD broke down this large amount based on the school-age population of each location. According to their findings, Buffalo should spend \$146,000,000 on its 47,630 school-age residents – or \$3065 per school-age resident (Center for Youth Development, 2003).

Opportunities

- This study has identified an opportunity to introduce additional youth development programs which could more positively influence more adolescents' lives on the West Side. These programs empower youth, giving them the skills and confidence to become catalysts for positive change. Agriculture, gardening and food related projects not only teach youth valuable practical skills, but also help them forge a connection and commitment to the earth; they nurture the development of the person while providing the opportunity for youngsters to participate and learn about ecological and social issues.
- There is an opportunity to involve a greater number of West Side youth in MAP's Growing Green program. Participants in the youth focus group felt that other youth, such as their school mates, would be particularly interested in participating in Growing Green (Food for Growth Focus group, 2003).

Threats

- The high incidence of crime is a major threat to youth and youth development programs. It is difficult to educate and to learn in an unsafe environment.
- There is a lack of political support for youth programs. Local government is not adequately vesting their support in youth development programs; this could compromise the sustainability and food security of the WSTA.

Along with youth worldwide, Buffalo's West Side youth, are inheriting a damaged earth. This is exacerbated by the fact that youth are not as strongly connected to the land as they once were. In addition to this, the West Side's younger residents must also contend with food insecurity. The West Side needs youth development programs that reestablish this connection between adolescents and agriculture; results may prove extremely beneficial to youth and their neighborhoods. Moreover, a public investment is necessary to ensure youth's positive development. With a little funding and some creativity, the West Side can support its most valuable human resource: its youth. The public must be vested in youth development programs to ensure the whole community's future health and sustainability.

3.5. Conclusion

This chapter outlined four strategies for strengthening the community food system and improving food security in the West Side Target Area. In the first strategy (Section 3.1) ways to enhance local food production were discussed. Establishing community gardens, greenhouses, and community market gardens on urban land can increase local food production in a safe and economically feasible manner. The second strategy (Section 3.2) examined ways to promote food-based economic development in the West Side Target Area. The third strategy (Section 3.3) examined ways to improve transportation access to grocery stores in the West Side Target Area.

The last strategy (Section 3.4) for enhancing food security was to promote food-based projects for the youth of the West Side. This section demonstrated that food based youth programs offer a tremendous opportunity to improve the local food system and revitalize the community.

As was evident in the discussion of each of the four strategic areas, efforts by MAP and other groups have already planted the seeds of a community food system on the West Side. Chapter four of this planning document outlines recommendations for MAP to continue its effort to strengthen the food system and simultaneously revitalize the West Side neighborhood.

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Artwork courtesy of Rachel Rivera

CHAPTER FOUR

GENERAL RECOMMENDATIONS

CHAPTER **4** RECOMMENDATIONS

The value of any research is ultimately judged on how it is used. In the case of this plan, the findings reported in the previous sections were crafted into an extensive list of recommendations that if implemented will facilitate the establishment of a community food system and food security for the residents of the West Side neighborhood of Buffalo. Although, the recommended actions of this plan are mainly focused toward the Massachusetts Avenue Project (MAP), other agencies and organizations must also play essential roles. Therefore these recommendations not only outline what should be done, but also target those entities that can most effectively actualize them, whether it be government, public authorities, private businesses, or other community organizations.

This plan's recommendations are organized into two sections. First, general recommendations are delineated for those entities most directly connected and influential in the realization of a community food system and food security in the West Side. These recommendations are intended to guide the actions and decisions made by these entities. In addition to MAP, the entities include the city of Buffalo, Erie County, Weed and Seed, and emergency food organizations such as the WNY Food Bank.

Second, detailed recommendations are laid forth in four strategic areas. Within these areas the recommendations are targeted towards particular entities that may have more specific roles in addressing food security in the West Side and establishing a community food system. Recommendations are presented in each of the following four strategic areas.

- Enhancing local food production through effective land use planning *and* by connecting with Western New York farmers
- Promoting food-based economic development
- Improving transportation access to food
- Youth development through food-based projects

Altogether, these two sets of recommendations provide a framework, that if followed will help the West Side neighborhood realize significant improvements in food security, economic opportunity, public safety, youth development, community linkages, neighborhood self-sufficiency and sustainability and trans-cultural exchange.

4.1. General Recommendations

Massachusetts Avenue Project (MAP)

MAP has worked toward community food security with very positive results. Outlined below are general recommendations that detail MAP can work effectively to further strengthen WSTA food security and promote neighborhood revitalization:

- Strengthen connections with the West Side community.
- Facilitate intra-community awareness and appreciation of residents' diversity.
- Promote city and regional awareness of the West Side community's diverse cultures and ethnic food markets.
- Faciliate collaboration among various organizations interested in strengthening food systems in New York, such as Hunger Action Network of New York State, to create a regional food policy council that will address food security in the Western New York region.
- Establish connections between West Side food businesses and local food producers.
- Educate esidents through a food awareness campaign about nutrition.
- Continue and expand food based youth development programs within the West Side.

City of Buffalo

A community food system plan reaches beyong the WSTA. Without support from the city, MAP's community food security initiatives cannot be sustained. General recommendations for the city of Buffalo are outlined below:

- Assign a person in the Office of Strategic Planning to undertake food systems planning in the city of Buffalo.
- Recognize public safety as a top priority in neighborhood revitalization to promote a healthy and safe local food system.
- Promote quality and affordable food stores to the city in economic development activites.
- Modify land use policy to allow land trusts that would protect viable urban community gardens.
- Recognize community gardens as a permissible use in all zoning categories.
- Finally, in light of the closure of the two Quality Markets on West Ferry and Elmwood near the West Side, discussions regarding what stores will replace them are likely. If economic development monies are to be used to attract a new supermarket, food price, food quality, and food variety needs to be considered in the decision making process. Furthermore, in the deciding what store(s) is to replace Quality Markets, great pains should be taken to ensure that the new establishment is committed to the community, receptive to its needs, and stimulates further economic development. This would be most effectively accomplished by encouraging a community based, community owned and operated food store to open that would buy local produce and food products, and reinvest within the West Side and the city of Buffalo.

Erie County

As home to vibrant family farms as well as urban consumers, Erie County can play an important role in strengthening the community food system of the region. The county encompasses both threatened farms and food insecure neighborhoods; therefore, it has a unique opportunity to improve local food security and support Erie County family farms. To do so, the county can take the following immediate steps.

- Facilitate connections between county growers, city's food based businesses and local consumers.
- Conduct and publicly disclose the results of a weekly food survey to pressure food retailers to keep prices for food staples low and food quality high.
- Provide funding for food security initiatives, including those sponsored by MAP.

Buffalo Weed and Seed

Weed and Seed is a revitalization program working with communities in their crime prevention efforts. The crime rate is greater per thousand residents in the West Side Target Area than in the city of Buffalo. High concentrations of crime and food insecurity in the West Side area detracts from residents' quality of life. If residents feel safer in their community, food security can more easily be achieved. It is essential to strengthen the community relationships between neighbors, businesses and organizations to reduce crime rates in the area. In particular by creating more community gardens in the city of Buffalo, resident activity will be greater in the neighborhoods and the opportunity for drug related crime on the city lots will be reduced.

- Continue to identify areas where crime related activities are concentrated.
- Support efforts, such as those by the Buffalo Coalition of Community Gardeners and Community Market Gardening Program, to transform the numerous vacant lots throughout the city of Buffalo into community gardens.
- Petition the city of Buffalo to adopt community gardening as a Crime Prevention Through Environmental Design (CPTED) planning strategy.

West Side Food businesses

- Be aware of shoppers' fears of being sold expensive or spoiled foods. Posting item prices, removing expired food from the shelves, and posting multi-lingual signage in the stores, including English, will make the ethnic market stores more attractive and accessible to a greater audience.
- The independent stores in the neighborhood should consider buying fresh produce from regional farms; MAP could facilitate this by connecting local businesses with regional farmers in Western New York. By doing so, quality and freshness of the food sold would improve.

Western New York Food Bank

Organizations and government programs that provide emergency food play an extremely important role in the lives of many West Side Target Area residents. However, the emergency food system only provides short term relief of hunger and is not able or equipped to prevent it. Therefore, a strong community food system is needed within the West Side to ensure the long-term elimination of hunger and the attainment of food security. Though the importance of the charitable and governmental emergency food system can not be overstated, it needs to recognize and support long term measures that eliminate the root causes of hunger.

- Allocate a portion of the budget, normally spent on buying food for distribution through pantries, for long-term food security efforts such as the expansion of urban gardens and the purchase of tools needed to create and maintain them.
- Measure the efficacy of the Food Bank in terms of the nutrition supplied through the food pantries, rather than the pounds of foodstuffs delivered.

4.2. Specific recommendations

Enhancing food production

Although there is some stable agriculture within Erie County and the Western New York region, it is threatened by low crop prices, aging farmers and development pressures. At the same time, the city and region are becoming ever more dependent on non-local food production. The potential exists for fresh local produce to be sold within the West Side and other city neighborhoods.

Additionally, the city of Buffalo possesses considerable vacant land, detracting from the city's neighborhoods. With assistance, committed residents and community groups can transform these vacant lots into viable community gardens that serve a multitude of uses including public safety, city beautification, and food security. The Massachusetts Avenue Project has done commendable work in supporting community gardens as a land use. However, its gardening projects cannot continue without the support of city and county governments as well as other neighborhood revitalization agencies.

To strengthen local food production in the city, as well as in the surrounding rural areas, this plan makes the following recommendations.

Massachusetts Avenue Project (MAP):

Support local farmers

- Facilitate connections between West Side resident's and Western New York farmers through the establishment of a West Side farmer's market to improve resident's fresh food access, while supporting local farmers.
- Educate residents about community supported agriculture (CSA) and promote them within the community; continue to use the Masachussetts Avenue Outreach Center as a permanent drop –off location for Native Offerings CSA farm.
- Establish a West Side market 'food box' wherein local CSA farms directly supply fresh produce to MAP for distribution in boxes for West Side residents at affordable prices. MAP can take facilitate residents'

participation by making share payments to the farmer at the beginning of the growing season and be reimbursed by the participants in affordable installments at the time of delivery of produce. MAP should consider accepting WIC and EBT recipients as part of this program.¹

Support urban food production

- Produce information brochures about "how to start an urban garden in Buffalo".
- Monitor conditions of West Side Target Area community gardens.
- Broaden the concept of community garden space to include rooftops, porches and above ground containers. Re-vision the idea of a community garden—gardens can be grown in raised beds and containers of any size. Garden space is not limited to empty lots; they include areas at the bases of trees, on porches, in greenhouses and on rooftops.
- Offer classes on gardening and composting at a demonstration garden site within the West Side Target Area
- Partner with the WSCC and the Western New York Land Conservancy to explore the feasibility of an urban land trust to preserve succesful community gardens
- Solicit partnerships with city or suburban nurseries to build greenhouses on vacant lots in the WSTA.

City of Buffalo:

- Amend the comprehensive plan to recognize food security as an important component of urban revitalization.
- Formally recognize community gardening as a viable and valuable land use under all zoning categories.
- Transfer ownership of long-standing gardens on municipally owned lots to gardening groups such as MAP; where this is not possible, lease vacant

lots for community gardening for longer time periods, such as three to five year increments.

- Set aside a portion of the projected vacant land management budget for a community garden start up and maintenance fund.
- Provide water sources for community gardens; for example, by preserving pre-existing water lines and connections on vacant lots.
- Create a conservation easement for preservation of healthy urban gardens.
- Facilitate the establishment of new farmer's markets and pushcarts that sell fresh local produce.
- Encourage BERC, to explore the possibilities for partnering with the rural townships to set up Transfer of Development Rights² agreements for supporting preservation of farmland in the surrounding region, and redirecting development from the rural areas to city lots/areas that are suitable/prepared for development.

Erie County:

- Recognize the importance and potential of local agriculture, whether it takes place in urban or rural parts of the county.
- Work with the city of Buffalo and MAP to connections between county farmers, city's food-based businesses and local consumers.
- Create a farmers market on the West Side in cooperation with the city of Buffalo and the Massachusetts Avenue Project.

¹ At the time this report was sent to press, MAP had already begun taking steps to design and implement a market 'food box' program in cooperation with Native Offering farm. The program is expected to start in summer of 2004.

² Transfer of Development Rights (TDR) is a technique for preserving farmland and redirecting development into a desired area. Through the use of TDR, "development rights can be severed from a landowner's "bundle of rights" and sold to a local or state government for the purpose of preserving the land…development rights can also be sold to private developers who transfer those rights to develop real estate in another location." (Bowers et al., 1997, p. 171)

The West Side Community Collaborative (WSCC)

- More strongly, articulate local food security as part of the WSCC plan.
- Include garden rehab as part of WSCC housing rehab programs.
- Collaborate with the Western New York Land Conservancy to explore the feasibility of urban land trusts for conservation of viable agricultural parcels.

4.3. Promoting food based Economic Development

Food businesses manufacture, distribute and sell most of the food we eat. These businesses also play an important role within the local economy, by creating jobs and economic opportunities. As mentioned earlier, employment in the food service sector is expected to continue to grow through 2010.³ MAP has seized upon these opportunities by making available a commercial, certified kitchen to residents of the neighborhood. This effort must continue, in part, because, the West Side is home to many resourceful immigrant groups, who have demonstrated the potential and interest in being successful food entrepreneurs.

Nevertheless, the neighborhood is significantly underserved especially by the conventional marketing and distribution system. Therefore, encouraging the opening of food businesses that supply affordable and nutritious foods within the WSTA has to be a priority - to make nutritious foods available within the community *and* to provide economic opportunity for West Side residents.

In order to support food-based economic development in the WSTA, this plan makes the following recommendations

MAP

Workforce development

Collaborate with local colleges and the city of Buffalo to promote workforce development in the West Side. Raising the educational attainment level in the neighborhood would help provide a skilled local labor force. Educational requirements for food service sector jobs vary. Although, entry-level jobs⁴ in food preparation and service do not have an educational requirement businesses owners prefer to hire employees with basic writing and math skills. More importantly, training and educating the workforce is more likely to attract jobs/businesses that pay higher wages. Additionally, the *Occupational Outlook Handbook* suggests that workers need to exhibit a professional attit ude and basic communication skills – a quality sought by current West Side business owners as well.

Provide resources

- Continue and improve the Food Ventures micro-loan entrepreneur program to enable food entrepreneurs to start and sustain their food businesses.
- Assist entrepreneurs in finding a suitable short term (e.g. farmers' markets) and long term indoor and outdoor outlets (e.g. in a food retail store such as the Lexington Coop) for selling their goods.
- Provide technical support to food businesses; offer business workshop classes, food preparation, processing and packaging classes.

Promote partnerships and networks

• Develop partnerships with local colleges and universities to offer vocational training programs for West Side residents. For example, collaborate with D'Youville College to offer vocational training and community support.

³ According to the Occupational Handbook, jobs in this sector include, but are not limited to, Chefs and Head Cooks, Managers of Food Preparation, Cooks, Line Cooks, Short Order Cooks, Food Servers, Bartenders, Cashiers, Butchers, Bakers, Food Service Managers, Wholesale Buyers, and others. Jobs that are not listed in the food sector but directly or indirectly provide services to food businesses are: billing clerks, accountants, payroll administrators, Human Resource Directors, farm workers, construction workers, transportation and distribution companies, and production workers.

⁴ The authors recognize that for most entry-level positions in the food sector, wages tend to be low. For example, the Occupational Outlook Handbook, reports that in year 2000 entry level grocery store workers earned an average salary of \$284 a week. However, these jobs could serve as a stepping stone for residents to move to better paying jobs.

- Initiate a dialogue between restaurants located in the WSTA and local farmers and urban gardeners to support the use and sale of local produce in area restaurants. ⁵
- Continue to support the New World Street Market on Connecticut Street pilot project to establish pushcart vendors on Connecticut Street.

Program implementation

• Promote market gardens as an economic development project within the Growing Green program.

Bureau of Economic Renaissance Corporation

- Support local food businesses in the WSTA and the rest of the city; these businesses make significant contributions to the local economy *and* foster greater community food security.
- Create a food based business development advisory task force for the city of Buffalo.
- Promote niche food processing with high economic multipliers such as candy manufacturing
- Promote the West Side to the rest of the region as a community with unique and exotic food offerings. Highlight the unique foods that are available in the WSTA and encourage people to come into the neighborhood to encounter a traditional food shopping experience mostly lost in the United States.
- Provide organizational support for small business development within the WSTA

City of Buffalo

• Facilitate adaptive reuse and historic preservation of buildings along possible business oriented streets, such as Connecticut, to allow them to be developed as restaurants, and small-scale food businesses.

Erie County

- Link local farmers with food businesses in the city. Food related businesses in the WSTA generate over one billion dollars; by linking food businesses with local farmers, a bigger share of the food business sales could be captured within the local economy.
- Encourage the Erie County Economic Development Agency (ECEDA) to target economic development funding and efforts towards local food processing / manufacturing, since these types of establishments spur more local economic activity in comparison to food retailers.

Weed and Seed

• Continue to support public safety programs to reduce risk of vandalism and crime for businesses.

4.4. Improving Transportation Access to Food

One of the fundamental tenets of food security is that people have the *means to access* food of good quality. West Side resident's access to fresh nutritious food is further limited by the lack of adequate transportation options and service within the neighborhood. Since households within the West Side Target Area own far fewer cars on average, there is a greater reliance on other forms of transportation such as walking and public transit. Currently, pedestrian and transit access to food stores is less than adequate, due to long distances and infrequent and indirect bus routes. Given that increasing car ownership is not a practical, economical or even desirable solution, efforts must be taken to improve and build upon existing transportation options and new transportation services. The recently initiated shuttle bus being run and paid for by the owner of the Tops Supermarket on Niagara Street provides is a heartening move in this

⁵ Although this is an excellent opportunity, it does pose a number of logistical problems. Farmers and gardeners would have to be well informed of what produce restaurants use in their menus. This would require the restaurant owner's end to plan their menus in advance.

direction⁶ (Glynn, 2003). In an effort to achieve food security by enhancing access to food, this plan recommends as follows.

MAP

Information dissemination

• Promote awareness among neighborhood senior citizens of transportation service that are currently available to them.

City of Buffalo

- Ensure public safety within the West Side Target Area so residents feel safe to walk to neighborhood food stores.
- Promote pedestrian safety by ensuring sidewalks and street lights are properly maintained.
- Enforce city ordinances requiring that sidewalks be cleared of snow.

Niagara Frontier Transportation Authority (NFTA)

- As seen from the preceding analysis, existing bus routes do not overlap with routes to supermarkets and food stores. The Niagara Frontier Transportation Agency (NFTA) should consider making food access a substative consideration in transit service decisions and re-map bus routes so that WSTA and other city neighborhoods are connected to area grocery stores more efficiently.
- Collaborate with supermarkets, such as TOPS and WEGMANS, to ensure a shuttle service for locations currently under-served by bus routes.

4.5. Promoting Youth Development through Food Based Projects

Food-based projects for youth educational development are, by far, the most critical component of MAP's effort to revitalize the West Side Target Area. Implementing food-based youth development programs promotes community development *and* enhances food security. The following recommendations can assist MAP, the Buffalo School District, Buffalo Weed and Seed, and the city of Buffalo in promoting youth development through food-based projects.:

MAP

Program implementation

- Continue Growing Green as a program to engage the WSTA youth.
- Expand Growing Green into a more structured 3-year program such that WSTA youth experience the four stages of the food cycle through handson experience and training. Each year, the youth should be organized into three groups, depending on the number of years they have been involved with the project. First year participants would learn about nutrition, where food comes from and local food issues; second year youth would learn how to plant and cultivate food, prepare and cook their produce and how to present it in an appealing manner; in the third year, area youth would learn about agri-business and marketing of their product. A specific project could be to train the youth in growing fresh flowers and greens and marketing them to nearby restaurants for use as centerpieces and salads, respectively.
- Encourage youth to become more involved in the community; e.g., create a senior youth networking program-through which youth can assist elderly residents with grocery shopping and the elderly can in turn lead cooking classes for area youth.
- Offer neighborhood-cooking workshops for the local youth in the MAP kitchen, potentially run by the youth graduating from the Growing Green program.

⁶ A few days after the recommendations in this report were released to the press, the TOPS grocery supermarket announced a new shuttle program for senior residents.

Outreach

• Make a concerted effort to publicize the Growing Green program and involve more West Side youth. ⁷

Fund raising

• Raise additional funds to support current and future youth educational development programs.

Buffalo City School District

• Partner with MAP to explore the possibility of creating farm-to-school programs and school garden programs in the West Side Target Area that would provide healthy food choices in school breakfasts, lunches, and snacks. These programs affect the health and nutrition of children *and* promote environmental, health, and nutrition education among the children.

Buffalo Weed and Seed

- Provide monetary and organizational support to MAP for creation of a senior-youth networking program to 'seed' community relations.
- Provide monetary and organizational support to MAP for gardening initiatives for city youth.

City of Buffalo

- Conduct visioning sessions with area youth.
- Establish a Youth Council for the city of Buffalo that addresses the needs of the younger city residents.

Conclusion

At this point, we return to the United Nation's definition of food security.

"Food security means that food is available at all times; that all persons have means of access to it; that it is nutritionally adequate in terms of quantity, quality and variety; and that it is acceptable within the given culture. Only when all these conditions are in place can a population be considered food secure" (United Nations' Food and Agriculture Organization).

In view of this definition, is the West Side Target Area (WSTA) food secure? Quite plainly, it is not.

Residents in the West Side neighborhood do not have unimpeded access to quality food. The increasing incidence of poverty further threatens residents' access to food. According to Census 2000, over 40% of West Side Target Area residents live in poverty; consequently a significant portion of the neighborhood's residents rely on emergency sources of food for their daily subsistence. Although, charitable and governmental entities work hard to provide short-term emergency food source, these entities are not designed to address the root causes of hunger or to provide long term solutions. With that said, the WSTA is not entirely food insecure either.

Certain foods are available at all times, throughout the year to West Side residents. Regardless of the fact that food is available at all times in West Side stores, many people cannot afford to purchase it. Moreover, when residents have the means to buy food, fresh, nutritious food is difficult to find, or just absent in many West Side food stores.

West Side food insecurity is neither simple nor uniform. This is evident in the contradictory food realities within the neighborhood. For example, the West Side has one of the greatest assortments of authentic ethnic food stores within the city of Buffalo that supply the neighborhood's immigrant communities with an ample variety of culturally acceptable foods. At the same time, the neighborhood's corner stores carry a less than adequate supply of nutritious foods such as fresh produce. Such dichotomies epitomize the complex situation that exists in the West Side.

⁷ Youth participants in the focus groups suggested putting a newspaper ad in the West Side Times, throwing a party to promote Growing Green and MAP, and having Growing Green program representatives give presentations in the West Side public schools to encourage participation.

Implementing the recommendations of this plan will strengthen the community food system of the WSTA neighborhood. This will facilitate food security *and* spur community revitalization within the neighborhood. The Massachusetts Avenue Project (MAP) has made a significant start in this direction. For continual success, MAP must stay attuned to the needs of the WSTA community. Massachusetts Avenue Project can not implement this plan alone; city and county governments, as well other interested organizations will have to step up their efforts in promoting food security within the West Side.

There is hope and a future for the West Side neighborhood of Buffalo.

BUFFALO'S FOOD SYSTEM

Resource Guide



Artwork courtesy of Mercedez Perez

APPENDIX A

BUFFALO'S FOOD SYSTEM: A RESOURCE GUIDE TABLE OF CONTENTS

A.1. Food Production	80
A.1.1. Food Production in the Eight County Foodshed	
A.1.1.1. Agriculture	
A.1.1.2. Aquaculture	
A.1.1.3. Orchards	
A.1.1.4. Vegetable Greenhouses	
A.1.2. Food Production within the City of Buffalo	
A.2. Processing	90
A.2.1. Food Processing in the Buffalo Area	
A.3. Marketing and Distribution	93
A.3.1. The Conventional Food Distribution and Marketing System	
A.3.1.1. Wholesale	
A.3.1.2. Retail	
A.3.1.3. Food Service	
A.3.2. Buffalo's Alternative Food Distribution and Marketing Syste	em
A.3.2.1. Food Cooperatives in the Buffalo area	
A.3.2.3. Farmers' Markets	
A.3.2.4. Market Basket Programs	
A.3.3. The Emergency Food System and Government Programs	
A.3.3.1. Emergency Food System	
A.3.3.2. Governmental Programs	
A.4. Disposal	111
A.4.1. Solid Waste	
A.4.1.1. Conventional Solid Waste Disposal	
A.4.1.2. Alternative Disposal Methods	
A.5. Conclusion	118

List of Figures

Section A.1. Food Production
Figure A.1. Food System Cycle
Figure A.2. Eight County Food Shed
Figure A.3. Percentage of Farms by Size in the Eight County Foodshed: 1997
Figure A.4. Percentage of Farms by Annual Sales in Erie County: 1997
Figure A.5. Number of Farms by Tenure of Operator in the Eight County Foodshed: 1997
Figure A.6. Percentage of Change of Farms by Principal Occupation of Operator in the Eight County Foodshed: 1992-1997
Figure A.7. Number of Farms by Age Group of Operators in Erie County: 1992 and 1997
Figure A.8. Percentage of Change by Age Group of Operators in Erie County and New York State: 1992-1997
Figure A.9. Total Orchard Farms in the Eight County Foodshed: 1992 and 1997
Figure A.10. City of Buffalo Community Gardens by Crop, Year 2003
Figure A.11. Distribution of Community Gardens across the City of Buffalo by
Common Council District, Year 2003
Figure A.12. Community Gardens in Buffalo 2003
Section A.2. Processing
Figure A.13. Square Footage of Food Processing Industries in the 14213 ZIP Code
Figure A.14. Square Footage of Food Processing Industries in the City of Buffalo
Figure A.15. Credit Rating of Beverage and Food Processing Industries in the City of
Buffalo
Figure A.16. Credit Ratings of Beverage and Food Processing Industries in the WSTA
Neighborhood
Figure A.17. Number of Industries According to Workforce Size in the City of Buffalo
Figure A.18. Sales per Year in the Food Processing Industry in the City of Buffalo

Section A.3. Marketing and Distribution

- Figure A.19. Grocery Stores within the City of Buffalo, By Size 2001
- Figure A.20. Other Food Retailers within the City of Buffalo
- Figure A.21. Community Supported Agriculture Farms
- Figure A.22. Food Shuttle Food Pick-ups in 2002
- Figure A.23. Emergency Food Locations in the City of Buffalo
- Figure A.24. School Lunch, School Breakfast and Summer Food Program Participation in Erie County

Section A.4. Disposal

- Figure A.25. The Municipalities of the NEST District
- Figure A.26. Solid Waste Composition for Erie County
- Figure A.27. Solid Waste for the City of Buffalo
- Figure A.28. Garbage Collection Days in the City of Buffalo
- Figure A.29. Solid Waste Disposal and Transfer Sites serving NEST Municipalities

List of Tables

Section A.1. Production

- Table A.1. Number of Farms in the Eight County Food Shed: 1997 and 1992
- Table A.2. Number of Farms by Principal Occupation of Operator in the Eight County Foodshed: 1997 and 1992
- Table A.3. Number of Operators by Years on Present Farm in the Eight County Foodshed: 1997
- Table A.4. Number of Operators by Sex in the Eight County Foodshed: 1997 and 1992
- Table A.5. Type of Organization of Farms in the Eight County Foodshed: 1997 and 1992
- Table A.6. Livestock and poultry in Erie County: 1997 and 1992
- Table A.7. Rank of Eight County Foodshed Producers
- Table A.8. Land in Orchards: 1997 and 1992
- Table A.9. Vegetable Greenhouses: 1997 and 1992

Section A.2. Processing

Table A.10. Large Food and Beverage Processing Companies within the City of Buffalo

Section A.3. Marketing and Distribution

- Table A.11. Wholesale Food Business in Buffalo
- Table A.12. Characteristics of Tops and Wegmans Supermarkets
- Table A.13. Other Food Retailers within the city of Buffalo

Table A.14. Food Services in city of Buffalo
Table A.15. Characteristics of Community Supported Agriculture Farms in the Eight County Foodshed
Table A.16. Farmers' Markets within the City of Buffalo
Table A.17. School Breakfast and Lunch Program
Section A.4. Disposal
Table A.18. Pay-As-You-Throw Fee Structure

APPENDIX **A** BUFFALO'S FOOD SYSTEM: A RESOURCE GUIDE

This appendix provides an overview of the existing food system in the city of Buffalo. It is intended as a resource guide for MAP and similar organizations working in the area of food systems. The resource guide is organized using the four components of the food cycle: production, processing, marketing and distribution and disposal (see figure A.1).

A.1. Production

Production of quality, affordable food for urban residents can start in the rural reaches of Western New York. This study identifies an eight-county foodshed area to underscore the importance and possibilities of urban-rural linkages between food production and food consumption. Erie, Allegany, Cattaraugus, Chautauqua, Genesee, Niagara, Orleans, and Wyoming counties, as seen in figure A.2, comprise the eight-county foodshed. The foodshed is a vital part of this community food system plan since increased reliance on local produce increases community food security. In addition to the eight-county foodshed, food is also grown within the city of Buffalo on urban community gardens. This section therefore provides an overview of food production in the eight-county foodshed as well as in the city of Buffalo.

A.1.1. Food Production in the Eight County Foodshed

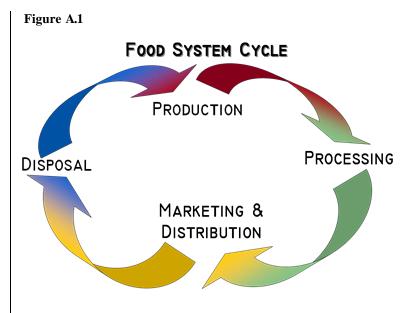
This section describes the trends in agriculture, aquaculture, orchards, and greenhouses within the eight-county foodshed of Erie, Allegany, Cattaraugus, Chautauqua, Genesee, Niagara, Orleans, and Wyoming counties.

A.1.1.1. Agriculture

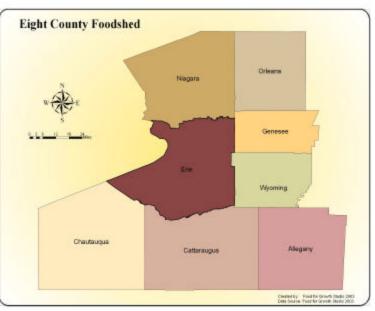
This section details characteristics of farms, farm operators, and agricultural products grown in the foodshed.

Number and size of Farms

As of 1997, the total number of farms in the eight-county foodshed was 6561, which represents a 3.45% decline since 1992. In 1997, Erie County had the second largest number of farms within the eight-county foodshed (see table A.1) and the fourth largest number of farms among all New York State counties. In 1997, the total number of farms in Erie County was 973. This is a 2.2% decrease in farms compared to 1992. Except for Allegany and Cattaraugus counties, all counties in the eight-county foodshed experienced a similar decrease in the number of farms. Chautauqua experienced the greatest loss of farms at 7.3 percent (USDA 1997 Census of Agriculture).







According to the US Department of Agriculture's 1997 Census of Agriculture, the average size of farms within the eight-county foodshed ranged from 147 to 331 acres. As shown in figure A.3, a majority of farms in Erie County were less than 179 acres in 1997. Of the counties in the foodshed, Erie County also had one of the lowest percentages of farms over 1,000 acres in size. Genesee County had the largest percentage of farms at 1,000 acres or more.

Table A.1Number of Farms in the Eight County Foods hed: 1997 and 1992

Year	Erie	Allegany	Cattaraugus	Chautauqua	Genesee	Niagara	Orleans	Wyoming	NY State
1997	973	724	946	1,557	516	687	456	702	31,757
1992	995	682	941	1,679	545	749	469	736	32,306
Change (1997-1992)	-2.2%	6.2%	0.5%	-7.3%	-5.3%	-8.3%	-2.8%	-4.6%	-1.7%

Source: USDA 1997 Census of Agriculture

Annual sales of produce

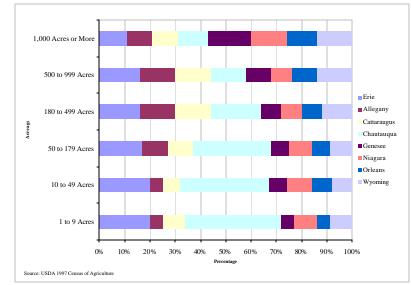
In 1997, 30 % of Erie County farms had annual sales of less than \$2,500 per year (see figure A.4). Data from 1992 shows no remarkable growth in the amount of annual of sales for Erie County farms from 1992 to 1997 (USDA 1992 and 1997 Census of Agriculture). This suggests that sales from agricultural businesses in Erie County have stagnated over the five year period.

Characteristics of Farmers

Most Erie County farmers (operators) own the land they farm. As seen in figure A.5, 63.7% of all farms are fully owned by Erie County operators. Only Chautauqua County had more farms in land ownership. Almost 30% of Erie County farms both own and rent the land they farm, while only 6.8% of farms are rented. In short, almost 90% of operators own their farms in Erie County. A similar trend is observed throughout the rest of the eight county foodshed area (USDA 1997 Census of Agriculture).

Over half of the farms in Erie County were operated by those who listed farming as their principal job occupation (see table A.2). This means that operators spend 50% or more of their time at work on the farm. However, from 1992-1997, the percentage of operators claiming farming as their principal occupation decreased (see figure A.6). Except for Niagara County, a similar trend was observed in all counties within the foodshed. Possible reasons for the decrease could be either an increase in the retired population or an increase in the amount of off-farm employment to supplement farm income (USDA 1997 Census of Agriculture).

Figure A.3 Percentage of Farms by Size in the Eight County Foodshed: 1997





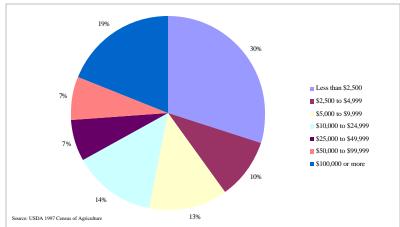


Table A.2							
Number of Farms	by Principal Occ	upation of Oper	ator in the Eigl	nt County I	Foods hed:	1997 and 1	992

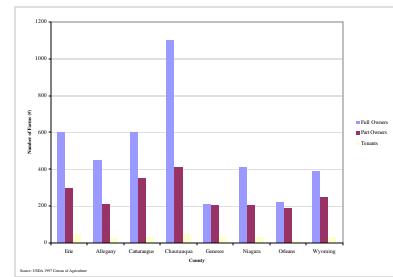
	Occupation	Erie	Allegany	Cattaraugus	Chautauqua	Genesee	Niagara	Orleans	Wyoming
	Farming (1997)	518	344	498	872	300	340	266	447
	Farming (1992)	556	383	554	998	334	391	293	518
	Other (1997)	455	380	448	685	216	347	190	255
	Other (1992)	439	299	387	681	211	358	176	218

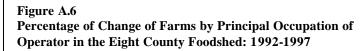
Source: USDA 1997 Census of Agriculture

Farmers within all of the eight-county foodshed have been farming an average of 22 years (see table A.3). Most operators in Erie County have worked on their present farms for 10 or more years. The average age of operators in Erie County is 54 years. The majority of farmers in Erie County are 45 years of age and older (see figure A.7). This is primarily because few young people are entering the farming profession.

This decrease in the numbers of farmers under the age of 25 between the years 1992 and 1997, made evident in figure A.8, may also suggest that farmers' children are pursuing work in other employment sectors and are not returning to the farm to take over the family business. The absence of a younger generation of farmers will lead to a decrease in the number of farm operators in the future. If fewer people choose to work as farmers the economic stability and food security of the eight-county foodshed will be threatened.

Figure A.5 Number of Farms by Tenure of Operator in the Eight County Foodshed: 1997





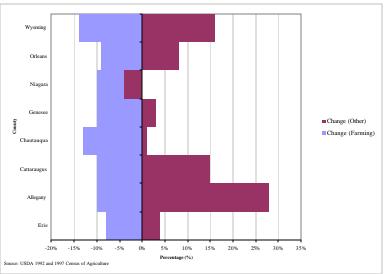


Table A.3	
Number of Operators by Years on Present Farm in the Eight County Foo	odshed: 1997

Number of years	Erie	Allegany	Cattaraugus	Chautauqua	Genesee	Niagara	Orleans	Wyoming
2 or less	34	28	44	61	12	28	15	21
3 or 4	56	43	55	84	21	31	18	31
5 to 9	132	111	96	174	70	85	53	94
10 or more	629	442	586	1,066	346	463	318	465
Average years	21.4	20.8	21	22.4	22	22.3	22.6	20.8

Source: USDA 1997 Census of Agriculture

Within the eight-county foodshed, farming is a male dominated business (see table A.4). In Erie County, both male and female operators have decreased over the five year time period. However, neighboring counties showed an increase in the number of female operators, especially in Genesee County where the number went up by 58% (USDA 1997 Census of Agriculture).

Table A.4

Number of Operators by Sex in the Eight County Foodshed: 1997 and 1992

	Erie	Allegany	Cattaraugus	Chautauqua	Genesee	Niagara	Orleans	Wyoming
Male (1997)	870	669	869	1,399	475	623	424	658
Male (1992)	888	633	865	1,530	519	700	446	704
Female (1997)	103	55	77	158	41	64	32	44
Female (1992)	107	49	76	149	26	49	23	32
Change (Male)	-2.0%	5.7%	0.5%	-8.6%	-8.5%	-11.0%	-4.9%	-6.5%
Change (Female)	-3.7%	12.2%	1.3%	6.0%	57.7%	30.6%	39.1%	37.5%

Source: USDA 1997 Census of Agriculture



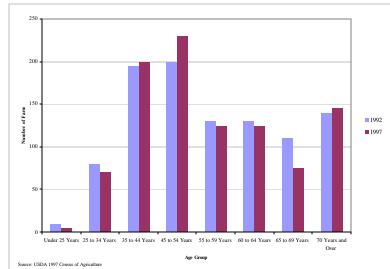
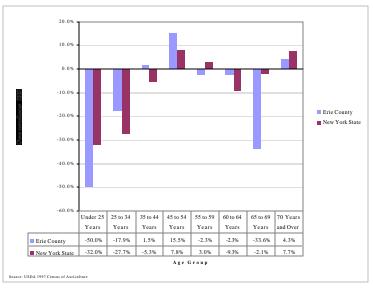


Figure A.8

Percentage of Change by Age Group of Operator in Erie County and New York State: 1992-1997



Farms in the eight county foodshed area are mostly directed by an individual or family who has sole proprietorship (see table A.5). The number of farms owned or operated by a corporation or group of people is few compared to farms operated by an individual or family. In Erie County, the number of farms owned by partnership increased and the number of individual or family farms decreased. This indicates an ownership trend toward partnership rather than sole proprietorship (USDA 1997 Census of Agriculture).

Table A.5

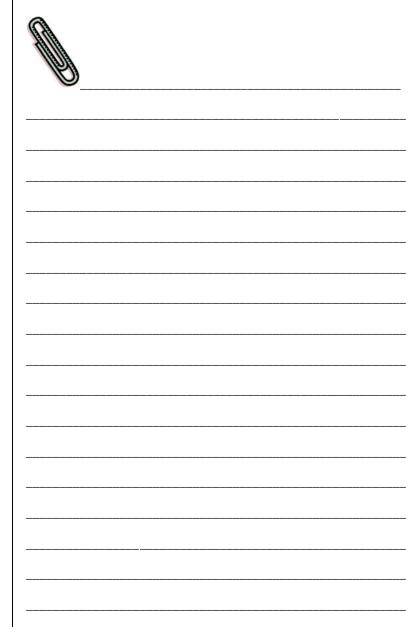
Type of Organization of Farms in the Eight County Foodshed: 1997 and 1992

	Erie	Allegany	Cattaraugus	Chautauqua	Genesee	Niagara	Orleans	Wyoming
Individual or family (1997)	843	653	841	1,385	425	611	380	585
Individual or family (1992)	864	607	832	1,516	452	664	391	610
Partnership (1997)	75	52	84	122	55	90	50	94
Partnership (1992)	69	60	76	131	61	56	47	96
Corporation:								
Family held (1997)	50	13	18	40	32	22	23	21
Family held (1992)	54	10	27	27	29	26	27	24
Other than family held (1997)	1	2	1	2	2	3	2	-
Other than family held (1992)	1	2	2	2	2	3	3	3
Other* (1997)	4	4	2	8	2	1	1	2
Other* (1992)	7	3	4	3	-	-	1	3

Source: USDA 1997 Census of Agriculture

Notes: *Cooperative, estate or trust, institutional, etc.

- Represents zero



Characteristics of Agricultural Products

Cattle and calving related businesses were the largest producers within the livestock and poultry industry in Erie County and there was little variation in the number of these farms between 1992 and 1997 (see table A.6). However, the total number of livestock and poultry farms in Erie County declined in the same five-year span (USDA 1997 Census of Agriculture). Possible reasons for the decrease could be due to retirement of farmers, bankruptcy of farms, or consolidation of farms to meet production demands and obtain better prices for the product.

Table A.6

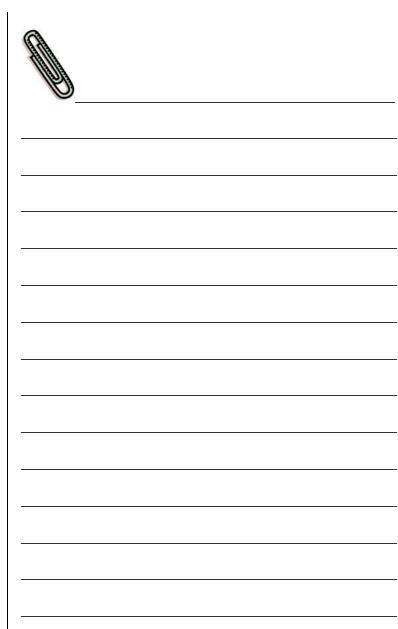
Livestock and poultry in Erie County: 1997 and 1992

	1997				Change		
Item	Farms	Number	Sales (\$1,000)	Farms	Number	Sales (\$1,000)	(Farms)
Cattle and calves	357	13,495	4,171	417	14,304	4,112	-60
Hogs and pigs	42	2,952	292	59	4,373	439	-17
Poultry	47	(X)	(D)	55	(X)	(D)	-8
Sheep and lambs	41	(X)	(D)	42	(X)	(D)	-1

Note: (NA) Not Available (D): Withheld to Source: USDA 1997 Census of Agriculture

(D): Withheld to avoid disclosing data for individual farms

All the counties in the eight-county food shed rank among the top ten producing counties in New York state for at least one agricultural product; several counties rank among top-ten producers in NY state for five or more agricultural products (see table A.7). For example, Orleans County is included among the top ten producing counties in eight of 13 products. Erie County is ranked as a top ten producing county in oats, grapes, potatoes, cabbage, and tomatoes. Even though many Erie County farms are dedicated to cattle and calves farming, they do not rank within New York State's top ten beef producing counties.



Products	Erie	Allegany	Cattaraugus	Chautauqua	Genesee	Niagara	Orleans	Wyoming
Corn								
Wheat								
Oats								
Apple								
Grapes								
Maple Syrup								
Onions								
Potatoes								
Cabbage								
Sweet Corn								
Tomato								
Milk Production								
Beef Cows								

Table A.7 Rank of Eight County Foodshed Producers

Source: New York Agricultural Statistics Service

** Each blue-colored box represents a top 10 producer in New York State.

A.1.1.2. Aquaculture

Erie County farms have not been prolific cultivators of fish. In 1997, there were only four farms producing fish. However, trends in New York State suggest a role for expanding this aspect of food production within the eight-county foodshed. For example, in 1992, New York State had 18 farms producing 85,000 total pounds of fish. In 1997, the number of fish farms were reduced to nine but the total pounds of fish produced increased to 153,000, indicating increased productivity of fish farms. Looking at the production of trout in 1992, 29 farms produced \$565,000 of sales which increased to \$807,000 by 28 farms in the year 1997 – an increase of over 40 %. These findings indicate a general increase in the value of fish production in New York State and the potential to develop this profitable crop for farmers in the eight county foodshed area. Additionally, an increase in aquaculture could also facilitate increase in aquaponics projects as well.¹

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¹ Aquaponics is the combination of aquaculture (fish farming) and hydroponics (growing plants without soil).

A.1.1.3. Orchards

Between 1992 and 1997, there was an overall decrease in the number of orchard farms in the eight county foodshed area, except in Cattaraugus County (see figure A.9); this reflects trends in New York State as a whole (see table A.8). The number of orchard farms in Erie County decreased from 78 to 65 – this was reflected in an eight percent loss of land cultivated as orchards. The neighboring counties of Chautauqua, Niagara, and Orleans, whose farms devote the most land to orchards within the eight-county foodshed, also experienced a decrease in the number of orchard farms (USDA 1997 Census of Agriculture).

Table A.8Land in Orchards: 1997 and 1992

	1992	1997	1992	1997
	Farms	Farms	Acres	Acres
NY State	2,938	2,436	112,905	101,628
Erie	78	65	1,877	1 726
Allegany	13	9	66	41
Cattaraugus	32	33	575	727
Chautauqua	701	602	18,060	17,152
Genesee	16	10	188	53
Niagara	210	146	9 238	8 266
Orleans	104	98	7 521	6 877
Wyoming	26	18	276	225

Source: USDA 1997 Census of Agriculture

A.1.1.4. Vegetable Greenhouses

Between 1992 and 1997, the total number of vegetable greenhouses in New York State increased from 86 to 120 – an increase of nearly 40 percent over the five years (see table A.9). Greenhouses are becoming an increasingly popular form of farming and as of 1997 there were ten such enterprises within the Eight County Foodshed. There were five green houses in Chautauqua and Niagara counties in 1997, but none in Erie County.

Figure A.9 Total Orchard Farms in the Eight County Foodshed: 1992 and 1997

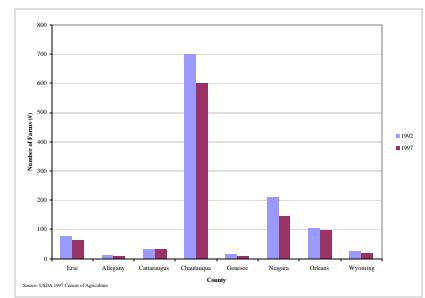


Table A.9Vegetable Greenhouses: 1997 and 1992

	1997						199	02	
	Farms	Sq. ft. under glass or other protection	Acres in the open	Sales \$1,000		Farms	Sq. ft. under glass or other protection	Acres in the open	Sales \$1,000
NY State	120	612,688	(X)	3,488		86	478,979	(X)	1,566
Erie	-	-	-	-		-	-	-	-
Chautauqua	5	7,826	(X)	(D)		3	(D)	(X)	11
Niagara	5	32,867	(X)	96		4	(D)	(X)	58

Notes: (D) Withheld to avoid disclosing data for individual farms (X): Not Applicable -: Represents zero

Source: USDA 1997 Census of Agriculture

A.1.2. Food Production within the City of Buffalo

Food production within the city of Buffalo is currently limited to private residential gardens and neighborhood community gardens. Buffalo had a strong tradition of commercial greenhouse gardening, but currently there are no food producing commercial greenhouse gardens.

Private Gardens

There is currently no comprehensive database detailing how many private gardens within the city grow fruits or vegetables and which grow ornamental flowers and shrubs. Anecdotal evidence suggests most of these residential gardeners grow plants for aesthetic and recreational purposes.

Community Gardens

Within the city of Buffalo, there are currently 51 community gardens in operation (see figure A.12). The number of plots within each community garden ranges from one to twenty-six. Fifty four percent of all gardens in the city grow food². However, within the city more gardens exclusively grow ornamental crops than food crops (see figure A.10). This can be attributed to the emphasis on neighborhood beautification within the city of Buffalo. In the WSTA area, more gardens exclusively grow food than gardens citywide. Mixed use gardens are also less prevalent in the WSTA area than citywide.



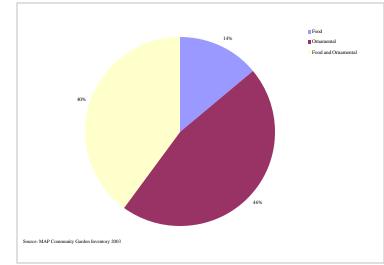
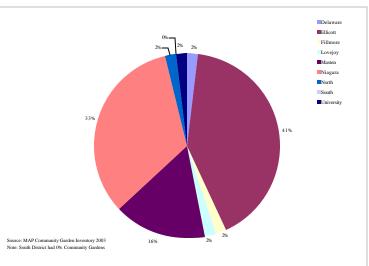


Figure A.11

Distribution of Community Gardens across the City of Buffalo by Common Council District, Year 2003



 $^{^{2}}$ Forty-two of the 51 community gardens and nine of the 13 WSTA Community Gardens responded to inquiries about the type of crop grown on its parcels.

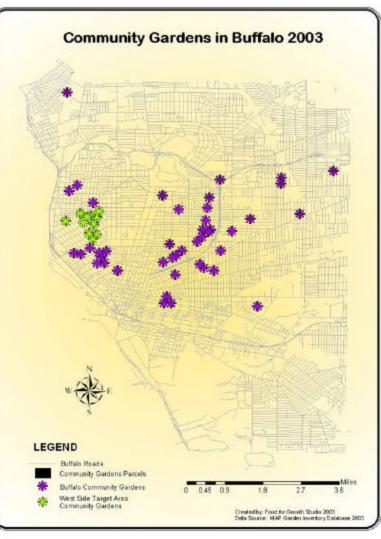
An examination of the distribution of gardens across Common Council districts reveals that the Ellicott District had the largest percentage of gardens at 41%, followed by Niagara with 33% and Masten with 16%. The WSSC focus area falls within the Niagara District, and 76% of gardens in the Niagara District and 25% of gardens citywide fall within the WSTA boundaries (see figure A.11).

Gardeners and activists indicate that the purpose for cultivating the existing gardens include community involvement, neighborhood beautification, memorializing a community member, educating children and growing produce. Many gardens serve as a method of beautifying the neighborhood and mitigating visual blight. Gardens complement the rich cultures of Buffalo's neighborhoods; two gardens are dedicated to growing vegetables specific to the Native American and Somali cultures.

Community gardens can also be operated as entrepreneurial enterprises. These 'market' community gardens raise produce for sale – and can become valuable sources of economic development in the city. For example, the ongoing Buffalo Community Market Garden (BCMG) project, run by volunteers and overseen by the United Neighborhoods hopes that through their work, "community people can beautify their neighborhoods with gardens, learn skills pertaining to agriculture, landscaping and community building, improve relations between people within communities, and learn about how to build a co-operative business together." The BCMG project is still in its infancy; currently, the project includes three garden sites, and BCMG provides seeds, tools, and administrative support to the gardeners. Currently the total property on the three sites is not adequate to generate a harvest for marketing and selling. They are exploring the possibility of raising orchids and heirlooms for profit, which has been demonstrated as a strong market demand. The future goal of the BCMG is to become its own fully-operating co-operative market garden (Hollomon, 2003).

Governmental support for community gardens is currently limited. The city of Buffalo leases vacant lots to registered community groups and block clubs for one dollar a year. Although the city lease rate is generous, there is no guarantee of the lease being renewed from year to year. Monetary resources come in the form of indirect funds from Block Grants to cultivate and upkeep the gardens. Despite this lack of governmental support, private citizen and non-profit groups play a key role in supporting community gardens. For instance, a non-profit organization known as Grassroots Gardens provides insurance – necessary for leasing land from the city - for community gardens³. Grassroots Gardens also sell seeds, plants and mulch materials at reduced costs and provides educational support. Last but not least, the Coalition of Community Gardeners, provides a discussion forum and political voice for Buffalo's community gardeners. They receive considerable staff and organizational support from the Massachusetts Avenue Project.





³ However, gardeners who use gardens that are registered with Grassroots Gardens are prohibited from selling the produce grown on these gardens, creating a disincentive for market gardens.

Although community gardens can produce valuable benefits, the costs to set up a community garden can be considerable. A landscaper installed, organic soil filled, 10' by 10' raised planter bed can cost as much as 2,000 dollars. A 500 square foot landscaped community garden, with organic soil filled raised beds, can cost as much as \$20 per square foot to install. A fully landscaped 500 square foot garden, which includes organic soil filled, raised bed planters, fences, drainage and creation of walking paths can cost upwards of \$15,000 to install. In light of these facts, a community must consider pooling its financial and human resources, as well as lobbying the local government and non-profit neighborhood planning agencies for political and financial support (Nowicki, 2003).

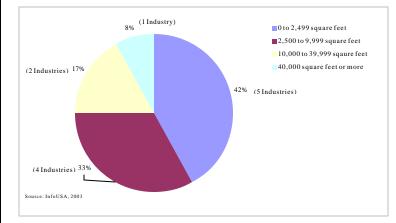
Greenhouses

Historically Buffalo was home to a number of greenhouses, although very few were used for food cultivation. Greenhouses have the potential of strengthening year-round community food security (USDA 1997 Census of Agriculture). Currently, very few greenhouses, if any, produce food in the city of Buffalo. In the late nineties, Buffalo had a hydroponic tomato greenhouse in operation; however, its corporate owners were located out of state and closed the facility within five years of its opening. It may be that locally owned and operated greenhouses may have greater longevity than non-locally owned greenhouse farms (Nowicki, 2003).

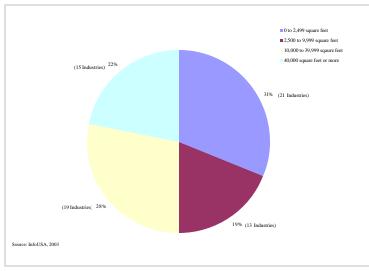
A.2. Processing

The food and beverage processing industry involves adding value to a raw agricultural product through various processes including canning, chilling, refrigerating and packaging. Processing transforms raw agricultural products into food and beverage products, or adds processed ingredients to other processed goods. The increased reliance on processed foods has contributed to the growth of the processing industry as a whole. On a national level, food-processing plants employ roughly 1.7 million workers. This is about 10% of all US manufacturing employment, and just over 1% of all US employment (US Industry and Trade Outlook, 2000).

Figure A.13 Square Footage of Food Processing Industries in the 14213 Zip Code





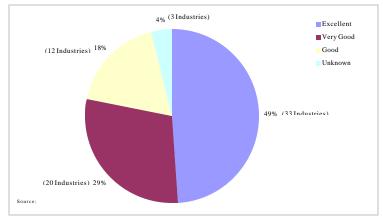


A.2.1. Food processing in the Buffalo Area

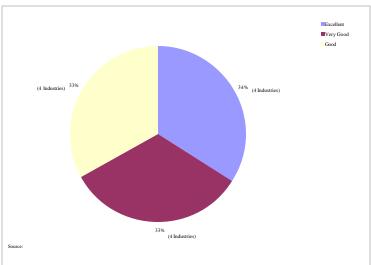
Examining processing industries in the city of Buffalo, and more specifically in the city's West Side, provides an understanding of opportunities for economic growth and improvement.⁴

The square footage of the food and beverage processing industries in the city of Buffalo falls into four categories: 0-2,499; 2,500-9,999; 10,000-39,999; and 40,000+ square feet. When the square footages are distributed evenly, it is an indicator of good distribution of businesses of all sizes—a critical factor in assuring a stable business sector. Figures 2.m and 2.n show the distribution of different sized food processing businesses in the WSTA and the city of Buffalo respectively. From these figures, it can be determined that the distribution of processing establishments is not consistent, with the West Side having a bias towards smaller establishments. The two smallest square footage categories, 0-2,499 and 2,500-9,999, make up 75% of this area. This statistic demonstrates that smaller businesses play a greater role in this area. Furthermore, businesses with smaller square footage in this area exceed the proportion of similar sized businesses in the city as a whole.

Figure A.15 Credit Rating of Beverage and Food Processing Industries in the City of Buffalo







⁴ The study area constitutes between 1/3 and 1/4 of the 14213 zip code region; thus this analysis is based on figures for the 14213 zip code.

Examining the credit ratings of these food and beverage processing industries provides an additional indicator of how the sector is faring financially. Businesses with the best credit score, for example, are able to obtain a bank loan with ease. As can be seen in figures A.15 and A.16, in the city of Buffalo, 78% of food processing industries have an excellent or very good rating.

Food and beverage-processing industries' employee sizes and annual sales also provide insight into the industry's financial stability. Food processing businesses in the city of Buffalo vary in their workforce size. Nearly 30% of these businesses hire between one and four people (see figure A.17). Another 23% hire between 20 and 49 people. Only three percent of the businesses are big employers and hire between 500-950 employees (InfoUSA, 2003). Although these statistics imply that most of these industries are relatively small, together they play a key role in contributing towards a stable economy.

In terms of annual sales, a majority of firms (65%) make over \$500,000 a year. Only 1% of the industries make over one billion dollars (InfoUSA, 2003). Once again this emphasizes the key role that small and medium sized business owners have on Buffalo's economy. Although these companies do not have as many sales as the larger companies, they support a stable local economy and promote food security.

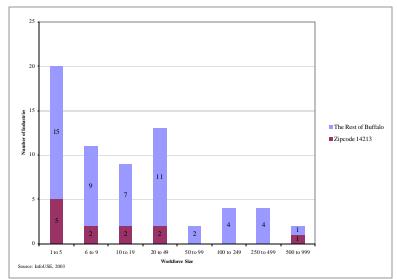
Table A.10

Large Food and Beverage Processing Companies within the City of Buffalo

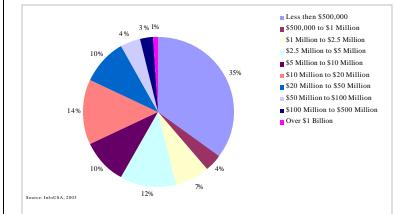
Rich Products Corporation
Interstate Brands Corporation
Freezer Queen Foods Inc
Sorrento Lactalis Inc
Pepsi-Cola Buffalo Bottling Corp
Kaufman's Bakery Inc
Niagara Chocolates Inc
Zemco Industries Inc Del
Rosina Food Products Inc
ADM

Source: Empire State Development Division of Policy and Research, 2001

Figure A.17 Number of Industries According to Workforce Size in the City of Buffalo







A.3. Marketing and Distribution

After food is grown and processed it must be distributed and marketed to consumers. In Buffalo, food is distributed to people through three different systems. The first and most significant means of food distribution and marketing is through conventional wholesale, retail, and food service establishments. This conventional system supplies most of the food consumed within the city of Buffalo. The second is an alternative system which circumvents the conventional food distribution channels; it is comprised of direct marketing efforts such as community supported agriculture (CSA), farmers' markets, as well as food and dairy co-operatives. The third and final means of food distribution occurs through emergency assistance programs such as those funded by the state and federal governments and charitable organizations.

A.3.1. The Conventional Food Distribution and Marketing System in the Buffalo Area

Buffalo's conventional food distribution and marketing system is highly complex and is comprised of three sectors: wholesale, retail, and food service. The first sector is comprised of wholesalers which distribute and broker bulk fresh and packaged food primarily to other establishments (i.e. not to consumers). The second sector is comprised of retailers such as grocery, convenience and specialty food (i.e. meat, fish, and produce) stores that sell food to consumers. The third is the food service sector comprised of full and limited service (i.e. fast food) restaurants, food service contractors, caterers, and mobile food services that prepare and sell food for immediate consumption.

A.3.1.1. Wholesale

As of 2001, Buffalo's wholesale food sector was comprised of 61 establishments distributing a variety of food stuffs including dairy, poultry, meat, confections, fresh produce, grain and field beans, packaged frozen food and general grocery products (see table A.11). Although a large general line grocery wholesaler and a larger poultry wholesaler are in business within the city, each employing between 100 and 249 workers, the vast majority of establishments are relatively smaller, employing less than 20 workers (US Census, County Business Patterns). However, since wholesaling does not require labor intensive processing or customer service, the number of paid employees may not necessarily be an accurate proxy for the business' size or importance within the city's food system.

Nevertheless, the comprehensive nature of the various foodstuffs wholesaled by establishments in the city may hint at Buffalo's role as a regional wholesale food distribution center. Since the range of freight tractor-trailers, rather than an individual customer's willingness to travel, governs the wholesale sector, Buffalo wholesale establishments may service retail and food service operations elsewhere in New York State, Pennsylvania, Ohio and/or Ontario, Canada. Conversely, wholesale food establishments located outside of the city and the Buffalo-Niagara Region may also play important distribution roles within Buffalo's food system. Unfortunately, these relationships can not be directly gleaned from available data, especially when analyzed at the intra-city level.

Table A.11	
Wholesale Food Business	es in Buffalo

Food Sector	Number of Establishments
General Grocery & Related Products	24
Fresh Fruit & Vegetable	15
Meat & Meat Product	6
Confectionery	5
Grain & Field Bean	4
Poultry & Poultry Products	4
Packaged Frozen Foods	2
Dairy Products (excluding dried or canned)	1

Source: US Census, County Business Patterns, 2001

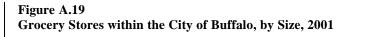
A.3.1.2. Retail

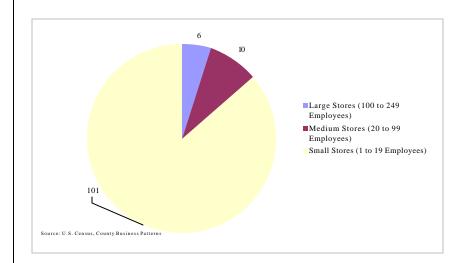
The retail food sector, unlike the wholesale sector, distributes food directly to the consumers for later consumption. As of March 2001, Buffalo had 328 such establishments with the most common retail food outlet being grocery stores. According to the County Business Patterns, Buffalo had 117 stores, with 101 of them being small establishments paying less than 20 workers (see figure A.19).

Most areas in the city are reported as having at least two grocery stores⁵. The East Side of the city (specifically, zip codes 14211 and 14215) top the citywide list with 14 different establishments each. Although the residents of these East Side zip codes are well served by these groceries stores, most of these are small retailers; this indicates the neighborhoods' lack of large supermarkets⁶.

Supermarkets

Supermarkets⁷ dominate the retail food sector both in sales and the consumers' food source perceptions. According to the USDA, in 2002 supermarkets' share of retail grocery sales was 79.9% of a stagnated \$449 billion national retail food market (Economic Research Service, 2002). This stagnation was driven by nontraditional retailers competing for a larger share of food sales, and consumers' increased spending at restaurants and other food service operations. Nevertheless, supermarkets still dominate the nation's retail food stores. Supermarkets play a significant role within the





⁵ Every zip code had at least two grocery stores, except 14203 which is located directly east of downtown, which has no grocery stores (InfoUSA, 2003).

⁶ This data was collected in 2001 prior to the opening of the new Tops supermarket in the East Side. Future Census data will indicate whether or not small corner grocery stores survive the competition with the new Tops.

⁷ A supermarket is defined as a grocery store with over two million dollars in annual sales.

city of Buffalo as well. In 2001, there were nine full service chain supermarkets including one Wegmans, two Quality Markets, and six Tops servicing the city of Buffalo. In addition, there were three Save-A-Lot and one Aldi discount supermarkets, which sold limited line or private labeled groceries at discount prices. In comparison to other cities, Buffalo was relatively well served by supermarkets, especially with the opening of the new Tops at 1275 Jefferson Avenue on Buffalo's Eastside in the summer 2003.

Table A.12	
Characteristics of Tops and Wegmans Supermarkets	

	Number of Stores in Buffalo	Average Size Stores (Sq. Feet)	Worker Organization	Management Location	Ownership	Store Emphasis
Tops	6	40,000- 65,000	Unionized	Amherst, NY	Public, Dutch	Value, Price
Wegmans	1	100,000+	Non-unionized	Rochester, NY	Private, American	Service, High-end

The various supermarkets in the Greater Buffalo region do not serve the city of Buffalo in a similar fashion. Tops has locations on the East Side and West Side of the city⁸ and surrounding suburbs and towns, while Wegmans' has most of its locations in affluent Buffalo suburbs such as Williamsville and Amherst. Wegmans' has only one store in the city⁹ adjacent to Buffalo's wealthiest neighborhoods near Delaware Park and Elmwood Avenue.

⁸ The locations are: 425 Niagara Street, 345 Amherst Street, 1770 Broadway, 1460 S. Park Avenue, 2101 Elmwood Avenue, 1275 Jefferson Avenue

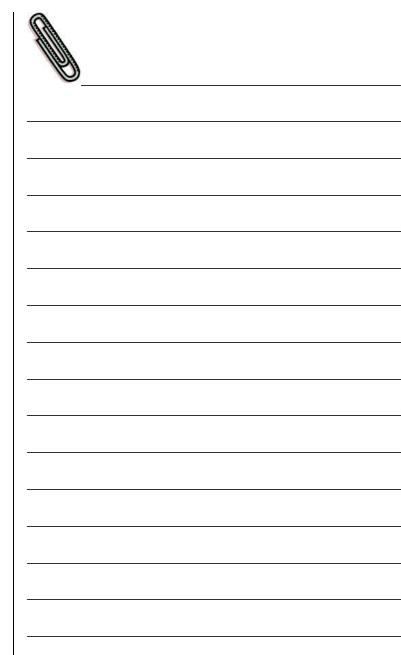
⁹ It is located at 601 Amherst St.

Wegmans' current philosophy is focused on service and high-end perishables while serving their customers in large scale supermarkets. With a "soft light and brown tiled floor" look in its stores, Wegmans' image is perceived as warm and welcoming, where customers can find frequent food demonstrations and chefs working its restaurant-like Market Café. Wegmans focuses on providing the customer high quality products in its deli, butcher shop, gourmet cheese, Market Café and sushi bar. In particular, the Market Café represents the company's food retailing viewpoint by offering a variety of meals adapted to customers' time demands: made-to-order, ready to eat, ready to heat and quick to prepare. This demonstrates how Wegman's has responded to a new shopping trend whereby, according to a nationwide survey, one-third of American customers bring home a ready to eat item twice a week (Linstedt, 1998). Unlike a Tops supermarket, Wegmans does not include branch banks or offer discount gas stations (Haarlander, 2002). Wegmans clearly focuses on high-end consumption.

Wegmans has expanded its food service by building some of the largest supermarkets in the nation at 100,000 square feet and up (Haarlander, 2002). Their business strategy is to draw customers from more distant areas by providing, in one location, a variety of high-end food services unavailable elsewhere. According to Wegmans' president, Danny Wegman, Tops' decision to build smaller may have served them well, but it's something his company isn't considering, since "the size of our stores [Wegmans] is integral to how we do things. It's important to know what your way is and our way requires a particular physical approach" (Linstedt, 11/08/98, pg. B7). Furthermore, Danny Wegman pushes aside any criticism that his stores are made exclusionary by their upscale focus by responding that "there will be people who don't shop with us because what we're doing isn't what they want and that's fine. We can't want to be everything to everybody and serve our focus customer" (Linstedt, 11/08/98, pg. B7). Nevertheless, in the *Buffalo News* article from which these quotations were taken, Danny Wegman never clearly identified his 'focus customer.'

On November 6th, 1997, two days before the opening of the first Wegmans' Supermarket within the city of Buffalo, Tops announced its intention to move away from large 100,000 to 77,000 square foot stores, in favor of smaller 45,000 to 65,000 square foot stores (Linstedt, 1998). In 2002, Tops again shrunk the size of the stores to about 40,000 square feet (Haarlander, 2002). This corporate decision to build smaller supermarkets, sometimes less than half the size of a new Wegmans store, highlights Tops' desire to enter into smaller communities and underserved neighborhoods, allowing the company to open more stores in diverse areas throughout Buffalo and suburban areas.

In 2003, Tops' business strategy was more focused on providing value and practical services to its customers. They claimed to offer low prices to their customers, as well as a variety of services that included internal bank branches and gas stations at select locations. In other words, they emphasized the practical shopping experience. Tops' bright white walls and intense ceiling lights make customers feel Tops is a neat and clean food store.



Tops and Wegmans also differ significantly in terms of their employer/employee relationship – which has significant implication for the area workers. Wegmans has a strong focus towards 'excellence in customer service' and therefore invests more in its employee training, especially in 'non-traditional skills' (Linstedt, 1998, pg. B7). In working toward this goal, Wegmans provides a more paternalistic work environment, which may be why the workers have remained non-unionized. On the other hand, Tops, which lacks a paternalistic president/owner, does have a unionized labor force. Other regional food retailing chains include: Dash's Market, Aldi, and Save-A-Lot, Jubilee Foods, and Quality Markets.

Dash's Market, a family store founded 80 years ago, owned and operated the local B-Kwik chain of supermarkets. However, this chain of stores was purchased by the Tops franchise. Now, the Dash family has opened a new store in Buffalo which has just celebrated its first anniversary. They offer homegrown and organic produce.

Aldi, a German food retailer with operations in the United States, focuses on a limited quantity and assortment of low priced, private labeled products and lacks the full-service meat, produce, and bakery that both Tops and Wegmans provide in their stores. Because of their conscious limitation of services and products, their stores are also markedly smaller. However, Aldi has located most of its stores in the Buffalo suburbs, with only one location in the city of Buffalo at 3060 Main Street in the University Heights neighborhood. Save-A-Lot, an American discount food retailer, follows the same business plan as Aldi, selling a limited line of private label groceries without the value added products and food services available at other Buffalo supermarkets. Unlike Aldi, the three Save-A-Lot stores in Buffalo are all located in traditionally underserved neighborhoods like the East Side.

Jubilee Foods has a presence in 16 states including New York. Stores in the Buffalo area are locally owned and operated. Quality Markets, with headquarters in Syracuse, NY, has dozens of stores, serving towns across southwestern New York and northwest Pennsylvania, and had 2 stores within a half a mile of the WSTA. Unfortunately, both these Buffalo stores closed at the end of 2003.

Other food retailers

Other food retailers within the city included 61 convenience stores, 14 meat markets, 4 fruit and vegetable markets, 4 fish markets, 8 retail bakeries, 10 baked goods stores, 5 candy and nut stores, 45 gas stations with convenience stores, and 53 drug stores. Independent corner grocery stores comprise 86.3% of retail grocery establishments within the city (US Census, County Business Patterns).

Many drug stores (Walgreens, CVS, and Eckerd) sell dairy items along with basic lines of groceries and accept electronic benefit transfer (EBT / food stamps) as payment. (U.S Census, County Business Patterns). These small and sometimes independent retailers are currently responsible for providing food retail service to most neighborhoods in the city, and therefore are extremely important for the continuing vitality of the local food system.

Table A.13

Other Food Retailers	within th	he City of Buffalo	

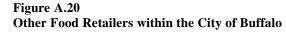
Industry Code Description	Total establishments
Convenience stores	61
Meat markets	14
Fruit & vegetable markets	4
Fish & seafood markets	4
Retail bakeries	8
Baked goods stores	10
Candy & nut stores	5
Gas stations with convenience stores	45
Drug stores	53

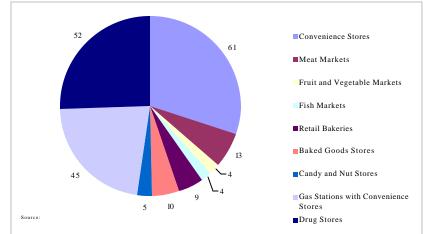
Source: US Census, County Business Patterns, 2001.

Among manager/owners of the 20 grocery stores with more than 10 employees in Buffalo, all but the Wegmans' Supercenter on Amherst Street were men. Among smaller stores, 14.3% or nine out of 63 establishments were headed by women, compared to only 5 % of larger grocery stores. Therefore, with respect to gender, the ownership/management of Buffalo's small grocery stores is more representative of the neighborhoods' population in which they are located than larger supermarkets (InfoUSA, 2003).

A.3.1.3. Food Service

Food service is the sector most intimately connected with people, since it sells food for immediate consumption. In 1999, the typical American household spent an average of \$846 on food away from home. With 42.1% of the household food dollar spent on food prepared away from home, it is not surprising that the food service sector is looking to expand this market. In addition to individuals cooking less of their own food, higher incomes and busier lifestyles of multi-paycheck families contribute to higher expenditures on food away from home compared to married-couple households with





one or no earners (National Restaurant Association, 2000). Many food producers recognize that consumers are looking for food that is "conveniently available".

As of March of 2001 there were 444 food service businesses operating within the city of Buffalo (see table A.14), making it the largest sector within the city's conventional food distribution/marketing system. County Business Patterns reported 166 full service restaurants (pay after you eat) and 184 limited service restaurants (pay before you eat)¹⁰. Each zip code within the city has at least two full service and three limited service establishments, making restaurants the most local and evenly distributed part of the conventional food distribution system. Also reported were three cafeterias, 35 snack bars / cafes, 39 food service contractors, 13 caterers and four mobile food services based in Buffalo. (US Census, County Business Patterns).

Table A.14

Food	Services i	n City	of Buffalo
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Industry Code Description	Total establishments
Full-service restaurants	166
Limited-service restaurants	184
Cafeterias	3
Snack & nonalcoholic beverage bars	35
Food service contractors	39
Caterers	13
Mobile food services	4
Total food services	444

Source: US Census, County Business Patterns

A.3.2. Buffalo's Alternative Food Distribution and Marketing System

Functioning alongside the conventional food distribution and marketing system in the city of Buffalo is an alternative system. This system consists of direct marketing and cooperative arrangements. This system supports local food production and sustainable organic agricultural practices, social and community connections between those who grow, process, sell and consume food.



¹⁰ Three quarters of establishments employed less than 20 workers per establishment.

A.3.2.1. Food cooperatives in the Buffalo area

Even though the co-operative movement is strong in the United States, only 20 food co-operatives operate in the State of New York, with only two in the Western New York area: Abundance Co-operative Market, in Rochester, NY and Lexington Real Foods Co-op in Buffalo.

Lexington Real Foods Co-op, located one block west of Elmwood Avenue was founded in 1971. Its founders wanted members to have access to specialty, particularly organic, foods at reasonable prices. In the beginning, the co-operative was a bulk purchasing organization, whose purpose was to allow people to obtain food not available in Buffalo by buying it in quantity and distributing it among the Co-op's members. With more than 1,600 current members, the Co-op has evolved to become a competitive store serving the local community and economy by offering fresh, organic products that chain stores usually do not sell. The Co-op prefers to buy locally grown or processed food. Additionally, there is a great emphasis placed on organic food. Although the Co-op wishes to sell products that are both organic and local in origin, preference is given to locally grown foods, even if they are not organic¹¹. To further this objective, the Co-op buys produce from local farms, such as Porter Farms (Tomasulo 2003).

As a community owned business, Lexington Co-op encourages members to purchase a share of the co-operative. For a one time fee of \$80 anyone can become a member-owner of the Lexington Co-op. Membership entitles customers to receive a 2% discount off most products within the store. Further discounts can be obtained by volunteering to work at the Co-op. Working four hours a month entitles the member to a 10% discount; working eight hours a month allows the member the maximum 19% discount. About a few dozen people work for these discounts every month; Joann Tomasulo, the membership coordinator and shift manager for the Co-op, believes that these discounts are significant in making the food affordable for the volunteer workers. She suggests that along with providing Buffalo's best selection of organic produce, community ownership and the democratic involvement in the Co-op's operation are the primary reasons why people shop and join the Lexington Co-op (Tomasulo 2003).

According to Tomasulo, some of the challenges facing the Co-op include a lack of local organic producers, which results in the Co-op purchasing organic products from outside the region. She also identified the lack of leadership as

¹¹ A positive development for co-operatives in North America is participation in the Co-operative Advantage Program (CAP), which helps food co-operatives combine their purchasing power to buy in bulk and get better prices for many commonly stocked food items. The CAP program allows the Lexington Avenue Co-op to offer competitive sale prices on items and engage in collective marketing through the distribution of a common advertising circular (Tomasulo 2003).

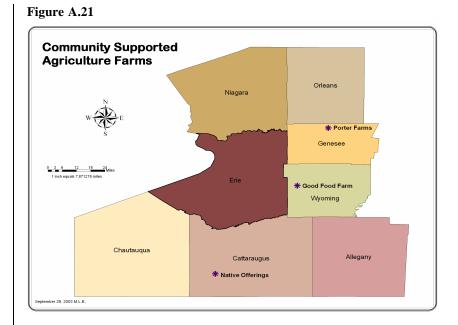
being a major challenge for co-operatives in general and the key reason behind the failure of the North Buffalo Food Co-op in the 1990s. The Lexington Food Co-op is an example of an alternative to the conventional retail food distribution system. However, the pricing and specialization of its food offerings may ultimately determine who shops there.

A.3.2.2. Community Supported Agriculture (CSA)

Community supported agriculture (CSA) is a direct marketing arrangement wherein the farmer directly sells shares of the farm produce to the consumer. Shares are usually sold in the beginning of the year, between January and May. This allows the farmer to obtain capital for operating and production costs at the beginning of the growing season. In turn, shareholders know exactly where and how their food is grown as well as by whom. As the demand for locally grown, organic, and specialty produce in this country continues to grow, community supported agriculture offers a viable arrangement for both the consumer and the producer (Stokes, Watson, and Mastran, 1997).

Community supported agriculture is more than a marketing tool for farmers and the source of fresh produce for a community. The social benefits of community supported agriculture are often cited as important reasons why people belong to a CSA farm. Community supported agriculture fosters a sense of community identity and renews human relationships with the earth. CSA farms also have the capacity to foster environmentally sound farming practices, since many are either certified organic or practice organic farming methods (CIAS, 2000). Some of these farms take organic one step further and utilize bio-dynamic¹² and bio-intensive¹³ farming methods.

There are three CSA farms in the vicinity of the city of Buffalo: Native Offerings Farm, Good Food Farm, and Porter Farms. While none of these CSA farms are situated in Erie County, they are located in surrounding counties within an hour to an hour and a half drive from their members (see figure A.21). All three farms have share-holding members from the city of Buffalo, and each provides a variety of fresh produce to Buffalo residents during the growing season (see table A.15).



¹² Bio-dynamic farms aim to be completely self sufficient; the farm produces its own fertilizers and other inputs and usually by growing a variety of plants and raising animals.

¹³ Bio-intensive methods involve using raised beds to produce high yields in the smallest area possible and as efficiently as possible (Eicher, Annie, 2003).

Characteristics of Community Supported Agricultural Farms in the Eight County Foodshed			
	Native Offerings Farm Little Valley, New York	Porter Farms Elba, New York	Good Food Farm North Java, New York
Certified Organic	No	Yes	No
Practices Organic Principles	Yes	Yes	Yes
Length of Season	Year round	June – November	May - November
Price of Shares	\$40 - \$825	\$290	\$450 for full share \$255 for half share
Types of Shares	Summer, Winter, Fruit, Eggs, and Full Year (full and half shares)	Full shares	Full and half shares
Acres devoted to the CSA	12	10	0.5
Products offered	Primarily vegetables, options for meats	Primarily vegetables, options for meats	Vegetables

Table A.15 Characteristics of Community Supported Agricultural Farms in the Eight County Foodshed

Community supported agriculture can also be implemented within an urban area. Currently, there are no urban community supported agriculture farms in Buffalo.

A.3.2.3. Farmers' Markets

Farmer markets also allow farmers to sell their produce directly to consumers. Farmers markets are increasingly popular, not only for providing a fresh supply of food, but also because these markets enliven the city – they provide spaces for city residents, farmers, artisans and artists tend to engage in commercial and social exchanges. There are four farmers' markets operating within the city of Buffalo (see table A.16).

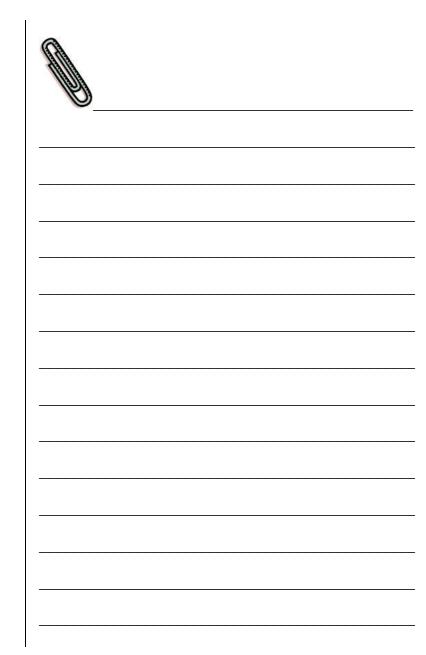


 Table A.16

 Farmers' Markets within the City of Buffalo

Market Name	Location	Hours	WIC/Food Stamps Accepted
Broadway Farmers' Market	999 Broadway, between Gibson and Lombard Streets	Mon-Friday 8-5 p.m., Sat. 7-5 p.m. Year Round	Yes
Downtown Country Market at Buffalo Place	Main Street, Between Court and Church Streets	Tues. and Thurs. 8- 2:30 p.m. May- October	Yes
Elmwood Village Farmers Market	Bidwell Parkway and Elmwood Avenue	Sat. 8-1 p.m. May- November	Yes
Niagara Frontier Grower Co-op Market	Clinton Street and Bailey Avenue	M, W, F 7- 6p.m. T, Th, Sat 4:30-6 p.m.	Yes

Source: www.ams.usda.gov/farmersmarkets/States/New York.htm

Broadway Market

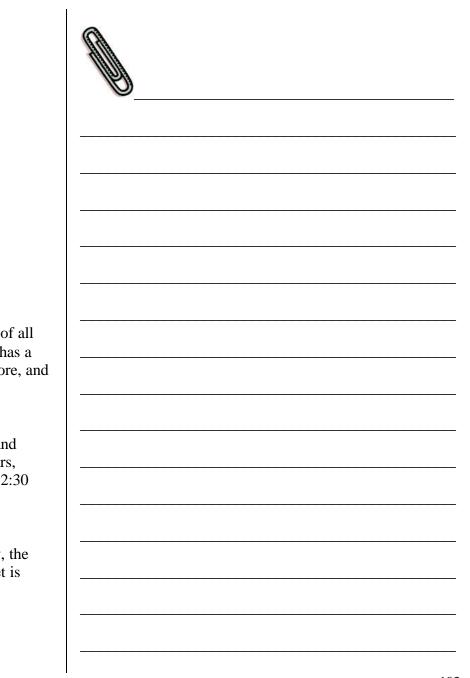
Since 1888, the Broadway Market has served the Buffalo area with over 40 vendors. Meats, breads and pastries of all varieties, candy, basic groceries, health foods, and produce are only a small part of the market. The market also has a restaurant, watch repair store, a shoe shine, two banks, opticians, a jewelry store, clothing stores, card and gift store, and many others. The market has free parking available as well (www.broadwaymarket.com).

Downtown Country Market at Buffalo Place

The Country Market has a total of 25 participating farmers and vendors. Goods sold range from flowers, fruits and vegetables, kettle korn, pastries and breads, sausages and meats, cheese, herbs and spices, to jams, jellies, vinegars, honey, and maple syrup. The market is open two times a week, Tuesday and Thursday, for sales, from 8 a.m. to 2:30 p.m. May thru October (www.buffaloplace.com).

Elmwood Village Farmers' Market

Located in the Elmwood neighborhood of Buffalo, at the intersection of Elmwood Avenue and Bidwell Parkway, the market sells fresh produce, organics, health foods, baked goods, plants and flowers from local farms. The market is open every Saturday from May until November and runs from 8 a.m. until 1 p.m. (http://gobuffaloniagara.com/events/eventdetails.cfm?eventID=152&stype=b).



Niagara Frontier Grower Co-op Market (Clinton-Bailey Market)

This is a wholesale and retail farmers' market. Over 50 growers and 20 vendors attend every Saturday. Operational May through July; the market sells produce, flowers, shrubs, and perennials. Locally grown produce is sold in season and offers a variety of fruits and vegetables. The market is open every Saturday, from 7 a.m. to 1 p.m. (http://www.nyfarmersmarket.com/western.html#Anchor-Erie-58035).

New Farmers' Markets in the City of Buffalo

The New World Street Market, located on Connecticut Street in the city of Buffalo, has a pilot program to implement push cart street vendors in that area. The program included a farmers' market. The location for the market is on the northeast corner of 14th Street and Connecticut Street and operates from the hours of 1 p.m. to 4 p.m. one day a week (L. Knigge 2003).

Unfortunately, this market was not very successful in 2003, in part, due to difficulties with obtaining insurance. Only one farm participated sporadically. The New World Street Market Steering Committee hopes to have better organization, more participation from farmers, and with the help of the Clinton-Bailey market program, issues with insurance resolved by the start of next year. This market would operate via the Clinton-Bailey Market program which will facilitate the acceptance of food stamps and WIC coupons. This market, if successful, will serve the West Side neighborhood (L. Knigge 2003).

A.3.2.4. Market Basket Programs

Market basket programs are an affordable food distribution alternative. These programs, generally operated by nonprofit groups, pack and distribute boxes of fresh fruit and vegetables to designated drop off sites at nominal prices generally for lower-income families. The food that is distributed can be purchased from area farmers and suppliers, or grown by urban gardeners interested in selling their produce through a market program. Market basket programs currently exist in many cities in North America (Koc et al. 1999). No known market basket programs exist in the city of Buffalo.

A.3.3. The Emergency Food System and Government Programs

A number of governmental and non-governmental organizations also distribute food, primarily to lower-income individuals/families. For example, food banks, soup kitchens, food pantries, churches, and food shuttles – collectively referred to as the emergency food system - play an important role in distributing food to people of lower incomes. Similarly, government programs such as school lunch programs, and the federal food stamp programs are also instrumental in distributing food to families with lesser means.

A.3.3.1. Emergency Food System

A number of dedicated non-governmental emergency food organizations are currently distributing food in the city of Buffalo, primarily with the aim to reduce hunger within the low-income.

Meals-on-Wheels

The Meals On Wheels Association of America is an organization that home-delivers pre-made meal services to people – primarily the elderly - who are unable to afford/prepare meals on their own. This organization relies on state and local funds, as well as private/public partnerships, to meet the increasing demand for this service. Of the 33 locations that Meals on Wheels delivers in Buffalo, only one is located in zip code 14213, which encompasses the WSTA¹⁴. Therefore, it appears that emergency food is not distributed evenly across areas of need in the city of Buffalo.

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¹⁴ Crane Cutting Senior Center located at 286 Lafayette Avenue.

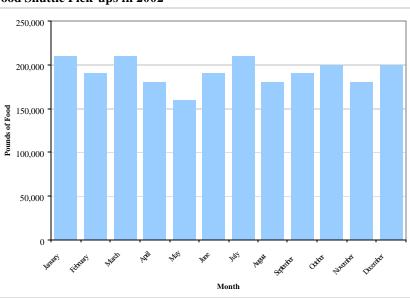
Food Shuttle of Western New York

The Food Shuttle of Western New York, which began in 1989 at the St. Gregory the Great Church, retains the single focus of "helping alleviate hunger in the community by transporting surplus prepared and perishable food from supermarkets, bakeries, restaurants, and other food-related businesses to soup kitchens, food pantries, and shelters throughout the Buffalo area" (www.foodshuttlewny.org/buffalo/). The Food Shuttle has no dedicated source of funding and therefore, relies on donations, grants, and service awards. Overhead expenditures remain low by using volunteers; the volunteers comprise of area residents from diverse ethnic and professional backgrounds.

The Food Shuttle involves about 400 volunteers (many of whom drive surplus food from food providers) and over 150 food providers. Shuttle drivers donate their time, the use of their vehicles, and gasoline. The Food Shuttle relies on a Food Shuttle Hotline, enabling food providers to call when they have excess food available for pick-up. Once the food is picked up, it is directly delivered to one of its 125 recipient agencies. The recipient agencies vary from church-based and non-sectarian soup kitchens, to food pantries, Head Start programs, half-way houses, and low income senior citizen housing centers (www.foodshuttlewny.org/buffalo/). Of the 135 locations the Food Shuttle of WNY serves, a majority (86) are located in Buffalo, while the remainder (49) are located in the surrounding suburbs. Of the 86 locations within the city of Buffalo, two¹⁵ are located in the zip code 14213, which encompasses the study area.

The Food Shuttle drivers collectively make about 300 pick-ups and drop-offs weekly. In 2002, the grand total of food picked up and delivered was 2,269,814 pounds, averaging 189,151 pounds a month, and 43,650 pounds a week (<u>www.foodshuttlewny.org/buffalo/</u>). A detailed figure of monthly food pickups is seen in figure A.22. This organization provides the community with a vital link between excess food source and locations where food is scarce.

Figure A.22 Food Shuttle Pick-ups in 2002



¹⁵These locations are: The Salvation Army at 187 Grant St., and the West Side Clubhouse located at 175 Potomac Avenue. Although, there are only two locations within the 14213 zip code study area, there are many locations the Food Shuttle delivers to in the surrounding zip codes. BUFFALO'S FOOD SYSTEM: A RESOURCE GUIDE

Western New York Food Bank

The Western New York Food Bank, a regional member of the Second Harvest's 200-strong national network of food banks, is the largest emergency food organization in Buffalo, and provides food for the hungry in four counties¹⁶ of Western New York. The WNY Food Bank solicits donations from the private sector, including from farmers, manufacturers, wholesalers, and retailers. Of the food donated to the WNY Food Bank, 60-65% comes from local donations and food drives¹⁷. The remaining 30-35% is supplied by the State or Federal government (Food Bank of WNY, 2003).

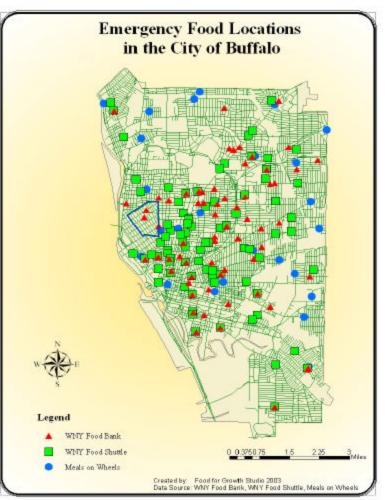
The WNY Food Bank employs 28 full time and three part time employees and has numerous volunteers. The WNY Food Bank provides one million pounds of food per month to 520 emergency food 'sub-agencies.' These sub-agencies then distribute the food to those in need. While the Food Bank donates most food to the sub-agencies, the agencies are also able to purchase additional food from the Food Bank at 14 cents per pound.

The WNY food bank currently uses the number of pounds of food distributed – rather than the nutrition delivered by this food - as a performance benchmark. Furthermore, although the WNY Food Bank plays a critical role in short-term food distribution to the hungry, the Bank does not focus on long term or comprehensive food security.

A national study of emergency food programs confirms that the demand for these food service programs is increasing (The United States Conference of Mayors, 2000). For example, in the state of New York, between 1987 and 1996, the total number of people in New York State who depend on emergency food increased by 5.5 million or 100%, and the total number of meals provided by soup kitchens increased by 3.9 million pounds or 61% (Fyfe, 2000). From 1996 to 2000, an additional 37% was added to this group (NYS Department of Health, 1997).

The emergency food system demonstrates considerable evidence in achieving day to day hunger relief. However, it plays a negligible role in supporting long term food security.





¹⁶ Cattaraugus, Chautauqua, Erie, and Niagara Counties

¹⁷ For example, sports teams, private companies (General Mills and Campbell, Buffalo News and Channel 2), federal agencies (post office) contribute cash, in-kind or through sponsoring fund-raising drives.

A.3.3.2 Governmental Programs Federal Food Stamp Program

The Food Stamp Program is the nation's main anti-hunger program. This program is available to most low-income households that have few resources, regardless of age, disability, status or family structure. In order to be eligible for the program, the applying household must meet income and resource guidelines, employment standards, and citizenship and residency requirements. If eligible, the household is given an electronic benefit transfer (EBT) card that can be used to buy food at grocery stores, farmers' markets, and other authorized retail locations (Nutrition Consortium of NYS, 2003). There are approximately 146,000 authorized stores across the nation. The benefits provided through EBT cards are fully funded by the federal government, which also pays for half of the administrative fees of the program, with the state picking up the other half. In 2002, a typical food stamp household had a gross income of \$633 per month and received a monthly food stamp benefit of \$173. The average food stamp household size was 2.3, and households with children were relatively large, averaging 3.3 members (U.S. Department of Agriculture, 2003). Of all the participants, 11% had no cash income of any kind. The Food Stamp Program served 19.1 million individuals in fiscal year 2002. Recently, participation has shown signs of increasing (U.S. Department of Agriculture, 2003). Despite these large numbers of participants, more than 1/3 of the people who are eligible for food stamps in New York are not currently enrolled (U.S. Department of Agriculture, 2003).

The largest proportion of food stamp participants (41.6%) is Caucasian (and non-Hispanic). The second largest group (34.9%) is African-American (and non-Hispanic). The third largest group consists of Hispanics, which makes up 18.2% of the food stamp participants (Fiscal Policy Institute, 1999).

Nearly 80% of all benefit went to households with children, 16.6% went to households with disabled individuals, and 6.9% went to households with elderly. Out of all adult participants in this program, age 18 or older, 69.2% are women and 30.8% are men (www.fns.usda.gov). Of all children participants in the Food Stamp Program, two-thirds, or 66.8%, are school age (5 to 17 years) and about one-third (33.2%) are preschool age (0 to 4 years) children.

NY School breakfast and lunch program

The NY School Breakfast and Lunch Program, recognizes that a daily breakfast and lunch are essential to the health and well being of growing children. Research suggests that children who eat breakfast have higher test scores, better attendance records, and fewer classroom behavior problems (Nutrition Consortium of NYS, 1999). Of all the public schools in New York State, 88% are currently operating the School Breakfast Program. All public elementary schools participating in the School Lunch Program are required by state law to offer School Breakfast Programs.

Moreover, public schools with severe needs – where 40% of the children are eligible to receive free/reduced price meals - are required by state law to offer School Breakfast Programs. The state and federal governments reimburse the schools for the price of the food and preparation of every meal served (Nutrition Consortium of NYS, 1999).

Of the 29,789 elementary students in the Buffalo City School District, approximately 86% have applied for free or reduced lunch/breakfast. Of the 11,456 high school students, approximately 66% have applied for free or reduced lunch/breakfast (Fyfe, A. 2000). Total expenditures for each program in the Buffalo City School District by State and Federal dollars for the 2002-2003 school-year are as follows:

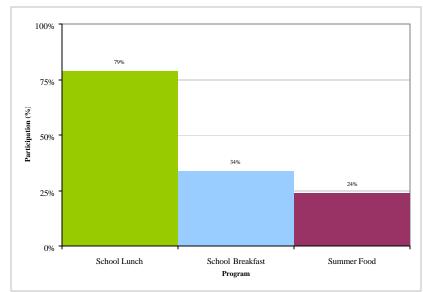
Table A.17School Breakfast and Lunch Program

Program Name	Federal Dollars	State Dollars
Summer Food Service Program	\$6,662,223	\$67,801
Snack	\$87,684	Х
Lunch	\$10,392,851	\$451,289
Breakfast	\$3,700,215	\$312,771
Federal/State Total Payments	\$20,842,973	Х
State Total Payments	х	\$831,861

NY Summer Food program

The Summer Food Program recognizes children's need to access food throughout the entire year. Therefore, when school is out of session for the summer, this program provides a free lunch to anyone less than 19 years of age. These meals are served at local neighborhood locations such as schools, camps, government agencies, and at non-profit locations. This program can be established in an area that has a school with 50% or more of its students qualifying for free or reduced meals, or where 50% of the families have incomes below 185% of the poverty level (www.hungernys.org).

Figure A.24 School Lunch, School Breakfast and Summer Food Program Participation in Erie County



Unfortunately, this program is not as successful in attracting children, with less than 13% of all eligible children receiving these meals; this in part due to the limited number of locations offering the program. In Erie County, 13,606 - out of the eligible 56,861 students – use this program daily. This means that only 23.9% of those eligible to use this program do so (Nutrition Consortium of NYS, 2003).

NY Special Milk Program for Children

The Special Milk Program for Children is a program that provides milk to children in schools and childcare institutes. In order for these institutions to be eligible, they cannot actively participate in other federal meal service programs. Participating schools are then reimbursed for the milk they serve. A simple program that deals with only one issue, the NY Special Milk Program helps fill a gap for institutions that do not want to run a full meal program.

Women Infant and Children's Program (WIC)

The Women Infant and Children's (WIC) and the WIC Farmers' Market Nutrition Program are federally funded staterun programs that provide 'WIC checks' to participants. These 'WIC checks' can be used at participating stores and farmers' markets to purchase specified items such as milk, eggs, juice and fresh produce. In order to receive funding to run a WIC program, each state must apply for a grant following which, the federal government distributes money according to need. In order to participate in the WIC program, the recipients have to be low income, pregnant/nursing women, infants, or children.

WIC recognizes how important it is for children to be healthy throughout their developmental stages. Without a healthy diet, mothers are more prone to delivering children with low birth weights, which increase the children's risk of mental retardation, physical handicaps, illnesses, and infant mortality (www.hungernys.org). According to the Nutrition Consortium of New York State, this program has helped reduce very low birth weight by 44%; moreover, it is estimated that the program saves \$3.50 in healthcare costs for every \$1 spent on the program (Nutrition Consortium of NYS, 2002).

The government programs provide options for low-income people to purchase food for themselves and their families. However, these programs are underutilized, since they are not used by all those who are eligible. A number of these eligible people probably utilize the emergency food system to obtain short term hunger relief - or go without food, increasing the number of people that experience hunger on a daily basis and long term food insecurity.



While many of the governmental and non-governmental programs have dealt with the issue of hunger and the problems that go along with it, they have not dealt with structural barriers for ensuring food security. Current agencies and programs offer mostly temporary solutions to contain the problem rather than fix it.

Figure A.25



Although food waste disposal is often recognized as the final stage in the food system, it is not. It is actually only one part of the food system cycle. Thus, solid waste disposal is absolutely critical to the food system not only because it completes the cycle, but also because it greatly influences the type and quality of food production. This cyclical relationship is often overlooked and consequently, solid waste remains an untapped resource that is not fully incorporated into food production.

Food waste is disposed through conventional disposal methods, such as through garbage collection, which is then sent to transfer stations and then to landfills. Food can also be disposed through alternative methods such as recycling, composting and vermiculture. This sub-section provides an understanding of both the composition and amount of solid waste generated in the city of Buffalo. It also exposes flaws in the current disposal system, as well as opportunities to recapture the lost resource.

A.4.1. Solid Waste

Solid wastes are classified as either organic (paper, yard and food wastes, wood, plastics, and textiles) or inorganic (glass and metals), and are generated by residences, industries and businesses. Solid waste service provisions are closely monitored by federal and state laws.¹⁸

Falling under two categories—solid waste collection and solid waste disposal—solid waste services in Erie County are highly decentralized. Individual municipalities set their own terms for garbage pickup and disposal. The city of Buffalo is no exception. The Division of Solid Waste currently oversees garbage collection and disposal in the city. This Division falls under the Division of Street Sanitation, a subsection of the Department of Public Works, Parks and Streets.





The Municipalities of the NEST District

Source: NorthEast Southtowns (NEST) Regional Solid Waste Management Plan 2000-2012, 2003

¹⁸ These laws include the National Environmental Protection Act, Solid Waste Act of 1965, Solid Waste Disposal Act, Resource Conservation and Recovery Act, Clean Air Act, Clean Water Act, the New York State Environmental Quality Review Act and Environmental Conservation Law.

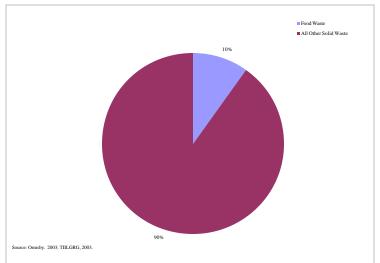
A.4.1.1. Conventional Solid Waste Disposal

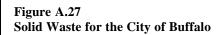
The city of Buffalo generates an average of 164,250 tons of garbage per year. Roughly 20% of this solid waste can be associated to food related waste. The total amount of waste ranges from 525 tons/day to 375 tons/day depending on the season, with summer months yielding more garbage (P. Ormsby, personal communication, 2003). In comparison, the North East Southtown (NEST) region's residents produced a total of 381,651 tons of waste in 2000, 37,824 tons (9.9%) of which was attributed to food waste.¹⁹ It is interesting to note that even though Buffalo generates less garbage than the NEST region, its proportion of food related waste is almost double. One possible explanation for this lies in the fact that the NEST region currently utilizes a much more comprehensive composting and recycling plan. The Erie County Department of Environment and Planning estimates that county residents generated 813,567 tons of solid waste in 1994 (WNYRIN, 2002). Despite the fact that the city of Buffalo's population in 2000 (292,648) was 31% of Erie County's population (950,265), the city of Buffalo only generated approximately 20% of Erie County's total solid waste (Census, 2000).

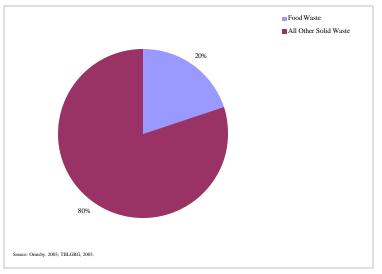
While the predominant collection arrangement made by the NEST municipalities are contracts with private hauling firms, the city of Buffalo currently manages collection itself. In 1996, the city's Department of Public Works, Parks and Streets instituted a new curbside collection method, the Pay-As-You-Throw (PAYT) System. The new system's goal was to reduce disposal costs for the city, while simultaneously creating a cleaner and safer environment. Garbage containers with lids help keep refuse inside the containers and therefore help reduce rodent problems. The first phase of the system involved replacing every resident's trash can with a new, 95 gallon blue container. If specifically requested, residents could receive smaller 35 or 65 gallon containers. The second phase of the system was the implementation of the PAYT program. This program allowed a customer to pay a user fee based on the size and number of containers they utilized. In addition to this variable fee, every resident had to continue paying a fixed fee of \$81.63 per year. This contributed to the costs associated with sending collection crews to each property once per week. The following table A.18 indicates the annual PAYT fee structure:

Figure A.26

Solid Waste Composition for Erie County (Excluding the city of Buffalo, Amherst, Grand Island, Tonawanda, the Cattaraugus Indian Reservation)







¹⁹ The analysis of the city of Buffalo's disposal system is based on local reports and municipal-level information wherever possible. However, as data on public sector waste management and privately managed waste are often incomplete and generally unavailable, much of this analysis is based on the NorthEast Southtowns (NEST) Regional Solid Waste Management Plan. Submitted to the New York State Department of Environmental Conservation on March 21, 2003 and prepared by the Tellus Institute and the Institute for Governance and Regional Growth, the plan documents existing integrated waste management operations in a 37 municipality region within Erie County. As figure A.25. indicates, this NEST region excludes the city of Buffalo as well as Grand Island, Tonawanda, Amherst and the Cattaraugus Indian Reservation. Despite these omissions, the plan provides valuable information on solid waste management, including conventional disposal methods, recycling and composting within Erie County, which can in turn be applied to the city of Buffalo.

Table A.18Pay-As-You-Throw (PAYT) Fee Structure

Fixed Fee	Variable Fee	New Rate
\$81.63	35 Gallon Container - \$19.71 ea.	\$101.34
	65 Gallon Container - \$32.68 ea.	\$114.31
	95 Gallon Container - \$38.23 ea.	\$119.86

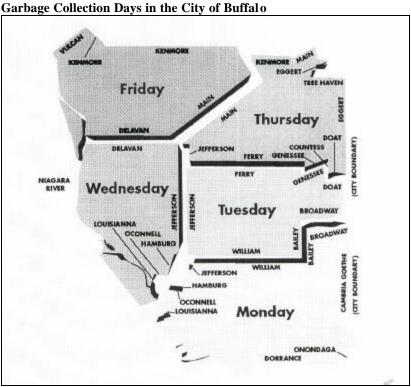
Source: City of Buffalo Department of Public Works, Parks and Streets, 2002

In May 2000, Mayor Anthony Masiello announced that the city had appropriated \$3.6 million to complete the purchase of the new trash totes (Masiello, 2000). In addition to the blue totes, residents may also set out two pieces of large trash per property each week on their regular garbage day. The city of Buffalo has numerous local laws that help monitor and regulate the new curbside collection services. Failure to comply with time, weight, container or quantity guidelines may result in fines ranging from \$30 for taking the garbage and trash out too early to \$1,500 for illegal dumping.

Besides changes to the city's garbage containers, there have been additional changes to the city's collection methods. Although city administrators considered privatizing garbage collection service in the city to help combat a \$20.7 million deficit in the 2003 budget, AFSCME Local 264, the union representing the city's garbage collectors, preferred to keep the jobs city-paid. In an effort to provide a more cost effective and efficient system for the city, the union worked with Stearns and Wheler, a consulting firm, to help produce an alternative plan that restructured the collection districts from eight to five. The new plan ultimately aimed to save the city about \$20,000 a week (Meyers, 2002). Effective June 3, 2002, the district restructuring resulted in the elimination of about 25 seasonal workers and about 80% of all residents having a different pickup day. Figure A.28 illustrates the new assigned collection days in the city of Buffalo:

After only one month, however, the new plan needed major reorganization. According to a July 16, 2002 Buffalo News article, Public Works Commissioner, Joseph N. Giambra stated that half of any savings from the new plan had been consumed by higher overtime costs. He stated that the northwest district, with a Friday collection, was much too large and resulted in some recycling workers assigned to garbage collection duties. Interestingly enough, the actual physical size of the region was not significantly larger. This suggests that this region's residents produced more solid waste than the population in the other collection districts. The northwest section of Buffalo is often characterized as being less dense and more affluent than other areas of the city. Regardless, in order to more evenly distribute the collection, many streets were shifted to Tuesday and Thursday schedules. The following streets were affected by the latest adjustments: Garbage pickup changed to Tuesday from Monday for properties bounded by Broadway, Bailey Avenue, Dingens Street and the city line. Pickup changed to Tuesday from Thursday for properties bounded by East Delevan Avenue, BUFFALO'S FOOD SYSTEM: A RESOURCE GUIDE

Figure A.28 Garbage Collection Days in the City of Buffalo



Source: City of Buffalo Department of Public Works, Parks and Streets, 2002

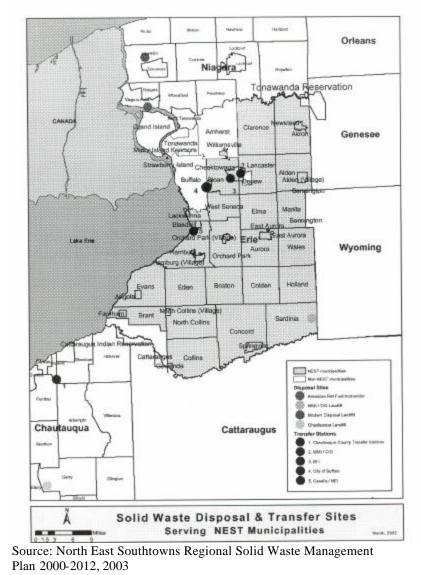
Jefferson Avenue, East Ferry Street, Genesee Street and the city line. Collection also changed to Thursday from Friday for properties bounded by Main Street, Aggasiz Circle, Parkside Avenue, Starin Avenue and a set of railroad tracks north of Taunton Place (Meyer, 2002).

Regardless of its collection day, all solid waste in the city of Buffalo is picked up by 37 trucks, which are all owned by the city. Once collected, the city's waste is taken to the East Side Transfer Station, located at 793 Ogden Street. One of four transfer stations within Erie County, the East Side Transfer Station is by far the largest. It is currently owned by the county and run by Modern Disposal Services Inc., a subsidiary of Modern Corporation.²⁰ The city of Buffalo is currently amidst a two-year agreement with the County that permits the city to use the East Side Transfer Station facility for free. While it is unknown what will occur after the two-year agreement runs out, if the facility were to become privatized, the city would have to pay roughly \$27/ton of garbage, according to Paul Ormsby (Ormsby, personal communication, 2003). The East Side Transfer Station is presently permitted to accept 625,000 tons of a waste per year. Figure A.29 illustrates the transfer stations and landfills in Western New York, including Erie, Niagara and Chautauqua Counties.

From the transfer station, Modern Disposal Services Inc. is responsible for using its trailers to transport the City's solid waste to their landfill facility. Located in the Town of Lewiston, Niagara County, Modern Landfill, Inc. has a capacity of 615,000 tons per year. Its solid waste management facilities currently reside on a 380-acre parcel of land that was founded in 1964. Based on the New York State Department of Environmental Conservation (NYSDEC), only 239 acres of the 380 are permitted to handle the disposal of non-hazardous solid waste. Solid waste arrives at the facility in packer trucks, roll-off containers and transfer trailers. Once there, materials are spread into lifts with dozers and compactors. As of April 2002, Modern's remaining permitted capacity was 32 million cubic yards. Therefore, at its current filling rate, Modern Landfill, Inc will reach its capacity in 2047 and thus have an 82 year lifespan (Modern Corporation Landfill services, n.d.).

The total quantity of waste actually disposed in all New York landfills in 1999 was 5.58 million, up 13% from 1998. Over that same time, the lifetime permitted capacity of New York's landfills grew twice as quickly, increasing 25%, from 51.67 to 64.78 million tons. Although it remains unnecessary, NYSDEC continues to approve proposals for millions of tons of additional landfill capacity. As of 2002, it was entertaining proposals calling for an additional 56.6 million tons of capacity (Concerned Citizens of Cattaraugus County, 2002). Therefore, the amount of land available for landfills is far exceeding the amount required.

Figure A.29 Solid Waste Disposal and Transfer Sites serving NEST Municipalities



BUFFALO'S FOOD SYSTEM: A RESOURCE GUIDE

²⁰ Modern Corporation is a 40 year-old full service solid waste disposal company with headquarters in Western New York.

A.4.1.2. Alternative Disposal Methods

Besides conventional disposal methods, there are also alternative disposal methods, such as recycling, composting and vermiculture. Since Earth Day' inception, great emphasis has been put on reducing the amount of solid waste that is taken to disposal sites across the country. One method that has the potential to make a significant impact is recycling. Recycling is part of the three R's: Reduce, Reuse, and Recycle. Recycling is a worthwhile endeavor for those concerned with the growth of our disposal sites, such as landfills. Erie County has grasped onto this concept and has implemented a new solid waste initiative. The goal is to reduce solid waste management by increasing recycling efforts. There are currently three solid waste planning units within Erie County: Northeast Southtowns Solid Waste Management Board, Northwest Solid Waste Management Board, and the city of Buffalo. Recycling within Erie County is run within individual municipalities. Each municipality has its own guidelines for recycling, which include items that can and cannot be recycled.

In November 2002, the city of Buffalo decided to privatize the recycling efforts for the city. By privatizing, the city is able to save \$758,000 without eliminating any full-time jobs. However, as a result of privatization, 43 recycling jobs were transferred to garbage jobs, while 55 seasonal employees were fired. As with any city contract, an announcement for bids was placed and Browning-Ferris, Inc. Waste Services (BFI) won the contract with the lowest bid of \$1.57 million/annually. BFI uses the city's recycling trucks but absorbs all fuel, insurance and maintenance costs. It is estimated that 7% of all solid waste is recycled in the city of Buffalo.

The recycling program for the city of Buffalo falls under the Department of Street Sanitation. In Buffalo, the following items may be recycled at the curb of residential homes: newspaper, magazines and catalogs, corrugated cardboard, glass bottles (clear, green and brown), metal cans, plastics such as plastic food, soap and beverage containers with threaded caps, and milk cartons, juice cartons and drink boxes. A recycling bin can be picked up at City Hall. The primary recycling facility for the city of Buffalo is the BFI recycling facility located in Kenmore, New York.

The State of New York has set down several guidelines, which need to be adhered to by all municipalities in New York. The first is set down in Section 27-0106 of the Environmental Conservation Law. New York State solid waste management established a goal of a fifty percent reduction in all solid waste entering the waste stream and is encouraging waste reduction and recovery/reuse. It is also required by legislation that every municipality offer a residential recycling service. Efforts need to be made to continue the recycling program and to reduce the solid waste stream leaving the city.

Disposal should also include the essential component of composting. But, unlike more conventional forms of disposal, composting in the city of Buffalo has no set municipal policy. The Department of Public Works currently has no regulation on the collection of grass clippings, brush, food scraps, and other organic manner from private property BUFFALO'S FOOD SYSTEM: A RESOURCE GUIDE



despite the fact that food and yard waste represent a significant portion of the materials currently disposed of in a traditional manner. According to the Erie County Department of Environment and Planning 90,669 tons of organic waste could be composted annually which currently is not. This is 11.14% of all solid waste that could be recycled or reused which is instead disposed of in a local landfill. Recycling of grass clippings and other yard wastes is not recovered within city limits as it is in the majority of Erie County suburbs.

Forty-three municipalities within Erie County have some form of organic recycling or_composting facility. The towns of Amherst, Boston, Concord, North Collins, West Seneca; villages of Gowanda, Springville, and Akron have town composting facilities that collects, composts and distributes material for local use. The eight composting facilities in Erie County are; Concord Engineering, Lakefront Recycling, Town of Amherst Yard Waste Compost Site, Town of Hamburg Highway Department- Composting and Tire Drop Off Facility, Town Of Orchard Park Composting Facility, Town of West Seneca Compost Facility, Village of Akron Yard Waste Composting Site, and the Village of Orchard Park DPW Composting Site. The remaining 36 municipalities have yard waste recycling programs, where the local department of public works or a contracted company collects the grass clippings, brush, and twigs for mulching and reuse.

Though there is no written public policy on the recycling and composting of organic matter in Buffalo, participation in backyard composting by residents is increasing. As per data collected from a survey given by the Buffalo Community Gardeners Association 5% (3) of community gardens currently operate a composting site and 15-20% (9-12) of community gardeners are interested in starting or learning more about composting (Buffalo Coalition of Community Gardeners, 2003). Though the statistics may seem insignificant, it does establish evidence of composting activity within the City. Yard waste and food scraps are already being composted by many individuals within the city and other municipalities within Erie County already have well established programs, demonstrating that it could be successful in Buffalo. The Erie County Department of Environment and Planning highlights how and why residents should compost on the County website. This governmental department publicly promotes composting activities. The site states the many benefits of making and using compost, including composting as an easy and practical way to recycle kitchen wastes; it is an excellent method to improve the quality of soil; compost is safe to use and costs practically nothing to make; it promotes healthy plants which improve air quality; composting can reduce up to 15% of the waste stream, and it recycles needed nutrients (www.erie.go v/environment/compliance/backyard_composting.phtml).

Jim Pavel of the city of Buffalo Department of Public Works Department states that regulatory constraints and a lack of startup funds have hampered the establishment of comprehensive composting projects in the city of Buffalo. The level of knowledge about and support for composting varies widely. Furthermore, in Buffalo, there is little guidance from City Hall available to those seeking to establish or expand a composting site to take in food scraps and organic wastes. Food waste composting specifically faces many challenges within the city of Buffalo and the remainder of Erie County,

among them are economic and motivational problems. Often, waste management decisions are based on short-term cost alone. Current economics in the city make innovative methods of waste reuse and disposal a low priority. Composting in the city could extend the operating life of a landfill by reusing valuable resources that would otherwise occupy landfill space.

Community acceptance will be another issue when beginning a municipal composting program, yet acceptance can be enhanced with public education. Educational programs may include community involvement, tours of composting facilities and general educational pamphlets. A number of communities in Erie County, as documented in the NorthEast SouthTowns Regional Solid Waste Management Plan are encouraging home composting as a way to better manage organic wastes and reduced the cost of bin sales to promote home composting. However, education is needed along with composting bins or people will fail to use them.

In addition to composting techniques strictly as a means for recycling, the city of Buffalo could reap a profit off the promotion and sale of vermiculture. Vermiculture is the science of cultivating, or raising, earthworms. The worms are raised mainly for agricultural or fishing activities and many people raise them to reduce food waste; however, not all earthworms are composters. Composting earthworms are often called red wigglers, which are not native to Western New York.

Vermicomposting uses earthworms to reduce organic garbage to worm "castings," a rich soil fertilizer. By adding worms to the composting process one helps to cure the compost. Curing the compost means that earthworms leave beneficial bacteria to continue processing organic materials and consume pathogenic microbes, such as E. coli and Salmonella. This "sterilizes" or stabilizes the soil. The nutrients released from the worm castings are in a form easily taken up by the plant roots: nitrogen, carbon, minerals and water. When compost is stabilized, or cured, it is ready to be put in the garden or to be made into potting soil. Compost enhances the ability of soil to retain moisture. It improves the soil permeability, allowing air and water to pass through to the roots. The vermicompost therefore enhances soil structure and drainage.

Currently vermicomposting is used in the city of Buffalo solely by individual gardeners and composters. No public policy exists or is in the planning stages for the creation of a vermicomposting program. Composting in the city of Buffalo is currently at a very elementary stage, trailing behind other local municipalities. With a promoted composting program the city of Buffalo could save large amounts of money, food, and landfill space.

A.5. Conclusion

Production

The city of Buffalo is located in an eight county food shed with a strong agricultural sector that has an ability to supply fresh produce. As of 1997, over 90% of farms were operated by an individual or a family rather than a corporation. These farms were mainly operated by those who were between the ages of 45 to 54 years and older. However, a shortage of new farmers in New York State is a critical issue for the future of farming.

Food is also produced in many of Buffalo's 51 operational urban gardens. These gardens continue to increase food security for neighborhood residents and play a critical role in transforming former vacant lots.

Processing

The food-processing sector, which is the "middle agent" between the producer and the consumer, is a key player in food availability and affordability *and* is promising sector for economic development. Small and medium sized food and beverage processors dominate the food processing sector in Buffalo. A majority of the businesses hire less than 50 workers in their establishments; most establishments make over \$500,000 annually. To ensure additional local economic development, the local food processing industry must be linked to local producers.

Marketing and distribution

Although the greater Buffalo region has viable conventional forms of food marketing and distribution, certain neighborhoods in the city are under-served by large supermarkets. Food is also distributed to lower income individuals and households in Buffalo with the support of a number of governmental and non-governmental organizations. However, the government programs only provide short term options for low-income people to purchase food for themselves and their families. Buffalo also possesses a healthy but small alternative marketing system for food, including one food cooperative and a few community supported agriculture farms and farmers' markets that connect regional farmers to urban consumers.

Disposal

This analysis reveals that much of the food waste stream in the city of Buffalo is an untapped resource that can be easily reintroduced into the food cycle. Increased utilization of recycling, composting and vermiculture serve as excellent methods for capturing this otherwise unused asset.

In order to ensure food security of a community, it is essential that the food cycle serve the residents of a community. The authors hope that this resource guide will assist MAP and interested individuals and organizations in their efforts to improve Buffalo's food system.



APPENDICES

Artwork courtesy of Raina Rodriguez

APPENDIX **B** For Chapter Three

B.1. Demographics Methodology

All the data used in the demographic analysis of the West Side Target Area came from the United States Census Bureau. Data from the 1990 and 2000 censuses was used exclusively. Data pertaining to population, households, families, housing units, race and ethnicity came from 100% actual count data in Census 1990 Summary Tape File 1 and Census 2000 Summary File 1.

Data pertaining to median rents, median home values, median incomes, places of birth and poverty rates originated from sample data in Census 1990 Summary Tape File 3 and Census 2000 Summary File 3.

Data was collected on two geographic scales for the city of Buffalo and the West Side Target Area. In keeping with the boundaries of the West Side Collaborative, the West Side Target Area was defined as the aggregate of the following ten U.S. Census block groups.

West Side Target Area in Census Block Groups		
Census Tract 66.01	Block Group 3	
Census Tract 67.01	Block Group 2	
Census Tract 69	Block Group 1	
Census Tract 69	Block Group 2	
Census Tract 69	Block Group 3	
Census Tract 69	Block Group 5	
Census Tract 69	Block Group 6	
Census Tract 69	Block Group 7	
Census Tract 69	Block Group 8	
Census Tract 69	Block Group 9	

Data from these ten Census Block Groups was aggregated in order to create statistics for the West Side Target Area. In regard to median rents and median values of owner occupied houses, a simple average was taken of the median values of each Block Group. In regard to median incomes in both families and households, a weighted average of medians was calculated by multiplying the median income for each Block Group by the number of households and families living in it. The sum of these total block group incomes was then divided by the total number of households and families living within the West Side Target Area. This calculation created the average median income statistics for West Side families and households.

B.2 Food Pricing and Quality Survey Methodology

Survey design

The grocery stores survey was primarily modeled after the City of Chicago's Department of Consumer Services *Weekly Chicago Area Food Basket Survey*, but also paid attention to issues of nutrition, which were at the heart of the USDA's *Food Security Assessment Toolkit*.

In the Chicago study, from 2000 to 2003, undercover investigators made weekly visits to 24 large chains, mid-size and small grocery stores, tracking the prices of 25 different food items. Each week they posted on their website the highest and lowest price found for each of the items along with the name and address of the supermarket where these prices were found. Overall, this survey helped consumers in Chicago find the best prices for food while at the same time encouraging competition among stores to keep prices on basic food staples reasonable. However, this study overlooked the promotion of a nutritious and balanced diet through the composition of its Food Basket. Since it was solely concerned about helping consumers save money, the Chicago study did not record or investigate the expiration dates or quality of food sold in the city's stores.

The United States Department of Agriculture's Economic Research Service's *Community Food Security Assessment Toolkit* provided another food security assessment tool. However, the "Food Store Survey Instrument" detailed by the toolkit proved inappropriate for our study purpose; it required the permission of store managers and necessitated the collection of prices on more than 100 food items. Both of these parameters were incompatible with the limited scope and timeframe of our West Side study. Nevertheless, the Toolkit was pointedly concerned with the availability and pricing of healthy and nutritious food. But like the Chicago study, the Toolkit survey instrument collected no food quality or freshness data, which was essential in addressing the Food for Growth research questions.

The grocery store survey conducted for the Food for Growth plan was designed to be simple like the Chicago study, but also mindful of nutrition. The 'Toolkit's' "shopping list" survey instrument was adapted to the research model's purposes by including spaces to record the food item's expiration date, the number of brands available, and the location of the food items on the store shelves. Furthermore, it included a questionnaire and response form on which those shopper/investigator could provide qualitative observations about the shopping experience.

Stores surveyed

The study surveyed food quality and prices at 26 food stores, which included 10 stores specifically identified by WSTA residents during focus group interviews. These stores were both independent and chain stores in the West Side neighborhood and the City of Buffalo. Five stores on the West Side were randomly chosen from a list of food businesses derived from the InfoUSA *14 Business Database*; this was done to balance any bias in store selection. To address disparities between city and suburban stores, food chains with stores located within the City of Buffalo and the suburb of Amherst, NY were chosen.

Store locations were distributed as follows: 13 food stores within or near the West Side, 4 stores elsewhere in the City of Buffalo, and 7 stores in the Town of Amherst. These same 26 stores included eleven small and independent stores, while the remaining 15 were comprised of 6 chain convenience stores / pharmacies and 9 chain supermarkets.

Foods surveyed

Twenty-two staple food items from the fresh produce, meat, canned food, dry goods, and dairy food groups were included in the survey. Items were chosen based on their widespread availability, economy, and precedent set in the Chicago and USDA studies as well as to ensure a representation of a wide range of food groups. The shopping list consisted of these items: apples, bananas, carrots, white potatoes, tomatoes, sliced bologna, ground beef, chicken, canned tuna, canned sweet peas, canned kidney beans, canned tomato sauce, canned

condensed chicken noodle soup, boxed pasta, peanut butter, white enriched rice, white bread, 2% milk, orange juice from concentrate, large eggs, yogurt, and cheddar cheese. One food group was mistakenly excluded from the nutritionally balanced shopping list and this was a leafy green vegetables.

Data Collection

Between November 6th and 13th, 2003, members of the Food for Growth planning practicum took shopping trips to the 26 stores in the food price and quality study.¹ During the course of the food study, thirteen food stores in or near the West Side neighborhood were visited by Food for Growth team. Each researcher had a uniform shopping list with spaces to record information pertaining to price, brand variety, shelf location, and expiration date. Each list had the same 22 staple food items.

The researchers were encouraged to make these shopping trips part of their weekly grocery shopping and asked to provide qualitative feed back regarding the shopping experience. The shoppers were also directed to record the lowest price for each food item, excluding sale prices.

A number of challenges were faced while attempting to collect price and expiration date information in stores. First, most food items stocked in the small independent stores on the West Side did not individually price or post prices on shelves². Items needed to be purchased to determine their price. The lack of posted prices does not allow customers to make informed choices and can put them at risk of being exploited. Nevertheless, price negotiating did occur in a number of West Side food stores. Similarly, information regarding food expiration was sometimes not available on the foods surveyed.

 $^{^{1}}$ It was discovered that one of the West Side independent stores from the InfoUSA database was no longer in business. A second independent Buffalo City store from the database was found to be predominately a food service establishment and therefore was not considered in the quantitative analysis; however, since the store did sell a limited line of fresh produce it was included in our qualitative results.

² Although Erie County requires posted prices in all retail stores, there is a provision that exempts small family run businesses, which many WSTA food stores fall into. County Of Erie Local Law NO. 7 - 1997, requires "all retail stores place individual item prices on products which they sell and to require accuracy at the checkout registers." When labeling individual items is not practical, the law requires clear and conspicuous labels on the shelves. However, in section 3, subsection b the law exempts stores that have "as its only full-time employees the owner or franchisee thereof, or the parent, spouse, or child of the owner or franchisee, or in addition thereto not more than two full-time employees." Those falling under this exemption would have to file for a waiver with the county. According to the county Bureau of Weights and Measures, the submission of paper work for the exemption request with documentation to the government from a storeowner qualifies as a county compliance inspection. Therefore, Erie County does not necessarily conduct on site verification of West Side store compliance with the rules of the pricing exemption.

New York State does not require food expirations to be posted, although it is illegal to knowingly sell spoiled food. Although New York State's Agriculture and Markets Law, section 199-c, makes it a misdemeanor to willfully sell "tainted or spoiled … food, drink, or medicine," it does not necessitate that food be labeled with expiration dates or that expired food be removed from store shelves. Additionally, federal law does not require food dating except for infant formula and some baby foods. Thus, in New York state most food expiration dates are labeled at the discretion of the food producers. However, 20 other states do have food expiration date labeling requirements. Nevertheless, many New York state food retailers pressure food producers to supply them with dated food. Wegmans Supermarkets in particular encourages all of its "Wegmans brand [food] suppliers to switch to date codes when possible." (http://www.wegmans.com/guest/FAQ/product_information.asp#4 accessed 11/19/03)

APPENDIX C For Chapter Four

C.1. Food Production

C.1.1. Composition and Behavior characteristics of soil

General Characteristics of the soil types in the West-Side Collaborative Area are taken from the Soil Survey of Erie County, 1986. There are four types of soil found in Buffalo and the West-Side Collaborative Area.

1. UmA - Urban land-Collamer complex, 1 to 6 percent slopes.

This complex consists of nearly level and gently sloping areas of urban land and silt, deep and moderately well drained Collamer soils. It is good for housing development, shopping centers, industrial sites etc. The composition of this complex is about 60 percent urban land, 30 percent undisturbed Collamer soils, and 10 percent other soils. The Collamer soil has a seasonal high water table in the spring and runoff is medium to moderately rapid in undisturbed areas of this soil; also the runoff is rapid from impervious urban land, which leads to a high risk of erosion. Most of the undisturbed areas of the Collamer soils are suited to lawns and gardens; good for parks and recreational uses (Soil survey of Erie County 1986, p.136)

2. Up- Urban land - Galen complex

This complex consists of nearly level areas of urban land and moderately well drained Galen soils. Slope ranges from 0 to 3 percent. The complex is about 60 percent of urban land, about 25 percent undisturbed Galen soils; and 15 percent other soils. The Galen soil has a seasonal high water table in the lower part of the subsoil in the spring. It has a slow run off. The urban land areas of this complex are relatively impermeable and have very rapid run-off. Most areas of the Galen soils are well suited to lawns, shrubs, and vegetable gardens (Soil survey of Erie County 1986, p.138).

3. Ug- Urban land –Cayuga complex.

This complex consists of nearly level areas of urban land and deep, well-drained and moderately well drained Cayuga soils. This complex is good for housing developments, shopping centers, industrial parks, and other similar urban uses. The slope ranges from 0 to 3 percent. The complex is about 60 percent urban land, about 30 percent undisturbed Cayuga soils, and 10 percent other soils. These areas are only moderately suited to lawns, tress, shrubs, and vegetable gardens. This is not suited to recreational uses but few larger potential sites for local parks or playgrounds.

4. UnB-Urban land-Colonie complex, 3 to 6 percent.

This complex is made up of gently sloping areas of urban land and sandy, somewhat excessively drained to well drained Colonie soils. This complex is mainly found in the city of Buffalo and its metropolitan area. It is made up of about 60 percent urban land, about 25 percent undisturbed Colonie soils, and 15 percent other soils. The Colonie soils are rapidly or moderately rapidly permeable. The available water capacity is low and runoff is medium. Establishing and maintaining lawns, shrubs and vegetables gardens are difficult because of sandy texture, low soil fertility, and doughtiness of the soil. The organic matter content of these soils can be improved by adding composed material. Increased organic matter content improves the available water capacity of the soil.

Table C.1

Water Management

Soil name and map symbol	Pond reservoir areas	Embankments, Dikes, and levees	Drainage			Grassed Waterways	
Ug Urban land Cayuga	Favorable	Low strength erodes Deep to water, slow refill. Percs slowly Not needed		Not needed	Percs slowly, erodes easily		
UmA Urban land Collamer	Favorable	Piping	Slow refill, cutbanks cave	cutbanks cave	Erodes easily, piping	Erodes easily, piping	
UnB Urban land Colonie	Seepage , slope	Seepage, Piping	No water	Not needed	Piping, too sandy, slope.	Droughty, soil blowing, piping.	
Up Urban land Galen	Seepage	Seepage, Piping	Deep to water, cutbanks cave.	cutbanks cave	Not needed	Erodes easily, piping	

Table C.2 Potential for Wildlife Habitat

Soil name and map symbol	Grain and seed crops	Grasses and legumes	Wild herbaceous Plants	Hardwood trees	Coniferous Plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
UmA Urban land Collamer	Good	Good	Good	Good	Good	Poor	Very Poor	Good	Good	Very Poor
Ug Urban land Cayuga	Good	Good	Good	Good	Good	Poor	Very Poor	Good	Good	Very Poor
UnB Urban land Colonie	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Up Urban land Galen	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor

Table C.3Woodland Management and Productivity

Soil name		Manageme	nt Concerns		Potential Productivity				
and symbol	Erosion hazard	Equipment limitation	Seeding mortality	Wind-throw hazard	Common tress	Trees to plant			
Ug Urban land Churchville	Slight	Slight	Slight	Slight		Eastern white pine, red pine, Norway spruce, European larch.			
UmA Urban land Collamer	Slight	Slight	Slight	Slight		Eastern white pine, Norway spruce, white spruce, European larch.			
UnB Urban land Colonie	Slight	Slight	Severe	Slight		Eastern white pine, European larch.			
Up Urban land Galen	Slight	Slight	Slight	Slight		Eastern white pine, red pine, Norway spruce, European larch.			

C.2. Food Based Economic Development

Table C.4.Food Service Wages for Western New York

Code	Job Type	Mean	Hourly*	Median	Entry level	Exp. Level
		16,180	\$7.78	16,180	16,180	16,180
35 1011	Chefs & Head Cooks	29,880	\$14.37	27,270	19,270	35,180
35 1012	Line Supervisors/	25,350	\$12.19	25,350	25,350	25,350
	Managers of Food Prep					
35 2011	Cooks/Fast Food	15,010	\$7.22	13,950	12,700	16,160
35 2012	Cooks, Institution &	21,830	\$10.50	20,320	15,290	25,090
	Cafeteria					
35 2014	Cooks, Restaurant	18,840	\$9.06	18,560	15,210	20,660
35 2015	Cooks, Short Order	14,530	\$6.99	13,750	12,740	15,420
35 2021	Food Prep. Workers	15,680	\$7.54	14,730	12,830	17,100
35 3021	Combined Food Prep.	14,240	\$6.85	13,760	12,830	14,950
	& Serving Workers					
35 3022	Counter Attendants	14,750	\$7.09	13,990	12,710	15,770
35 3041	Food Servers,	17,600	\$8.46	17,270	13,210	19,800
	Non-restaurant					
35 9011	Dining Room,	14,390	\$6.92	13,730	12,790	15,190
	Bartender					
35 9021	Dishwashers	13,420	\$6.45	13,360	12,690	13,780
35 9031	Hosts, Hostesses,	14,030	\$6.75	13,570	12,630	14,730
	Restaurant, Lounge,					
	Coffee house workers					
41 2011	Cashiers	14,610	\$7.02	13,750	12,750	15,550
51 3021	Butchers	29,450	\$14.16	32,030	20,480	33,930

51 3011	Bakers	20,970	\$10.08	20,400	14,740	24,080
11 9051	Food Service Managers	35,750	\$17.19	34,180	28,210	39,520
11 3061	Purchasing Managers	60,460	\$29.07	57,680	40,330	70,520
11 3071	Transportation, Storage,	66,760	\$32.10	63,070	44,960	77,670
	& Distribution Managers					
13 1021	Purchasing Agents, Buyers	48,330	\$23.24	40,470	29,040	57,980
13 1022	Wholesale Buyers	45,240	\$21.75	41,720	26,070	54,820

* Based on 52 week year and 40 hour work week and calculated with the Mean Annual Salary

Source: NYS Department of Labor website – Western New York Occupational Wages, http://64.106.160.140:8080/lmi/oeswage.html

C.2.1. Input Output Methodology

The economic impact of food based businesses on the West Side was calculated using an Input Output model. Input Output analysis models the linkages between various business sectors and predicts the impact of change in demand for good and services of a particular business on all other sectors of the economy. Typically, three types of impacts are predicted through input/output analysis.

The first is the 'direct impact', which refers to the impact felt in the primary industry, which is responding to change in demand. The second is the 'indirect impact', which estimates the impacts on all economic sectors due to change in economic activity in the primary sector. These indirect impacts, impacts on sectors other than the direct impact of the particular change or changes being investigated, exist because a county's economy is interconnected and interdependent. For example if a company's sales increases they can afford to hire more people, ship out more goods, buy more packaging materials, mail out more invoices and construct new facilities. All of this increased economic activity increases sales and employment in other sectors, and is the indirect impact of the change in the business. Finally, the model can predict the 'induced impact' on all sectors due to a change in demand from households that experience a change in income due to the direct and indirect economic impacts. The induced impacts tend to overstate economic impacts; therefore, this study only reports the direct and indirect economy.

To conduct the economic impact analysis, first, the West Side food sector was identified; the West Side food sector included 53 food businesses¹ identified within the West Side's 14213 ZIP code. The 53 businesses considered in this economic model employ approximately 660 people and have reported sales of close to \$33 million in 2003 – were this businesses to close, Erie County would experience this 'direct' negative impact.

¹ Rich Products Corporation, a manufacturer of dairy and frozen food products headquartered on Niagara Street, was left out of the economic impact model. This is because Rich's approximate \$1.7 billion in revenue and approximately 6,900 in corporate employment vastly overshadows the impact of all the small and medium sized food businesses on the West Side. Therefore, we removed Rich's contribution from the economic impact model; had we included Rich Products in the analysis, the food sector would have demonstrated a considerably stronger economic impact on Erie County economy.

If Erie County's were to be 'shocked' in this manner, it would result in a reduced demand for goods and services from industries that would otherwise sell to the food sector. ² In fact, there would be a ripple effect throughout the 78 sectors of Erie County economy that would result in an additional loss of \$9.9 million in sales and 90 jobs. This is the indirect impact.

C.3. Transportation

C.3.1. Bus Chaining Methodology

To conduct the bus chaining analysis of bus routes between the WSTA and the supermarkets, authors used the Niagara Frontier Transportation Authority (NFTA)'s "Locational Based Transit Information." The bus chain model factored in two considerations: minimum travel time, i.e. selected bus routes that take the least time to reach each destination, and minimum bus transfers, i.e. selected bus routes which require the least number of bus transfers. Time-based and transfer-based bus routes yield nearly same results.

In order to compare alternate bus routes to supermarkets, a center point on the West Side Boundary was selected as the origin of all trips. The center is precisely located at the junction between Vermont Street and 15th Street. All walking distances to the various bus stops were assumed from this point. The walking distance to the bus stops was restricted to less than half a mile from the center point in the West Side Area. The average time required to walk a mile was assumed to be 20 minutes or one hour for 3 miles of walking.

Final destinations include all the large-sized supermarkets within the City of Buffalo, namely Tops and Wegmans, including the Tops International on Maple Road and Wegmans on Alberta Drive, which are in the Town of Amherst (a suburb of Buffalo).

Because residents are likely to shop at different times of day, the bus chaining analysis considered four different times of the day: weekday mornings at 10:00 a.m., weekday evenings at 5:30 p.m., Saturday mornings at 10:00 a.m. and Sunday mornings at 10:00 a.m.

Table C.5 presents the findings of the bus chaining analysis. The table shows the walking time and the distance required to get to a bus stop, the minimum time and the minimum transfers to get to various supermarkets and the total travel time required to get from the center point in the West Side to a supermarket.

Example: Tops at Niagara Street is spatially and geographically the closest to the West Side and therefore most West Side residents use this store. Residents leaving home (the center point) at10 a.m. must walk 0.1 mile to get to the bus stop for bus 3A. Based on the calculation that it takes 20 minutes to walk a mile, it would take seniors 2 minutes to walk to the bus stop. They would therefore arrive at the bus stop at 10:02 a.m. and have to wait four minutes for 10:06 a.m. bus number 3A. In order to get to Tops on Niagara Street, seniors must transfer to the route 29A bus. As Table 5 shows, seniors would have to wait seven minutes for bus number 29A to arrive. Bus 29A will finally arrive at the Tops on Niagara Street at 10:22 a.m. Thus, in this example, it will take 22 minutes for senior to travel from the West Side to the Tops on Niagara Street. Adding this 22 minutes to the time of the return trip of 26 minutes yields a total trip time of 48 minutes – excluding the time the resident would spend shopping at the grocery store.

² The impact analysis was conducted using IMPLAN v2.0, an economic impact modeling software. This software uses a variety of economic data collected by the U.S. Bureaus of Census, Economic Analysis, and Labor Statistics, U.S. Department of Agriculture, and the U.S. Geological Survey (http://www.implan.com/db_sources.html) to identify linkages between sellers and buyers in an economy.

Limitation to Study: This bus chaining exercise considers the bus as a single mode of transportation. It does not take into consideration a combination of different modes of transportation, such as Metro Rail and then a bus or a trip chaining with a work trip. Another major limitation is that this bus-chaining model assumes punctual bus service. Several residents report that many times the bus arrives at a bus stop 15 minutes before or after the scheduled time.

Table: C.5

Bus Trip Time between Large Grocery Stores And The West Side Target Area

						Walk To Bu	s Stop	Walk From	Bus Stop	Trip Ti	me
		Minimum	Bus N	lo.		Time	Distance	Time	Distance	One way	Total
		Time/ Transfer				Minutes	Miles	Minutes	Miles	Minutes	Minutes
Tops at Niagar	a Street	t				· · · ·		· · · · ·	· · · · ·	· · ·	
Weekday a.m.	То	Time	3A	29A		2	0.1	2	0.1	22	48
		Transfer	3A	29A		2	0.1	2	0.1	22	
	From	Time	29A	3A		2	0.1	4	0.2	26	
		Transfer	29A	3A		2	0.1	4	0.2	26	
Weekday p.m.	То	Time	3A	40A		2	0.1	2	0.1	43	75
		Transfer	3A	40A		2	0.1	2	0.1	43	
	From	Time	29A	3A		2	0.1	4	0.2	32	
		Transfer	29A	3A		2	0.1	4	0.2	32	
Saturday am	То	Time	3A	29A		2	0.1	2	0.1	60	108
		Transfer	3A	29A		2	0.1	2	0.1	60	
	From	Time	29A	3A		2	0.1	4	0.2	48	
		Transfer	29A	3A		2	0.1	4	0.2	48	
Sunday am	То	Time	3A	12A	5A	4	0.2	2	0.1	57	105
		Transfer	3A	5A		2	0.1	2	0.1	73	
	From	Time	5A	3A		2	0.1	4	0.2	48	
		Transfer	40A	3A		2	0.1	4	0.2	76	
Tops at Grant	Street						· · · · ·		i		
Weekday am	То	Time	3A			4	0.2	2	0.1	22	50
		Transfer	3A			4	0.2	2	0.1	22	
	From	Time	3A			2	0.1	2	0.1	28	
		Transfer	3A			2	0.1	2	0.1	28	
Weekday pm	То	Time	3A			4	0.2	2	0.1	25	41
		Transfer	3A			4	0.2	2	0.1	25	
	From	Time	3A			2	0.1	2	0.1	16	
		Transfer	3A			2	0.1	2	0.1	16	
Saturday am	То	Time	3A			4	0.2	2	0.1	25	73
		Transfer	3A			4	0.2	2	0.1	25	
	From	Time	3A			2	0.1	2	0.1	48	
		Transfer	3A			2	0.1	2	0.1	48	

Sunday am	Time	3A			4	0.2	2	0.1	32	70
5	Transfer	3A			4	0.2	2	0.1	32	
	Time	3A			2	0.1	2	0.1	38	
	Transfer	3A			2	0.1	2	0.1	38	
Tops at Elmwood	Avenue		1	-	11					
Weekday am	Time	3A	20B		2	0.1	2	0.1	51	112
	Transfer	3A	20B		2	0.1	2	0.1	51	
	Time	20T	26B	3A	2	0.1	2	0.1	61	
	Transfer	20T	3A		2	0.1	2	0.1	64	
Weekday pm	Time	3A	26B	20B	4	0.2	2	0.1	55	125
	Transfer	3A	20B		2	0.1	2	0.1	64	
	Time	20B	30A	3A	2	0.1	2	0.1	70	
	Transfer	20B	3A		2	0.1	4	0.2	102	
Saturday am	Time	3A	20B		2	0.1	2	0.1	54	108
	Transfer	3A	20B		2	0.1	2	0.1	54	
	Time	20H	3A		2	0.1	4	0.2	54	
	Transfer	20H	3A		2	0.1	4	0.2	54	
Sunday am	Time	3A	20B		2	0.1	2	0.1	92	149
	Transfer	3A	20B		2	0.1	2	0.1	92	
	Time	20B	3A		2	0.1	4	0.2	57	
	Transfer	20B	3A		2	0.1	4	0.2	57	
Tops at Jefferson	Avenue									
Weekday am	Time	3A	12A		4	0.2	2	0.1	41	90
	Transfer	3A	12A		4	0.2	2	0.1	41	
	Time	12A	3A		2	0.1	2	0.1	49	
	Transfer	12A	3A		2	0.1	2	0.1	49	
Weekday pm	Time	3A	4H	18A	2	0.1	2	0.1	52	125
	Transfer	3A	12A		4	0.2	2	0.1	55	
	Time	12A	3A		2	0.1	2	0.1	73	
	Transfer	12A	3A		2	0.1	2	0.1	73	
Saturday am	Time	3A	6A	18A	2	0.1	2	0.1	56	103
	Transfer	3A	12A		4	0.2	2	0.1	65	
	Time	12A	3A		2	0.1	2	0.1	47	
	Transfer	12A	3A		2	0.1	2	0.1	47	
Sunday am	Time	3A	12A		4	0.2	2	0.1	64	99
	Transfer	3A	12A		4	0.2	2	0.1	64	
	Time	12A	3A		2	0.1	2	0.1	35	
	Transfer	12A	3A		2	0.1	2	0.1	35	
Tops on Broadwa	y Street									
Weekday am	Time	3A	4H		2	0.1	2	0.1	49	
	Transfer	3A	4H		2	0.1	2	0.1	49	
	Time	4A	20H	3A	2	0.1	4	0.2	88	
	Transfer	4A	20H	3A	2	0.1	4	0.2	88	

FOOD FOR GROWTH: A COMMUNITY FOOD SYSTEMS PLAN FOR BUFFALO'S WEST SIDE

			1		-		-			
Weekday pm	Time	3A	4H		2	0.1	2	0.1	55	125
	Transfer	3A	4H		2	0.1	2	0.1	55	
	Time	4H	23W	3A	2	0.1	2	0.1	70	
	Transfer	4H	23W	3A	2	0.1	2	0.1	70	
Saturday am	Time	3A	4B		2	0.1	2	0.1	67	137
	Transfer	3A	4B		2	0.1	2	0.1	67	
	Time	4B	20H	3A	2	0.1	4	0.2	70	
	Transfer	4B	20H	3A	2	0.1	4	0.2	70	
Sunday am	Time	3A	4A		2	0.1	2	0.1	138	235
	Transfer	3A	4A		2	0.1	2	0.1	138	
	Time	4A	20B	3A	2	0.1	4	0.2	97	
	Transfer	4A	20B	3A	2	0.1	4	0.2	97	
Tops at South Parl	k									
Weekday am	Time	3A	14C		2	0.1	2	0.1	48	115
	Transfer	3A	14C		2	0.1	2	0.1	48	
	Time	14B	3A		2	0.1	4	0.2	67	
	Transfer	14B	3A		2	0.1	4	0.2	67	
Weekday pm	Time	3A	14B		2	0.1	2	0.1	56	105
	Transfer	3A	14B		2	0.1	2	0.1	56	
	Time	16A	3A		2	0.1	4	0.2	49	
	Transfer	16A	3A		2	0.1	4	0.2	49	
Saturday am	Time	3A	15B	19A	2	0.1	2	0.1	64	127
	Transfer	3A	14B		2	0.1	2	0.1	77	
	Time	16A	3A		2	0.1	4	0.2	63	
	Transfer	14B	3A		2	0.1	4	0.2	63	
Sunday am	Time	3A	16A		2	0.1	2	0.1	107	201
	Transfer	3A	16A		2	0.1	2	0.1	107	
	Time	23W	3A		2	0.1	2	0.1	94	
	Transfer	23W	3A		2	0.1	2	0.1	94	
Tops International			1	1	I					
Weekday am	Time	12B	34A	1	8	0.4	8	0.4	157	266
	Transfer	12B	34A		8	0.4	8	0.4	157	
	Time	5D	30C,G	3A	8	0.4	2	0.1	109	
	Transfer	5D	, , , , , , , , , , , , , , , , , , ,		8	0.4	10	0.5	104	
Weekday pm	Time	3A	8A	34A	2	0.1	8	0.4	110	225
	Transfer	7A	5D	-	8	0.4	8	0.4	191	
	Time	5D			8	0.4	10	0.5	115	
	Transfer	5D			8	0.4	10	0.5	115	
Saturday am	Time	12B	34A		8	0.4	8	0.4	184	321
	Transfer	12B	34A		8	0.4	8	0.4	184	
	Time	34A	30A	3A	8	0.4	2	0.1	137	
	Transfer	34A	30A	3A	8	0.4	2	0.1	137	
Sunday am	Time	3A	8A	34M	2	0.4	2	0.1	137	312

FOOD FOR GROWTH: A COMMUNITY FOOD SYSTEMS PLAN FOR BUFFALO'S WEST SIDE

	Transfer	3A	8A	34M	2	0.1	2	0.1	139	
	Time	34M	30A	3A	18	0.9	2	0.1	173	
	Transfer	34A	30A	3A	18	0.9	2	0.1	173	
Wegmans at Alber	ta Dr.					·	·			
Weekday am	Time	7A	5D		8	0.4	10	0.5	165	260
	Transfer	7A	5D		8	0.4	10	0.5	165	
	Time	5D	30C	3A	8	0.4	2	0.1	101	
	Transfer	5D			10	0.5	10	0.5	85	
Weekday pm	Time	3A	8B	34M	2	0.1	8	0.4	158	282
	Transfer	7A	5D		8	0.4	10	0.5	187	
	Time	34A	8A	3A	10	0.5	4	0.2	124	
	Transfer	34A	12B		10	0.5	8	0.4	139	
Saturday am	Time	3A	8A	34M	2	0.1	2	0.1	155	321
	Transfer	3A	8A	34M	2	0.1	2	0.1	155	
	Time	34A	30A	3A	10	0.5	2	0.1	166	
	Transfer	34A	30A	3A	10	0.5	2	0.1	166	
Sunday am	Time	3A	8A	34M	2	0.1	2	0.1	140	312
	Transfer	3A	8A	34M	2	0.1	2	0.1	140	
	Time	34M	30A	3A	12	0.6	2	0.1	172	
	Transfer	34M	30A	3A	12	0.6	2	0.1	172	
Wegmans at Amh	erst Street									
Weekday am	Time	3A	32C		4	0.2	2	0.1	40	96
	Transfer	3A	32C		4	0.2	2	0.1	40	
	Time	20H	3A		4	0.2	2	0.1	56	
	Transfer	20H	3A		4	0.2	2	0.1	56	
Weekday pm	Time	3A	26B	20B	4	0.2	4	0.2	43	105
	Transfer	3A	32C		4	0.2	2	0.1	64	
	Time	20H	3A		4	0.2	4	0.2	62	
	Transfer	32C	3A		2	0.1	2	0.1	142	
Saturday am	Time	3A	20B		2	0.1	4	0.2	51	108
	Transfer	3A	20B		2	0.1	4	0.2	51	
	Time	20H	3A		4	0.2	4	0.2	57	
	Transfer	20H	3A		4	0.2	4	0.2	57	
unday am	TP *	3A	32C		4	0.2	2	0.1	71	149
Sunday am	Time	511								
Sunday am	Time	3A	32C		4	0.2	2	0.1	71	
Sunday am	-				4	0.2	2	0.1	71 78	

C.3.2. National examples of programs that have improved access to grocery stores

Residents who do not have access to private means of transportation are generally restricted to buying groceries at a small convenience store that may offer a poorer selection at a higher price. The following national examples illustrate different approaches toward improving access to food.

EL Tapatio Supermercado Shuttle Service

Los Angeles, California.

The El Tapatio Supermercado in South Central Los Angeles is an independent, full-fledged market that acknowledges its consumers' lack of transportation. The market provides a shuttle service that runs from the store to residents within 3-4 miles of the store. Because of low-income levels, low vehicle ownership, high crime rates and concerns over safety at bus stops in this area, the El Tapatio family started the shuttle service in 1993 to bring more people to their store. Although the service is free, shoppers must buy at least \$25 in groceries to use the shuttle. Because there is no fixed route, customers can request to be dropped off at particular destinations. The shuttle operates seven days a week from 7:00 a.m. to 9:30 p.m. and accommodates 12 to 14 people per trip. Customer manager, Ed Torres, estimates that the shuttle costs El Tapatio \$4000 per month, which includes labor costs of \$2,200 per month as well as vehicle purchase, maintenance and insurance and the required permitting and licensing requirement and license for the drivers (The UCLA Pollution Prevention Education and Research Center and the Community Food Security Coalition, 1993). Despite these high costs, the service has many benefits for El Tapatio³. Besides attracting a wider spectrum of customers, the shuttle provides additional advertising and publicity for the store. The service also reduces parking and shopping cart thefts. According to the manager, the most significant benefit of the program is the creation of goodwill in the community (The UCLA Pollution Prevention Education and Research Center and the Community Food Security Coalition, 1993).

Numero Uno Market Shopper's Van Shuttle Service

Los Angeles, California.

Numero Uno Market is a privately owned small chain of supermarkets serving inner-city Los Angeles neighborhoods. It has bolstered its business and profits by providing customers a free ride home with their groceries. This service emerged when the owner realized the difficulty in carrying groceries home without an automobile and perhaps with a child in hand.

According to its General Manager, Numero Uno has capitalized on the high concentration of transit dependent population present in the inner city. Numero Uno's Shuttle Van Service has been successful in meeting the needs of the transit dependent communities and has increased from four vans to eleven vans during a period of six years. Although there is no fee to the customer for using this service, there is a minimum purchase requirement of \$30.

The cost of the Shopping Van Shuttle Service program includes van operators, maintenance, and operational costs is reported to be less than 1% of the gross revenues for the store. In 1998, gross sales at the store were \$25 million, and the supermarket was among the top five grossing supermarkets in Los Angeles.

³ According to researchers at the U.C. Davis Center for Advanced Studies in Nutrition and Social Marketing, inner-city supermarkets can improve their profit margins and the health of the communities by offering shoppers free transportation. In a market analysis of low-income neighborhoods in five California cities, researchers estimate that 20 percent of households without cars in each study area would use a shuttle once a week to buy \$25 in groceries. Stores also benefit from this service because of additional shopping trips from new and existing customers, increased sales from larger purchases, and reduced shopping-cart losses, free publicity by way of advertisements displayed on vans and community good will (Mohan.V, Cassady. D 2000).

Ralph's Supermarkets Contract Shuttle Program

Los Angeles, California.

Three Ralph's supermarkets in the Los Angeles area contract with a company to provide a free ride home for their patrons. The Shuttle Company under contract provides a driver, 15-passenger van, insurance, and all mileage and maintenance costs, for a monthly fee. The shuttle runs daily from 9.00 a.m. to 8:00 p.m. The shuttle offers rides to any customer with a store receipt of \$25 or more. According to the manager at the Ralph's on West Adams, this service has been in operation for five years. He said its sole purpose is good will. He estimates that the van carries 100 passengers each day that is about 16% of the transit dependent households in the Ralph's zip code. The manager attributes \$27,000 in weekly sales to the shuttle service.

Rutger's University Shopping Van service

New Jersey

The graduate housing of the Rutgers's University provides transportation to graduate students who have limited access to a supermarket. According to Dean Bender, this service may take on additional importance due to a law change that may make it more difficult for international students to obtain a driver's license in the United States. The current cost of the shopping van operation exceeds \$15,000 a year and at present is facing problems with financing.

The HOP Shuttle Public Transit Program

Boulder, Colorado

The City of Boulder initiated a new shuttle service using alternative fuels such as propane. This service connects downtown Boulder, the University of Colorado and a major commercial area that contains a large shopping mall. Although the initial aim of the shuttle service was to provide access to shopping malls, work, and recreational facilities, it subsequently improved access to food stores and farmers' markets as they happened to be on the route.

While this service was first funded by the International Surface Transportation Enhancement Act (ISTEA) grant, funding now comes from public and private joint ventures. So, far the revenue from the service has been lower than the operating cost.

APPENDIX **D** ON-LINE RESOURCES

A

America the Beautiful : <u>http://www.millenniumgreen.usda.gov/kids/freeseeds_order.html</u> *Youth development funding*

C

Captain Planet Foundation: <u>http://www.captainplanetfdn.org/</u> *Youth development funding*

Champions Youth Nutrition: <u>http://www.generalmills.com/corporate/commitment/community/default.asp</u> *Youth development funding*

G

Greater Rochester Urban Bounty (G.R.U.B.), Rochester, New York: http://www.grubrochester.com/index.php

GRUB is comprised of two market gardens and a vineyard, located in the North East sector of the city of Rochester, and is the only farmland left in the city. GRUB grew out of the Northeast Neighborhood Alliance's Regional Farm Stand located at the Rochester Public Market. Since 1999, GRUB has been offering different programs to the community to provide fresh produce, specialty foods, and youth development opportunities.

Growing Power, Milwaukee, WI: http://www.growingpower.org

Growing Power is a non-profit organization and land trust. The organization trains and educates over 3,000 people a year in community food systems and urban agriculture. Growing Power has extensive training facilities, including greenhouses, a commercial grade kitchen, indoor and outdoor gardens, and a food distribution facility. They offer workshops, apprenticeship programs, and entrepreneurial education as well.

Η

Healthy Youth Funding Database: <u>http://www.cdc.gov/nccdphp/dash/publications/index.htm</u> *Youth development funding*

The Hunger Action Network of New York State (HANNYS): http://www.hungeractionnys.org

HANNYS has received funds to develop two programs that will help address hunger issues and low income access to food throughout New York State. One program will help establish CSA farms broaden membership to all income levels and will work with community organizations, emergency food programs, and faith-based organizations to form new relationships with local farmers. The other program provides grants up to \$8000 to develop innovative food projects that will benefit low income New Yorkers.

Ν

National Wildlife Federation: <u>http://www.nwf.org/schoolyardhabitats/pdfs/syh_fundraising_infosheet.pdf</u> *Youth development funding*

The National Gardening Association: <u>http://www.kidsgardening.com/grants.asp</u> *Youth development funding*

The National Youth Information Center: <u>http://www.nydic.org/nydic/fundsearch.html</u> *Youth development funding*

S

Self Help Credit Union: http://www.self-help.org

Self-Help Credit Union is a community development lender that provides loans to home buyers, small businesses, and nonprofit organizations. Self-Help is unique in that its target population is people that are normally turned away by conventional lending institutions. They serve minorities, women, low income people, and rural residents. Financial backing is provided through institutions from across the United States.

Stoneyfield Farm: <u>http://www.stonyfield.com/Ido/ProfitsforthePlanetProgram.shtml</u> *Youth development funding*

 The School Grants: http://schoolgrants.org/

 Youth development funding

U

USDA: <u>http://attra.ncat.org/guide/cfpcgp.htm</u> Youth development funding

APPENDIX **E** DATA COLLECTION INSTRUMENTS

E.1. Focus Group Guiding Questions – Businesses

Basic questions related to the store/establishment

When was your business established? What are your business hours? How do your customers get to your store?

Product Questions

How have the types of products you sell changed over the years? How do you obtain the products you sell in your store? How do you determine what products to sell? Do you sell perishable foods? (Such as vegetables, fruits, milk, dairy products, frozen foods, etc.) What products do you sell the most of? What foods do you sell the most of?

Community Questions

What would improve your business within the community?

What changes would you like see? (community, business changes, aspects of distribution, etc.)

Do you work with food wholesalers or buy directly from food producers?

Would you be willing to set up a direct partnership with local farms to provide the community with their products?

If the opportunity presented itself to buy directly from local producers, would you consider it? If not, why? What barriers prohibit or impede your ability to buy from local producers?

As a business owner what challenges do you have within the community?

E.2. Focus Group Guiding Questions – Residents

These questions were also translated into Spanish and modified slightly to suit the setting.

Transportation Questions

Where do you shop most often for food?
Where is your favorite place to shop for food?
Where do you shop for one or two food items?
How often do you shop for food or beverages?
How far do you travel to buy food?
How do you get to the food stores? What type of transportation do you use?
Do you have any special transportation needs?
What makes it difficult to obtain food?
What would make your food shopping experience easier?
How often do you combine a food shopping trip with another trip?
Where do you go for a sit-down meal? Any restaurants?
Where do you go for a fast food meal?

Comparative Price Questions

What do you think about food prices in your corner stores? Local supermarkets?
What food products do you buy most often in the supermarket?
What food do you buy most often at the local corner stores?
How many bags of food do you usually buy?
What do you think about the food selection in your local corner store?
What food products would you like to see in your local food stores?
How often do you buy food in bulk?
What food do you buy in bulk?
What do you think of the local farmers' markets?

Food Quality Questions

What is your opinion of the food quality within your neighborhood stores? What is your opinion of the food quality at the closest supermarket? What is the best meal you've ever had? Where did you have this meal? What kinds of food stores would you like to see in your neighborhood? How has your food shopping changed over the past five years?

Community Garden Questions

Do you grow food or do any gardening? What do you enjoy growing in your garden? Is there any garden that you like best? Why? Do you know where the community gardens are located in your neighborhood? What do you think of the local community gardens? Is there any local community garden that you like best? Why? What would you like to see grown in the local community gardens? How do you feel about eating food grown in local community gardens? Would you participate in community gardening if there was a garden nearby? Are there any local food sources that we are missing?

Community Supported Agriculture Questions

Do you know what community supported agriculture is? (assuming that not many people have heard of CSA, provide a short description) If CSA was available in your community, do you think you would participate? Where in the community could sites for distribution be located? What type of crops are you interested in the CSA growing? Does the up-front payment system pose a difficulty for you in participating in such a program? Why?

Food Preparation Questions

Do you prepare food?

How many times a week do you prepare food? (where do you get most of your meals?) For how many people do you prepare food?

Would you be interested in a community cooking class or nutrition education class? If there was a local place for you to get pre-packaged healthy meals to take home, what type of meals would you be interested in buying? What type of foods would you like to see included?

Health

Is there any food in your diet that you can't find at your grocery store? Where do you get those types of food? At your local corner store? Are you aware of the ingredients contained in the processed food you eat? How can your local corner store or supermarket help to improve your diet requirements? What foods would have a better impact on your health?

Additional Questions

Do you think your voices are heard/respected in the community? What are some ways you think you could improve this?
What do you think of when you hear the term "community gardens"? What do you think are their benefits, if any?
Have you ever participated in gardening, food growing activities? If yes, please elaborate
If no, do you have any desire to participate in such activities?
What types of neighborhood projects, related to food, would you be interested in participating in, if any?
Gardening/hands-on tasks
Community Outreach
What are some incentives that you think would work in getting seniors involved in neighborhood projects?

FOOD FOR GROWTH: A COMMUNITY FOOD SYSTEM PLAN FOR BUFFALO'S WEST SIDE

E.3. Focus Group Guiding Questions for Youth

(Youth questions should be tailored to age and situation)

- What are your biggest concerns about growing up on the West Side?
- Do you think your voices are heard/respected in the community?
 - What are some ways you think you could improve this?
- Who prepares the meals in your home?
 - If you help, what do you tend to prepare?
 - Is this out of convenience or because it is your preference?
- Do you ever wonder where your food comes from?
- What do you think of when you hear the term "community gardens"?
 - What do you think are their benefits, if any?
- Have you ever participated in gardening, food growing activities?
 - If yes, please elaborate
 - If no, do you have any desire to participate in such activities?
- Are you a member of Growing Green? If yes, what is your satisfaction with the program?
 - Do you know what it is?
 - Now that you know what it is, would you be interested in something like this?
- What types of neighborhood projects, related to food, would you be interested in participating in, if any?
 - o Art projects?
 - o Gardening/hands-on tasks
 - o Community Outreach
- What are some incentives that you think would work in getting kids involved in neighborhood projects?
 - o Money?
 - The pure joy in helping the community?
 - o Food?
 - o Others?

E.4. Food Store Survey

Apples, Red Delicious					White Bread 1 lb loaf	END	EYE	MID	DIF
§per pot					\$	#			
Bananas					2% Milk 1 gallon	END	EYE	MID	DIF
ßper pot					\$	#			
					Orange Juice 64 OZ.	END	EYE	MID	DIF
Carrots (not peeled or was per pou					from concentrate \$size	#			
					Large Eggs, 1 Dozen	END	EYE	MID	DIF
White Potatoes					\$	#_			
\$per pot	ınd				Yogurt plain 6 OZ. cup	END	EYE	MID	DIF
					\$	#_			
Tomatoes (not on the vir \$ per pot					Cheddar Cheese, 8oz.	END	EYE	MID	DIF
	1110				\$orperpo				
Sliced Bologna 16 OZ. \$per pound	END 1 #	EYE	MID //	DIF	Tomato Sauce 8 OZ can	END #	EYE	MID	DIF
Ground Beef 80% Lean	END	EYE	MID	DIF	Boxed Pasta, (Elbow	END	EYE	MID	DIF
\$per pound	1 #				Maccaroni), 16oz. \$	#			
Chicken, whole or cheapest	END	EYE	MID	DIF					
\$per pound	1 #				Peanut Butter 120Z. (Regular)	END	EYE	MID	DIF
					\$	#			
Green Peas, 12.25 OZ Can	END	EYE	MID /	DIF	at 1 1 1 1 a a				
\$or per OZ	. #				Chicken Noodle Soup, Can 10 3/4 oz. \$	END #	EYE	MID	DIF
Solid White Tuna, 6 OZ can	END	EYE	MID	DIF					
	#				White Rice, enriched 1 pound	END	EYE	MID	DIF
					\$ perpoun	d #			

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