Report of the Healthy Food Advisory Committee:

Fresh Food Availability in Texas

September 1, 2010

TEXAS Health and Human Services Commission

square meals
Nourishing children's bodies and minds.
A Program of the Texas Department of Agriculture's Food and Nutrition Division

Healthy Food Advisory Committee Members

Barbara Anderson, State Director
Texas Food Bank Network Fort Worth, TX
Banderson@feedingamerica.org

Randy Arceneaux, President and Chief Operating Officer
Affiliated Foods Inc.
Amarillo, TX
Rarceneaux@afiama.com

Doug DuBois, Jr., Director
Member Services & Governmental Affairs
Texas Petroleum Marketers & Convenience Store Association
Dedubois@tpca.org

Alexandra E. Evans, Ph.D., M.P.H.
Michael & Susan Dell Center for Healthy Living
The University of Texas Health Science Center
School of Public Health – Austin Regional Campus
Austin, TX
Alexandra.E.Evans@uth.tmc.edu

Blanca Ivette Garcia, M.D.
Assistant Professor of Pediatrics
Texas Tech University Health Sciences Center
Paul L. Foster School of Medicine
El Paso, TX
Blanca.Garcia@ttuhsc.edu

Pastor A. J. Quinton, Minister
Diakonos Ministries
Austin, TX
Aquinton@sbcglobal.net

Tom Ramsey, President
Snappy Snacks
Snappysnacks@aol.com

Joseph Sharkey, Ph.D., M.P.H., R.D.
Professor of Social and Behavioral Health
Director, Program for Research in Nutrition and Health Disparities
Texas A&M Health Science Center
School of Rural Public Health
College Station, TX
Jrsharkey@srph.tamhsc.edu

Report Prepared by:
Natalie S. Poulos
The University of Texas at Austin
Department of Kinesiology and Health Education

Table of Contents

Report of the Healthy Food Advisory Committee: 1
Fresh Food Availability in Texas 1
September 1, 2010 1

Healthy Food Advisory Committee Members ii

Executive Summary 1
Background 1
Issues 1
Recommendations of the Healthy Food Advisory Committee 2

Introduction 3

Fresh Food Availability: Definitions and Key Issues 4
Definition of Fresh and Healthy Foods 4
Fresh and Healthy Food Availability 4
Importance of Fresh and Healthy Food in Relation to Health 4
Obesity in Texas 6
Economic Consequences of Obesity 6
Food Insecurity in the Nation and Texas 7
Definition of Underserved Communities and Where They Are Located 9
Limited Fresh Food Access Map 9
Why Are Communities Underserved? 11
Impact of Fresh Food Retailers on the Community and Economy 11
Types of Fresh Food Retailers 12

Research Findings: Texas Specific Statistics 16
Unique Population Characteristics of the State of Texas 16
Current Food Assistance Programs Offered in Texas 16

Texas Food Financing: Costs, Benefits, Feasibility, and Sustainability 19
Costs 19
Benefits 20
Feasibility 20
Sustainability 20

Financing Options 21

Recommendations 22

Additional Experiences from Other States 24
Massachusetts 24
New Jersey 25
Colorado 25
New York 25
California 26
Illinois 26

Appendices 26

Executive Summary

Background

Senate Bill 343, passed during the 81st legislative session, established the Healthy Food Advisory Committee (HFAC) to address the health impact of the retail availability and prevalence of fresh food in Texas, and provide recommendations to the legislature on the development of a healthy food-financing plan for the state.

Issues

Food choices are made by the individual, but are often shaped by the local food environment. Recently, it has been called to public attention that although there are countless food outlets in our country, some communities – particularly low-income and rural communities – have limited access to fresh and healthy foods. To illustrate, research has shown that low-income communities have fewer supermarkets, more convenience stores, and smaller grocery stores than wealthier communities.[6] In addition, the stores located in these communities often stock fewer and lower quality food choices.[68] These food environments, often referred to as "food deserts" can have a significant impact on the health of the individual and society at large. It has become well-known that access to healthy foods correlates to diet quality and overall human health – communities with limited access to healthy food choices often have relatively high rates of obesity.

Texas has the second highest rate of food insecurity in the nation with over 3.1 million people experiencing low or very low food security. It is also estimated that almost one-fourth of Texas children live in food insecure households, and 874,000 Texans may suffer from outright hunger. Subsequently, the HFAC, in cooperation with The Food Trust (a non-profit organization with an established history of working with communities to developing lasting and stable sources of affordable foods), has identified multiple communities in Texas that lack adequate access to fresh and healthy foods. National food assistance programs are helpful in providing assistance to those in need. However, more work needs to be done in Texas to utilize these tools as temporary assistance measures used to help individuals and communities chart a path to being independently food secure.

The HFAC relied on community and industry stakeholders as well as literature to identify an effective and sustainable method to increase access to healthy foods in underserved areas of Texas. The committee reviewed the research conclusions to date, including findings and models of success from other states and communities, and gave special attention to projects showing improved access to fresh and nutritious foods through innovative financing programs conducted through The Food Trust, Inc.

While it is clear that increasing access to healthy and affordable foods is of high importance, the body of community-based studies that examine the exact causal relationships between retail supply and availability

and actual consumer demand and consumption is still emerging and either not completely reflective or applicable to the state as a whole or to Texas communities. Through the relationship with The Food Trust, the Committee was informed of a new initiative planned for Texas in Houston/Harris County – an area well known for its large and diverse population. Although managed by The Food Trust, together with local partners, the project will involve community leaders, supermarket operators and developers, and government officials in examining the barriers to supermarket development in underserved communities and creating recommendations to overcome those barriers. The initiative will establish strategies to encourage fresh food retail investment in underserved areas at both the state and local level, and will help to position Texas for funds that may become available as part of the recently proposed national *Healthy Food Financing Initiative.* The national initiative is a partnership between the Departments of Treasury, Agriculture, and Health and Human Services with the same goal of bringing healthy food retailers into underserved areas of the country. Because this type of local analysis is critically important to get to retailers in terms of financial feasibility and profitability, the committee feels that this initiative will provide critical information that can serve as a foundation for success in regard to a future financing initiative in Texas. Additionally, this report identifies existing funding sources in Texas that may serve as viable options to increase healthy food access today and into the future.

Recommendations of the Healthy Food Advisory Committee

1. Maximize existing grant, loan and other financing programs available in the state to ensure appropriate distribution-levels to the most underserved urban and rural areas across Texas, and to create innovative public-private partnerships to provide incentives for the redevelopment and expansion of fresh and healthy food retail outlets that are sustainably self-sufficient.

2. Encourage and enable the temporary use of existing food assistance tools as mechanisms to close the gaps between time periods of individual food insecurity or as primers to enable privately sustainable healthy foods retail investment into communities.

3. Gather and share lessons learned from the community-based outcomes of the Texas-based Fresh Food Financing Initiative project with community/state-level stakeholders and decision-makers.

4. Establish regional, city or county food policy councils to improve policies related to the food system as a whole (farm to table).

5. Encourage communities to promote awareness of direct-to-consumer marketing outlets such as farmers markets, community gardens, farm-to-work and community-supported agriculture (CSA).

6. Encourage local-level discussion of changes and improvements in transportation routes and public transportation options needed to increase access to healthy food retail outlets and venues for the purpose of including in long-range community planning.

7. Encourage participation in national food assistance programs that enable residents to purchase locally grown fresh fruits and vegetables. (E.g. Promotion of the use of Women, Infant and Children (WIC) cash value vouchers, WIC and Senior Farmers Market coupons, and Supplemental Nutrition Assistance Program (SNAP) benefits in farmers markets).

Introduction

Senate Bill 343, introduced by Senator Jane Nelson (R-Lewisville) and Representative Jim McReynolds (D-Lufkin) in May of 2009, called for the creation of an advisory committee to study the retail availability of healthy food in certain underserved areas of the state. The Commissioner of Agriculture and the executive commissioner of the Health and Human Services Commission jointly established the Healthy Food Advisory Committee (HFAC) to study and provide recommendations to the legislature on areas of the state that lack retail availability of fresh fruits, vegetables and other healthy foods, and the impact of this limited availability on nutritional status, weight, obesity and chronic illness in Texas.

The executive commissioner of the Health and Human Services Commission appointed four members of the committee and the commissioner of the Department of Agriculture appointed four members for a total of eight committee members. Members were chosen to reflect the diversity of the state of Texas by representing rural areas, urban areas, and different geographical regions of the state, as well as expertise related to both nutrition issues and retail business

Goals set for members of the HFAC were to:

1.) Investigate retail availability of fresh fruits, vegetables, and other healthy foods in the state.
2.) Develop recommendations for creating and a plan for implementing a statewide financing program to bring fresh food retailers into areas of the state that are underserved in regard to the retail availability of fresh fruits and vegetables and other healthy foods.
3.) Perform other advisory duties as requested by the executive commissioner of the Health and Human Services Commission or the commissioner of the Department of Agriculture regarding the availability of fresh fruits, vegetables, and other healthy foods.

4.) Provide a report outlining the cost, benefits, and feasibility of a statewide financing program to bring fresh food retailers into areas of the state that are underserved in regard to retail availability of the fresh fruits, vegetables, and other healthy foods and a plan for implementing the program.

The HFAC gathered information from previous studies of the relationship between food availability and health, and drew upon information provided by professionals of Texas Impact, The Sustainable Food Center, The Capital Area Food Bank, and The Food Trust. The HFAC met in February, April, July, August and September 2010. Background material and meeting minutes for this report are available by contacting the Texas Department of Agriculture at 877-TEX-MEAL.

Fresh Food Availability: Definitions and Key Issues

Definition of Fresh and Healthy Foods

For this report, the term "fresh food" will be used to refer to foods that have been minimally processed (not canned or frozen). The term "healthy food" will refer to foods recommended by the 2005 Dietary Guidelines for Americans[7], the national authority on nutrition and dietary habits that promote health and reduce chronic disease risk. These foods are high in micronutrients and fiber, and are low in added sugar, salt, saturated fat and trans fats. Examples of fresh and healthy foods include fruits, vegetables, whole grains, non- and low-fat dairy products and lean meats and beans.

Fresh and Healthy Food Availability

Ultimately, food choices are made by the individual, which are often shaped by the food environment.[2] Food environments represent primary sources of food for the community,[10] and consist of the types of retail stores, and the quality and prices of foods that are available within a particular community.[11,12] Recently, it has been called to public attention that although there are countless food outlets in our country, some communities – particularly low-income and rural communities – are still experiencing limited access to fresh and healthy foods.

Importance of Fresh and Healthy Food in Relation to Health

It has become well-known that access to healthy foods correlates to diet quality and overall human health – communities with limited access to healthy food choices often have relatively high rates of obesity. The local food environment, which represents the primary sources of food consumed at home in a population, impacts food choices and adherence to national dietary recommendations.[11,12] It does this through cost of food, food access, food quality, and food avaliabilty.[11-13] The term "food desert" is frequently used to describe neighborhoods that have limited access to healthy and affordable food options. When retail food outlets do

exist in these areas they frequently stock fewer healthy food items, which can impact price and quality. As would be expected, individuals living in food deserts find it particularly challenging to follow the recommendations for a healthy diet.[68] Additional factors such as increased portion sizes, calorically-dense convenience food products, limited availability of fresh foods, increased reliability on cars instead of walking, and absence of sidewalks in many communities contribute to an unsupportive environment for making healthy lifestyle choices.[14]

In 2005, only 20% of men and 30% of women were consuming the recommended five or more fruit and vegetable servings a day.[15] A review of the literature provides substantial evidence that increasing fruit and vegetable consumption can alleviate or reverse the rising prevalence of chronic diseases such as cardiovascular diseases, hypertension, obesity, and diabetes mellitus.[16] Additionally, a meta-analysis of cohort studies found an inverse association between fruit and vegetable consumption and the risk of coronary heart disease.[17] Fruit and vegetable consumption also has been shown to have negative association with low-density lipoprotein (LDL) cholesterol and total cholesterol. Individuals with a high dietary intake of fruits and vegetables may have a reduced risk of developing obesity.[18] This is of particular importance because currently the number one cause of death in the United States is cardiovascular disease; 31% of adults are affected by hypertension; two-thirds of the adult population is overweight or obese[19]; and 23.6 million people have diabetes. An additional risk associated with obesity is an increased risk of certain types of cancers.[20]

When compared to *Healthy People 2010*, adolescents do not consume recommended amounts of fruits, vegetables, or grains.[21]This lack of healthy foods is important because inadequate intake of vitamins and minerals during childhood may lead to slow growth rates, poor bone mineralization, and low micronutrient reserves.[22] Low vegetable intake has also been associated with increased weight gain in young children.[23] Children and adolescents who are overweight or obese are more likely to become obese adults. [24]

As mentioned previously, proteins, especially those from leaner plant and animal sources are a critical component to a healthier diet that meets nutritional needs while providing variety and flavor. Proteins include nuts (in recommended portion sizes), beans, skim dairy products, lean cuts of beef, pork and poultry. A recent report on the 2010 Dietary Guidelines for Americans highlights that adequate intake of high quality protein is particularly important for growth and development as well as overall good health. [70] Researchers in a 2008 report titled "Access to Healthy Foods in Low-Income Neighborhoods: Opportunities for Public Policy," also found that "high rates of obesity and diabetes in poor and minority populations are linked to limited access to supermarkets and affordable healthy foods such as fresh fruit and vegetables, low-fat dairy, trans fat free products, whole grains and lean meats". [71]

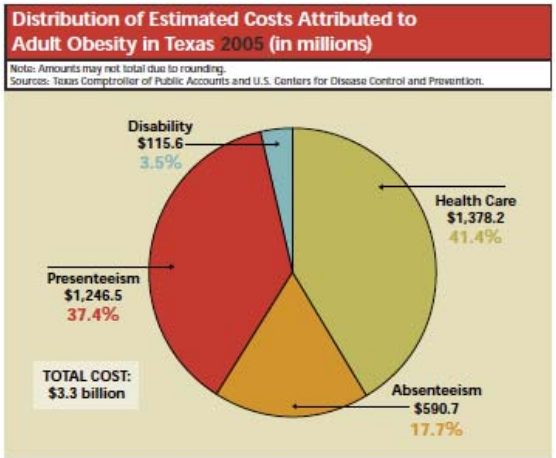
Obesity in Texas

Chronic conditions develop through a variety of genetic, environmental, behavior, and socioeconomic factors.[14]Although genetics are a possible factor in the development of obesity, it is unlikely that human genetics have changed quickly enough to account for the dramatic increase in obesity. Therefore, it is more likely the rise in obesity rates is due to an interaction between the environment, behavior and socioeconomic factors.[14]

In 2009, nearly 67% of Texas adults were either overweight or obese.[25] According to the Texas Behavior Risk Factor Surveillance System, only 24% of the adult population consumed at least five servings of fruits and vegetables per day. Additionally, fewer than half of the Texas adult population gets the recommended amount of physical activity each day. Texas children are also of great concern because they too are experiencing large increases in obesity. In 2009, 16% of high school students were overweight and 14% were obese. In 2007, 21% of low-income children enrolled in the Texas Women, Infant and Children program were overweight or obese. Between the years 2004 and 2005, the overall prevalence of overweight and obesity in Texas schoolchildren was 42% for 4th graders, 39% for 8th graders, and 36% for 11th graders.[25]

Rates of obesity and fruit and vegetable consumption differ by ethnicity, geographic location, and urban versus rural areas. Previous research has found that rural men and women tend to report higher rates of obesity than men and women in non-rural areas. Within those rural areas, minorities have been found to be at an even higher risk for health disparities.[26] Additional studies have found that rural populations are at increased risk for low fruit and vegetable intake, particularly in low-income minority rural populations.[27,28]

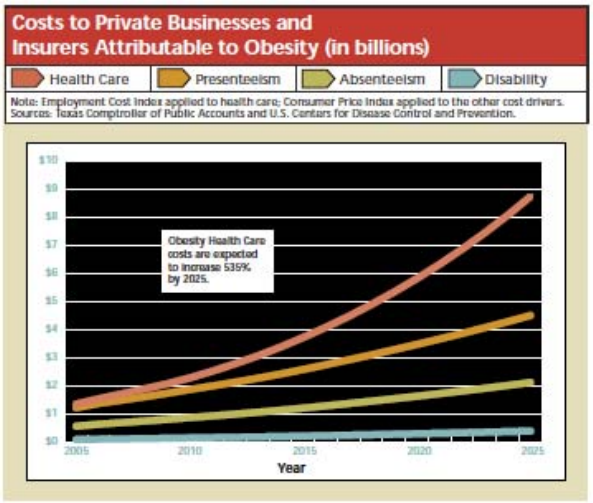
Within Texas, the rates of obesity and fruit and vegetable intake tend to vary by ethnicity and geographic location. The highest rates of overweight and obesity in adults were seen in the African American (71%) and Hispanic (74%) populations. The highest rates of overweight and obesity in children were seen in Hispanic males. African American and Hispanic populations also tend to consume fewer fruits and vegetables. Only 23% of African Americans and 21% of Hispanics consume at least five servings of fruits and vegetables per day.[25]



Economic Consequences of Obesity

As obesity has increased in the United States, associated health care costs have also increased. When compared to a normal weight individual, individuals who are considered obese pay on average $1,429 or 42% more in health care costs.[20] The cost of insuring an obese client by insurance companies also

increases with obesity. For each insured obese individual, private insurance companies pay on average $1,140 more than they pay for normal weight individuals. Governmental insurance providers, such as Medicare and Medicaid, pay $1,723 and $1,021 more respectively for each obese individual when compared to a normal weight person.[20]



Texas is not immune to the rising costs of obesity. It has been estimated that obesity cost Texas businesses $3.3 million in 2005 when the cost of health care, absenteeism, decreased productivity, and disability were considered. If obesity rates continue rising at their current pace, the Texas Comptroller estimates that 49% of Texas adults will be obese and only 14% of a normal weight in 2025. This means that obesity may cost Texas businesses $15.8 billion a year in 2025. The cost of health care represents primary costs of obesity management, and the cost of health care is rising faster than inflation and wages. According to the Texas Comptroller, the cost of health care is expected to rise 535% by the year 2025.

Food Insecurity in the Nation and Texas

Most of the households in the U.S. are food secure, meaning they have consistent and reliable access to enough food for active, healthy living; however, there are individuals experiencing food insecurity at times during the year. Food insecurity is defined as when an individual does not have access to adequate food due to a lack of money or other resources. Food insecurity is broken down into two categories: low food security and very low food security. Low food security is when individuals report that they have reduced quality, variety, or desirability of diet, but provide little or no indication of reduced food intake. Very low food security is when individuals report multiple indications of disrupted eating patterns, reduced food intake, and coping strategies such as eating less varied diets, participating in federal food and nutrition assistance programs, or obtaining emergency food from community pantries or emergency kitchens.[51] Food insecurity is of particular concern for children because their nutritional status affects their current and future health and well-being. Previous research has demonstrated that children who are food insecure have a higher risk of health and developmental problems than similar children in food secure households.[52] For example, children from food insecure households experience frequent headaches, higher hospitalization rates, behavioral problems, poor physiological function, lower achievement scores, and higher numbers of chronic conditions.[52] It is important to note that the definition of *hunger* differs from food security, and can be defined as an individual-level physiological condition that may result from food insecurity (USDA, Economic Research Service). It cannot necessarily be assumed that if one is food insecure they are suffering from outright hunger.

In 2008, 85.4% of American households were food secure throughout the entire year while the remaining 14.6% (17 million households) were food insecure for at least some time during the previous year. Of those 14.6% of Americans, 5.7% reported very low food security. These are the highest percentages of food insecure households since food security data collection began in 1995. Even when there are inadequate resources to feed the entire family, children are often shielded from the effects of food insecurity, including hunger and nutritional inadequacies. However, in 2008 the number of families with children who experienced very low food security had increased from 0.8% (323,000 households) in 2007 to 1.3% (506,000 households) in 2008.[51] This means that 1.3% of households with children, in the U.S., had irregular meals and food intake was below levels considered adequate by caregivers.[52]

Rates of food insecurity varied considerably among different types of households. For examples, households near or below the Federal poverty line, households headed by single parents, Hispanic households, and African American households were considerably more likely to be food insecure.[51] Employment opportunities and wage rates for the family have been found to be determinants of children's food security. A majority (85%) of food insecure households with children have one or more adults in the work force, including 70% with one or more full-time workers. By contrast, less than half of food insecure households with children included an adult with education beyond high school and only 10% with a four-year college degree.[52] Food insecurity was also more common in large, urban cities and rural areas, and less common in suburban and exurban commuting areas.

By region of Texas, food insecurity was more prevalent in the South, intermediate Midwest and West, and least prevalent in the Northeast. Of the households with food insecure children, 41% were in the South, 23% in the West, 19% in the Midwest, and 17% in the Northeast.[52] In 2007, the states with the highest rates of low or very low food security were Mississippi (17.4%), Texas (16.3%), Arkansas (15.9%), Georgia (14.2%), and New Mexico (14.1%). The states with the lowest rates of food insecurity were North Dakota (6.9%), Massachusetts (8.3%), New Hampshire (8.5%), Virginia (8.6%), and Hawaii (9.1%).[51] Texas had the highest percentage of food insecure households with children (21.5%) and food insecure children (12.6%) in 2007.[52]

Texas has the second highest rate of food insecurity in the nation with over 3.1 million people experiencing low or very low food security. The rate of food insecurity is also increasing. In 2003-2005, the rates of overall food insecurity and very low food insecurity were 16.0% and 5.1%. Between the years 2006-2008, the rates increased to 16.3% and 5.7%.[51] It is estimated that almost one-fourth of Texas children live in food insecure households, and 874,000 Texans may suffer from outright hunger. In order to help alleviate the problem of food insecurity, public food assistance programs and private funds have been devoted to increasing food availability and access to underserved individuals. In 2002, private fund charities in Texas distributed 125

million pounds of food, valued at $255 million, to individuals in need and public food assistance programs in Texas served over 2 million people.[53]

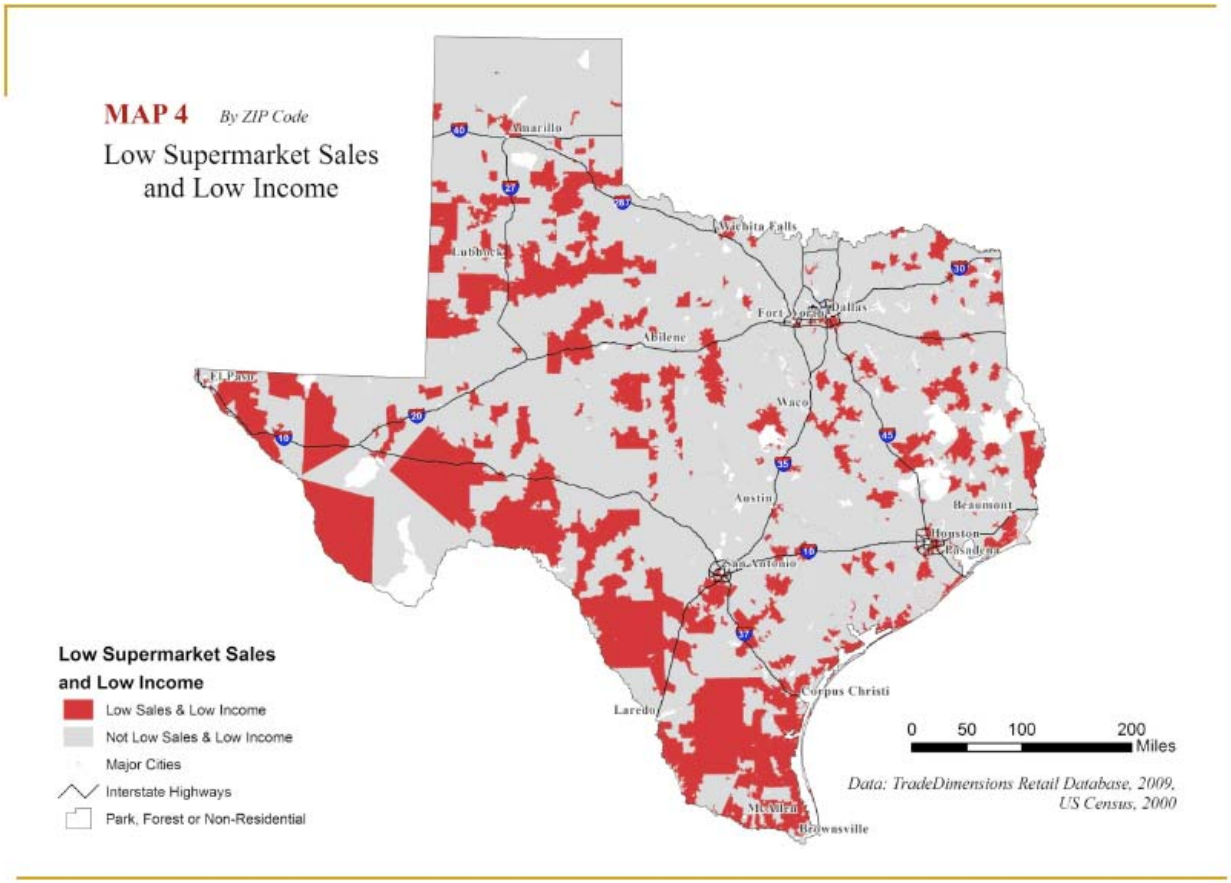
Definition of Underserved Communities and Where They Are Located

Within this report, an underserved community will be defined as a community with limited access to supermarkets and other sources of affordable, healthy foods such as fresh fruits, vegetables, meats, and whole grains. [8] The terms "food desert" or "nutritional wasteland" have also used to describe these underserved areas. According to the 2008 Farm Bill (Title VI, Section 7527), a food desert is an area with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower income neighborhoods and communities. Access is dependent on a variety of factors including store locations, consumers travel patterns, income, car ownership and availability, disability status, and availability of public transportation.[6] In 2009, The U.S. Department of Agriculture conducted a study to examine food deserts and found that 23.5 million people do not have supermarket access within one mile of their home. In a meta-analysis of 113 studies, 97 studies confirmed that people living in low-income neighborhoods, minority neighborhoods, and rural communities face the greatest challenges in finding access to healthy food. Previous research has also indicated that low-income communities have fewer supermarkets, more convenience stores, and smaller grocery stores than wealthier communities, which may contribute to poorer access to fresh food retailers.[6]

Underserved communities are located in both urban and rural areas. Urban areas comprise large spaces and densely settled areas around them with at least 50,000 people, but do not necessarily follow municipal boundaries.[9] According to the 2000 Census, 68% of the U.S. population lived in urbanized areas. Rural areas are comprised of open country and settlements with fewer than 2,500 residents. Areas that fall between urban and rural areas are often referred to as urban clusters and are defined as areas that contain 2,500 to 50,000 persons. According to the 2000 census, 11% of the U.S. population lived in urban clusters according to U.S. Census Bureau definitions.[9]

Limited Fresh Food Access Map

In Texas, food availability also varies geographically. The following map was created by The Food Trust, a non-profit organization dedicated to increasing healthy food availability and accessibility through collaboration with neighborhoods, schools, grocers, farmers, and policymakers,[29] in order to paint a picture of the food environment of Texas.



The Food Trust

Map 4 displays the areas of the state that meet the criteria of both low income and low sales. Low income is defined as census tracts with a median per capita income lower than the states average per capita income. The median household income, number of households, and totally population were used to calculate per capita income. The Food Trust used supermarket sales data from the Trade Dimensions Retail Database, 2009 to help define low sales. They defined a supermarket as those that had annual sales volume greater or equal to $2 million. The Food Trust calculated sales to population ratios by dividing weekly sales volume by population density using Arc GIS. This information was used to classify the area; those with lower than the state ratio of sales to population were considered low in sales. From this map, it is evident that weekly supermarket sales and income are not equally distributed across Texas with areas of low sales primarily in South and West Texas. This combination of lower supermarket sales and low income is of particular concern because of the increased likelihood of decreased fresh and healthy food availability. When areas with high population densities and low incomes such as South Texas have decreased fresh and healthy food available via supermarkets, the risk of chronic diseases and death often increases.[10]

Why Are Communities Underserved?

Over 75% of America's groceries are purchased in supermarkets, yet supermarkets are becoming increasingly centralized and moving out of low-income communities. This centralization cost Texas communities more than 500 grocery stores from 1982 to 1987.[30] Transportation also plays a key role in the availability and access of food. If communities are rurally located, it is often difficult and expensive to transport food safely to a location where it can be distributed. Access is also affected because if a store is inconveniently located within a community, many people within that community may not have the transportation required to get to the fresh food retailer.[31]In a report by the Sustainable Food Center, many low-income residents of East Austin rely on carpooling, buses, taxicabs, or walking to get to one of the two supermarkets located in all of East Austin. Due to the lack of transportation within communities, small convenience grocery and convenience stores become a primary source of food for individuals and families, but often lack adequate fresh and healthy food options. The primary deterrent of many businesses to increase their supply of fresh and healthy foods is a lack of demand.[32]

With the recent recession, many potential fresh food retail investors lack capital or perceive investing in low-income communities as highly risky. Due to this lack of capital and perceived risk, potential investors are not likely to step in and bring food to an underserved community. The critical mass of a population may also be of concern for potential retailers. For example, if a population is rural, it may or may not have the population density required to sustain a retail food business. Additionally, communities are often underserved because the cost and time of training local employees are too great.

Impact of Fresh Food Retailers on the Community and Economy

Fresh food retailers are stores or food establishments that offer fresh and healthy foods to the local community. There are both direct and indirect economic benefits of fresh food retailers. Direct benefits include the creation of job opportunities and local tax revenues.[6] Indirect benefits include revitalizing nearby housing markets, workforce training and development, potential for new business surrounding food retail outlets, and additional spending in the local economy by the store, new jobs, and customers to create a "multiplier effect."[6]

Positive health effects are also associated with fresh food retailers such that increased availability of produce or other healthy foods (e.g. non- and low-fat dairy) is associated with increased consumption of those products. [6] For example, African Americans living in a census tract with a supermarket were more likely to consume the recommended amount of fruits and vegetables. In fact, for every additional supermarket within that tract, produce consumption rose 32%.[6] Additionally, in New Orleans, the closer that residents lived to a fresh food retailer who stocked more vegetables resulted in an increase in vegetable consumption (each additional meter of vegetable shelf space was associated with an increased consumption of 0.35 serving of vegetables per day).[6]

Types of Fresh Food Retailers

Fresh food retailers can come in a variety of forms. Supercenters, large groceries and supermarkets, convenience stores, dollar stores, food pantries, farmers markets, and food salvages all play a role in access to fresh, healthy food to a variety of communities. Although some of these food retailers are not typically thought of as fresh food retailers, with a fresh food financing initiative there is the potential of becoming a fresh food retailer.

Supercenters

Supercenters are very large, one-stop shops that combine general merchandise, groceries, and services and are one of the fastest growing store formats in the United States. Supercenters have a full range of categories including general merchandise, fresh fruits, vegetables, meats, convenience items, service deli, and often a bakery. The business strategy behind supercenters is to provide a place for shoppers to do the majority of their day-to-day shopping at one location. This saves the shopper's time by avoiding traffic, parking, and travel time. It has been estimated that the top five retail grocers account for approximately 40% of grocery sales in the United States. Supercenters often prevail by capturing sales from existing businesses and retailers in the areas instead of relying on population growth.[33] Examples of supercenters include Super Wal-Mart and Super Target.

Large Grocery Stores or Supermarkets

Large grocery stores or supermarkets have the potential to serve a large number of people, but require large service areas, a significant population density in order to expect to profit, and a committed, experienced manager to operate the business. Large groceries and supermarkets also carry a range of items, including fresh fruits, vegetables, meats, service deli, bakery, and convenience items. Because large supermarkets carry such large quantities of product, they have the opportunity to supply consumers with a consistent and predictable product. In order for a large grocery to be established, a large amount of capital is needed for the start up and operating costs.[31] Examples of large grocery stores or supermarkets include H-E-B, Randall's, Kroger, Fiesta and Whole Foods.

Small and Independent Groceries

Small and independent grocers, particularly specialty stores and ethnic food stores, can provide high quality foods to specific communities in relatively small spaces. Many small and independent groceries range from 3,000 to 5,000 square feet. The best location for small and independent grocers is near the center of a neighborhood. This provides residents of the neighboring community with a fresh food outlet that is within a walkable distance. This provides management the opportunity to become directly involved with the community they are serving.[31]

Cooperative Groceries

A cooperative is an autonomous association of individuals that has voluntarily organized to meet its common economic, social and cultural need through a jointly-owned and controlled enterprise. Principles of a cooperative are that membership is voluntary and open, they are controlled democratically, are autonomous and independent, provide education for members, there is cooperation among cooperatives, and they have concern for their community.[34] There are two main types of cooperative groceries: consumer-owned and employee-owned.[31] In Texas, there are four cooperative groceries: Wheatsville Food Co-op in Austin, "Best of the Blessed" Health Food Co-op in Denton, Central City Co-op in Houston and Keller Texas Produce Co-op in Keller.[35] Cooperative groceries have the opportunity to have stock member chosen products at low prices that are consistent with the needs and wants of the community. This creates an adaptable organization that is thoroughly connected with its community.[31]

Dollar Stores

Currently there are more than 15, 000-dollar stores that are able to offer quality, low cost household items and merchandise, including food items that are typically refrigerated and/or frozen. Because these stores are often small and inexpensively designed, dollar stores compete with other retail outlets on price and convenience.[36] Examples of dollar stores include General Dollar and Family Dollar.

Convenience Stores

Convenience stores have the advantage of being centrally located, highly distributed and accessible for the pedestrian population and those who use public transportation. Products offered in convenience stores often include a limited selection of staple groceries such as a small selection of fresh produce, milk and cheese, as well as non-food items, and other convenience food items (e.g. ready-to-heat and ready-to-eat). In addition to being highly distributed, there are a large number of convenience stores scattered throughout communities. In general, convenience stores are less than 3,000 square feet and merchandise is dependent on consumer demand. These stores often have a steady source of customers, are generally located in urban neighborhoods, have the potential to serve a large number of customers.[31] Convenience stores are also the most common food retailer in rural and underserved areas. Although many convenience stores currently lack a variety of fresh food, with redevelopment they have the potential to provide healthy food to a community. Examples of convenience stores include Jif-E-Mart and Exxon Food Mart.

Food Banks and Pantries

Food banks are organizations dedicated to soliciting, collecting, storing, and distributing large donations of food through a variety of locations and programs, including food pantries. Food pantries provide three- to five-day bags of food directly to families and individuals who have a place to live, but not enough food to eat. The food that these families and individuals receive is designed to provide nutritionally balanced meals and is

a key to the food security of many low-income families, working poor and those whose Supplemental Nutrition Assistance Program (SNAP) benefits run out for the remainder of the month. Many food pantries provide additional services such as nutrition education, clothing distribution and social services referrals.[37]

Farmers Markets

Farmers markets provide an opportunity for farmers and growers to sell directly to the public during the local growing season. Because the products sold in farmers markets are sold directly, many of the products are fresher than what might be found in the grocery store. Selling direct also allows the community to have a true relationship with the producer of their food. In many cities, farmers markets play a role in providing low-income urban communities with affordable, high quality food. Selling directly also benefits the farmer because they are able to make approximately 50% more profit than if they sold wholesale to food suppliers or retailers. The location of a farmers market is critical because those shoppers who live farther than walking distance must have transportation to and from their home. Most farmers markets also only operate one to two days a week, and therefore would not be a consistent resource for some households. Another factor is that many farmers markets do not operate or fully operate during the winter.[31]

Public Markets

Public markets characteristically involve multiple types of vendors selling fresh foods such as produce, baked breads, local meats, dairy and seafood. These markets generally operate from open stalls in city-owned or operated facilities. Public markets often offer lower prices and provide opportunities to purchase fresh foods that some individuals may not otherwise have had access to. Many markets also accept Women, Infant, and Children (WIC) and senior coupons, which make markets a viable option for low-income residents. Successful public markets include Pikes Place Market in Seattle, French Market in New Orleans, Union Square Greenmarket in New York, and North Market in Columbus.[31] Flea markets, often called *pulgas,* in areas of Texas, also offer a wide variety of products including fresh fruits and vegetables, prepared foods, general merchandise, and even furniture to numerous customers. An example of a flea market in Texas is the Sunny Flea Market located just north of downtown Houston.

Community Supported Agriculture

Community Supported Agriculture (CSA) is made up of a community of individuals who pledge support to a farm operation. This pledge ensures that the farmland becomes the community's farmland, with the growers and consumers providing support and sharing the risks and benefits of food production. Typically, members are "share-holders" of the farm and pledge money in advance to cover the anticipated costs of the farm operation as well as the farmer's salary. In return, shareholders receive shares of the farms production throughout the growing season. This direct farm-to-consumer path allows growers to get better prices for their crops and relief from the financial burden of marketing.[38] Benefits for consumers include farm-fresh

food, exposure to new kinds of fruits and vegetables, visits to the farm where their food is grown and a relationship with the farmer who grows the food. According to a study by the USDA in 2007, 12,549 farms in the United States reported participating in marketing products through CSA with 883 of those farms in Texas, second to California with 953.[39] According to Second Harvest, a national database of CSA, there are over 2,500 farms dedicated to providing CSA to local residents, with 117 in Texas.[40]

Food Salvagers

A food salvage or food salvager is a business or person that is reconditioning distressed food. Reconditioning food means that the person or business is bringing the food into compliance with the "standards of the department for consumption or use by the public." Currently, there are for-profit and non-profit food salvage establishments. Food salvage establishments vary in the quality of food and sanitation they provide. Many establishments provide high quality, wholesome foods, while others do not.[41] While quality may be an issue, many food salvage establishments offer the public significantly lower food prices than traditional or conventional stores can offer. This may provide opportunity to increase the availability of fresh foods to families or individuals who otherwise may have not been able to afford fresh food.

Mobile Stores

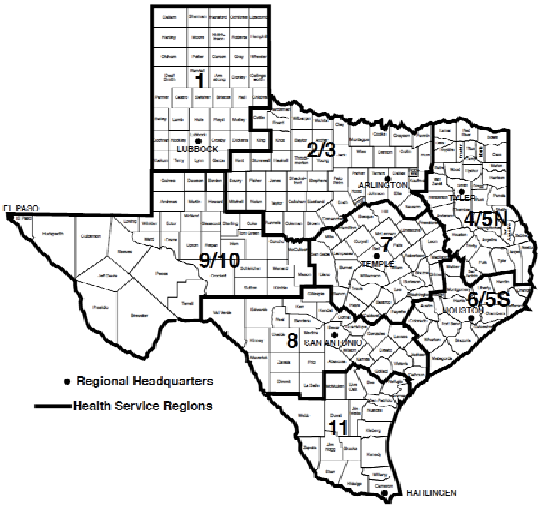
When residents of a community are not able to physically get to a store, mobile stores bring the food to them. The Mobile Market Program in Ohio is able to carry 900 food items that are priced competitively with local supermarkets and accept SNAP benefits. This program even offers weekly specials, special promotions and coupons. The product for this program is purchased at wholesale prices from a local grocery store in order to ensure that they are able to provide affordable prices even when buying in smaller quantity bulk. This type of program makes it easier for individuals with poor food access to have fresh food available and affordable without the need to use transportation. This is particularly important for elderly and low-income residents who often lack the transportation necessary to get to a food outlet.[31]

When considering the vast array of available fresh food retailers, it is important to take into consideration the needs of the community. For example, in areas with poor transportation, convenience stores, mobile stores, and markets may be the primary and most reasonable source of fresh food retail. For areas of high population densities that are relatively mobile, supercenters and supermarkets may be the most appropriate option. Due to the differences in communities, it is necessary to thoroughly assess the needs of the community at large, including industry and the citizens in which they serve to create a sustainable system in which healthy foods are accessible and businesses remain profitable.

Research Findings: Texas Specific Statistics

Unique Population Characteristics of the State of Texas

Texas is one of the fastest growing state populations in the country.[42] In 2009, the population of Texas was estimated at 24,782,302 and between 2000 and 2009 the population percent increased 19%. This population increase is more than double that of the nations total population increase of 9%. Within the 261,797.12 square miles of Texas, there are approximately 79.6 people per square mile.[9] In 2006, Texas had a population that was 48% White, 11% African American, and 36% Hispanic or Latino origin. Within Texas households, a total 33% of households primarily spoke a language other than English. In 2004, Texas became a "majority-minority." This means that the various ethnic minority populations outnumber the non-Hispanic White population. Other "majority-minority" states include Hawaii, New Mexico and California.[42] In 2008, approximately 25% of the population made less than $25,000 while the median household income was $50,049. Texas also had 16% of its population living below the poverty line, compared to only 13% of the national population living below the poverty line.[9] Although rural areas of Texas are not growing as fast as urban areas, there was a 35% population growth between the years 1999 to 2005, giving Texas the largest rural population in the nation with 3.6 million people. Approximately 14% of Texans live in rural areas, while 86% of the population lives in urban areas.[42] To better explain the population differences within the state, Texas has been broken down into eight primary regions: Region 1 (Lubbock), Region 2/3 (Arlington), Region 4/5N (Tyler), Region 6/5S (Houston), Region 7 (Temple), Region 8 (San Antonio), Region 9/10 (El Paso), and Region 11 (Harlingen). Detailed population and demographic information is provided in Appendix A. Based on the wide demographic and economic diversity of the Texas regions, a one-size-fits all approach to solving the problem of food availability in Texas will not be successful. It is critical that all varieties of fresh food retailers be considered in the development of a flexible initiative to address the problems of fresh food availability and access in Texas in order to accommodate the population differences among and within regions.



Current Food Assistance Programs Offered in Texas

In Texas, there are nine federally funded major nutrition assistance programs that help to increase access to healthy and affordable foods:[53]

1. **Supplemental Nutrition Assistance Program (SNAP, formerly Food Stamps)**
   SNAP is administered by the United States Department of Agriculture (USDA) Food and Nutrition Services (FNS) through a nationwide network of field offices. SNAP provides families who meet particular criteria with electronic benefits they can use like cash at most grocery stores. This federally funded program strives to provide crucial nutrition support for families in need. In 2009, SNAP benefited some 31 million people per month.[54]

2. **National School Lunch Program (NSLP)**
   The NSLP is a federally funded program that operates in over 101,000 public and nonprofit private schools and residential childcare facilities. This program provides nutritionally balanced, low-cost or free lunches to millions of children each day. In 2008, more than 30.5 million children were served lunch as a result of this program.[55]

3. **National School Breakfast Program (NSBP)**
   The NSBP provides monetary assistance to states that operate nonprofit breakfast programs in public and private schools as well as residential childcare facilities. This program is administered by the FNS at the federal level. State education agencies typically administer the NSBP at the state level however in Texas this is done through the Texas Department of Agriculture. Local school authorities operate the NSBP at the school level. By the end of the 2007 fiscal year, over 10.1 million children participated in the NSBP every day with 8.5 million of those children receiving their breakfast at a free or reduced price.[56]

4. **Summer Food Service Program (SFSP)**
   Because many children rely on school meals during the year, the SFSP was developed by the USDA in order to serve children in low-income areas free, nutritious meals and snacks throughout the summer. Although this program is administered at the federal level, locally the SFSP is run through approved sponsors. Sponsors include school districts, local government agencies, camps or private nonprofit agencies, and they receive payments from the USDA through their state agency for the meals that are served.[57]

5. **Special Supplemental Nutrition Program for Women, Infants and Children (WIC)**
   WIC provides federal grants to states for supplemental foods, health care referrals and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, as well as infants and children up to 5 years of age who are found to be at nutritional risk. The WIC Farmers Market Nutrition Program (FMNP) is also associated with WIC and established by Congress

in 1992 to provide fresh, unprepared, locally growth fruits and vegetables to WIC participants. The WIC FMNP is operated by state agencies.[58]

6. **Child and Adult Care Food Program (CACFP)**

   The CACFP plays an integral part in providing quality day care for children and elderly adults by providing nutritious meals and snacks throughout the day. Because of this program, more than3.2 million children and 112,000 adults received well-balanced meals and snacks as part of the day care they receive. This program is federally funded and administered by state agencies.[59]

7. **Food Distribution Program (FDP)**

   The FDP's mission is to strengthen the nutrition safety net by improving commodity distribution and other nutrition assistance to low-income families, emergency feeding programs, Indian Reservations, and the elderly. The Food Distribution Program and services include Commodity Processing, Commodity Supplemental Food Program, Department of Defense Fresh Produce Program, FD Disaster Assistance, FDP on Indian Reservations, Nutrition Services Incentive Program, Schools and Child Nutrition Commodity Programs and the Emergency Food Assistance Program.[60]

8. **The Emergency Food Assistance Program (TEFAP)**

   TEFAP is a program funded by the federal government that helps supplement the diets of low-income persons and families by providing them with emergency food and nutrition assistance. USDA purchases food and then sends it to states depending on their low-income and unemployed population. State agencies then work to distribute the food through local organizations or directly to individuals.[61]

9. **Nutrition Services Incentive Program (NSIP)**

   The NSIP is administered by the Department of Health and Human Services with monetary aid from the USDA FNS. The program provides states with funding to deliver nutrition meals to older adults. State agencies on Aging and Indian Trial Organizations decide to receive the full or partial amounts of the support provided by USDA foods.[62]

The United States Department of Agriculture (USDA) FNS administers all programs, except the Nutrition Services Incentive Program, with the help of various state agencies. In Texas, those agencies include the Texas Department of Agriculture (including: NSL/SBP in public schools, private schools and residential childcare institutions, SFSP, FDP, TEFAP, and CACFP), The Texas Health and Human Services Commission (SNAP) and the Texas Department of State Health Services (WIC). Benefits for these programs are primarily federally funded with supplemental assistance from the local government departments and have set eligibility

requirements. The eligibility requirements for each program vary slightly, but it is possible for an individual to quality for multiple programs.[53]

In 2006-2007, federal food and nutrition assistance programs provided benefits to four out of five low-income (defined by less than 185% of the poverty line) food insecure households with children. Within those households, it is estimated that 70% of children received free or reduced-price school meals, 40% of the households received SNAP benefits and 20% received WIC benefits.[52] In March 2010, approximately 3.3 million people in Texas had received $405 million in SNAP benefits. This is a 44% increase in the number of participants an 83% increase in the benefits since March 2008.[63] In 2006, a total of 731,353 or 39% of children in Texas received WIC benefits.[64] Between the years 2006 to 2007, 2.5 million Texas school children were served lunch and/or breakfast as a result of the NSLP and NSBP. This means that $1.1 billion served more than 478 million lunches and 213 million breakfasts.[64]

Additionally, there are a variety of programs in Texas to increase food availability that are run through non-profits, churches, and community organizations.

Clearly, there are a number of programs that reach Texans in need across the state. However, the aforementioned maps illustrate that there are still thousands of Texans lacking access to affordable fresh and healthy foods. As discussed previously, reduced access impacts food choices, health, quality of life and the economy. The committee recognizes that the state cannot rely on the established nutrition assistance programs alone, and that there is great need for initiatives that will create a sustainable avenue for underserved Texans to access the fresh and healthy foods they need for adequate nutrition.

Texas Food Financing: Costs, Benefits, Feasibility and Sustainability

The HFAC was challenged to assess the costs, benefits, feasibility and sustainability of a statewide financing initiative to bring fresh food retailers into underserved areas of the state. The committee's efforts have revealed that the issue of limited access is multi-faceted and complex. As illustrated in this report, Texas is a large and diverse state that will require innovative solutions that reflect the unique needs of the businesses in Texas and the populations they serve. Moving forward, it will be necessary to consider the aspects outlined below to ensure that resources are used efficiently and results are sustainable. Thus, the most important component of any plan is the ability of the private sector to invest into delivering healthy foods into demand-driven markets.

Costs

The cost of a statewide food-financing plan is dependent on many factors. First, there is the actual dollar cost for the state, but not to be overlooked is the cost to the individual stores that will potentially be affected. For

example, if new stores are brought into areas as a result of this initiative, there will likely be a resulting cost for existing businesses in the area. Additional dollar costs of a food financing initiative include the cost of expanding and improving existing stores, and training storeowners and employees on the techniques of handling, purchasing and selling fresh foods. It is also important to note that education and communication with customers about the new merchandise should be addressed through improved advertising campaigns.

Benefits

Benefits of implementing a healthy food financing initiative include improvement in food access, health and community development. Food access would be improved by the increased ability of fresh food retailers to obtain necessary funds to improve their operation and carry fresh foods. Improved food access has a positive correlation to improved health.[6] Research has shown that if individuals have fresh food available, they are more likely to consume it. When people are more likely to consume fresh foods, they are more likely to be at a lower risk for health problems, and in return, have lower medical costs. In addition to food availability and health, when fresh food retailers are established in communities, community development is often improved.[4] Improvements are seen in social capital and cohesion, real estate values and personal investment within the community.

Feasibility

In order to examine the true feasibility of a food financing initiative, a Texas-based pilot or model project is needed to determine true costs and benefits of a program to its community. As mentioned in the Executive Summary, The Food Trust's Houston/Harris County initiative will be beginning its initiative in 2010-2011. The outcomes of this initiative will provide invaluable information about increasing access to healthy foods in an area of the state that reflects the diverse population in Texas. The committee encourages state and community leaders to monitor this project closely as it can serve as the foundation to any initiative aiming to increase access to healthy food.

Sustainability

Sustainability is paramount to the overall success of any initiative proposing to improve the health of Texans. The aforementioned Houston-based initiative should also provide critical information on sustainability of a fresh food financing initiative in Texas. Naturally, a key aspect to filling the gap in the underserved areas of the state is funding. Public-private partnerships have proved to be successful in other states and will be utilized again in Houston. Research has demonstrated that these partnerships are likely to increase sustainability by creating a business opportunity for investors. Proper education and training of fresh food retail managers is also likely to have a positive impact as it enables retail outlets to maintain profitability while serving the community. While it is clear that the demonstration project in Houston stands to provide valuable information in the long run, the committee strongly recommends utilizing existing funding opportunities to begin making an impact today.

Financing Options

In order to address the lack of fresh food availability in Texas, a variety of funding resources need to be considered. Currently, there are multiple grants that have the potential to provide necessary equipment and support for fresh food retailers. These funding sources include:

- **Specialty Crop Block Grant Program (SCBGP)**
  The SCBGP was designed to enhance the competitiveness of specialty crops including fruits, vegetables, tree nuts, dried fruits, horticulture and nurseries. Grants from this program would allow for the purchasing of necessary equipment, such as produce refrigerators, to improve produce sections of a fresh food retailer.

- **Community Food Projects Competitive Grants Program (CFPCGP)**
  The purpose of CFPCGP is to provide federal grants to establish and carry out Community Food Projects that will serve the food needs of low-income individuals. Funds from this program can be used for infrastructure improvement and development, planning for long-term solutions, or the creation of innovative marketing activities that benefit agriculture producers and low-income consumers.

- Texas Capital Fund (TCF)
  Administered by the Texas Department of Agriculture through an interagency agreement with the Texas Department of Rural Affairs (TDRA), the TCF program encourages business development, retention, or expansion by providing funds to eligible applicants. Funds are awarded for the express purpose of assisting in the creation of new permanent jobs or retention of existing permanent jobs, primarily for low and moderate income (LMI) persons.

- **Healthy Urban Food Enterprise Development Center (HUFEDC)**
  HUFEDC is funded through the USDA's National Institute for Food and Agriculture to support greater access to healthy, affordable food in communities across the country through grant and technical assistance. Grants from the HUFEDC come in small and large enterprise grants that can be used for a wide range of services, including the purchasing of new equipment and/or initiatives to improve distribution of healthy foods.

- **Private Foundations**
  It is important to note that the private sector is critical. Support from private foundations would alleviate some of the financial cost from the state government and create a more sustainable model.

Private foundations that have been historically interested in health issues include the Robert Wood Johnson Foundation and Michael and Susan Dell Foundation.

Through the use of federal, state and local grants, as well as private sector funding, it is possible to create a sustainable initiative to address the issues of fresh food availability in retail operations across the state of Texas.

Recommendations

1. Maximize existing grant, loan and other financing programs available in the state to ensure appropriate distribution-levels to the most underserved urban and rural areas across Texas, and to create innovative public-private partnerships to provide incentives for the redevelopment and expansion of fresh and healthy food retail outlets that are sustainably self-sufficient.

2. Encourage and enable the temporary use of existing food assistance tools as mechanisms to close the gaps between time periods of individual food insecurity or as primers to enable privately sustainable healthy foods retail investment into communities.

Pennsylvania

The Fresh Food Financing Initiative (FFFI) is a statewide financing program designed to increase the number of supermarkets and grocery stores in underserved communities in Pennsylvania. Objectives of the FFFI include providing healthy food to reduce incidence of diet-related diseases, stimulate investment of private capital in low-income communities, remove and lower obstacles and operating costs for food retailers in low-income communities, create living wage jobs, and prepare and retain a qualified work force. FFFI provides grants and loans to supermarkets and fresh food retailers for predevelopment, acquisition, new equipment, construction costs, and start-up costs such as employee training.

A partnership was developed between the Commonwealth of Pennsylvania, The Reinvestment Fund (TRF), The Food Trust and Greater Philadelphia Urban Affairs Coalition (GPUAC)[4] to create sustainable funding for the FFFI. A total of $90 million was allocated to the FFFI through advocacy of The Food Trust, support of three state representatives and a pledge by TRF.

Within the program there are multiple funding opportunities, including grants, loans and use of the federal New Market's Tax Credit program.[4] FFFI grants are given to supermarkets located in low- to moderate-income census tracts and in a trade area that is underserved. Grants range from $250,000 to $1 million. Loans are available through the $40.5 million bank-syndicated loan fund dedicated to financing supermarkets or the TRF's Core Loan Fund. The New Market Tax Credit has flexible terms and long-term tax advantages.[4]

Within the first three years of the program, 32 supermarkets and grocery stores were created; $26.8 million in grants and loan funding was committed; 2,645 jobs were created or preserved; and 899,759 square feet of food retail space was established.[5] Urban stores provided jobs for 150 to 200 employees, and have weekly sales of $200,000 to $300,000. Rural stores provided jobs for 10 to 84 full- and part-time employees. Although positive impacts were seen in employment and earnings, the strongest impact was on real estate prices. After creation of a supermarket, home prices instantly increased by $1,500.[4]

3. Gather and share lessons learned from the community-based outcomes of the Texas-based Fresh Food Financing Initiative project with community/state-level stakeholders and decision-makers.

Colorado

LiveWell Colorado is dedicated to reducing obesity, encouraging healthy living through policies, programs, and environmental change within schools, work places, health care settings, and the community.[1] All funding for community projects is done through the state, and each project has a unique objective to best suit the community being served.[1] For example, West Denver LiveWell's major project is increasing the availability of fresh fruits and vegetables in corner stores located in low-income neighborhoods. It has done this through a business development model and by incorporating Spanish-speaking spokespersons. In 2009, three stores were increasing shelf space for fresh produce and had increasing sales with only a 3 to 4 day turnaround for the product.[1]

4. Establish regional, city or county food policy councils to improve policies related to the food system as a whole (farm to table).

5. Encourage communities to promote awareness of direct-to-consumer marketing outlets such as farmers markets, community gardens, farm-to-work and community-supported agriculture (CSA).

6. Encourage local-level discussion of changes and improvements in transportation routes and public transportation options needed to increase access to healthy food retail outlets and venues for the purpose of including in long-range community planning.

7. Encourage participation in national food assistance programs that enable residents to purchase locally grown fresh fruits and vegetables. (E.g. Promotion of the use of Women, Infant and Children (WIC) cash value vouchers, WIC and Senior Farmers Market coupons, and Supplemental Nutrition Assistance Program (SNAP) benefits in farmers markets).

Additional Experiences from Other States

Massachusetts

The Food Project is an organization dedicated to engaging young people in personal and social change through sustainable agriculture. Food produced by The Food Project is distributed through CSA's, farmers markets and hunger relief organizations.[65] Community programs run by The Food Project include Supporting Neighborhood Gardeners, Build-A-Garden, Boston Bounty Bucks, City Farm Festival, Neighborhood Tours, and Urban Learning Farm. In the year 2008-2009, 200,394 pounds of vegetables were harvested, 48,668

pounds of vegetables were donated to hunger relief organizations, and 492 households participated in CSA's. Funding for this organization comes from a variety of individuals and institutions.[65]

New Jersey

The New Jersey Food Access Initiative (NJFAI) is focused on increasing the number of supermarkets and grocery stores in underserved areas across the state of New Jersey with particular emphasis on nine cities. NJFAI is designed to meet the financing needs of potential New Jersey food investors.[66] This program provides loans for land financing, equipment, construction and permanent financing.[66] Funds for this program are provided through partnerships between the New Jersey Economic Development Authority, The Reinvestment Fund, Brick City Development Corporation and Living Cities Catalyst Find.[66]

Colorado

Denver Urban Gardens (DUG) is a nonprofit organization dedicated to assisting in the creation and management of Denver area community gardens. DUG helps with the planning, design, coordination and construction of the gardens while community members maintain them. Most gardens associated with DUG are in low-income urban areas.[1] To fund this project, DUG received a three-year grant from LiveWell Colorado, an organization that strives to provide access to healthy food and opportunities for physical activity to every Coloradan. The program also provides an additional grant from The Colorado Health Foundation for $783,511.[1] Currently, DUG subsidizes over 80 gardens in the Denver area to provide participants with locally grown food. It has been projected that the number of underserved individuals who benefit from DUG will increase from 6,000 to 7,800 within the three-year period.[1]

New York

Just Food is a program that was established in 1995 with a goal of creating a just and sustainable food system for New York City. Just Food aims to address food access and insecurity by increasing the production, marketing, and distribution of fresh produce from community gardens, urban agriculture sites and community supported agriculture. A few of the many components of the program include Community Supported Agriculture (CSA) (provides consumers the chance to buy a share of a harvest from a local farmer), The City Farms (works with people growing food in New York City), and Fresh Food For All (which works to connect more than 30 food pantries and soup kitchens with locally grown food growers).[67] Results from 2008 indicated 11 community gardens joined the City Farm Market Network that reached over 50,000 customers. Community gardens that join City Farm Markets are able to sell their produce at established local markets that accept Food Stamps, Farmers Market Nutrition Program and Health Bucks. During 2008, approximately 13,950 New York City residents were served though a CSA and 2,565 of them were low-income. CSA's also brought in $2.2 million for local farmers. Fresh Food For All served 33 emergency food providers with 134,000 pounds of fresh produce from seven local farms and generated an income of $209,000 for local growers.[67]

California

The School Market Fresh Produce Project[31] began when California Food Policy Advocates (CFPA) approached School Market, a family owned corner store in a low-income area of Oakland, about the opportunity to sell fresh fruits and vegetables due to the limited supermarket access of the neighboring community. CPFA provided School Market with technical assistance, training, and equipment needed to facilitate the sales of fresh food. A fresh produce display was installed and the outside of the store was updated to show the new direction the store was taking. CFPA also contracted with the Alameda County Public Health Department's nutrition education staff to create a buying and preparation activity for a nearby elementary school. Within the first two months, produce sales increased from $50 per week to more $600 per week. During this same period milk sales increased fivefold. The total cost of the School Market Fresh Produce Project was $22,520, which included technical assistance and support, a refrigerated display rack, outside improvements and signage, start-up inventory and marketing.

Green House Produce Project[31] was aimed at increasing the availability of fresh fruits and vegetables in an area of Oakland and initiated by neighborhood residents. Residents proposed a $30,000 community development grant to the city of Oakland for the construction and improvement of what would be known as Green House Produce. Funding was accepted and now Green House Produce is a stable and profitable enterprise that offers a wide variety of fresh produce for the neighborhood. The construction and start-up costs totaled $60,000 for Green House Produce.

Illinois

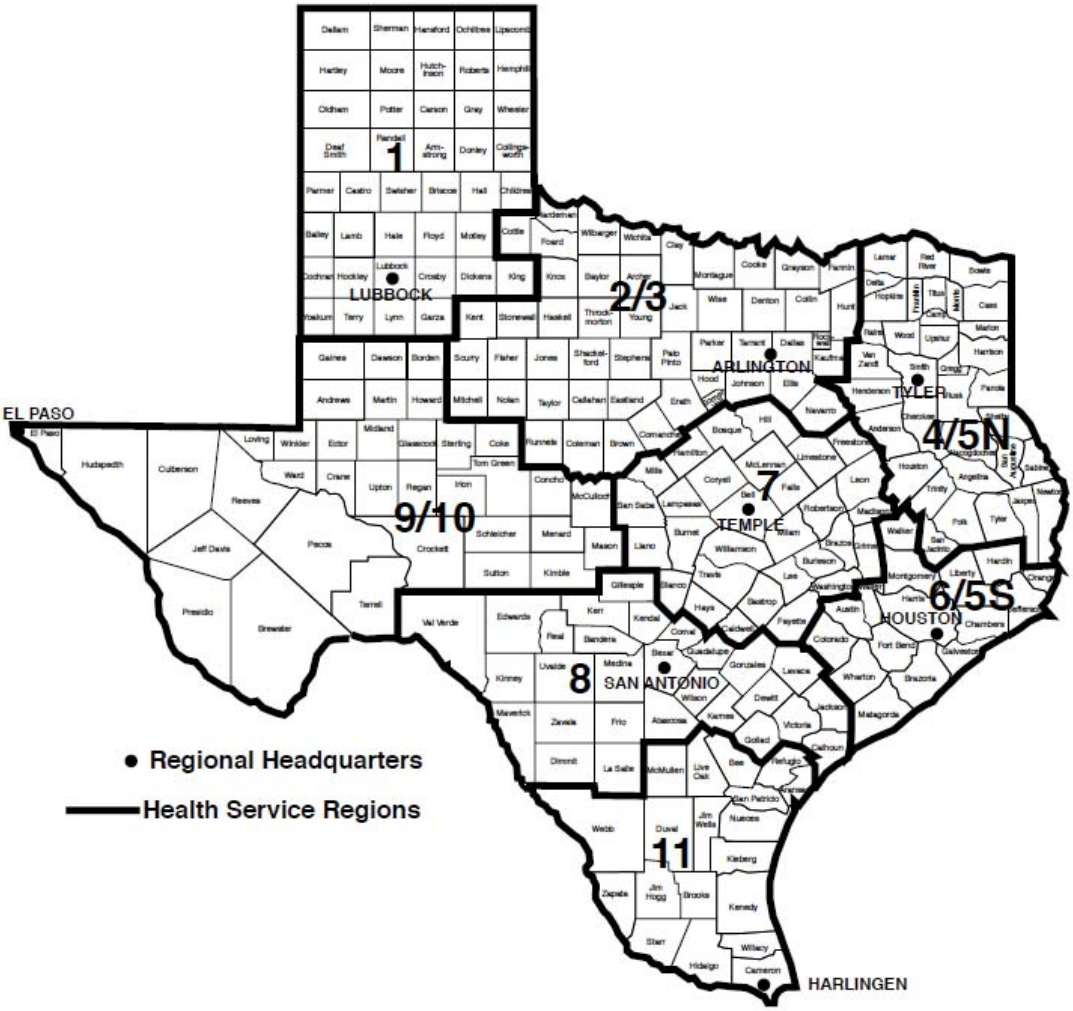
Retail Chicago was developed as an outreach program to retailers, brokers and developers to introduce them to community development opportunities such as fresh food retail locations. This program allowed them to speed up their entry into the new markets by creating a "one stop shop" for potential developers. This means that Retail Chicago provided potential retailers with a single location where they could find information about neighborhood retail development opportunities and receive customized market information in specific sites. Retail Chicago is also able to coordinate the development of projects between the developer and neighborhoods needs. By streamlining the process for potential retailers and developers, Retail Chicago has successfully attracted new grocery stores to longtime underserved neighborhoods.[5]

Appendices

Appendix A: Health Service Regions of Texas

Appendix B: Committee resources used during meetings: February 2, 2010, April 7, 2010, and July 19, 2010

Appendix A: Health Service Regions of Texas



Region 1(Lubbock): High Plains

The High Plains region of Texas includes 41 counties and was home to approximately 800,000 people (3.4% of the Texas population) in 2007. The population growth of this region was fairly slow from 2002 to 2007 with an increase of only 2.7%. The two largest cities are Amarillo and Lubbock. The population distribution of the High Plains is 47.8% non-Hispanic White, 36.0% Hispanic, and 11.3% African American. Compared to other regions of Texas as a whole, with an 18.9% Hispanic population growth, the Hispanic population is growing slowly with only an 11.8% growth rate. African Americans are also underrepresented in the High Plains when compared to the state of Texas and the nation.[43] The population is more rural than the state of Texas as a whole with only 62.5% of its population living in the six metro counties.[43] The median income of some counties in the High Plains was comparable to that of the state of Texas, but others were much lower in

2007. Roberts County had the highest median income of $54,091 and Dickens County had the lowest at $26,645.[43]

Region 2/3 (Arlington): Northwest Texas and Metroplex

Major cities in Northwest Texas and the Metroplex region are Dallas, Fort Worth and Arlington. In 2001, the projected population of this region was 5.6 million, roughly one quarter of the state's population in 2001. Due to the number of metro areas in this region, it has been estimated that from 2001 to 2010, the population will grow 34.1%. In 2001, the majority of this population was 18-64 (66%) years old, but over the next decade, the percentage of older persons in this region is expected to rise.[44] The ethnic population distribution consists of 66% White, 13% African American, and 18% Hispanic.[44]

Region 4/5N (Tyler): Upper East Texas and Southeast Texas (N)

Upper East Texas and the northern region of Southeast Texas contain counties with a slow growing population. The Upper East Texas population is primarily white, older on average, and rural.[45] The racial/ethnic distribution of Upper East Texas is 71% non-Hispanic White, 15.6% African American, and 11% Hispanic. The Hispanic population of this area is much lower than the state as a whole and the nation. In 2007, 15% of this region's population was age 65 or older. This percentage is much higher than the percentage in the state of Texas (10%) or the nation (12.5%). While 87% of all Texas residents lived in urban areas in 2007, only 43% of Upper East Texans lived in urban areas.[45] The median income for residents of Upper East Texas was lower than that of Texas ($42,139). The county with the highest median income was Smith County ($39,267), and the county with the lowest median income was Marion County ($27,683).[45]

Region 6/5S (Houston): Southeast Texas (S) and Gulf Coast

The southern areas of Southeast Texas and the Gulf Coast region consist of counties in the coastal portion of the state. Between the years 2004 and 2007, the employment rate of the Gulf Coast region rose 11%. Within the sectors of agriculture, natural resources and mining, employment rose 30%. The Houston-area economy is particularly important. Houston has been ranked 25th in the world in terms of gross product and totaled $35.9 billion in 2008.[46] The Gulf Coast also contains one of the most populated counties, Harris County, primarily because of Houston. Between 2007 and 2008, the Houston area experienced the second-largest annual population increase in the nation, adding 130,185 residents to its population. Between the years 2000 and 2008, the population rose by 20.8%.[46] During the years 2000 to 2008, the racial/ethnic distribution changed rapidly. The Hispanic population rose by 42.9%, the African American population rose by 18.7%, and the Asian population rose by 39%. The racial/ethnic distribution in 2008 was approximately 42.7% non-Hispanic White, 33.9% Hispanic, 16.5% African American, and 5.5% Asian.[46] In 2007, the median income in the Gulf Coast region ranged from $38,244 in Walker County to $83,968 in Fort Bend County. In addition to having many counties with higher median incomes than the rest of the state, the average personal income

greatly overshadowed that of the state. The personal income in the Gulf Coast region rose 24% in 2007, at $45,968 compared to $37,083 for the state.[46]

Region 7 (Temple): Central Texas and Capital

Central Texas 20-county region is more rural than Texas as a whole; and because of this, it is also growing more slowly compared to the state's annual growth rate. From 2003 to 2008, the Central Texas region only grew 1.1% compared to 1.9% for the whole state. This region of Texas does have a larger young population than the rest of the state or nation with 40% of its residents under the age of 25. Personal income rose by more than 36% from 2001 to 2006.[47] The racial/ethnic distribution of the region was similar to that of the U.S., rather than Texas. Non-Hispanic Whites represented the majority at 61%, Hispanics accounted for 19%, and African Americans accounted for 15% of the Central Texas Population.[47] The median income for this region ranged from $30,265 to $47,434. Although the average personal income was lower than for the state of Texas, $28,800 compared to $35,166, it did outpace the state in growth.[47] The capital area, primarily Travis County, had a population increase of 26.3% in 2009. The racial/ethnic distribution of Travis county is 51.8% non-Hispanic White, 8.8% African American, and 32.9% Hispanic. The median household income in this area is $55,650.

Region 8 (San Antonio): Alamo and South Texas (N)

The Alamo region of Texas and northern areas of South Texas consist of counties in the south central area of the state that is home to almost 2 million residents. Between the years 2000 to 2008, the population of the Alamo region rose 16.5%. Of those 2 million residents, 88% of the residents live in or near San Antonio. The population of the Alamo region is primarily Hispanic and tends to be younger than the state as a whole. The racial/ethnic distribution is 50.5% Hispanic, 40.1% non-Hispanic White, and 5.9% African American. The Alamo region also has a higher percentage of the population that is under 25 when compared to the rest of the state. Approximately 38% of its population is under the age of 25, 6% higher than the state as a whole.[48] The economic development of the Alamo region is predicted to remain favorable. Between the years 2003 and 2013, it is expected that overall employment should rise 23% and employment in the education and health services should rise 44% through 2013.[48] Six of the counties of the Alamo region had median incomes higher than the state of Texas and ranged from $29,583 (Frio County) to $67,471 (Kendall County). The Alamo region's average personal income ($33,596) was lower than the state's as a whole in 2007.[48]

Region 9/10 (El Paso): West Texas and Upper Rio Grande

West Texas and the Upper Rio Grande are located in the western post portion of the state. Of the residents in this region, 97% live in or near El Paso. In 2008, the El Paso area had a population of 744,940. The population of the Upper Rio Grande is primarily Hispanic (81%), while non-Hispanic Whites account for 14%, and African Americans for 2.4%. This region also tends to be younger than the state of Texas as a whole with 42% of its population under the age of 25 and 10% under the age of 5.[49] The military is the largest employer in the

area, accounting for 27% of employment. Overall, the employment rate is expected to increase by 24% by the year 2013, particularly in the professional and business service sectors. The other primary economic factor is agriculture. In fact, 71% of the water in the Upper Rio Grande region is used for farming or ranching.[49] The median household income for this region fell below that of the Texas. The highest median income in 2007 was in Jeff Davis County ($38,850), and the lowest was in Hudspeth County ($25,095). The region's average personal income was also lower than the state with an income of $26,491 in 2007, or 71% of the state's average personal income.[49] The Upper Rio Grande region has more public park land than any region in the state.[49]

Region 11 (Harlingen): South Texas (S)

South Texas (Lower Rio Grande valley) has a population that is growing faster than the state's population, relatively young, and primarily Hispanic. Between the years 2002 and 2007, the population of South Texas grew at an annual rate of 2.1%, while the state of Texas only grew 1.9% annually. The growth within particular metropolitan counties such as areas of McAllen-Edinburg-Mission, Laredo and Brownsville-Harlingen outpace that of the region and state.[50] The racial/ethnic make-up of South Texas is primarily Hispanic (81%). Some areas of South Texas have even higher percentages of Hispanics, such as Laredo (95% Hispanic), McAllen (89% Hispanic), and Brownsville (86% Hispanic). South Texas is also a population destination for a large number of "Winter Texans." These are individuals living in the northern United States that travel to Texas during winter months to avoid harsh weather. Individuals living in South Texas tend to be younger than the population of Texas as a whole with 44% of its population in 2007 under age 25.[50] The median income in all South Texas counties was lower than that of the state in 2005. The median income for the state was $42,139, while the highest median income for a county in South Texas was $38,749 in Nueces County. The lowest median income was $17,843 in Starr County. Average personal income was also lower in the South Texas region when compared to the state of Texas. In 2006, the average personal income for individuals living in South Texas was $20,300 while the state averaged $35,200. This is equal to a 57.6% lower average personal income in South Texas compared to the state.[50] Based on income average income levels, many areas of South Texas have experienced what is known as persistent poverty since the 1960s. This means that at least 20% of the population has been below the national poverty line.

Appendix B: Testimony and Materials Considered

February 2, 2010 Meeting of the Healthy Food Advisory Committee

- Tracey Giang, Program Manger, The Food Trust and Miriam Manon, Senior Associate, The Food Trust
- Andrew Smiley, Farm Direct Projects Director, Sustainable Foods Center
- "Pennsylvania Fresh Food Financing Initiative: providing healthy food choices to Pennsylvania's communities" Handout made available by The Food Trust, Philadelphia, PA
- "Research Findings: Food Access, Eating Behaviors, and Obesity" Handout made available by The Food Trust
- Report by the Louisiana Healthy Food Retail Study Group (2009): *Recommendations for a Louisiana Healthy Food Retail Financing Program*
- Access Denied: an Analysis of Problems Facing East Austin Residents in Their Attempts To Obtain Affordable, Nutritious Food: Sustainable Foods Center.

April 6, 2010 Meeting of the Healthy Food Advisory Committee

- Rob Borowski, Project Director, Texas Impact
- Ronda Rutledge, Executive Director of Sustainable Food Center, represented the Sustainable Food Policy Board
- David Davenport, President and CEO of Capital Area Food Bank (CAFB)
- Feeding Texas Kids With the Summer Food Service Program: A Toolkit for Texas Faith communities. Provided by Texas Impact
- "Counties Served by Member Food Banks" handout provided by Texas Food Bank Network
- "The Grocery Gap- Who Has Access to Healthy Food and Why It Matters" report provided by the Food Trust
- "Libraries help fill city nutrition gaps" article provided by Texas Food Policy Roundtable
- "Establishing Land Use Protections for Farmers' Markets" (Dec 2009) report by The National Policy & Legal Analysis Network to Prevent Childhood Obesity (NPLAN)

- Sharkey & Horel. Neighborhood Socioeconomic Deprivation and Minority Composition Are Associated with Better Potential Spatial Access to the Ground-Truthed Food Environment in a Large Rural Area. J. Nutr. 2008
- Sharkey, Horel, Han and Huber Jr. Association Between Neighborhood Need and Spatial Access to Food Stores and Fast Food Restaurants In Neighborhoods of Colonias. International Journal of Health Geographics 2009

July 19, 2010 Meeting of the Healthy Food Advisory Committee

- Tracey Giang, S Program Manager, The Food Trust and Miriam Manon, Senior Associate, The Food Trust
- The White House Obesity Task Force Report: Solving the Problem of Childhood Obesity Within a Generation
- Capital Metro planning department
- "Food Salvage Regulation in Texas" handout provided by The Texas Department of State Health Services

References

1. Foundation TCH. *Food Access in Colorado: Report*2009.
2. Group HFRS. Report of the Healthy Food Retail Study Group: Recommendations for a Louisiana Healthy Food Retail Financing Program. 2009.
3. Dong D, Lin BH. Fruit and Vegetable Consumption by Low-Income Americans: Would a Price Reduction Make a Difference? In: Agriculture USDo, Service ER, eds2009.
4. Fund TR. *Pennsylvania Fresh Food Financing Initative*2009.
5. Committee NOFPA. Building Healthy Communities: Expanding Access to Fresh Food Retailers. 2008.
6. Trust TF, Link P. *The Grocery Gap: Who Has Access to Healthy Food and Why it Matters*2010.
7. Services USDoHaH, Agriculture USDo. Dietary Guidlines for Americans, 20052005.
8. Group LHFR. *Report of the Healthy Food Retail Study Group*2009.
9. Bureau USC. Texas. *State and County QuickFacts* 2010; http://quickfacts.census.gov/qfd/states/48000.html.
10. Sharkey JR, Horel S, Han D, Huber JC, Jr. Association between neighborhood need and spatial access to food stores and fast food restaurants in neighborhoods of colonias. *Int J Health Geogr.* 2009;8:9.
11. Morland K, Wing S, Diez Roux A, Poole C. Neighborhood characteristics associated with the location of food stores and food service places. *Am J Prev Med.* Jan 2002;22(1):23-29.
12. Morland K, Wing S, Diez Roux A. The contextual effect of the local food environment on residents' diets: the atherosclerosis risk in communities study. *Am J Public Health.* Nov 2002;92(11):1761-1767.
13. Glanz K, Sallis JF, Saelens BE, Frank LD. Healthy nutrition environments: concepts and measures. *Am J Health Promot.* May-Jun 2005;19(5):330-333, ii.
14. Services USDoHaH, Health NIo. Strategic Plan for NIH Obesity Research. Vol NIH Publication No. 04-5493August 2004.
15. Blanck HM, Gillespie C, Kimmons JE, Seymour JD, Serdula MK. Trends in fruit and vegetable consumption among U.S. men and women, 1994-2005. *Prev Chronic Dis.* Apr 2008;5(2):A35.
16. Bazzano LA. The high cost of not consuming fruits and vegetables. *J Am Diet Assoc.* Sep 2006;106(9):1364-1368.
17. Dauchet L, Dallongeville J. Fruit and vegetables and cardiovascular disease: epidemiological evidence from the non-Western world. *Br J Nutr.* Feb 2008;99(2):219-220.
18. Vioque J, Weinbrenner T, Castello A, Asensio L, Garcia de la Hera M. Intake of fruits and vegetables in relation to 10-year weight gain among Spanish adults. *Obesity (Silver Spring).* Mar 2008;16(3):664-670.
19. Flegal KM, Carroll MD, Ogden CL, Curtin LR. Prevalence and trends in obesity among US adults, 1999-2008. *Journal of the American Medical Association.* Jan 20 2010;303(3):235-241.
20. Diseases NIoDaDaK, Services USDoHaH, Health NIo. Overweight and Obesity StatisticsFebruary 2010.
21. Neumark-Sztainer D, Story M, Hannan PJ, Croll J. Overweight status and eating patterns among adolescents: where do youths stand in comparison with the healthy people 2010 objectives? *Am J Public Health.* May 2002;92(5):844-851.
22. General S. The Surgeon General's Report on Nutrition and Health. In: Services DoHaH, ed. Washington, CD: Public Health Services; 1988.
23. Campbell KJ, Crawford DA, Ball K. Family food environment and dietary behaviors likely to promote fatness in 5-6 year-old children. *Int J Obes (Lond).* Aug 2006;30(8):1272-1280.
24. Serdula MK, Ivery D, Coates RJ, Freedman DS, Williamson DF, Byers T. Do obese children become obese adults? A review of the literature. *Prev Med.* Mar 1993;22(2):167-177.
25. Services DoHaH. DSHS Obesity Fact Sheet2010.
26. Meit M. Bridging the Health Divide: The Rural Public Health Research Agenda. *University of Pittsburgh Center for Rural Health Practice.* 2004.
27. McClelland JW, Demark-Wahnefried W, Mustian RD, Cowan AT, Campbell MK. Fruit and vegetable consumption of rural African Americans: baseline survey results of the Black Churches United for Better Health 5 a Day Project. *Journal of Rural Health.* 1998(30):148-157.
28. Carcaise-Edinboro P, McClish D, Kracen AC, Bowen D, Fries E. Fruit and Vegetable Dietary Behavior in Response to Low-Intensity Dietary Intervention: The Rural Physician Center Cancer Prevention Project *Journal of Rural Health.* 2008(24):299-305.

29. Trust TF. The Food Trust. 2010; http://www.thefoodtrust.org.
30. Center SF. *Access Denied*.
31. Bolen E, Hecht K. *Neighborhood Groceries: New Access to Health Food in Low-Income Communities*: California Food Policy Advocates;2003.
32. Center SF. Viability of Selling Fresh Produce in East Austin Convenience Stores. In: Bolin C, ed2010.
33. Stone KE, Artz G, Myles A. The Economic Impact of Wal-Mart Supercents on Existing Businesses in Mississippi.
34. Alliance IC-o. Statement on the Co-operative Identity. 2007; http://www.ica.coop/coop/principles.html.
35. Service CD. Coop Directory Listings. 2009; http://coopdirectory.org/directory.htm#Texas.
36. Services DS. Trends and Insight. http://www.dollarstoreservices.com/41.php.
37. City FBfNY. Food Bank for New York City. *FAQs* 2009; http://www.foodbanknyc.org/go/about-the-food-bank/faqs.
38. DeMuth S. An EXCERPT from Community Supported Agriculture (CSA): An Annotated Bibliography and Resource Guide. 2993.
39. Agriculture USDo, Service NAS. 2007 Census of Agriculture - State Data: Table 44. Selected Practices: 2007. In: USDA, ed2009:606.
40. Harvest L. Community Supported Agriculture. 2010; http://www.localharvest.org/csa/.
41. Services TDoSH. Food Salvage Regulation in Texas. In: DSHS, ed2010.
42. Combs S. Demograpics. *Texas in Focus: A Statewide View of Opportunities* http://www.window.state.tx.us/specialrpt/tif/population.html. Accessed July 23, 2010.
43. Combs S. *Texas in Focus: High Plains - Demographics*: Texas Comptroller of Public Accounts;2008.
44. Greater Metroplex Community at a Glance: Needs Summary/Demographic Overview. 2001.
45. Combs S. *Texas in Focus: Upper East Texas - Demographics*: Texas Comptroller of Public Accounts;2008.
46. Combs S. *Texas in Focus: Gulf Coast Region*: Texas Comptroller of Public Accounts;2010.
47. Combs S. *Texas in Focus: Central Texas - Demographics*: Texas Comptroller of Public Accounts;2009.
48. Combs S. *Texas in Focus: Alamo*: Texas Comptroller of Public Accounts;2009.
49. Combs S. *Texas in Focus: Upper Rio Grande*: Texas Comptroller of Public Accounts;2009.
50. Combs S. *Texas in Focus: South Texas - Demographics*: Texas Comptroller of Public Accounts;2008.
51. Nord M, Andrews M, Carlson S. *Household Food Security in the United States, 2008*2009.
52. Nord M. *Food Insecurity in Households with Children: Prevalence, Severity, and Household Charactersitics*: USDA;2009.
53. Hagert C, Schechter C. *Ending Hunger in Our Community: Food Security Through Food Assistance*2004.
54. Agriculture USDo. Supplemental Nutrition Assistance Program: Frequently Asked Questions. In: Service FaN, ed2010.
55. Agriculture USDo. Naitonal School Lunch Program Fact Sheet. In: Services FaN, ed2009.
56. Aglriculture USDo. National School Breakfast Fact Sheet. In: Services FaN, ed2009.
57. Agriculture USDo. Summer Food Service Program: Frequently Asked Questions. In: Services FaN, ed2010.
58. Agriculture USDo. WIC Farmers Market Nutrition Programs: Frequently Asked Questions. In: Services FaN, ed2010.
59. Agriculture USDo. Child & Adult Care Food Program. In: Services FaN, ed2010.
60. Agriculture USDo. Food Distribution Program. In: Services FaN, ed2010.
61. Agriculture USDo. The Emergency Food Assistance Program. In: Services FaN, ed2010.
62. Agriculture USDo. Nutrition Services Incentive Program. In: Services FaN, ed2009.
63. *Presentation to the House Select Committee of Government Efficiency and Accountability: Supplemental Nutrition Assistance Program Status and Audit* 2010.
64. Priorities CfPP. *The State of Texas children: Texas KIDS COUNT Data Book, 2008-2009*2009.
65. Project TF. *The Food Project 2008-2009 Annual Report.* Boston2009.
66. Fund TR, Hinkle-Brown D. *New Jersey Food Access Initiative*2009.
67. Food J. *Annual Report 2008.* New York City2008.
68. Solving the Problem of Childhood Obesity Within a Generation. White Houste Obestiy Task Force Report. Available online at:

http://www.letsmove.gov/pdf/TaskForce_on_Childhood_Obesity_May2010_FullReport.pdf (last accessed September 15, 2010).

69. USDA Economic Research Service. Food Security in the United States: Definitiaons of Hunger and Food Security. Available online at: http://www.ers.usda.gov/Briefing/FoodSecurity/labels.htm (last accessed September 15, 2010).

70. Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010 Part D Section 4: Protein. Available online at: http://www.cnpp.usda.gov/DGAs2010-DGACReport.htm (last accessed November 16, 2010).

71. Friedman. Rudd Report: Access to Healthy Foods in Low-Income Neighborhoods: Opportunities for Public Policy RUDD CENTER FOR FOOD POLICY & OBESITY YALE UNIVERSITY. Fall 2008. Available online at: http://www.yaleruddcenter.org/resources/upload/docs/what/reports/RuddReportAccesstoHealthyFoods2008.pdf (last accessed November 16, 2010).