Pueblo County Food System Assessment Consumers & Markets Report

September 2013

This Food System Assessment was conducted on behalf of the Pueblo City-County Health Department's Health Disparities Program. The Health Disparities Program strives to reduce the risk of developing chronic cardiovascular disease precursors such as obesity by providing education and opportunities for the disparate populations in Pueblo County through a grant from the Colorado Department of Public Health and Environment. Colorado State University and WPM Consulting, LLC conducted the research and analysis to inform this assessment.

Table of Contents

I. INTRODUCTION: CONSUMER PROFILES & MARKETING CHANNELS 3

II. PUEBLO COUNTY DEMOGRAPHICS 4

III. FOOD EXPENDITURES 4

IV. PUEBLO COUNTY FOOD SYSTEM ASSESSMENT SURVEY: FINDINGS ON CONSUMER BEHAVIORS AND INTERESTS 6

A. Shopping for Food 7
B. Consumption of Fruits and Vegetables 9
C. Factors Affecting Fruit and Vegetable Consumption 10
D. Factors Affecting Access to Fruits and Vegetables 12

V. DIRECT MARKET AGRICULTURE: US AND REGIONAL TRENDS 14

A. Direct Marketing by Producers 14
B. Farmers Markets: The Consumer's Most Preferred Direct Market 15
C. Direct Market Wholesale and Institutional Buyers 17

VI. DIRECT MARKETS AND CONSUMER DEMAND 17

A. Overview of Consumer Interest in Direct Markets 17
B. Consumer Perceptions about Local Food 18
C. Personal and Community Factors Affecting Access to Local Foods 19

VII. FINDINGS ON DIRECT MARKET OPPORTUNITIES & CHALLENGES 20

A. Overview of Opportunities to Meet Food Needs through Direct Markets 20
B. Community Discussions Regarding Direct Market Opportunities & Barriers 21

VIII. ADDITIONAL OPPORTUNITIES TO EXPAND DIRECT MARKETS IN PUEBLO COUNTY 24

A. Farm-to-School Market Potential 24
B. Connecting Consumers through Urban & Community Gardens 26
C. Connecting Consumers through Agritourism and Local History 28
D. Farm-to-Food Bank 28

IX. RESOURCES FOR MARKETING 29

X. REFERENCES 32

XI. APPENDICES 33

Appendix A: Maps 33

Table of Figures

FIGURE 1: FOOD EXPENDITURES, PUEBLO COUNTY 2010 5
FIGURE 2: SHARE OF FOOD EXPENDITURES SPENT AWAY FROM HOME BY MEAL, PUEBLO 2010 5
FIGURE 3: AVERAGE 2010 FOOD PREFERENCE EXPENDITURES, PUEBLO COUNTY 6
FIGURE 4: SELF REPORTED SERVINGS OF FRUITS AND VEGETABLES PER DAY, AS PERCENTAGE OF SURVEY RESPONDENTS 10
FIGURE 5: WHAT IS IMPORTANT TO YOU WHEN YOU PICK OUT FRUITS AND VEGETABLES? 10
FIGURE 6: WHAT MAKES IT CHALLENGING TO EAT FRUITS AND VEGETABLES? 11
FIGURE 7: WHAT PERSONAL FACTORS MIGHT MAKE IT EASIER TO EAT MORE FRUITS AND VEGETABLES? 12
FIGURE 8: ABOUT HOW FAR DO YOU LIVE FROM WHERE YOU GET MOST OF YOUR FRUITS AND VEGETABLES? 13
FIGURE 9: WHAT MAKES IT CHALLENGING TO GET FRUITS AND VEGETABLES? 13
FIGURE 10: NUMBER OF FARMS IN THE REGION WITH DIRECT SALES, 1992-2007 14
FIGURE 11: DIRECT MARKET SALES REPORTED BY REGION'S AGRICULTURAL PRODUCERS, 2002 AND 2007 15
FIGURE 12: NATIONAL GROWTH IN FARMERS MARKETS, 1994-2012 16
FIGURE 13: WHAT DO YOU DEFINE AS "LOCAL"? 18
FIGURE 14: WHAT PERSONAL FACTORS MIGHT MAKE IT EASIER TO GET LOCAL FOODS? 19
FIGURE 15: WHAT COMMUNITY FACTORS WOULD MAKE IT EASIER TO GET LOCAL FOODS? 20
FIGURE 16: NUMBER OF REGISTERED MARKET MAKER BUSINESSES IN PUEBLO COUNTY, AUGUST 2013 29
FIGURE 17: NUMBER OF BUSINESSES UTILIZING COLORADO PROUD IN THE REGION 30

Table of Tables

TABLE 1: AVERAGE ANNUAL FOOD AT HOME EXPENDITURES IN DOLLARS, 2000-2010 6
TABLE 2: WHERE DO YOU GET MOST OF THE FOODS YOU AND YOUR FAMILY EATS? 8
TABLE 3: WHERE DO YOU USUALLY GET MOST OF YOUR FRUITS AND VEGETABLES (FRESH, CANNED OR FROZEN)? 8
TABLE 4: WHERE WOULD YOU LIKE TO GET MORE FRUITS AND VEGETABLES? 9
TABLE 5: SURVEY RESPONDENTS THAT CHOSE "MORE FARMERS' MARKETS OR FARM STANDS" AS A COMMUNITY FACTOR TO INCREASE ACCESS TO LOCAL FOOD 17
TABLE 6: KEY MOTIVATORS FOR PRODUCERS TO ENGAGE IN COLORADO-BASED MARKETS 21
TABLE 7: PRIMARY BARRIERS FOR PRODUCERS TO ENGAGE IN COLORADO-BASED MARKETS 22
TABLE 8: STRATEGIC OPPORTUNITIES FOR PRODUCERS TO ENGAGE IN COLORADO-BASED MARKETS 23

I. Introduction: Consumer Profiles & Marketing Channels

A Food System Assessment is generally organized as a means to describe how a food system operates, and to identify key linkages between the production, marketing and consumption of food by community households. For markets, the purchasing power, preferences, and perceptions of community households are examples of the key drivers connecting supply chains to other aspects of the food system. Given an increasingly varied set of choices, barriers, and influences on food choices and diets, it is important to consider consumer behavior as a key indicator of a food system's structure and performance.

In part, this food assessment explored the buying patterns of Pueblo County consumers, and the distribution of revenue from food purchases to different parts of the food sector. Consumers are the ultimate driver of the food industry. By knowing what consumers want,

where they shop, how they prepare and consume food, and what characteristics they are willing to pay for, we can provide valuable insight into how this community can respond to the needs and preferences of its households and businesses. This section of the assessment will address current consumer buying patterns, the role that local and direct markets play, consumer perceptions regarding food issues, and insights into both how consumers access and perceive the affordability of food.

This report, its supporting materials, and Pueblo County food system maps are available to view and download at www.pueblohealthdept.org.

II. Pueblo County Demographics

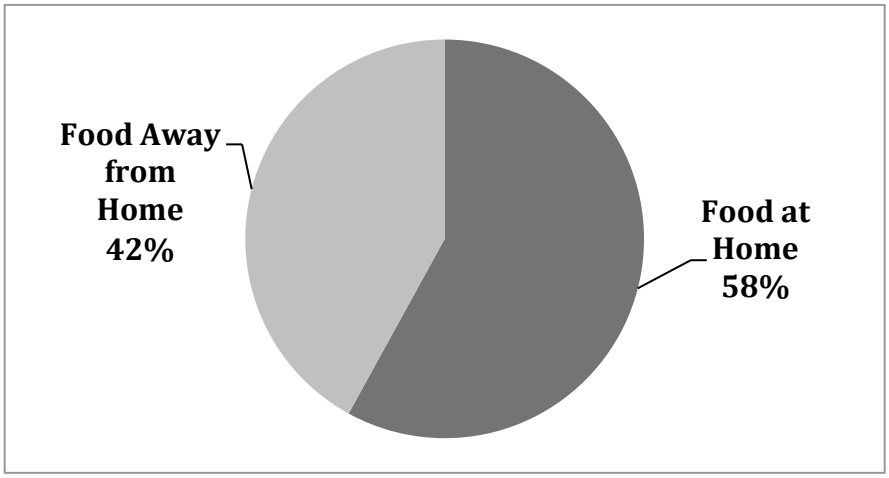
Pueblo is a diverse and culturally-rich community. According to the 2012 U.S. Census Bureau, the population of Pueblo County was 160,852, with 63,502 households averaging 2.5 members each. The county is 51% female, with 6.3% of persons under 5 years old, 23.7% under 18 years old and 23.7% aged 65 years and over. About 92% of the county is white, 2.4% black or African American, 2.9% Indian or Alaska Native, 1% Asian and 0.2% Native Hawaiian. Forty-two percent of the county's population classifies themselves by the ethnicity of Hispanic or Latino, compared to 21% in the state of Colorado as a whole. Subsequently, about 14% speak a language other than English in the home. Educationally, 85.7% of Puebloans over 25 years old have a high school diploma or higher, and 21.5% have a Bachelor's degree or higher. The median household income from 2007-2011 was $41,273, about 28% lower than the state average of $57,685 (US Census, 2011).

Such demographics provide critical context to understanding issues related to food access and consumption. According to a 2011 Food Research and Action Center report, fresh fruit and vegetable affordability and access challenges are greater for households with lower incomes. While it is well-established that fruits and vegetables are under-consumed by *all* Americans, meeting dietary recommendations is particularly challenging for low-income households and minorities due to limited resource availability, as well as access issues within their communities (FRAC, 2011).

III. Food Expenditures

Consumers have many market options when it comes to purchasing food and fresh produce. We begin by exploring the levels and types of food expenditures for the county, and in some cases compare these numbers ot the region and state of Colorado: the region includes Bent, Crowley, Fremont, Otero, Prowers and Pueblo counties. In 2010, according to the Bureau of Labor Statistics (BLS), consumers in Pueblo County spent 3% more on food annually, on average, ($5,444) than the region ($5,259), but 33% less per year than the state average ($8,071). From 2000 to 2010, consumer spending on food decreased approximately 5% for the state, region, and county, which can likely be attributed to the economic recession and subsequent financial challenges consumers encountered.

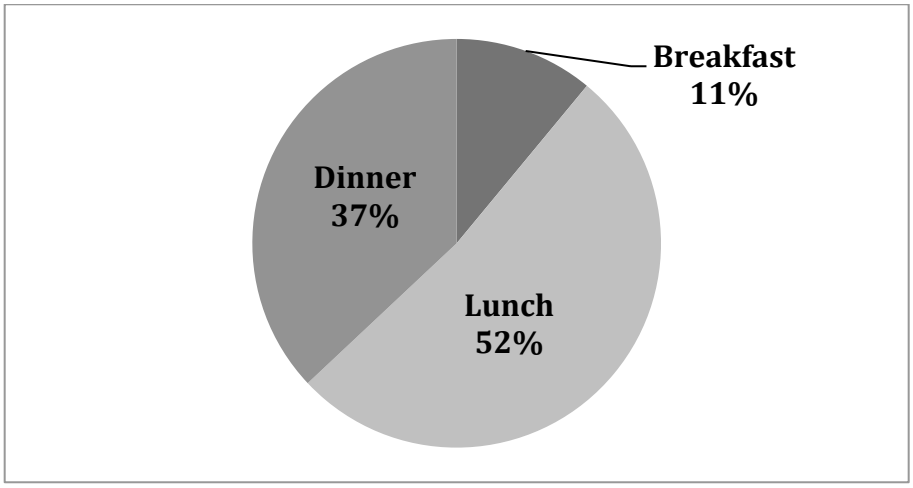
Figure 1: Food Expenditures, Pueblo County 2010



Source: Bureau of Labor Statistics as reported via Colorado MarketMaker, 2013.

Food expenditures are typically characterized as "food at home" or "food away from home" with food dollars increasingly being spent away from home in the U.S. (BLS). Pueblo County consumers spent just over half (58%) of their available food resources on food prepared and eaten at home (see Figure 1).

Figure 2: Share of Food Expenditures Spent Away From Home by Meal, Pueblo 2010



Source: Bureau of Labor Statistics as reported via Colorado MarketMaker, 2013.

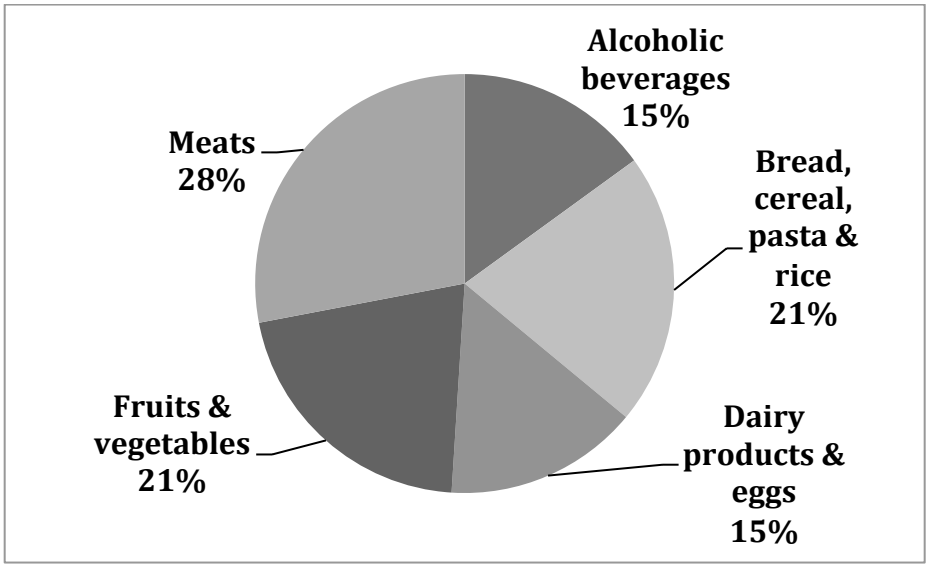
The most common meal consumed away from home was lunch (52%), followed by dinner (37%) and breakfast (11%) (see Figure 2). When we look more specifically at the items consumers purchased for consumption at home, we saw similarities across Pueblo County, when comparing the county to the broader region and state. As shown in Table 1 and Figure 3, a significant portion of Pueblo residents' budgets were spent on meat products, followed by grains, fruits and vegetables and dairy products. Alcoholic beverages, which contribute few nutrients, accounted for an average of 15% of the total food expenditures in Pueblo county.

Table 1: Average Annual Food at Home Expenditures in Dollars, 2000-2010

	Colorado		Region		Pueblo	
	2000	**2010**	**2000**	**2010**	**2000**	**2010**
Bread, cereal, flour, pasta, rice	881	801	591	538	609	552
Meat	1230	1075	824	710	848	734
Dairy products & eggs	618	570	413	384	425	392
Fruits & vegetables	841	820	546	530	568	550
Total ($)	4189	3879	2755	2538	2855	2627

Source: Bureau of Labor Statistics as reported via Colorado MarketMaker, 2013.

Figure 3: Average 2010 Food Preference Expenditures, Pueblo County



Source: Bureau of Labor Statistics as reported via Colorado MarketMaker, 2013.

Since total food expenditures declined in Pueblo and greater Colorado between 2000 and 2010, it is interesting to see that all food categories declined, but some saw larger decreases than others. For example, the decline in fruit and vegetable expenditures in Pueblo (less than 4%) is far less than the 8.5% decline in all food expenditures, so some shifting across food groups may have occurred.

IV. Pueblo County Food System Assessment Survey: Findings on Consumer Behaviors and Interests

A resident survey was conducted between April and June 2013, and completed by 684 residents to explore how a fairly representative sample of residents made food choices and felt personal and community factors affected their choices. Survey questions were designed

to understand where Puebloans purchase food, what food they commonly consume, what difficulties they have in accessing healthy food, and their interest in consuming more locally-grown foods.

In order to recruit a sample of respondents that reflected the demographic profile of the community, a variety of outreach methods were utilized to reach county residents. These methods included social media, radio, newspaper, flyers in public areas, and city and county government website postings. Additionally, hardcopy surveys were disseminated widely in-person at many partner organizations including emergency food pantries, Cooking Matters classes, the Care and Share Food Bank, the Department of Social Services staff, one local hospital, numerous faith-based organizations, and classes given in the Pueblo County Women, Infant, and Children program.

Results from this survey will be discussed in greater detail throughout the next sections of the report. Although there were a number of different topics covered in the survey, this report focuses on food marketing choices including where residents shopped, what they bought, and perceived issues in securing the quantity and types of food they prefer.

A. Shopping for Food

To study the food system, one important element to explore is where people get their food, and if those choices are "performing" well; in other words, does the current system suit their needs. For this section of the survey, participants were instructed to select the three most relevant responses from pre-determined categories (with another option if the answers offered did not reflect a key factor to them). Survey respondents were asked "where do you get MOST of the foods you and your family eats?," and were then asked to pick up to 3 locations, with #1 being where they went the most often. Participants overwhelmingly selected large chain grocery stores, such as Safeway, King Soopers, Wal-Mart, followed by fast food restaurants and wholesale stores, like Costco or Sam's Club (see Table 2). Note that, since three options were commonly chosen, the total shares add up to a percentage far greater than 100%.

Similarly, when asked "Where do you usually get most of your FRUITS AND VEGETABLES (fresh, canned, or frozen)?," the top choice was large chain grocery stores, followed by fast food restaurants, followed by "I grow or hunt my food," as the third most common selection (see Table 3).

Due to convenience and accessibility, most respondents are currently obtaining their fruits and vegetables at the places where they already shop and, consequently, want to purchase more of their fruits and vegetables in these same locations. Surprisingly, however, a significant number of respondents also expressed the desire to grow, make, or hunt more of their own food, buy from natural food stores, and buy direct from a meat processor or a ranch. These strong consumer interests may offer some potential new market opportunities for Pueblo County producers, retailers, and regional technical assistance organizations.

Table 2: Where do you get most of the FOODS you and your family eats?

Chain grocery	**94%**
Fast food	**42%**
Wholesale store	**38%**
Other restaurants	**34%**
Natural food store	**20%**
Independent grocery	**17%**
Grow my own	**12%**
Convenience store	**11%**
Food assistance	**11%**
Workplace	**7%**
Other	**7%**
Direct	**7%**
Senior center	**4%**
Online	**4%**
Meal delivery	**3%**

Note: Since respondents could choose up to three options, these responses total more than 100%

Table 3: Where do you usually get most of your FRUITS AND VEGETABLES (fresh, canned or frozen)?

Chain grocery	**94%**
Wholesale store	**33%**
Grow my own	**18%**
Natural food store	**17%**
Independent grocery	**15%**
***Other**	**15%**
Other restaurants	**10%**
Workplace	**9%**
Convenience store	**8%**
Food assistance	**8%**
Direct	**6%**
Fast food	**6%**
Senior center	**1%**
Online	**1%**
Meal delivery	**1%**

Some interesting findings from the other responses are worth sharing. If respondents answered "Other", they were then instructed to specify their source for fruits and vegetables. Over 90 (13%) respondents indicated they obtain most of their fruits and vegetables at seasonal farmers markets, farm stands, directly from farms or farmers, from a national delivery program like Bountiful Baskets or from the Fort Carson Commissary. The "direct" option was meant to capture some of those farmers markets and farm stands, but it is important to note that those

options were popular (and even more so if other responses were added to the 7% in Table 2). Similar to analysis done on "other" responses for the previous question, among these responses we found 110 (16%) respondents who indicated they were interested in getting MORE fruits and vegetables directly from local farms and ranches, farmers' markets, and farm stands (of the 19% who responded "other" in Table 4). This 16% is in addition to the 19% that responded to the direct option already offered in the survey question, indicating a strong perception that purchases made more directly with producers (at various market options) were an attractive choice for this community.

Table 4: Where would you like to get MORE fruits and vegetables?

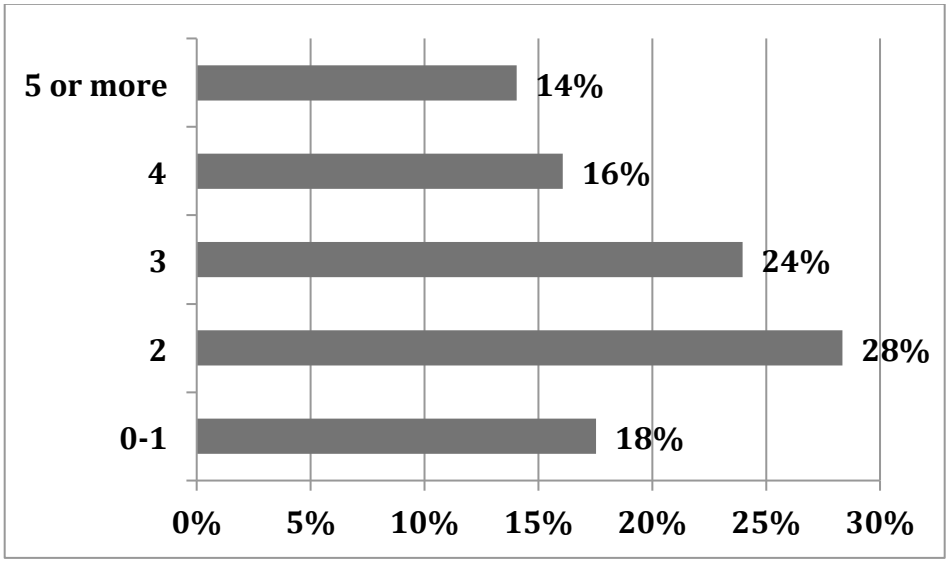
Chain grocery	**49%**
Grow/hunt/make	**45%**
Natural food store	**33%**
Direct	**19%**
***Other**	**19%**
Wholesale store	**18%**
Independent grocery	**17%**
Food assistance	**9%**
Convenience store	**8%**
Workplace	**6%**
Fast food	**5%**
Other restaurants	**5%**
Online	**2%**
Senior center	**1%**
Meal delivery	**1%**

B. Consumption of Fruits and Vegetables

Epidemiologic evidence of the protective role fruits and vegetables play in cancer and chronic disease prevention is substantial (Hyson, 2011). This, in turn, reinforces and increases the saliency of U.S. policymaking related to diet and health. These factors, together with grassroots efforts by state and local health foundations, facilitates the development of community programs that address the dietary goals of increasing fruit and vegetable consumption (Van Duyn and Pivonka, 2000).

According to the 2010 Dietary Guidelines for Americans, United States Department of Agriculture (USDA) Food Patterns recommend consuming 2.5 servings of vegetables and 2 servings of fruit per day. While there are limitations to self-reporting of dietary food intakes (Ferrari et al., 2002), a majority (52%) of Pueblo survey respondents reported consuming between two and three servings of fruits *and* vegetables every day, and 30% reported eating four or more (see Figure 4).

Figure 4: Self Reported Servings of Fruits and Vegetables Per Day, as percentage of survey respondents

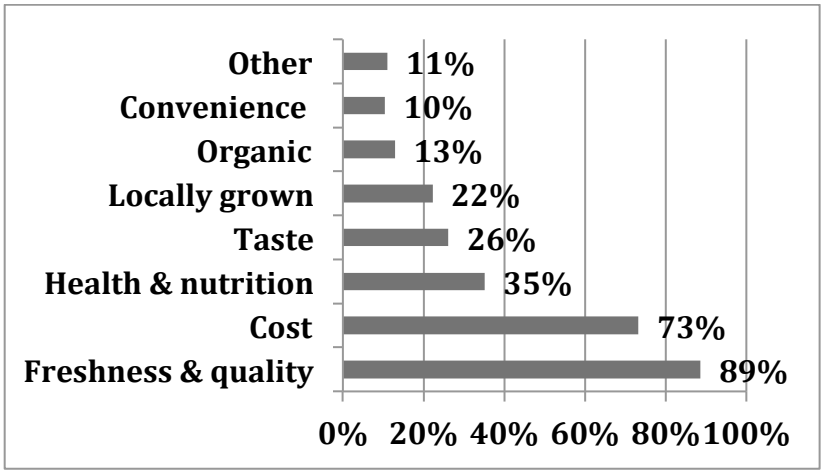


In order to assess consumer food choices reported in the Pueblo County survey, we will use the 2010 USDA Dietary Guidelines, since they are relevant for all Americans, regardless of age, cultural preferences, or dietary needs. In this assessment, MyPlate was used to generally define "healthy foods" throughout this assessment.

C. Factors Affecting Fruit and Vegetable Consumption

People consume fruits and vegetables for a variety of reasons. According to the survey results, freshness and quality are the primary considerations for consumers when selecting fruits and vegetables (89%), followed closely by cost (73%), health and nutrition (35%), taste (26%) and being grown locally (22%) (Figure 5).

Figure 5: What is important to you when you pick out fruits and vegetables?

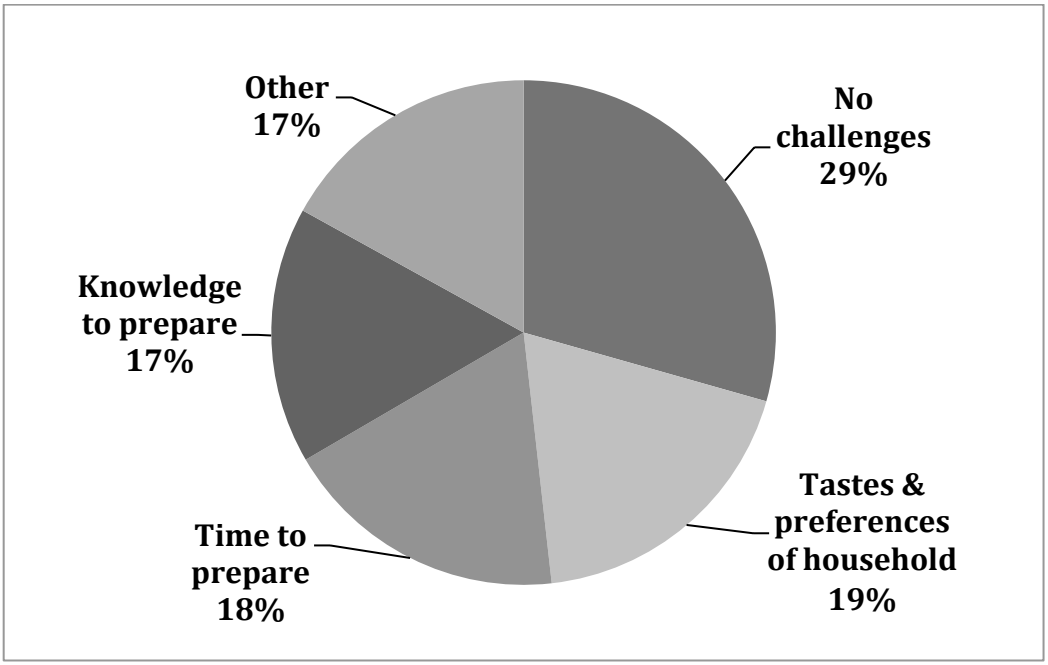


Note: Since respondents could choose up to three options, these responses total more than 100%

Other considerations for choices among fresh produce were organic production, convenience and ease of preparation, familiarity, common in one's culture, and social justice factors (i.e.-farm labor conditions).

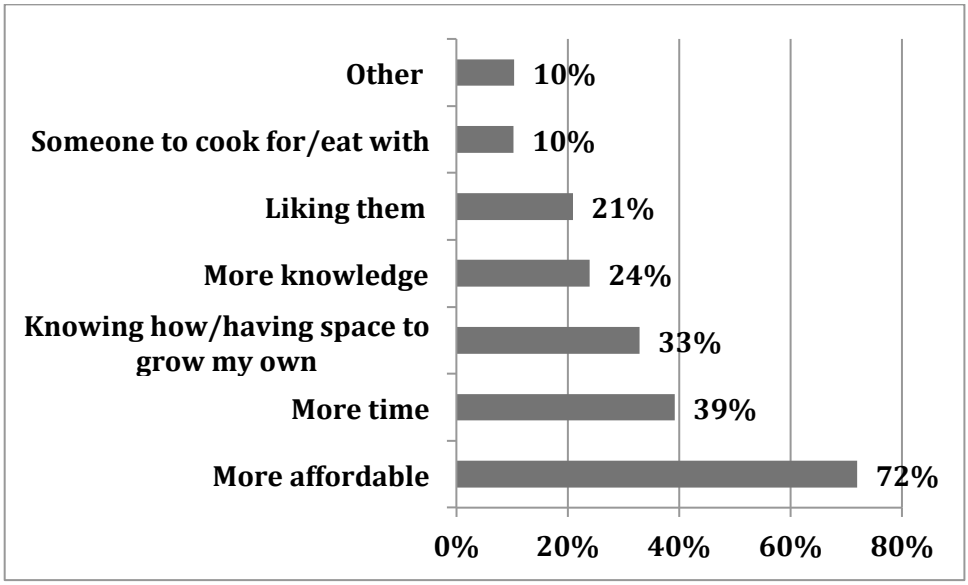
Since the self-reported intake of fresh fruits and vegetables in this area are not meeting USDA recommendations, it is worth exploring why respondents felt their consumption was limited. The primary personal factors that were identified as limitations to the consumption of fruits and vegetables are shown in Figure 6. While 29% of respondents indicate they have no challenges in consuming what they desire, others reported that tastes and preferences of household members (19%), time needed for preparation (18%), and knowledge needed to prepare (17%) produce constrained them. Less common challenges were grouped in the "other" category and included physical limitations, allergies or food restrictions, availability of kitchen or equipment or the response, "I do not eat fruits and vegetables." (see Figure 6)

Figure 6: What makes it challenging to EAT fruits and vegetables?



Respondents were also asked to select the personal factors that would make it easier for them to eat more fruits and vegetables. As shown in Figure 7, respondents' desire for greater affordability of fruits and vegetables (72%) topped the list, followed by more time to prepare/cook them (39%), knowing how to grow their own food/having the space to grow food (33%), knowing how to prepare them (24%), if self or family liked eating them (21%), and someone to cook for/eat with (10%). Some of these factors can be addressed by food system initiatives, while others may be beyond the scope of any public health programming.

Figure 7: What PERSONAL factors might make it easier to eat more fruits and vegetables?



Note: Since respondents could choose up to three options, these responses total more than 100%

D. Factors Affecting Access to Fruits and Vegetables

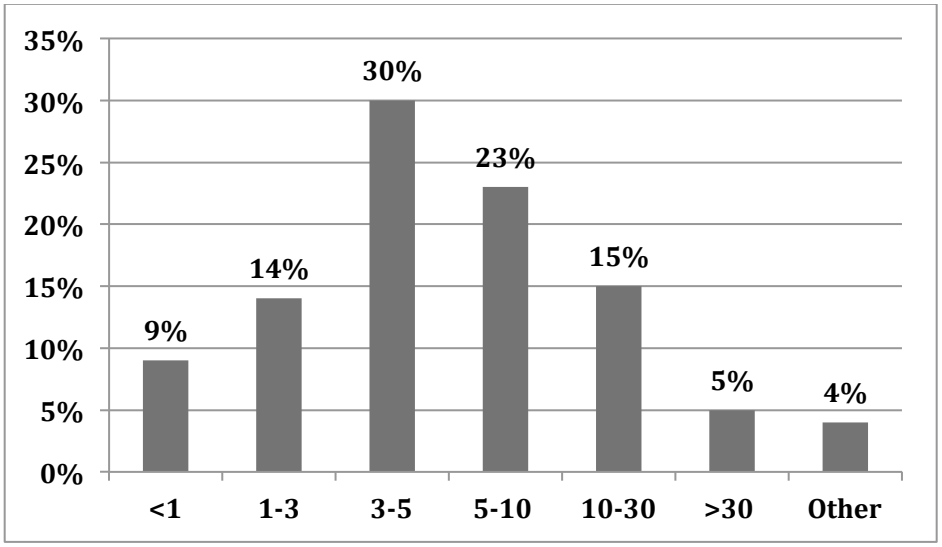
Frequently, regardless of whether someone wanted to eat more fruits and vegetables, or knew how to prepare them, the most significant barriers were related to having access to or choosing fruits and vegetables. . This section highlights some of the most significant issues of access.

Travel Distance

Distance consumers must travel to access fruits and vegetables can be a significant barrier for certain individuals. To better understand this issue in Pueblo, survey respondents were asked how far they lived from where they obtained most of their fruits and vegetables.

Thirty percent of survey respondents reported traveling 3-5 miles to purchase most of their fruits and vegetables, 23% travel 5-10miles, and 20% reported traveling 10 or more miles (see Figure 8). Overwhelmingly, respondents reported using a personal vehicle (90%) to purchase fruits and vegetables, but some reported using someone else's car (29%), walking (19%), or taking the bus (7%). A smaller share of respondents reported they grow their own (5%), have them delivered (5%), bike (3%) or take a shuttle or taxi (2%).

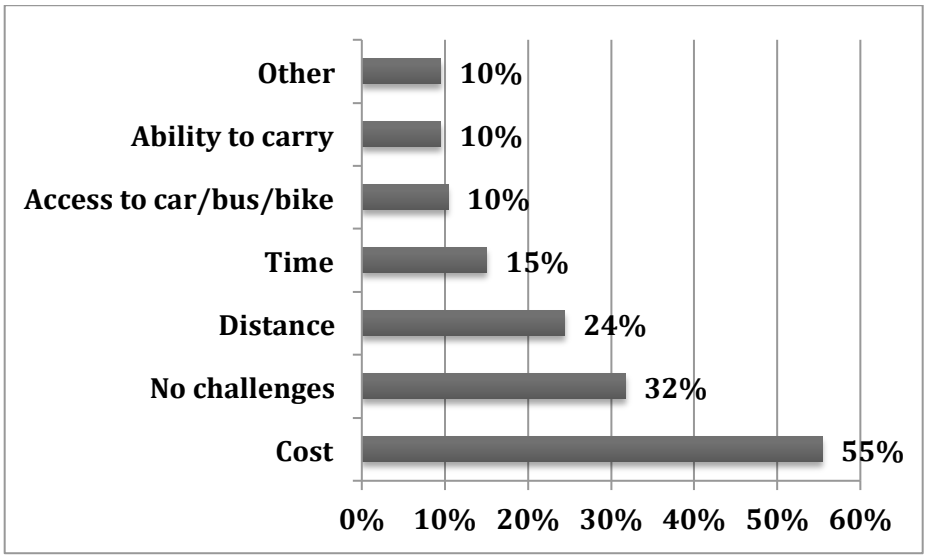
Figure 8: About how far do you live from where you get most of your fruits and vegetables?



Other Factors Affecting Access

Cost of fruits and vegetables was also a significant barrier for some in this community. Respondents were asked what made it challenging for them to acquire fruits and vegetables. Although 32% cited no challenges, 55% reported cost (followed by distance (24%) and time (15%)) as the primary barrier, regardless of personal preferences or dietary habits. Other notable barriers included access to a car, bus, or bike (10%), ability to carry (10%) and other (which included inability to find quality, fresh, seasonal fruits and vegetables year round).

Figure 9: What makes it challenging to get fruits and vegetables?



Note: Since respondents could choose up to three options, these shares total something greater than 100%

V. Direct Market Agriculture: US and Regional Trends

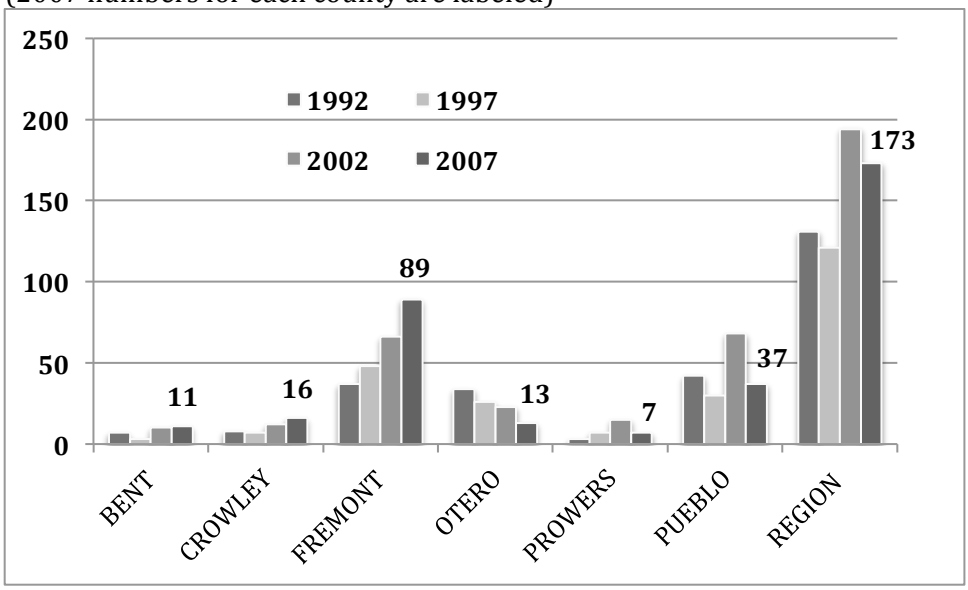
A. Direct Marketing by Producers

On the supply side of the regional food system, the number of farms selling directly to consumers is growing, at least at the national and state level. This is encouraging, given the interest in direct purchases noted in the survey. According to the USDA, direct marketing is defined as agricultural products sold directly for human consumption. Farmers can offer direct-to-consumer services through farmers markets, farm and roadside stands, community supported agriculture (CSA), consumers picking their preferred farms, internet marketing, and other outlets, such as cottage food production.

In the Rocky Mountain Region, which includes Arizona, Colorado, Idaho, New Mexico, Montana, Utah and Wyoming, the value of direct-to-consumer marketing grew from $28.2 million to $66.3 million (57%) from 1997 to 2007. Interestingly, growth in sales for this segment of the food sector far exceeded the growth of total agricultural sales (partly because it is still such a small share of all sales). Colorado ranks in the top 10 states in terms of growth in direct food marketing, with a 226% increase from 1997-2007, while Colorado's broader set of agricultural sales grew by only 33% (Diamond and Soto, 2009) (USDA AMS, 2009).

Figure 10: Number of Farms in the Region with Direct Sales, 1992-2007

(2007 numbers for each county are labeled)



Source: USDA Census of Agriculture 1992-2007.

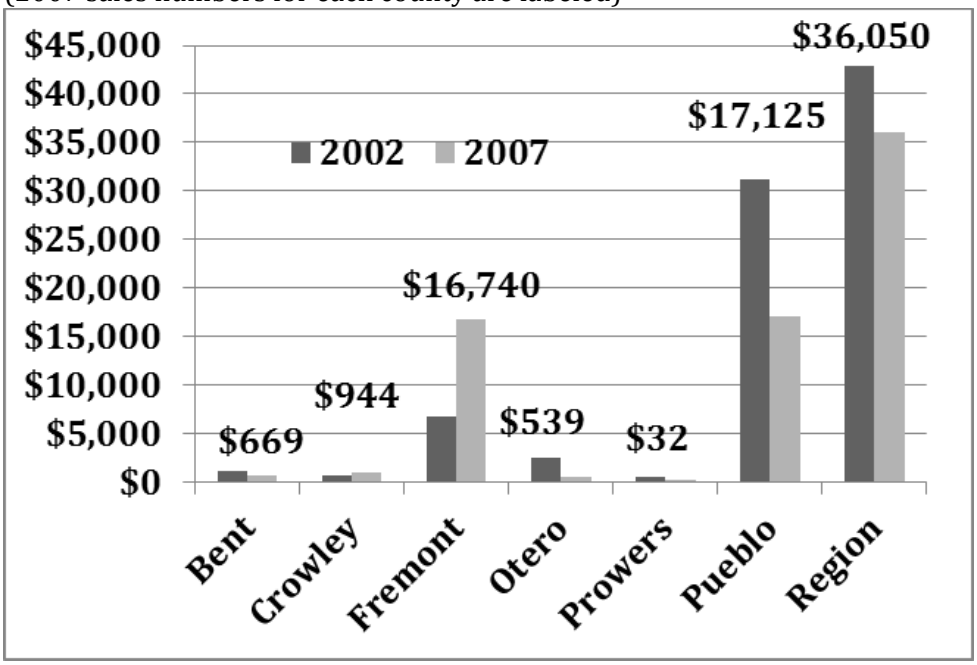
The direct market trends for this region do not follow the national and state trends. For example, the number of farms who report any amount of direct sales decreased in Otero (34 to 13 farms) and Pueblo (42 to 37 farms) counties. But, because there were significant increases in direct market farms in some counties (Fremont), the

number of direct market farms increased by 32% (131 to 173 farms) overall in the region between 1992 and 2007 (see Figure 10).

Similarly, the direct sales reported by farms and ranches in the region fell somewhat between 2002 and 2007 (from $53.5 million to just over $39 million), and there was a decline in total direct sales in all counties except for Fremont (see Figure 11). This trend is of particular concern given the strong interest survey respondents had in buying more of their produce directly, and may represent a mismatch in supply and demand.

Figure 11: Direct Market Sales Reported by Region's Agricultural Producers, 2002 and 2007

(2007 sales numbers for each county are labeled)



Source: USDA Census of Agriculture 2002-2007, Adjusted to 2011 Dollars.

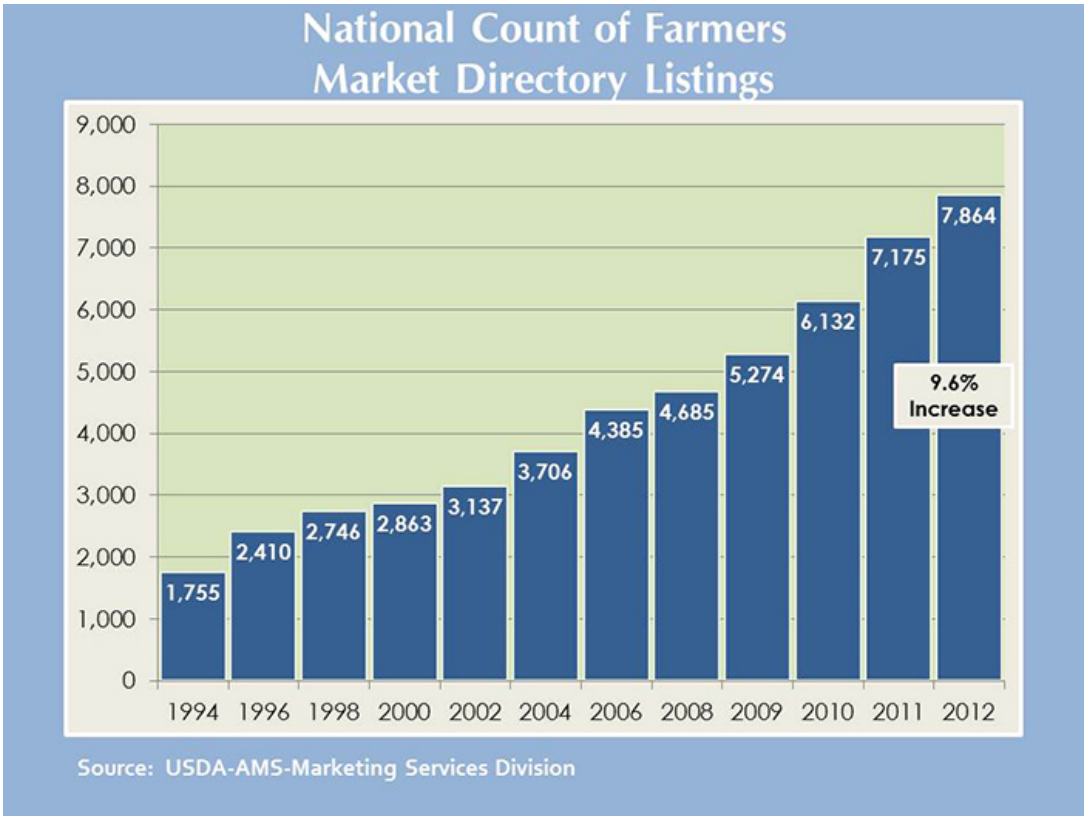
B. Farmers Markets: The Consumer's Most Preferred Direct Market

Farmers markets are an integral part of the urban/rural linkage, and have continued to grow in popularity in communities across the country due to consumer interest in obtaining fresh products directly from the farmers and ranchers. Some of the direct marketing dynamics seen in this region (see Section A) may be influenced by the number and health of farmers markets in this region, since they are a key piece of the direct marketing sector.

According to the USDA, farmers markets allow consumers to have access to locally-grown, farm-fresh produce, and enable farmers to develop a personal relationship with their customers. This creates consumer loyalty to the farmers who grow the produce. Direct marketing of farm products through farmers markets continues to

be an important sales outlet for producers nationwide. As of August 2013, there were 7,864 farmers markets listed in USDA's National Farmers Market Directory. This is a 9.6 percent increase from 2011 (see Figure 12).

Figure 12: National Growth in Farmers Markets, 1994-2012



There has been less new market development in this region, although the markets operating are longstanding. Pueblo hosts two farmers markets during the Colorado growing season. The first, the Pueblo Farmer's Market at the Midtown Shopping Center organized in 1976, is one of the longest running farmers markets in Colorado. The market is managed by a group of volunteers from the local Colorado Master Gardener program called the Farmers Marketeers. The market runs from 7 a.m. to 1 p.m. every Tuesday and Friday from July until mid-October[1]. The second is hosted by the Historic Arkansas Riverwalk of Pueblo (HARP) every Thursday from 4 p.m. to 8 p.m. Aside from traditional markets, there are local farmers, such as DiTomaso's and Morrone's Produce, that place tents in store parking lots (i.e.- Northside Kmart) during the summer months to sell fresh produce. It is likely that there are more farm stands in the region which are not reported in official data sources.

[1] Information provided through an interview with Linda McMulkin, horticulture coordinator at the Colorado State University Extension office for Pueblo County.

Survey respondents who were interested in accessing more locally-grown food surveyed expressed the desire for increased farmers markets or farm stands in more locations, a higher number of market days, and longer hours (Table 5). As we will discuss later, survey respondents indicated the usefulness of having locally-grown foods sold at the grocery stores where they already shopped, having the food be more clearly labeled, and having access to a greater variety of food grown year round. Yet, it does not appear that the food system is responding to the demand suggested by the survey with the greater amount of local offerings.

Table 5: Survey Respondents that chose "more farmers' markets or farm stands" as a Community Factor to Increase Access to Local Food

Choice	Share reporting
#1	40%
#2	18%
#3	8%
Total	66%

C. Direct Market Wholesale and Institutional Buyers

For producers interested in expanding sales that they facilitate directly, while maintaining higher sales volumes, wholesale marketing connections can be made through co-ops, specialty food retailers, chefs, and institutions. Since a significant amount of consumer dollars are spent away from home, potential exists to further develop these segments of the market.

An emerging player in advancing regional food systems for producers, consumers, and children are chefs. Chefs advocate on the behalf of farmers by visiting farms, shopping at farmers markets, establishing business relationships, marketing local farms on menu boards and websites, and educating the public on the best tasting and freshest food available. According to the National Restaurant Association's "What's Hot 2013 Chef Survey", locally-sourced meat and seafood, locally-grown produce, healthy children's meals, environmental sustainability, and hyper-local sourcing (restaurant gardens) topped the list.

VI. Direct Markets and Consumer Demand

A. Overview of Consumer Interest in Direct Markets

Consumers in both the City and County of Pueblo use a variety of markets and venues to meet their nutritional needs. The survey respondents reported interest in "locally" produced foods (indicated by consumers as being grown or raised in Colorado); however, residents reported access and cost as barriers to purchasing these foods. This section will discuss the potential to develop a more localized food system by facilitating links directly to consumers through community partners and institutions (schools, hospitals, caterers), businesses (chefs, aggregators), regional food hubs, and food assistance programs (farm-to-food bank, gleaning programs for

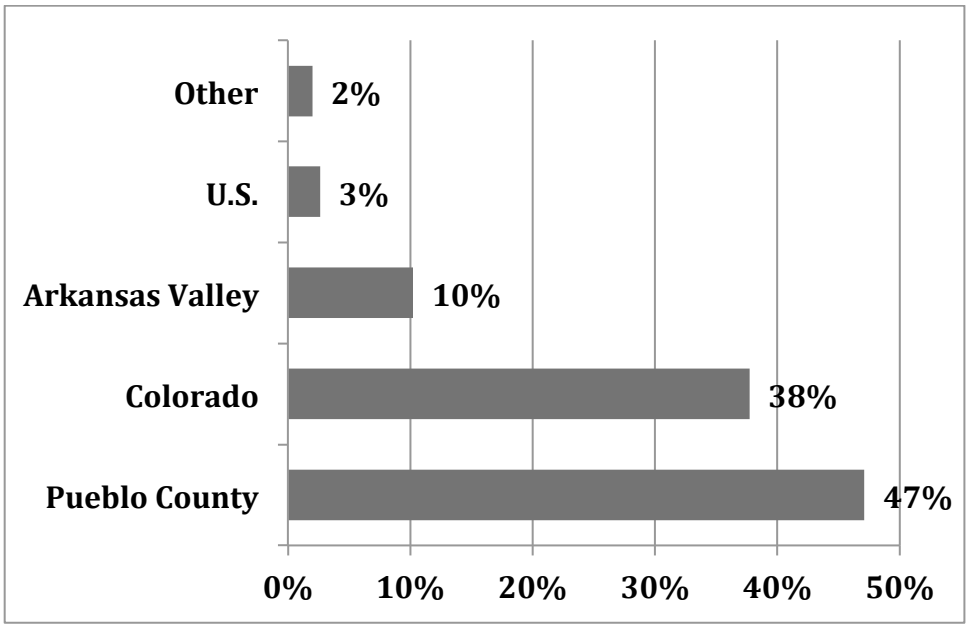
food pantries). This section also includes an overview of the Colorado Proud marketing program and the Colorado MarketMaker database, both which are intended to better connect consumers to food producers around Pueblo County and throughout the region.

B. Consumer Perceptions about Local Food

While the term "local" has a geographic connotation, consumer perceptions and definitions vary. According to the definition by the U.S. Congress in the 2008 Food, Conservation, and Energy Act (2008 Farm Act), the total distance that a product can be transported and still be considered a "locally or regionally produced agricultural food product" is less than 400 miles from its origin, or within the state in which it is produced (Martinez et al., 2010). There is growing consumer interest in where food comes from, which is leading food retailers to adopt local food procurement policies, and a growth in the number of farmers markets and community gardens. Researchers have found that consumers connect local food purchases to outcomes that may impact their environment, local economy, and public health (McFadden and Low, 2012).

The countywide survey conducted for this food assessment shows that Puebloans define local as Pueblo County (47%), Colorado (38%), the Arkansas Valley (10%) and the United States (3%) (see Figure 13).

Figure 13: What do you define as "local"?



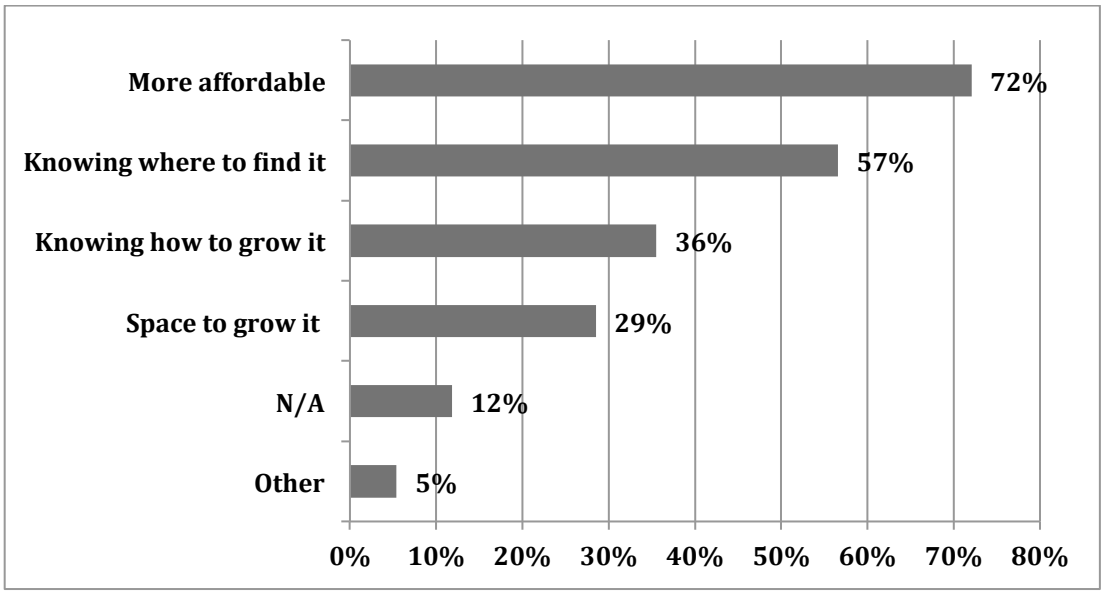
Survey respondents' willingness to pay more for local food did not significantly change when differentiating between Colorado and Pueblo County. Overall about 30% of respondents were willing to pay more for local (as defined by Pueblo OR

Colorado), 30% were unwilling to pay more, and approximately 40% said maybe, perhaps depending on perceived quality differences.

C. Personal and Community Factors Affecting Access to Local Foods

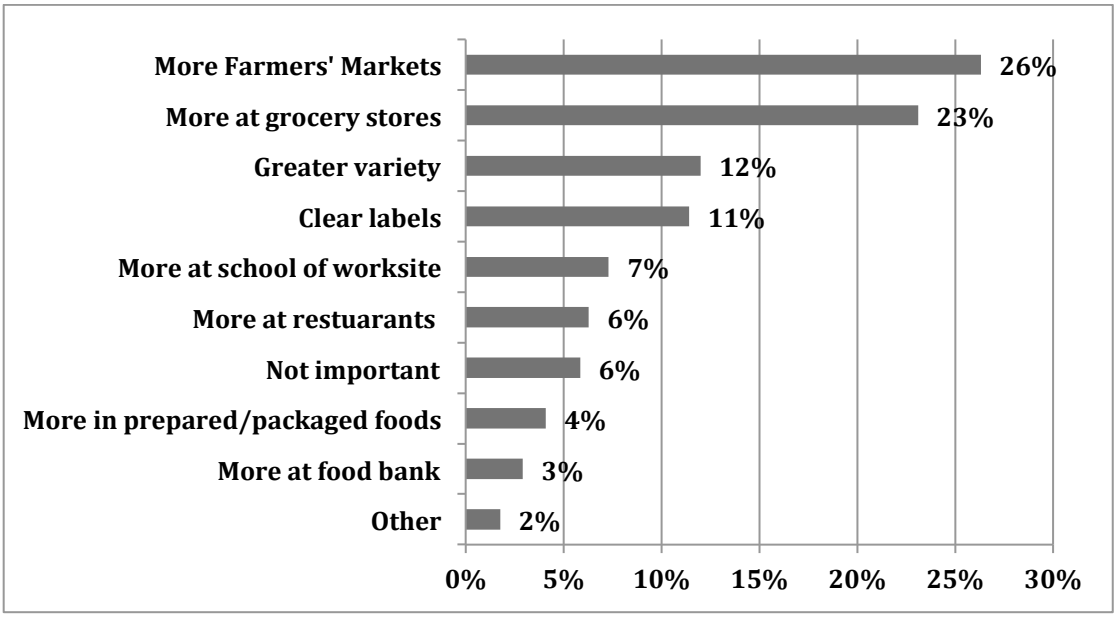
While some Pueblo residents are interested in accessing local food, there may be limitations to them accessing these items. If getting more locally-grown or locally-made food was important to survey respondents, they were asked what personal factors might make it easier to obtain those items, and to choose their top three selections. Respondents reported wanting local foods to be more affordable (72%) followed by their desire for better information on how and where to find them (57%). Consistent with other survey questions, many respondents were interested in growing their own food (36%) and having the space to do so (29%) (see Figure 14).

Figure 14: What PERSONAL factors might make it easier to get local foods?



Note: Since respondents could choose up to three options, these responses total more than 100%

Figure 15: What COMMUNITY factors would make it easier to get local foods?



Note: Since respondents could choose up to three options, these responses total more than 100%,

Survey respondents were then asked to select the top three community factors that would make it easier to obtain more locally-grown or locally-made foods (Figure 15). Sixty-six percent of respondents said more farmers' markets or farm stands in more locations on more market days, or year-round markets would make it easier to access local food. Other high-ranking options included more local food sold at grocery stores (55%); a greater variety of food grown and/or grown year round (29%); clear labeling of local food (25%); and, more restaurants that serve locally grown/made foods (20%).

VII. Findings on Direct Market Opportunities & Challenges

A. Overview of Opportunities to Meet Food Needs through Direct Markets

As mentioned in Section III, Pueblo County consumers spent about 42% of their available food resources on food at home, and about 58% on food away from home. The food away from home is being consumed primarily at Pueblo County schools, convenience stores that serve ready-to-eat foods, hot meals served at Summer Meal Programs, fast food vendors, restaurants, and bars with food service. Map 1 "Where We Provide Food Away From Home?" in Appendix A[2], shows where most of these meals are being consumed. Not surprisingly, a majority of these sites are located in the more urban and populated parts of the county, or along major highway and road corridors.

[2] To view and download the Pueblo food systems maps please visit www.pueblohealthdept.org.

Similarly, Map 2, "Where We Provide Food Made at Home" in Appendix A[3], shows where consumers are acquiring the food they consume at home. The map included grocery facilities, variety stores with groceries, convenience stores with groceries, community gardens, food pantries or soup kitchens and farmers markets, and produce stands. The map reveals areas with a high density of convenience stores, but a limited amount of grocery stores, especially in areas of the Pueblo Eastside, Boone, and Avondale. (The *Pueblo County Food System Assessment Food Security and Public Health Report* will further discuss consumer access to foods.) The map also reveals a large number of fruit and vegetable stands in the county, specifically in the St. Charles Mesa and Vineland areas and sprinkled throughout the city limits.

Opportunity exists to further connect consumers to producers in the area. In 2013, Pueblo County was home to 22 fruit and vegetable producers, six vegetable and meat producers, nine meat producers and seven grain and field crop producers. Map 3 "Where Do We Grow Food in Pueblo County?" in Appendix A[4] shows the geographical location of these farms, consolidated to the east of the City of Pueblo, south of State Highway 96, on the way to Boone. Community discussions have, and continue to be held, to further expand direct marketing and more localized wholesale marketing opportunities.

B. Community Discussions Regarding Direct Market Opportunities & Barriers

On December 16, 2011, the Colorado Food Systems Advisory Council (COFSAC, 2011)[5] hosted a regional Economic Development Summit in Pueblo. The results of this gathering provide further insight into opportunities and interests in creating and expanding direct market agriculture in and around Pueblo County.

Primary themes of the summit highlighted the challenges and opportunities in facilitating direct links between producers and consumers. Tables 6-8 below summarize the key motivators for producers to engage in Colorado-based markets; primary barriers to engaging in Colorado-based markets; strategic opportunities to help producers engage in Colorado-based markets; and, primary support organizations.

Table 6: Key Motivators for Producers to Engage in Colorado-based Markets

Key Motivators for Producers	Examples
Market Access	• Increased physical access through transportation/distribution systems • Increased efficiency in processing through

[3] To view and download the Pueblo food systems maps please visit www.pueblohealthdept.org.
[4] To view and download the Pueblo food systems maps please visit www.pueblohealthdept.org.
[5] The COFSAC was created in 2010 through Senate Bill 10-106 as an advisory committee to foster a healthy food supply available to all Colorado residents while enhancing the state's agricultural and natural resources, encouraging economic growth, expanding the viability of agriculture, and improving the health of communities and residents. The Council consists of 13 appointed members who represent a diverse selection of stakeholders from the entire food system (COFSAC Summary 2011).

	centralized hubs, community kitchens/facilities • Consistent access to buyers
Financial Incentives	• Higher price points for producers • Local labeling and marketing programs (Colorado Proud) • Opportunities for tax breaks
Supporting Local Economies/Communities	• Increased value of direct relationships with consumers • Builds community pride
Consumer Support and Relationships	• Direct consumer relationships • Additional consumer support and recognition could encourage additional sales • Restaurant purchases and promotion

Table 7: Primary Barriers for Producers to Engage in Colorado-based Markets

Primary Barriers for Producers	Examples
Lack of infrastructure	• USDA-inspected meat processing facilities • Commercial kitchens for small food manufacturing • Processing and storage facilities • Transportation and distribution
Regulations	• Lack of understanding of food safety regulation and compliance • Prohibitive rules and regulations for value-added business start ups
Market Access	• Not knowing where markets are and how to access them (schools, hospitals, restaurants) • Available markets are too small • Underdeveloped demand • Current markets are diluted with outside products
Size/Competition	• Small growers have a hard time competing with large growers • Corporate retail chains are unwilling to buy from smaller producers
Distance/Transportation	• Long driving distances from rural Colorado to viable markets • Poor distribution systems
Colorado Climate	• Short Growing Seasons

Table 8: Strategic Opportunities for Producers to Engage in Colorado-based Markets

Strategic Opportunities for Producers	Examples
Marketing support	• Coordinated marketing support (MarketMaker, Colorado Proud, producer cooperatives) • Assistance with telling the story of agriculture & the value of local
Market Access	• Reliable local markets • Technical assistance for farm-to-institution • Consolidated markets/hubs
Organized, Coordinated Support	• Coordination among food advocacy groups • State assistance promoting Colorado products • Research support from educational institutions
Regulation/Policy	• Size-specific regulations • Technical assistance on compliance
Infrastructure	• Shared resources among growers (trucks, equipment) • Local food hubs/community kitchens/facilities

When asked which support organizations are relied on for support, participants responded: Colorado State University Extension, Colorado Department of Agriculture, and the United States Department of Agriculture. Additional requests for support were made from local governments, investors, and potential financial resources, and networking and coordinating opportunities.

Case Study: AVOG

The AVOG co-op is a democratic, producer-run organization working to expand marketing and sales opportunities to regional farmers. AVOG has developed a Farmer-Approved label that is being used at local restaurants and retail stores, thereby designating that the establishments meet requirements in committing to the use of fresh, local products purchased through the AVOG co-op. The label is currently being used in 10 restaurants in Colorado Springs, 1 restaurant in Manitou Springs and Bingo Burger in Pueblo.

In 2013, the AVOG also began a regional multi-farm, aggregated Community Supported Agriculture program that is delivering to Colorado Springs and Pueblo area residents. The 25-week program runs from mid-May through October. In addition to the CSA program, AVOG also has a popular Farm Fresh Buying Club program that allows consumers the opportunity to buy food in bulk for groups of 2 to 20 or more. Members must arrange for pickup at designated drop-offs, and are responsible for overseeing the distribution to their group members.

VIII. Additional Opportunities to Expand Direct Markets in Pueblo County

A. Farm-to-School Market Potential

Across the country, an increasing number of schools and districts have begun to source more foods locally, and to provide complementary educational activities to students that emphasize food, farming and nutrition. This nationwide movement to enrich children's bodies and minds while supporting local economies is often referred to as farm-to-school. The term encompasses efforts that bring locally or regionally-produced foods into school cafeterias; hands-on learning activities, such

as school gardening, farm visits, and culinary classes; and the integration of food-related education into the regular, standards-based multidisciplinary classroom curriculum. The USDA supports such efforts through its Farm-to-School Program, which includes research, training, technical assistance, and grants (USDA FNS, 2013).

In Pueblo City Schools, farm-to-school efforts are provided through a few gardening efforts at the school level, but no district-wide initiatives exist.[6] Food for the reimbursable meals, such as those in the National School Lunch Program and School Breakfast Program, is distributed by a local business named Andrews Food Service, a 3rd generation company, now owned and operated by President George Andrews.[7] Andrews operates a 100,000 square foot facility in Pueblo West, and distributes products to restaurants, institutions, schools, and retail food suppliers. That business is also part of a network of 400-500 manufacturers, including Tyson, who supply to institutions. Schools make up 65% of their business ($3 million in sales), and their Pueblo-sourced produce comes from Milberger Farms, Musso Farms, Mauro Farms, and DiSanti Farms.

Andrews cited that concerns about weather, consistency of product, cold chain management, and price prevented them from sourcing more foods locally. From across the state, they are able to seasonally source bell peppers, watermelons, and cantaloupes from the Rocky Ford Region, carrots, cabbages, and lettuce from Alamosa, and peaches from Grand Junction. While schools are requesting local products with increasing frequency, Colorado's short growing season often concludes by mid-September, shortly after the new school year begins. Andrews sees opportunity for joint grower efforts in the region to aggregate product and market under a common label in order to better meet demand for local foods in the region.

Food safety certifications commonly demanded by schools include Good Agricultural Practices (GAPs). However, achieving GAPs certification is often cited as a barrier for smaller farms trying to gain access to institutional markets and accounts, due to both the financial and time commitments necessary to gain certification. The schools used to work with local manufacturers to produce some of their offerings (i.e.-pizza crusts, green chilies, burritos), but those relationships have since dissolved due to a new distributor contract. Common barriers and challenges in developing markets with schools include federal regulations, limited food service budgets, skilled labor to handle fresh product, and balancing healthfulness of foods with children's likes and dislikes.

Farm-to-preschool also provides a valuable opportunity. Currently, there is one early childhood education center in the City of Pueblo that offers a school garden.

[6] Information provided by an interview on 4/1/13 with Jill Kidd, Director of Nutrition Services for Pueblo City Schools SD 60.
[7] Information provided by an interview on 4/1/13 with George Andrews, Owner/President of Andrews Food Service in Pueblo West.

Produce is raised on-site, and subsequently utilized in both the snacks offered to students, as well as in school lunches that are prepared by a Certified Nutritionist. The center also partners with Colorado State Extension to implement a Food Friends grant to establish healthy eating habits in children by introducing new foods to children over a 12 week period at the beginning of the school year. While there is interest from child care centers to source locally, to gain a larger share of those types of buyers, items would need to be available in the places they already shop (club stores/distributors/Wal-Mart), or through cooperative buying schemes that allow the use of purchase orders for reimbursement through the Child and Adult Care Food Program (CACFP).

B. Connecting Consumers through Urban & Community Gardens

Private gardening and community garden programs can help reduce food insecurity, improve dietary intake, and strengthen family relationships (Carney et. al., 2012). As indicated in the resident survey, interest in growing food at home or in community gardens in Pueblo County is high. Currently, strong connections exist between the public health department, school districts, volunteer organizations, and citizens. City Councilwoman Eva Montoya was instrumental in bringing one of the first three community gardens, La Familia, to the Eastside neighborhood. By working with the Eastside Task Force, the community is moving towards a revitalization of the E. 4th St. corridor, and is looking to bring small, healthy food businesses to the incubation zone. There are currently 30 community gardens sites throughout the city, housed at churches, schools, community centers and housing developments.

Gardens in Pueblo County

AGAPE Fellowship Church
Avondale Boys and Girls Club
Bessemer Academy
Bethany Lutheran Church
Beulah School
Central High School
Community Residential and Respite
Craver Middle School
Daystar Christina School
East High School
Eastwood Heights
El Centro del Quinto Sol Recreation Center
Goodnight Community Garden
Highland Park Elementary
La Familia Community Garden
Life Care Center
Luv in Action
Mennonite Church
Milagro Christian Church
Pitts Middle School
Pueblo County High School

Pueblo School for Arts and Science
Pueblo West Elementary
Risley Middle School
Rye High School
Sangre de Cristo Volunteers for Change
Soap Box Derby
St. John Neumann School
Vineland Elementary School
Washington Children's Center

CASE STUDY: UGARDENS

The Avondale Garden of Faith was granted a UGARDENS mini-grant in the amount of $3,500 for the establishment of a community garden in Avondale, behind the parsonage of the United Methodist Church. The total area is 12, 060 sq. ft., and is irrigated by water donated from the United Methodist Church well. The Avondale Garden of Faith is a partnership project between the Boys and Girls Club of Pueblo (Avondale Center), and the Avondale United Methodist Church. The garden on the church grounds has rows up to 70' long of various vegetables. To minimize runoff and evaporation, the garden utilizes underground irrigation lines that water the plants from the roots up, which reduces evaporation to less than two percent, compared to 15 percent in a traditional field.

Beginning in early February, Boys and Girls Club members have after-school workshops on seed growth, organic gardening techniques, nutrition and recipes, making healthy decisions, and tool safety. With the assistance of Club staff and United Methodist Church volunteers, children dedicate one or more after school sessions per week in April and May to help prepare the ground, and plot the rows. All partners decide what to plant, sow the seeds and transplants, and learn how the irrigation system works. The bulk of the responsibility for heavy garden plot preparation falls on the Church and community members, many of whom are retired nurses, farmers, and ranchers.

The children harvest mature produce three times per week, and are allowed to take fresh food home to their families. Last year, this garden alone impacted an estimated 1,000 individuals, and nine community organizations received donations of crops grown in the Avondale Garden of Faith. Bumper crops are harvested and sold at the McHarg Community Center, with proceeds being re-invested into the garden fund. This has proved to be a very reliable method of financial sustainability, with over $700.00 being generated in an eight-week time

Other examples of community garden engagement include:

- In Rye, local nursery Perennial Favorites donating supplies and plants to the Rye High School Garden.
- Two individuals who work for the Arbor Day Foundation in Pueblo donating 12 trees to the city parks initiatives, and also donating a free-standing greenhouse, vermiculture bin and watering hose to three of the UGARDENS sites in the summer of 2013.
- A Colorado Springs company donating cinderblocks to the AGAPE Fellowship garden free of charge and trucking those materials down for the construction of raised beds.

C. Connecting Consumers through Agritourism and Local History

Pueblo's rich agricultural history provides great opportunities to connect with consumers who are increasingly interested in where their food comes from. The Colorado Tourism Office (CTO) and Colorado Department of Agriculture (CDA) teamed up this year to boost opportunities for travelers, and to capitalize on the boom in agritourism. Agritourism can include farmers markets, corn mazes/pumpkin patches, farm-to-table dinners and farm-stay holidays.

According to the Pueblo County visitor page, the Pueblo Chile has slowly grown from a local favorite into a phenomenon that attracts chile aficionados from around the world. The Pueblo Chile is now not only a culinary staple, but also a viable industry that draws adventurers looking for "alternative forms of tourism". Lovers of the Pueblo Chile can now experience it in a whole new way through "Agritourism."

D. Farm-to-Food Bank

For emergency food assistance organizations, developing relationships with farmers and running successful volunteer gleaning programs can help provide quality, fresh produce to address base line food security. The Care and Share Food bank for Southern Colorado works to increase the capacities of local partner agencies—such as food pantries, soup kitchens, and shelters in Pueblo.

In 2009, Care and Share introduced an education-advocacy component to their work that teaches gardening and the importance of fresh and locally grown foods. They also work with Farm-to-Table and local growers to bring fresh local produce into their food distribution chains. They are committed to purchasing as much local produce for their distribution chain as is possible, and in the summer of 2013, sourced melons from Mauro Farms.

IX. Resources for Marketing

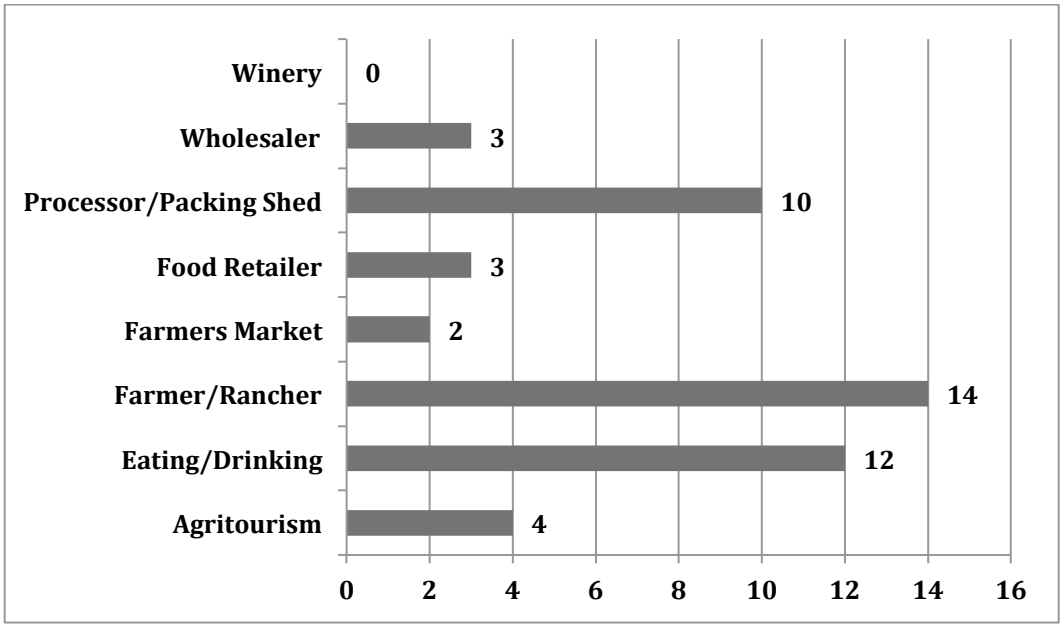
COLORADO MARKET MAKER™
Linking Agricultural Markets

Colorado MarketMaker is an online database and market-mapping tool for producers and food buyers to connect. It is a partnership between Colorado Department of Agriculture and Colorado State University, as part of a national network of similar agriculture and University partners in the US.

Colorado Market Maker has over 15,000 unique users each month, and 577 farmer profiles with numerous other food, farm and ranch related businesses.

Within the study region, there are 370 participating businesses, with a smaller number of active, registered users in Pueblo County (see Figure 16). The site is a free and easy method to have an online presence for food producers, a comprehensive directory of the Colorado food system for consumers, and an interesting way to research and explore the food enterprises in our region. The region may benefit from encouraging more active profiles and networking through this system.

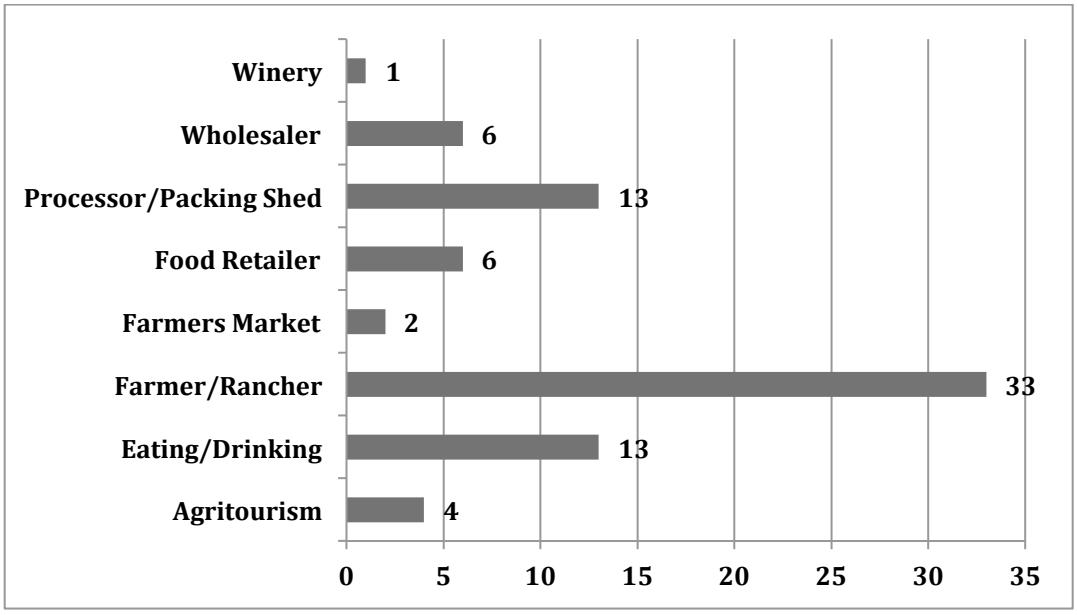
Figure 16: Number of Registered Market Maker Businesses in Pueblo County, August 2013



For those who may want to help producers create a user account, simply go to the National MarketMaker website at http://national.marketmaker.uiuc.edu and click on Colorado. Once there, click Log In", then "Request Account Access." Complete the form and submit. The producer contact will receive an email with your user account information.

Colorado Proud is a free marketing program created by the Colorado Department of Agriculture in 1999 to promote Colorado food and agricultural products, make it easier for consumers to identify and purchase Colorado products by labeling them with the Colorado Proud logo, and raise consumer awareness of the benefits of buying locally-grown, raised, and manufactured products.

Figure 17: Number of Businesses Utilizing Colorado Proud in the Region



The program started with 65 companies, and now the Colorado Proud Program has over 1,900 members that include growers, processors, restaurants, retailers and associations statewide. The logo may be used to promote any food or agricultural product that has been grown, raised, or processed in Colorado. "Grown" applies only to fresh produce, herbs, grains, and horticultural products, "raised" applies only to livestock, and "processed" applies only to value-added/manufactured food products. Value-added consumer foods (jams, salsas, sauces, chips, dairy, sausage, jerky, etc.) must be manufactured in a commercial kitchen in Colorado, and companies are encouraged to use ingredients that are grown or raised in Colorado. Foods manufactured in home kitchens under the Cottage Foods Act do not qualify for the program. Potential exists in Pueblo County and the region to expand use of the Colorado MarketMaker and Colorado Proud free marketing programs (see Figure 17). For more information for consumers or members, visit http://www.coloradoproud.org/.

For overall Pueblo City-County Health Department Food System Assessment next steps and project recommendations please read the Key Findings & Promising Opportunities report, as well as other issue area reports, available at www.pueblohealthdept.org.

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XI. Appendices

Appendix A: Maps

Map 1: Where We Provide Food Away From Home?

To view and download the Pueblo food system maps please visit www.pueblohealthdept.org

Map 2: Where We Provide Food Made at Home

To view and download the Pueblo food system maps please visit www.pueblohealthdept.org

Map 3: Where Do We Grow Food in Pueblo County?

To view and download the Pueblo food system maps please visit www.pueblohealthdept.org