

Examination of Economic and Community Development Opportunities Resulting from the Creation of a Community Kitchen

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Executive Summary

The Virginia Tech Office of Economic Development (OED) was contracted by the City of Roanoke's Economic Development Authority (EDA) and Freedom First Credit Union to evaluate community and economic development opportunities surrounding the creation of a community kitchen that would reside in the former Villa Sorrento restaurant facility located at 1223 Patterson Ave, SW. The initial request from the clients focused on exploring models for how a community kitchen may help to precipitate entrepreneurship and business development activities within the market study area. Identification of promising strategies for how this community kitchen may concurrently support neighborhood revitalization efforts, educational and workforce training initiatives, efforts to alleviate food insecurity, and promote the local foods movement were also noted as desirable outcomes of this report.

To respond to this request, OED developed a comprehensive, written analysis which included the following steps:

- Developing a demographic and economic profile of the market area. The market area is defined as Roanoke city. When appropriate, OED also included data for the Roanoke MSA and Census Tract 10 (Hurt Park/Mountain View/West End neighborhoods).
- Analyzing the presence of food-related industries in the market area to identify segments that may provide opportunities for entrepreneurial growth and business development.
- Research and identification of best practice models for community kitchen/kitchen incubator facilities
- Assessing regional assets related to business assistance, workforce development, food security, and local foods advocacy to identify opportunities for building programmatic partnerships.

The findings of this study are presented below.

Demographic and Economic Profile

- Roanoke city experienced modest population growth during the period of 2000-2010. In contrast, population totals for Roanoke city Census Tract (CT-10) declined by 21.3%.
- Census Tract (CT-10) has a slightly younger population than Roanoke city. For example, 20% of Roanoke city's population is age 60 and above as compared to 9.8% in CT-10. CT-10 is also more racially/ethnically diversified than the surrounding region.
- Educational attainment levels for the working age population (25-64) are noticeably lower than the comparable statewide average for both Roanoke city and CT-10. Across Virginia, 36.1% of working age adults have a bachelor's

degree or above. For Roanoke city, the comparable rate is 22.6% and for CT-10 this rate is 5.5%.

- Household income and poverty rates reflect significant economic distress in CT-10. According to recent census estimates, the poverty rate for CT-10 is 54.6%- a figure more than five times the comparable state rate.
- Food insecurity is also a significant challenge for both Roanoke city and CT-10. Almost one-half (47.2%) of CT-10 households received food stamp/SNAP benefits within the past 12 months. CT-10 is also a USDA-identified food desert.
- Unemployment rates for Roanoke city are similar to comparable national rates, but slightly higher than state and regional averages. Unemployment rates for CT-10 are notably higher than both national and state rates. Healthcare, retail trade, and accommodation and food services are the top employment sectors for Roanoke city.

Market Overview of Food-Related Industry Sectors

- OED utilized the North American Industry Classification System (NAICS) to define 'food-related' industry sectors. Data collection activities focused on two NAICS 3-digit industry sectors: food manufacturing (NAICS 311) and food services and drinking places (722). As appropriate related subsectors of these industries were also included in OED's analysis.
- The Roanoke MSA has a total of 19 food manufacturing companies which employ an estimated 453 individuals. 8 food manufacturers are located in Roanoke city. Maple Leaf Bakery is the region's largest food manufacturing employer, accounting for well over half of all industry sector employment. The rest of these companies are small, value-added and niche market producers.
 - "Bakers" is the top employment occupation for food manufacturing in the Roanoke region. Demographic trends for bakers in Roanoke city reflect that the majority of employees are male (89%), and fall between the ages of 25-44 (56%). The median wage rate for bakers in the Roanoke region is \$12.28, a figure slightly higher than the comparable national rate (\$11.70).
- OED estimates there to be at least 669 businesses within the region's food services and drinking places industry sector. Of this total, 316 (47%) are located in Roanoke city and employ over 5,400 individuals. Full service restaurants are the largest industry subsector in Roanoke city. Full service restaurants employ about 3,000 workers. Limited service eating places, including fast food, are the second leading industry subsector accounting for over 2,200 employees.
 - Combined food preparation and serving workers (including fast food) is the top employment occupation for the food services and drinking places industry sector of the Roanoke region. Food preparation and serving workers in Roanoke city are predominately young (70% under age 25) and female (68%). The median wage rate for food preparation and serving

workers in the Roanoke region is very comparable to national and state rates.

Community Kitchen Models and Regional Asset Scan

- Stakeholder interest in utilization of a community kitchen facility to advance entrepreneurship and business development opportunities led OED to examine best practices for food business incubators across the United States. Examples of identified factors contributing to successful food business incubator operation include:
 - Strong leadership
 - Provision of training and delivery of technical assistance services
 - Understanding the client businesses and responding to their unique needs
 - Assuring the facility complies with food safety laws and regulations
 - Linking the facility to agricultural and other organizations and government agencies
- Common physical design attributes of food business incubators include multiple cooking areas, flexibility of equipment, and open spaces for classes and other multi-use activities.
- Start-up funding for most food business incubators originates from multi-sector partnerships which include federal and local governmental agencies and nonprofit organizations. As such, most food business incubators operate under the authority of a board of directors, or a county board of supervisors.
- Operational revenues often derive from client utilization fees, private space/event rentals, fees from classes offered through the facility, and other external grant/loan funds. Diverse and consistent revenue sources are important to helping ensure long-term facility sustainability.
- Consistent engagement of regional and federal business and health regulation agencies is important during both the start-up and operational phases of a food business incubator facility. This helps to ensure that both the facility and the facility's clients are aware of the latest business compliance requirements which impact food-related industries.
- The regional asset scan produced a substantial list of potential project stakeholders which could contribute valuable knowledge and resources necessary to develop a comprehensive community kitchen program/food business incubator program in Roanoke city.

Recommendations

Based on the factors summarized above, our report identifies several strategies that project leadership in Roanoke city may consider implementing to achieve the goals of supporting a community kitchen/food business incubator facility. These recommendations include the following:

- Create a **project management team** to oversee continued efforts to explore creation of a community kitchen facility/food business incubator in the West End Neighborhood.
 - This project management team would provide several important functions including: convening additional project stakeholders, exploring future funding opportunities, etc.
Key Stakeholders: Freedom First Credit Union, City of Roanoke, the West End Neighborhood Association, and the West End Community Center.
- Create a **technical advisory board** to provide guidance to the project management team on legal and regulatory issues which may impact the development and operation of the community kitchen/food business incubator facility.
 - Possible topics presented to the technical advisory board could include zoning regulations, business licensing and permitting, food safety compliance, etc. The technical advisory board should include individuals with expertise relevant to regulatory issues which may impact both the program/facility, as well as potential clients serviced by the facility.
Key Stakeholders: City of Roanoke, the Roanoke City Health District, Virginia Tech Department of Food Science and Technology, and the Virginia Department of Agriculture and Consumer Services.
- Convene and **engage regional partners** in program and facility development activities. Host a roundtable series which assembles multi-sector stakeholders in target programmatic areas.
 - The purpose of these roundtables will be to discuss ways the facility/programs may leverage, or partner with existing organizations to create new opportunities which advance community, economic, and workforce development in Roanoke city and the surrounding Roanoke region. The roundtables also serve as the basis for future working groups to develop facility and programmatic services. Potential roundtable themes and participants may include:
 - **Business Assistance**: Entrepreneurial training, access to capital, and business planning assistance are common services delivered by food business incubators.

- Key Participants: City of Roanoke, Roanoke Chamber of Commerce, Virginia Department of Business Assistance (DBA), the Roanoke Regional Small Business Development Center (SBDC), Freedom First, local lenders/banking community
- Education and Culinary Arts Training: Potential collaboration with Virginia Western Community College (VWCC) could generate many opportunities to promote entrepreneurship and workforce development. VWCC graduates over 20 students annually from its Culinary Arts programs thereby offering a potential pool of individuals who may be aspiring food business entrepreneurs. VWCC also offers many non-credit cooking courses which may be expanded through utilization of the proposed facility. Secondary school systems offering Career & Technical education courses in Culinary Arts also serve as important workforce development partners.
 - Key Participants: Virginia Western Community College, Roanoke City Public Schools, Roanoke County Public Schools, Salem City Public Schools
- Local Foods Advocacy and Awareness: A community kitchen/food business incubator facility could provide small agricultural and food-related enterprises with access to equipment and/or marketing/branding services to help promote their products or services as 'value-added' or 'locally produced.'
 - Key Participants: Leadership of local Farmers' Markets, the Roanoke Natural Foods Co-Op, Virginia Cooperative Extension, the Virginia Tech Catawba Sustainability Center, Virginia Department of Agriculture and Consumer Services
- Organizations Address Food Insecurity and/or Poverty: Career pathways to employment in food-related industries often have low barriers to accessibility in terms of educational attainment and prior skills training. Several non-profit and public sector organizations offer workforce training initiatives which seek to develop skills of low income, homeless, and at-risk populations programs across the country. Examples include Starfish Café in Savannah, GA (a partnership between Union Mission and Savannah Technical College) and the Culinary Arts Training program of the Philadelphia Housing Authority.
 - Key Participants: Roanoke Area Mission (RAM) House, Total Action Against Poverty (TAP), Goodwill Industries of the Valleys, Western Virginia Workforce Investment Board,

Roanoke City Department of Social Services, Meals on
Wheels, United Way of the Roanoke Valley

- **Healthy Communities:** Across the nation, many localities are developing multi-sector partnership to promote healthy lifestyles and dietary choices. The Center for Disease Control's (CDC) Healthy Communities Program provides information for developing community initiatives which could be beneficial to understanding how the proposed community kitchen/food business incubator could serve as a nexus for helping to promote nutrition education and outreach activities throughout Roanoke city. Examples could include a community garden program or hosting of healthy cooking workshop classes.
Key Participants: Carilion Clinics, YMCA, City of Roanoke, Roanoke City Public Schools, the West End Center
- Identify and **engage existing small-medium sized enterprises** which may be potential clients of the community kitchen/food business incubator facility or the facility's programmatic services. Administer a survey to these enterprises to further assess potential market demand and identification of specific equipment or service needs.
 - The University of Wisconsin-Extension provides several tools for assessment of food business incubator client needs:
<http://fyi.uwex.edu/foodbin/resources/>
Key Stakeholders: City of Roanoke, Roanoke Regional Partnership, Roanoke Regional Chamber of Commerce/Roanoke Regional SBDC, Virginia Tech Office of Economic Development
- Administer a **survey to students enrolled in Virginia Western Community College's Culinary Arts programs**. This survey will help to further assess market demand from the emerging culinary workforce, as well as gauge specific needs of aspiring food-related entrepreneurs.
 - **Key Stakeholders:** Virginia Western Community College

Introduction

This report was commissioned by the City of Roanoke's Economic Development Authority (EDA) and Freedom First Credit Union to evaluate community and economic development opportunities surrounding the creation of a community kitchen that would reside in the former Villa Sorrento restaurant facility located at 1223 Patterson Ave, SW. The initial request from the clients focused on exploring models for how a community kitchen may help to precipitate entrepreneurship and business development activities within the market study area. Identification of promising strategies for how this community kitchen may concurrently support neighborhood revitalization efforts, educational and workforce training initiatives, efforts to alleviate food insecurity, and promote the local foods movement were also noted as desirable outcomes of this report.

The first section of this report describes the results of the OED team's review of secondary data to create a demographic and economic profile of the market area the community kitchen/food business incubator will serve. This market area includes Roanoke city. As appropriate, OED also examined data for the Roanoke MSA and Roanoke city Census Tract 10 (which includes the Hurt Park, Mountain View, and West End neighborhoods).

Next, the OED team utilized secondary data to analyze the presence of food-related businesses in Roanoke region and its importance to the overall economic environment in the Roanoke city market area. In particular, this analysis begins with a broad assessment of food-related industries in the United States, Virginia, and the Roanoke region and will evolve into a specific analysis of food-related industry subsectors. Staffing and occupational trends for these industries are also provided in this section.

This report also includes research on existing community kitchen/food business incubator models that provide promising approaches for facility design, client services, program management, and financial sustainability. While many community kitchen/food business incubator models exist across the United States, the OED team identified eight programs which offer unique attributes of particular relevance to this report. Finally, this report provides an asset scan in order to understand the availability of potential regional stakeholders which may offer specialized knowledge and services necessary to develop a comprehensive community kitchen/food business incubator program.

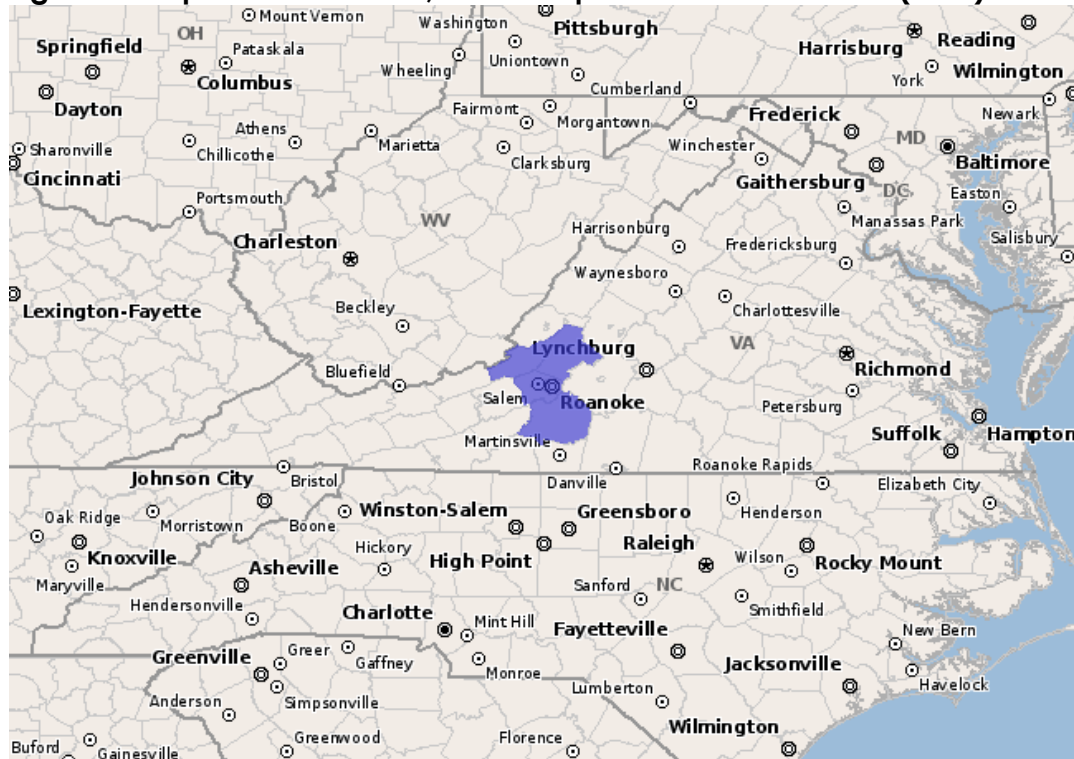
Part A: Regional Demographic and Economic Trends

Study Area

The City of Roanoke, VA is the primary study area of this report. Situated in the foothills of Virginia's Blue Ridge Mountains, Roanoke is the tenth largest independent city in the Commonwealth. The city encompasses over 42.9 square miles and has a population of 97,032.¹ The proposed community kitchen facility would be located within Census Tract 10 of Roanoke city. Census Tract 10 (CT-10) includes the neighborhoods of Hurt Park, Mountain View, and West End.

Roanoke is the largest municipality of the Roanoke MSA. As appropriate, the market analysis section of this study may also provide data highlighting economic and business dynamics across both the Roanoke city and the Roanoke MSA. The Roanoke MSA includes the counties of Botetourt, Craig, Franklin, Roanoke and the independent cities of Roanoke and Salem.

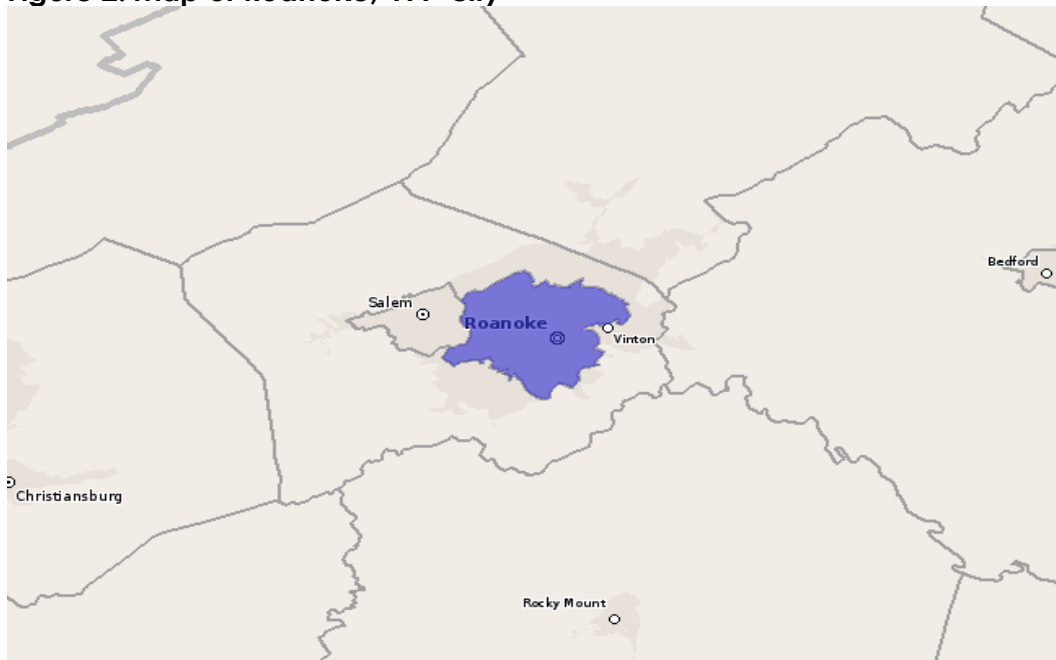
Figure 1: Map of the Roanoke, VA Metropolitan Statistical Area (MSA)



Source: emsiAnalyst-GIS

¹ Source: U.S. Census Bureau. U.S. Census, 2010. Profile of General Population and Housing.

Figure 2: Map of Roanoke, VA- city



Source: emsiAnalyst-GIS

Figure 3: Map of Census Tract 10 and Site Neighborhood



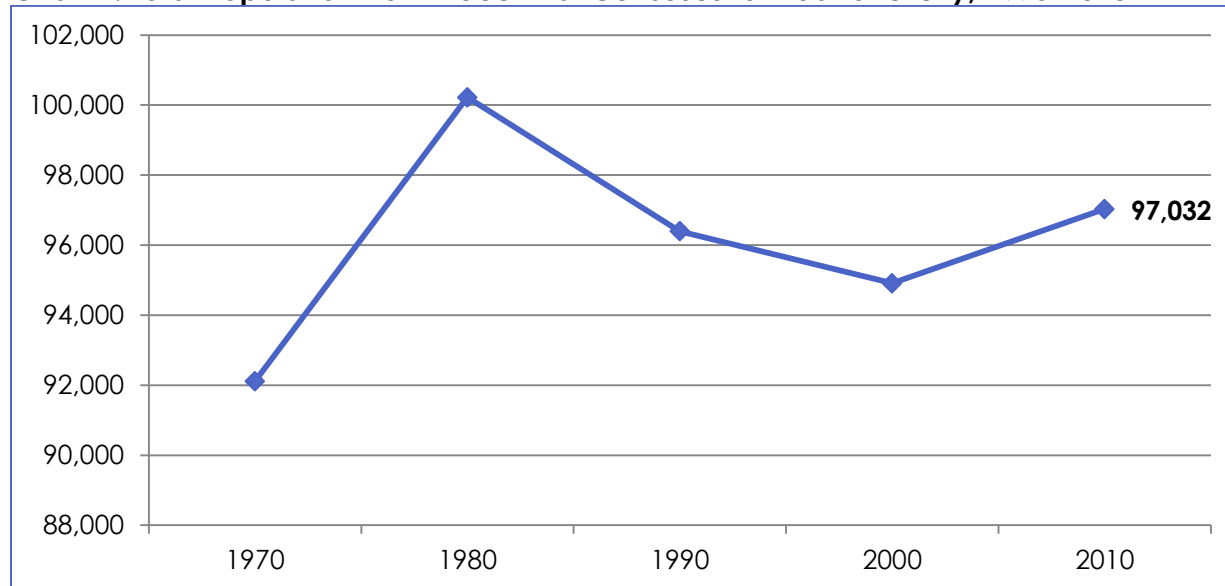
Source: OED

Population Trends

According to the 2010 U.S. Census, the population of Roanoke city is 97,032. This total reflects modest growth over the previous 2000 decennial census (+2.2% or 2,121 individuals).² Since 1970, historic decennial census records show that population totals remained steady. The period of greatest population growth occurred during the period of 1970-1980, while the period of greatest decline occurred 1980-1990.

In contrast, population totals for CT-10 experienced significant decline during 2000-2010.³ In 2010, the population of CT-10 totaled 2,192. This number reflects a 21.3% decline from the 2000 population of 2,785 (-593 individuals).

Chart 1: Total Population from Decennial Censuses for Roanoke-city, 1970-2010



Source: U.S. Census 1970-2010 – Total Population

² Source: U.S. Census Bureau. 2000 and 2010 Census. Total Population.

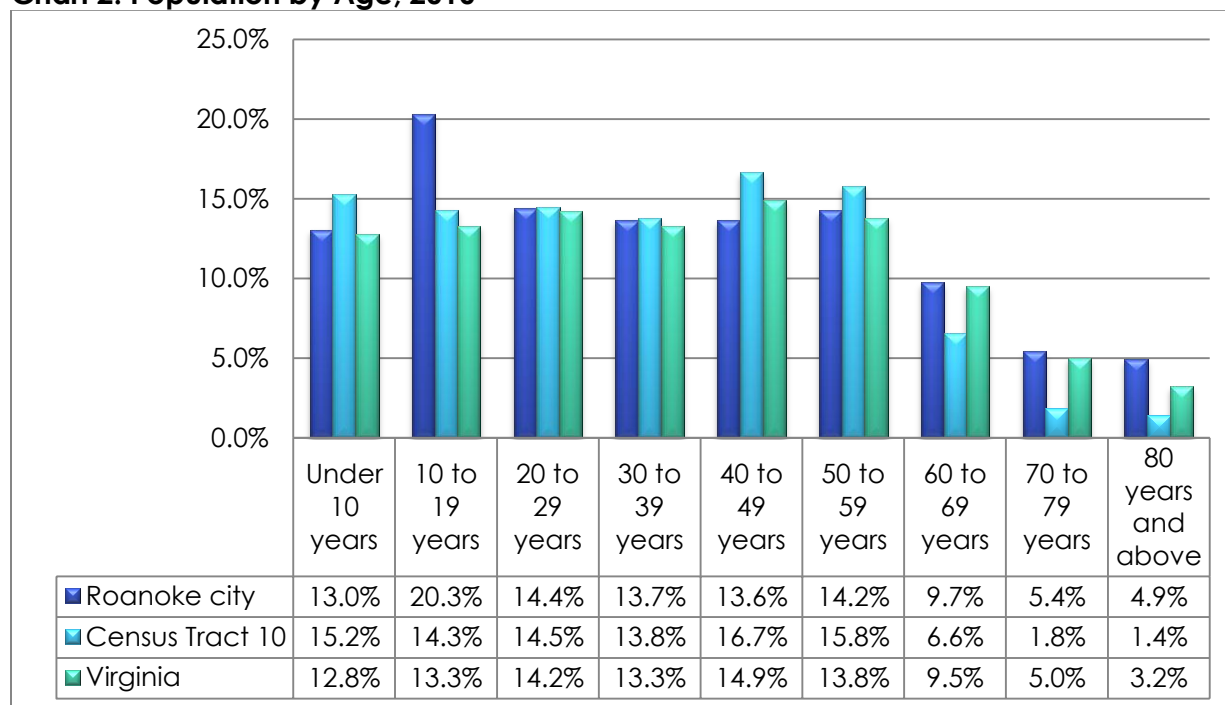
³ Source: U.S. Census Bureau. 1990-2010 Census. Total Population for CT-10. Comparable historic data prior to 1990 not available in electronic format.

Age and Race Distribution

Roanoke city, CT-10, and Virginia have similar age demographics across the 20-60 age groups. CT-10 has a slightly younger population on average than Virginia and Roanoke city, with a smaller proportion of residents over age 60 and a larger proportion of children after age 10 (See Chart 2). Decreasing total population trends for CT-10 may reflect out-migration of older adults who require assisted living services or family support which could require moving from the CT-10 neighborhoods. Similarly, population stability for Roanoke city may be attributable to in-migration of younger families to larger metropolitan areas with greater varieties of employment and career opportunities.

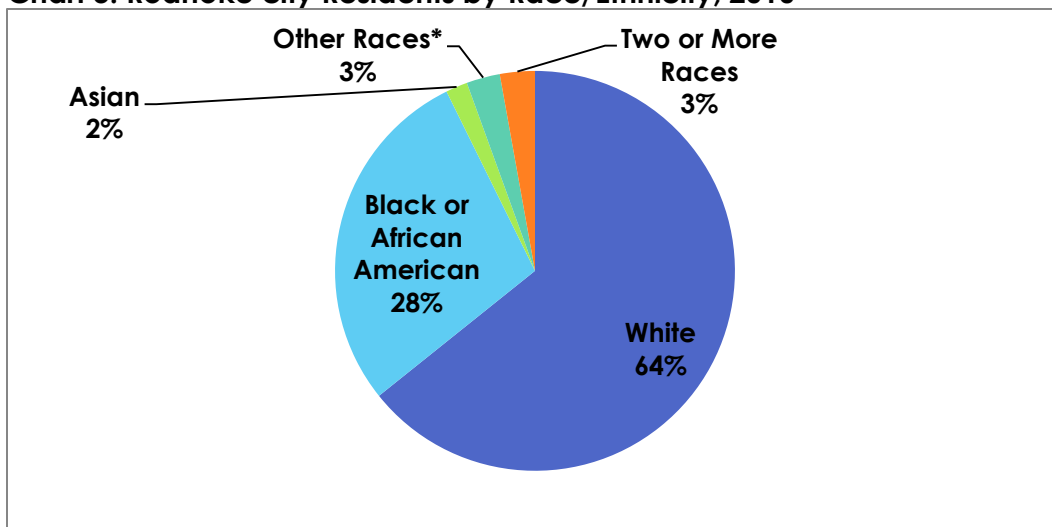
Fifty-three percent of CT-10 residents are black or African American, while white residents comprise around 36% of the population. Individuals of two or more races and other types of races form an estimated 11% of CT-10. In comparison, Roanoke-city is 64% white and 28% black or African American, with other race categories forming 8% of the population.

Chart 2: Population by Age, 2010



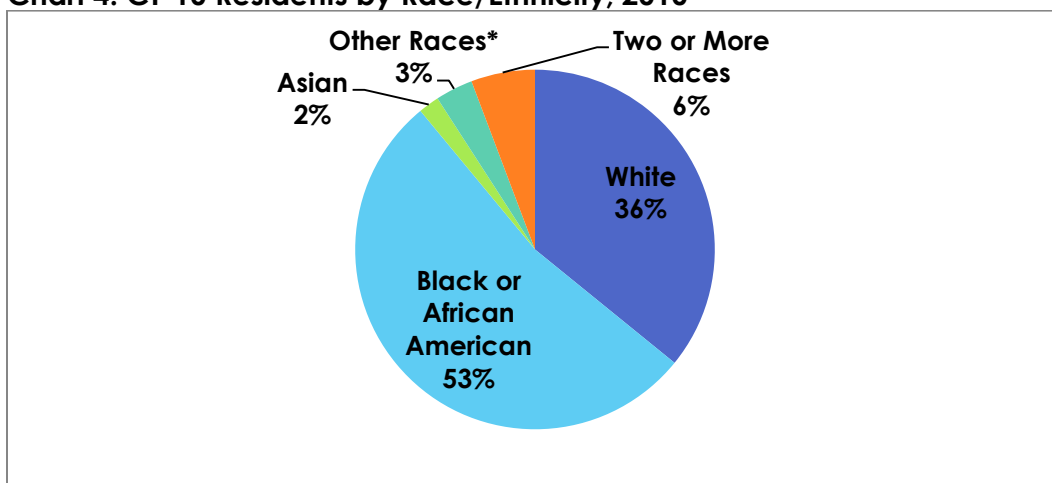
Source: U.S. Census 2010- Profile of General Population and Housing Characteristics

Chart 3: Roanoke city Residents by Race/Ethnicity, 2010⁴



Source: U.S. Census 2010- Profile of General Population and Housing Characteristics

Chart 4: CT-10 Residents by Race/Ethnicity, 2010⁵



Source: U.S. Census 2010- Profile of General Population and Housing Characteristics

Educational Attainment and Income

Postsecondary educational attainment rates for the working age adult population (age 25-64) of Roanoke city and CT-10 are considerably lower than statewide and national averages. Roanoke city rates of 31% for educational attainment levels to at least an Associate's degree are considerably lower than the Virginia rate of 43% and the

⁴ Note: 'Other' races category includes census classifications of Other, Native Hawaiian and Other Pacific, and American Indian and Alaska Native.

⁵ Note: 'Other' races category includes census classifications of Other, Native Hawaiian and Other Pacific, and American Indian and Alaska Native.

national rate of 38%. Roanoke city rates also fall below the overall average for the surrounding metro-region. Most striking is the discrepancy in the attainment rate for postsecondary education in CT-10, where only 7% of individuals have educational attainment levels to at least an Associate's degree.

Below average postsecondary educational attainment rates for Roanoke city and CT-10 may be influenced by two factors: 1. The population of these jurisdictions face socio-economic barriers to postsecondary educational attainment opportunities, and 2. Historically, many job opportunities in the region's industrial and retail/service economies did not require extensive formal education. Without the financial means or motivation to pursue careers requiring advanced degrees, many city and CT-10 residents developed a lifetime of on-the-job skills for jobs which are most at-risk during times of global or domestic economic decline. Competition for job opportunities available within Roanoke city or CT-10 is further enhanced by the presence of a state and regional workforce pool possessing higher levels of postsecondary educational attainment.

Table 1: Educational Attainment for Population Ages 25-64⁶

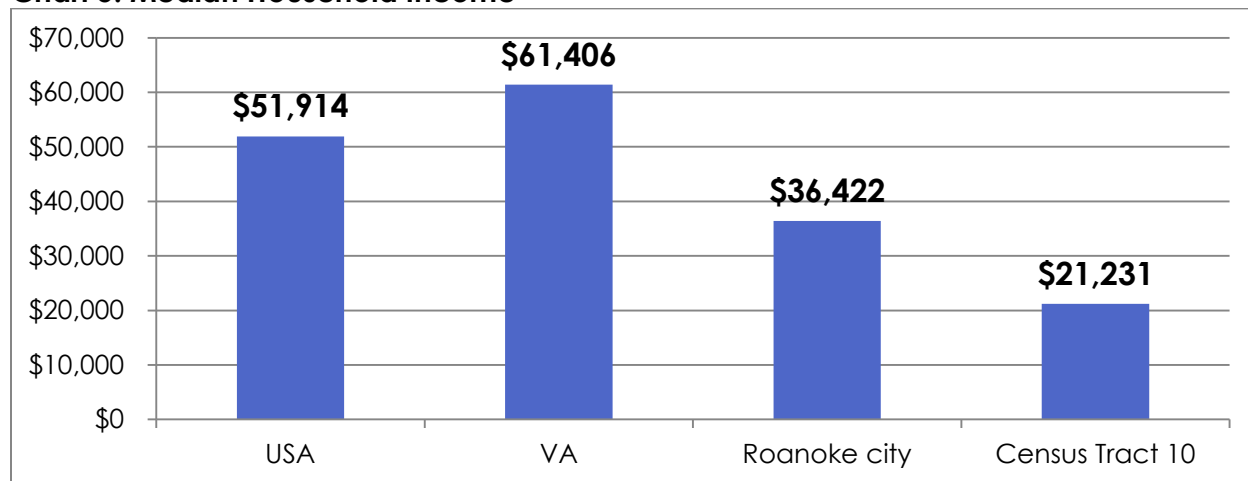
	Virginia	Roanoke MSA	Roanoke city	CT-10
Total Population Age 25-64	4,279,358	165,190	52,798	1,259
Less than HS Diploma	11.2%	11.4%	15.7%	21.0%
HS Diploma or GED	25.1%	30.5%	31.1%	61.2%
Some College, No Degree	20.3%	22.4%	22.0%	11.3%
Associate's Degree	7.3%	9.1%	8.6%	1.0%
Bachelor's Degree	21.6%	17.5%	14.8%	4.3%
Graduate or Professional Degree	14.5%	9.1%	7.8%	1.2%
% of Working-Age Adult Population with at least an Associate's Degree	43.4%	35.7%	31.2%	6.5%
% of Working-Age Adult Population with at least a Bachelor's Degree	42.6%	26.6%	22.6%	5.5%

Source: U.S. Census- American Community Survey (ACS) 2006-2010

⁶ Source: U.S. Census Bureau. American Community Survey. Sex by Age by Educational Attainment for the Population 18 Years and Over. 2006-2010. Postsecondary educational attainment is defined in this context to include the following categories: Some College, Associate's Degree, Bachelor's Degree, and Graduate or Professional Degree.

As depicted in Chart 5, median household income levels for Roanoke city and CT-10 fall considerably below comparable statewide rates. As example, median household incomes for Roanoke city are approximately 59% of comparable state levels, while incomes for CT-10 are only 35%. Income levels for the project study area and neighborhood location also fall well below comparable national levels.

Chart 5: Median Household Income⁷



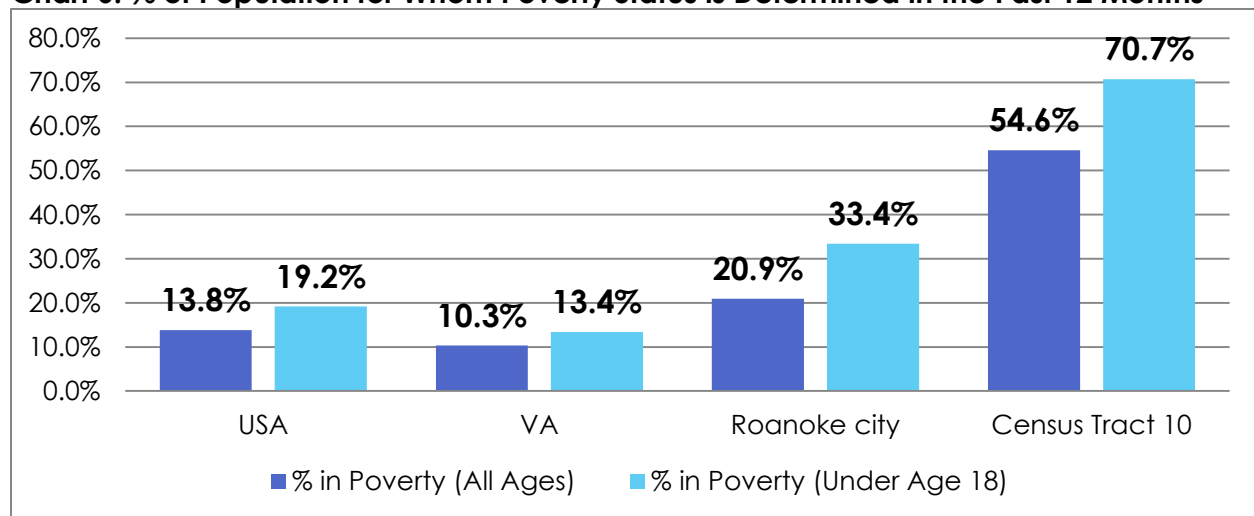
Source: U.S. Census- American Community Survey (ACS) 2006-2010

Poverty and Food Insecurity

Examination of poverty status data for Roanoke city reveals poverty rates which are more than double the comparable statewide average. This statement is true for both children under 18, as well as the population across all age groups. Poverty status rates for CT-10 are even more severe. For all age groups the poverty rate of Census Tract 10 is five times greater than the comparable state rate.

⁷ Source: U.S. Census Bureau. American Community Survey 2006-2010. Selected Economic Characteristics.

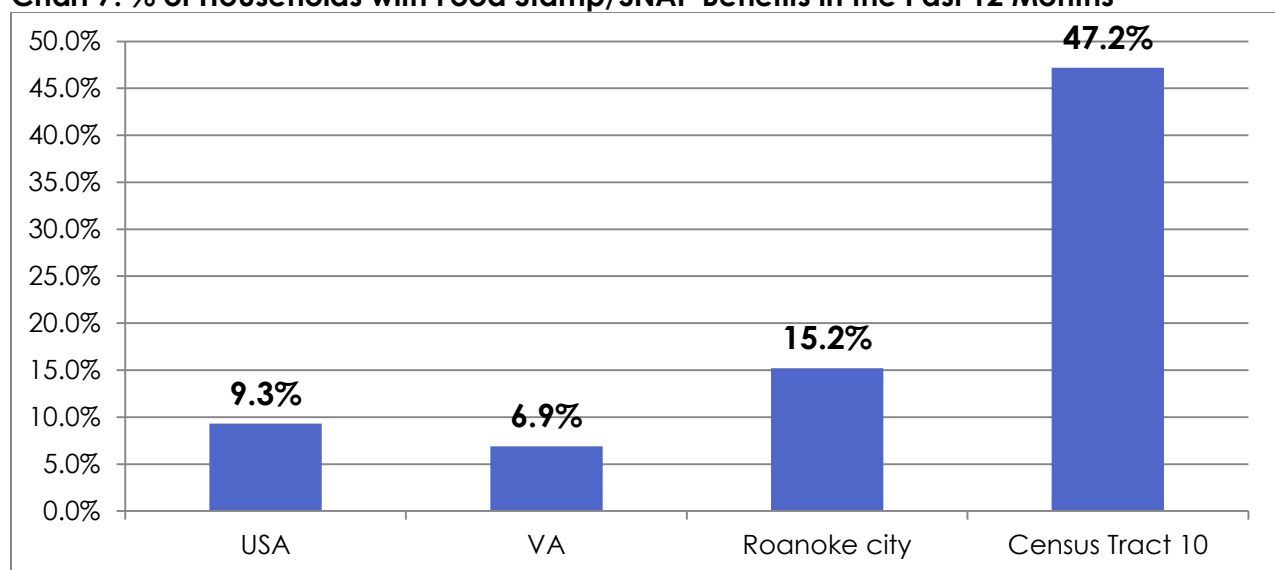
Chart 6: % of Population for Whom Poverty Status is Determined in the Past 12 Months⁸



Source: U.S. Census- American Community Survey (ACS) 2006-2010

Rates for household food stamp/SNAP beneficiaries also indicate economic distress for populations within Roanoke city and CT-10. Similar to poverty rate trends, the percentage of households receiving food stamp/SNAP benefits in Roanoke city is almost double the comparable statewide average. Within CT-10, almost half of all households receive food stamp/SNAP benefits, a rate which is five times the national rate and six times higher than the comparable Virginia rate.

Chart 7: % of Households with Food Stamp/SNAP Benefits in the Past 12 Months⁹



Source: U.S. Census- American Community Survey (ACS) 2006-2010

⁸ U.S. Census Bureau, American Community Survey 2006-2010 (5-Year Estimates)

⁹ U.S. Census Bureau, American Community Survey 2006-2010 (5-Year Estimates)

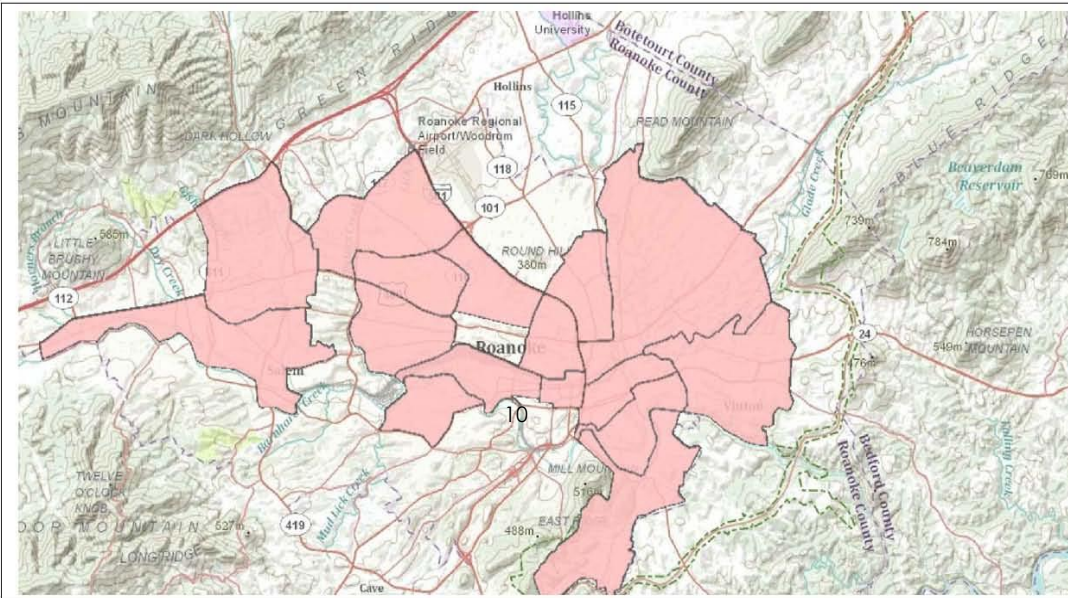
Significant poverty rates and food stamp/ SNAP beneficiary rates led OED to explore data which may indicate food insecurity both within the Roanoke city, as well as CT-10. The Map the Meal Gap project by Feeding America, one of the nation's leading non-profit organizations supporting hunger relief, provides an assessment of overall food insecurity rates by county/city for the United States. According to Map the Meal Gap, during 2010 a total of 16,170 individuals (16.9%) were considered to be food insecure in the City of Roanoke. Of this food insecure population, 54% fell below the SNAP threshold of 130% poverty line. Comparable statewide estimates for Virginia's food insecurity rate total 12.4%, with 39% below the SNAP threshold.

Food Deserts

Community food insecurity is further compounded in localities which are considered food deserts. According to the United States Department of Agriculture (Healthy Food Financing Initiative), food deserts are “low-income census tracts where a substantial number or share of residents has low access to a supermarket or large grocery store.”¹⁰ Low access to a healthy food outlet is defined as more than 1 mile from a supermarket or large grocery store in urban areas. Across the United States, 6,529 census tracts are defined as food deserts; of this total 75% were urban localities. Figure 4 on the following page provides an overview of known food deserts located in/near Roanoke city. As depicted, CT-10 is identified as a food desert.

¹⁰ Source: U.S. Department of Agriculture. Definition of a Food Desert.
<http://www.ers.usda.gov/data-products/food-desert-locator/documentation.aspx#Definition>

Figure 4: Census Tracts in/near the City of Roanoke Classified as Food Deserts¹¹



Source: USDA-Food Desert Locator

Unemployment

Across the Roanoke MSA, census records indicate that 63.8% of the population over the age of 16 is considered to be in the labor force. This rate is similar to the comparable Roanoke city rate of 63.1%, but well above the CT-10 rate of 50%. Statewide, an estimated 67.4% of the population over the age of 16 is considered as in the labor force.

Since 2008, unemployment rates across the country continue to experience negative impacts attributable to the global economic crisis. In many instances, current unemployment rates are limited in their capacity to adequately quantify individuals experiencing long-term unemployment or job displacement. Furthermore, current

¹¹ Source: U.S. Department of Agriculture. Economic Research Service. Food Desert Locator. Data based on the 2000 Census population. Therefore, population totals and statistics may vary from other totals cited throughout this study. Food deserts are defined as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. To qualify as low-income, census tracts must meet the Treasury Department's New Markets Tax Credit (NMTC) program eligibility criteria. Furthermore, to qualify as a food desert tract, at least 33 percent of the tract's population or a minimum of 500 people in the tract must have low access to a supermarket or large grocery store.

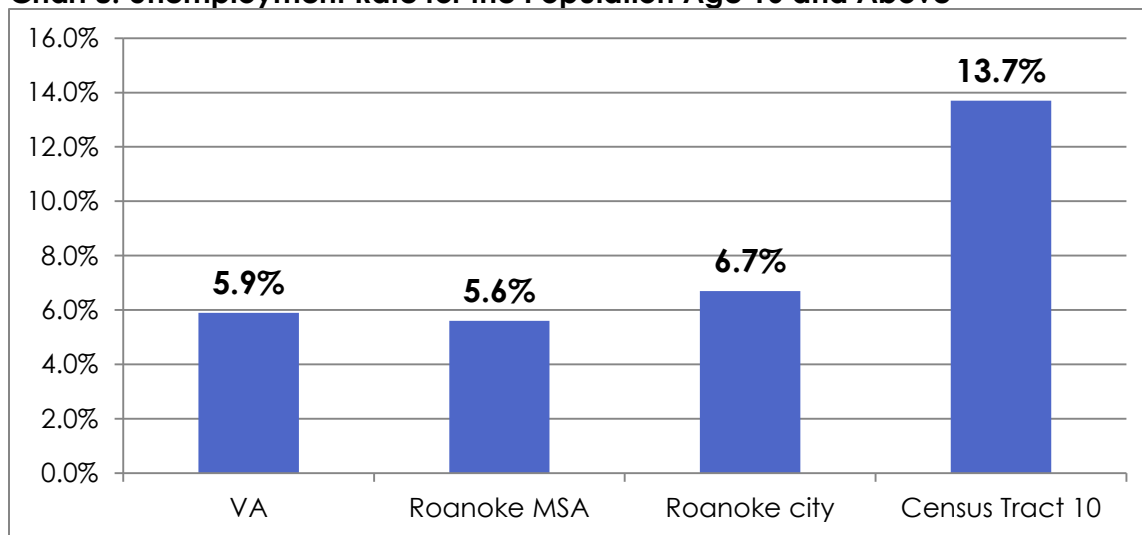
unemployment rates are restricted in their ability to provide information to a census tract level. To help provide project stakeholders with a greater understanding of unemployment rates within the targeted neighborhood of the proposed kitchen location, OED examined unemployment rates produced by the U.S. Census Bureau's American Community Survey (ACS) 5-Year estimates (2006-2010). Utilization of ACS estimates also allows for the capability to examine unemployment rates across age groups.¹²

According to ACS (2006-2010) estimates, the unemployment rate for the population age 16 and over in CT-10 is 13.7%. This total is more than double the rate Roanoke city (6.7%) and the surrounding Roanoke MSA (5.6%). The comparable Virginia rate for this period was 5.9%.

Unemployment rates for younger populations were expectedly greater than those of other age groups. This is not uncommon as many of these populations are pursuing other educational and training endeavors and have yet to enter full-time employment. Examination of the 'working-age' population of individuals ages 25-64 reveals that unemployment rates were slightly higher for the 25-44 and 45-54 year old age groups in Virginia, the Roanoke MSA, and Roanoke city. For CT-10, OED noted a particularly high incidence of unemployment for individuals between the ages of 45-54 (20.6%). In contrast, the unemployment rate for individuals age 55-64 was extremely low for CT-10 (less than 1%).

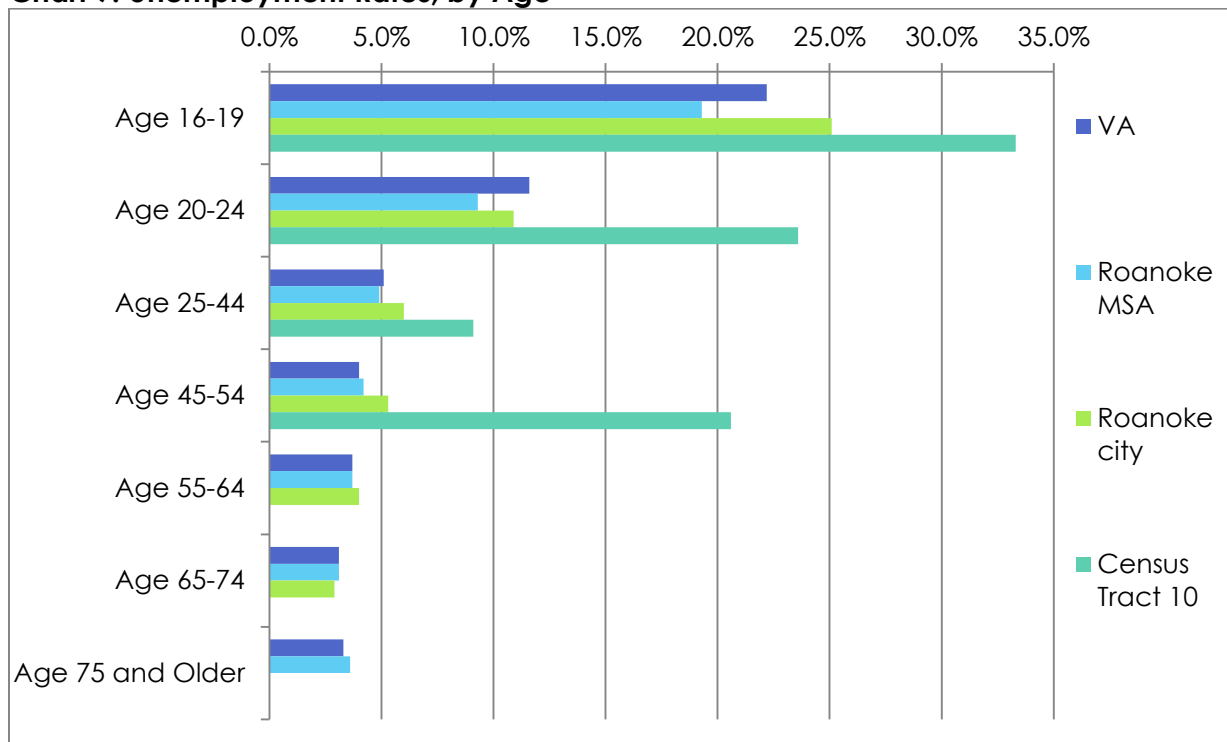
¹² Please note that rates reflected by these numbers may still fail to adequately account for long-term displaced workers.

Chart 8: Unemployment Rate for the Population Age 16 and Above¹³



Source: American Community Survey 2006-2010

Chart 9: Unemployment Rates, by Age¹⁴



Source: American Community Survey 2006-2010

¹³ U.S. Census Bureau, American Community Survey 2006-2010 (5-Year Estimates)

¹⁴ U.S. Census Bureau, American Community Survey 2006-2010 (5-Year Estimates)

Employment

A basic breakdown of employment by 2-digit NAICS code industry sector highlights the major sources of employment in Roanoke city. Overall, Health Care and Social Assistance, Retail Trade, and Accommodation and Food Services are the industries employing the greatest number of individuals. Transportation and Warehousing, and Manufacturing are also leading employment sectors.

Table 2: Top 10 NAICS 2-Digit Industry Employment Sectors, Roanoke city

	Industry	Average Quarterly Employment (2010)
1	Health Care and Social Assistance	12,612
2	Retail Trade	9,160
3	Accommodation and Food Services	6,000
4	Construction	4,737
5	Transportation and Warehousing	4,324
6	Manufacturing	4,244
7	Administrative and Support and Waste Management and Remediation Services	3,686
8	Professional, Scientific, and Technical Services	3,391
9	Wholesale Trade	3,157
10	Finance and Insurance	2,761

Source: U.S. Census – LEHD, QWI 2010

The next section will breakdown some of these industry sectors further and go into more detail concerning what food-related businesses are present or missing in the city of Roanoke.

Part B: Market Overview of Food-Related Industry Sectors

Part B provides an overview and national, state, and regional employment and sales trends within food-related industries. For this study, OED considers food-related industries as those which process or produce food for human consumption. Part B consists of three sections: the first examines industry groups which manufacture food products, the second presents an analysis of eating establishments which prepare and sale food products for immediate consumption, and the third provides demographic, wage, and skills characteristics for top occupation groups in food-related industry sectors.

Sector Definitions

OED utilized the North American Industry Classification System (NAICS) 2007 classifications to define 'food-related' industry sectors. The Office of Management and Budget (OMB) developed NAICS to create a standard for classifying businesses for statistical analysis by Federal agencies. NAICS codes are organized by a two through six digit hierarchical classification system which provide five levels of detail. This market analysis uses two three-digit NAICS sectors: **Food Manufacturing (NAICS 311)** and **Food Services and Drinking Places (NAICS 722)**. Industry groups at the four- and five-digit NAICS level, which help to comprise the two analyzed NAICS sectors, were also included. OED chose these sectors because the industry groups which comprise them reflect establishments primarily engaged in the production, processing, or preparation of food products. The following provides a summary of the NAICS 3-digit industry sectors and 4-digit and 5-digit industry groups examined in this study. *Definitions provided below are cited directly from NAICS.*

Food Manufacturing (NAICS 311)

Industries in the food manufacturing subsector transform livestock and agricultural products into products for intermediate or final consumption. The industry groups are distinguished by the raw materials (generally of animal or vegetable origin) processed into food products. The food products manufactured in these establishments are typically sold to wholesalers or retailers for distribution to consumers; however, this

subsector also includes establishments primarily engaged in the actual retailing of bakery and candy products made on the premises but not for immediate consumption.

Food Services and Drinking Places (NAICS 722)

Industries in the Food Services and Drinking Places subsector prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption. There is a wide range of establishments in these industries. Some provide food and drink only; while others provide various combinations of seating space, waiter/waitress services and incidental amenities, such as limited entertainment. The industries in the subsector are grouped based on the type and level of services provided. The industry groups are full-service restaurants; limited-service eating places; special food services, such as food service contractors, caterers, and mobile food services; and drinking places. Food and beverage services at hotels and motels; amusement parks, theaters, casinos, country clubs, and similar recreational facilities; and civic and social organizations are included in this subsector only if these services are provided by a separate establishment primarily engaged in providing food and beverage services.

Section 1: Overview of Food Manufacturing

The food manufacturing industry is one of the nation's largest manufacturing sectors. In total, this industry accounts for an estimated 1.36 million workers, or 13% of the domestic manufacturing workforce.¹⁵ The majority of food manufacturing workers are employed in production occupations (79%).¹⁶

The United States is home to an estimated 25,616 food manufacturing establishments.¹⁷ Of these companies, 88% are characterized as establishments which employ less than 100 workers.¹⁸ While smaller-size firms account for a significant majority of establishments, the majority of food manufacturing employment is attributable to large multinational companies. For example, a total of 1.1 million (77%) workers are employed in food manufacturing establishments with over 100 employees.¹⁹

Food manufacturing shipments account for almost 14% of all manufacturing shipments.²⁰ Since 2002 food manufacturers experienced steady growth in shipment values, increasing from \$455 billion to over \$646 billion by 2010.²¹ While overall growth of shipments reflects stability of the overall industry, employment totals have decreased over the past decade.

Decline of employment is likely indicative of impacts of global economic conditions, and overall industry increases in the automation of production processes.²² Rising commodity prices, food safety and energy costs are also identified areas of concern within this sector. An increase in food commodities particularly impacts small producers, such as small bakeries, who are unable to absorb great fluctuations in input prices. Increased producer costs has resulted from more comprehensive regulations by

¹⁵ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

¹⁶ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

¹⁷ Source: U.S. Census Bureau. 2007 Economic Census. The 2007 Economic Census is the most recent data available to retrieve this information.

¹⁸ Source: U.S. Census Bureau. 2007 Economic Census.

¹⁹ Source: U.S. Census Bureau. 2007 Economic Census. Please note base food manufacturing employment in the Economic Census is slightly higher than employment tallies for the 2010 Annual Survey of Manufactures (1,464,238).

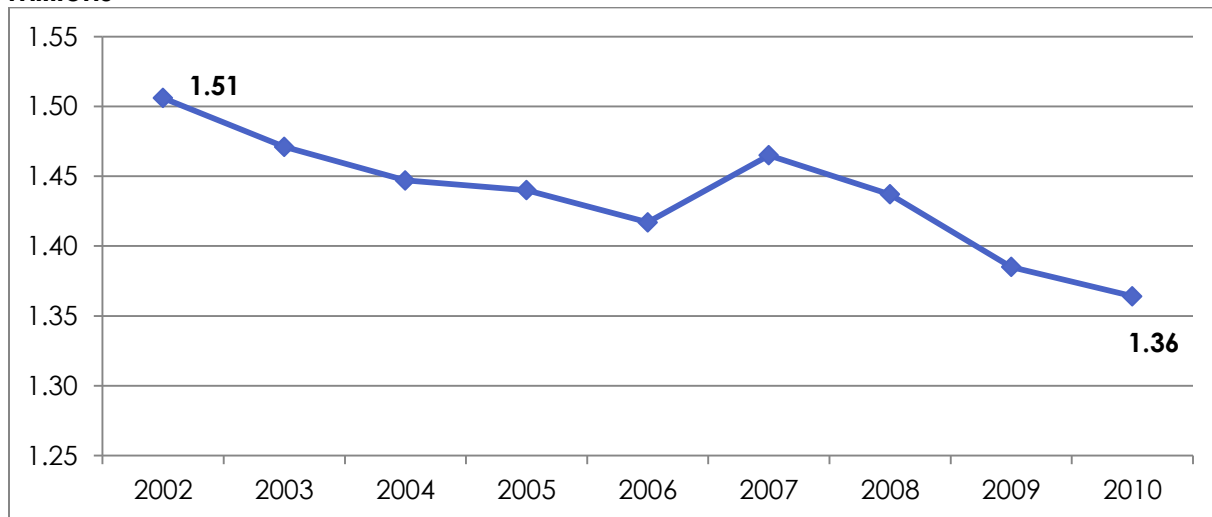
²⁰ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

²¹ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

²² Source: U.S. Department of Commerce Industry Report. 2008. Food Manufacturing-NAICS 311.

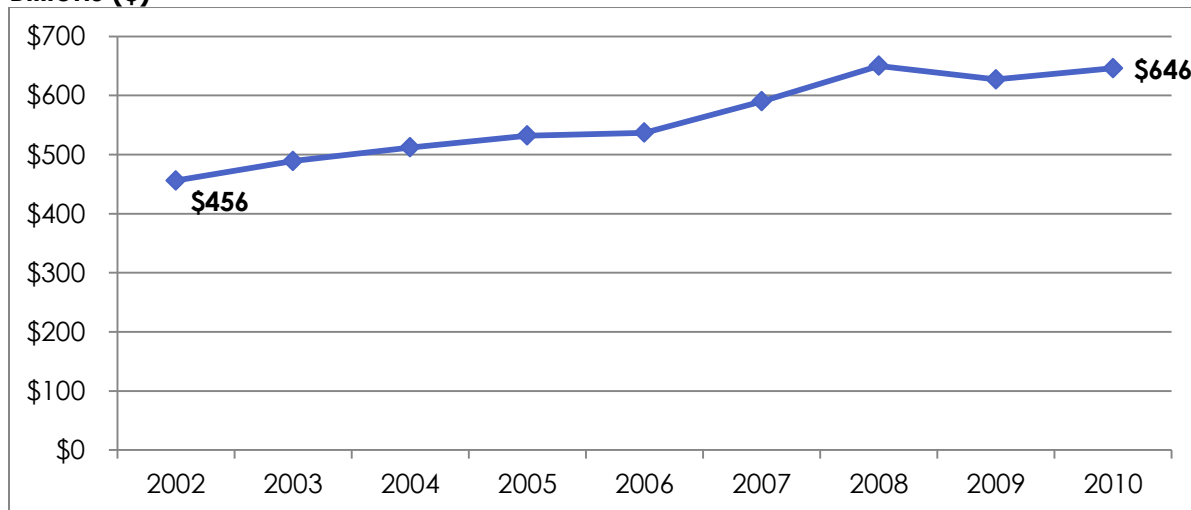
the Food and Drug Administration (FDA) due to several large scale recalls, leading to a reevaluation of current standards. Finally, higher energy costs in production have subsequently increased costs to producers, who are seeking new ways to reduce energy use to compensate for added costs²³.

Chart 10: Annual National Employment- Food Manufacturing (NAICS 311) 2002-2010, in Millions²⁴



Source: U.S. Census- Annual Survey of Manufacturers

Chart 11: Annual Value of Shipments- Food Manufacturing (NAICS 311) 2002-2010, in Billions (\$)²⁵



Source: U.S. Census- Annual Survey of Manufacturers

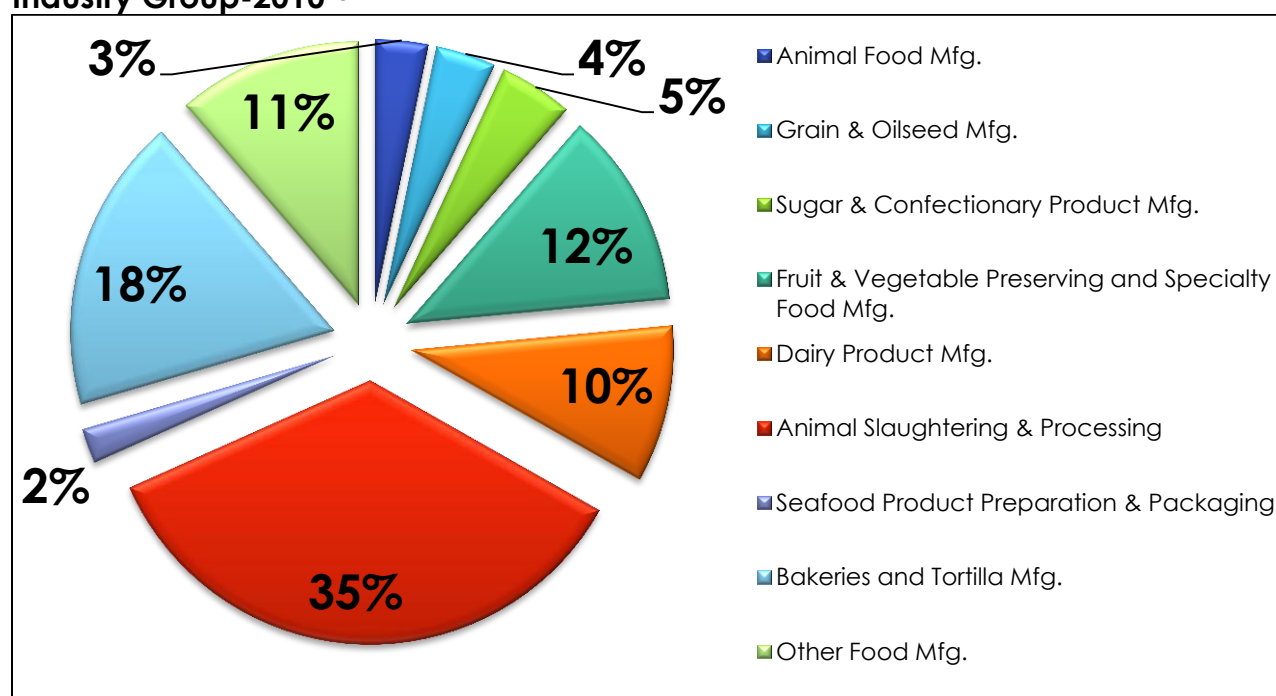
²³ Source: U.S. Department of Commerce Industry Report

²⁴Source: U.S. Census Bureau. Annual Survey of Manufacturers.

²⁵ Source: U.S. Census Bureau. Annual Survey of Manufacturers.

Domestic food manufacturing is characterized by nine 4-digit NAICS industry groups. Animal slaughtering and processing (NAICS 3116) is the largest industry employer, accounting for 35% of all food manufacturing employees (479,556).²⁶ Bakeries and tortilla manufacturing (NAICS 3118), fruit and vegetable preserving and specialty food manufacturing (NAICS 3114), other food manufacturing (NAICS 3119), and dairy product manufacturing (NAICS 3115) are also leading industry groups which each employ over 100,000 individuals.²⁷

Chart 12: Food Manufacturing Employment in the United States, by 4-Digit Industry Group-2010²⁸



Source: U.S. Census- Annual Survey of Manufacturers

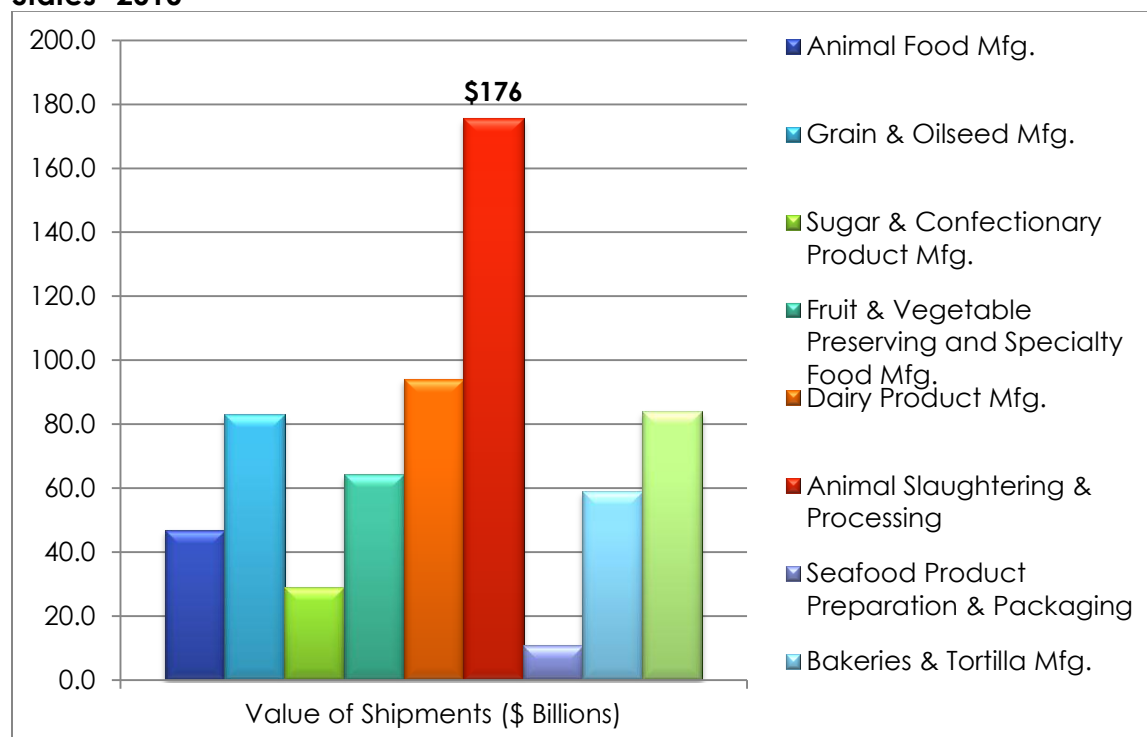
Similar to employment trends, the animal slaughtering and processing industry group is also an industry leader in terms of total value of shipments. During 2010, a little over one-quarter of all food manufacturing industry shipments were attributable to this group. Chart 13 provides an overview of shipment values by food manufacturing industry group.

²⁶ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

²⁷ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

²⁸ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

Chart 13: Total Value of Shipments for Food Manufacturing Industry Groups in the United States- 2010²⁹



Source: U.S. Census- Annual Survey of Manufacturers

Food Manufacturing in Virginia

Food manufacturing is the second largest manufacturing employment sector in Virginia. Statewide, an estimated 29,679 individuals were employed in food manufacturing companies during 2011.³⁰ This total accounts for 12.2% of Virginia's total manufacturing employment.³¹

During 2011, EMSI data recorded a total of 426 food manufacturing establishments located in the Commonwealth. Similar to national trends, employment is primarily concentrated within large, multinational corporations. In Virginia, Smithfield Foods, Tyson Foods, and Nestle are large industry employers. During 2010, Virginia firms

²⁹ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

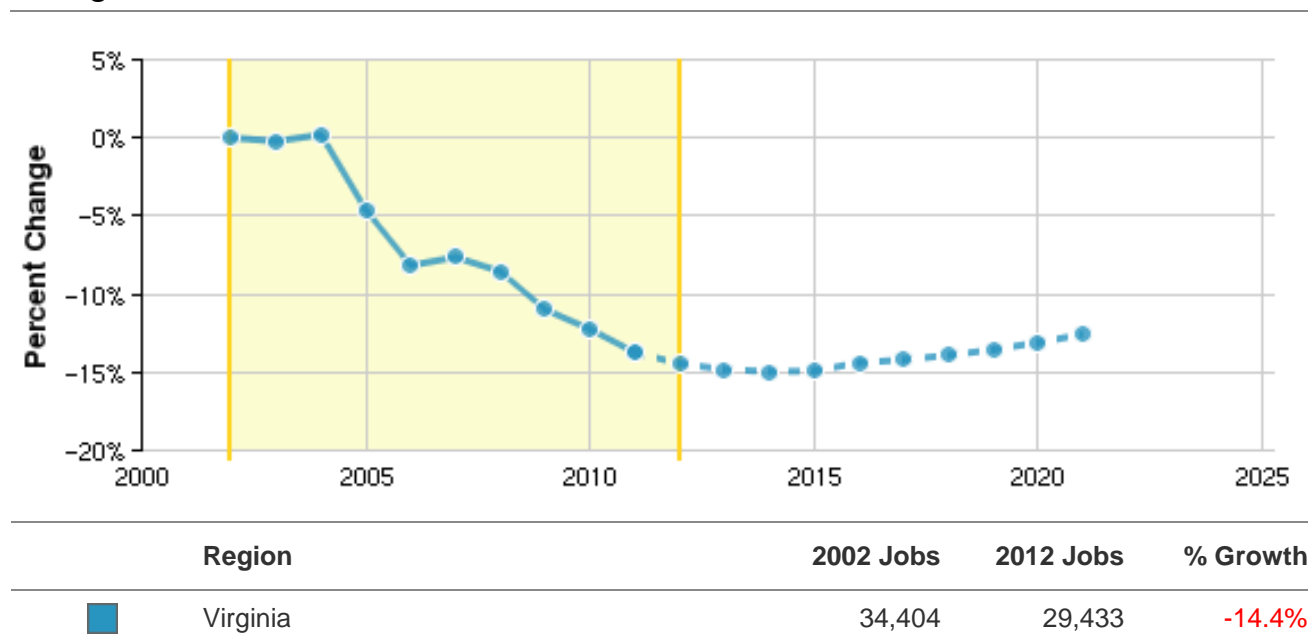
³⁰ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total. EMSI data is utilized because it accounts for small companies which include self-employed individuals or partnerships operating businesses that have not chosen to incorporate. The US Census Bureau's Annual Survey of Manufacturers does not include such type companies.

³¹ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

produced total shipment values in excess of \$11 billion, a figure reflecting modest industry growth in recent years.³²

Despite overall stability, employment in Virginia's food manufacturing industry declined notably during the past decade. The majority of this employment decline is attributable to common factors also impacting the national industry, notably increased automation of production processes. Virginia's food manufacturing industry is largely characterized by production workers.

Chart 14: Annual Food Manufacturing (NAICS 311) Employment in Virginia, Percent of Change 2002-2012³³



Source: emsiAnalyst

Animal slaughtering and processing is the largest industry employment group in Virginia, accounting for over 13,315 workers (45%).³⁴ Other food manufacturing and bakeries and tortilla manufacturing are Virginia's second and third largest employment groups,

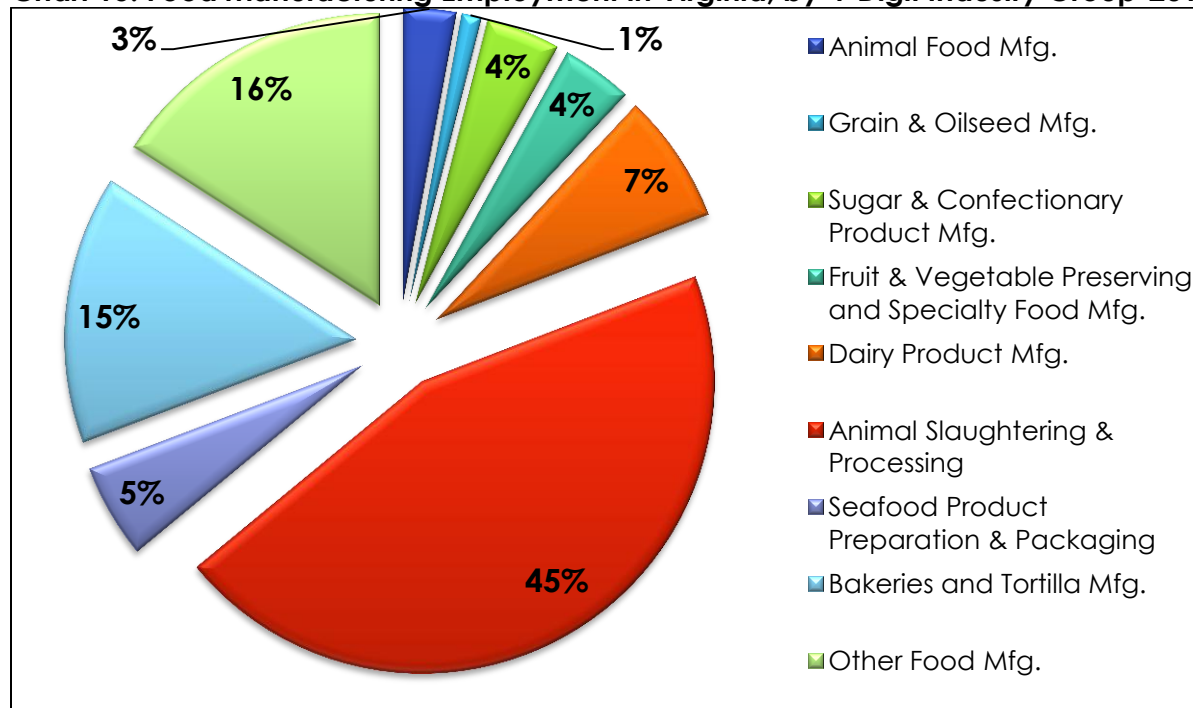
³² Source: U.S. Census Bureau. Annual Survey of Manufacturers 2010; Historical data for total shipment values available from 2004-2010.

³³ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

³⁴ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

each accounting for between 4,400-4,714 employees.³⁵ The remaining Virginia's food manufacturing industry groups have employment totals less than 2,500.³⁶ The majority of food manufacturers in Virginia are located in the Shenandoah Valley and southeastern regions.

Chart 15: Food Manufacturing Employment in Virginia, by 4-Digit Industry Group-2011³⁷



Source: U.S. Census- Annual Survey of Manufacturers

Regional Food Manufacturing

Food manufacturing in the Roanoke MSA primarily consists of small to medium-sized companies. Utilizing an aggregate of public and proprietary information, OED constructed an inventory of regional food manufacturers which included 19 companies.³⁸ Annual food manufacturing employment for the Roanoke MSA is estimated to fluctuate between 423 and 506 individuals. For purposes of this study, OED

³⁵ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

³⁶ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

³⁷ Source: U.S. Census Bureau. 2010 Annual Survey of Manufacturers.

³⁸ Source: This number is an aggregate developed by OED using information obtained through EMSI Analyst, Hoovers, the Virginia Department of Agriculture and Consumer Services (VDACS), and the Roanoke Regional Partnership.

will assume that regional food manufacturing employment is 453.³⁹ As exhibited in Table 3, the majority of food manufacturing employment is located in Roanoke city. Annual food manufacturing revenue estimates for the Roanoke MSA are expected to exceed \$8.4 million.⁴⁰

The majority of food manufacturers in the Roanoke MSA are categorized in the bakeries and tortilla manufacturing industry group (NAICS 3118).⁴¹ The bakeries and tortilla manufacturing group also is the largest industry group for regional employment.⁴² Maple Leaf Bakery, a producer of frozen specialty breads employing an estimated 300 workers, is the region's largest (food manufacturing industry?) employer. Additionally, the region is home to many bakery products wholesale distribution centers (examples: Heiner's/Sara Lee, Hostess Brands, Flowers Baking Company).⁴³

Table 3: Food Manufacturing Company and Employment Locations in the Roanoke MSA, 2011

	Botetourt	Craig	Franklin	Roanoke (City)	Roanoke	Salem (City)
Est. # of Companies	1	0	4	8	6	0
Est. # of Employees	>10	0	36	358	85	<10

Aside from Maple Leaf Bakery, Roanoke's food manufacturing industry largely consists of small, niche establishments. A search of proprietary databases and the Virginia Department of Agriculture and Consumer Services (VDACS) Virginia's Finest Directory yielded several companies which employee less than 10 individuals. These small companies are representative of multiple food manufacturing industry subsectors including meat processing, fruit product processing, and sauce/condiment

³⁹ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

⁴⁰ Source: Hoovers. OED cannot provide a breakout of actual company earnings.

⁴¹ Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

⁴² Source: EMSI Analyst. Food Manufacturing (NAICS 311) Industry Report. 2011 Employment Total.

⁴³ Note: Wholesale distribution centers were not counted as part of this study. This is because these centers do not process or produce the actual food product.

manufacturing. Examples of small, niche firms include Nature's Nectars and Homestead Creamery.

Regional food manufacturing facilities range in size from 1,763 square feet to over 60,000 square feet. Excluding outliers such as Maple Leaf Bakery or Murray Cider Company, OED estimates most food manufacturing facilities to be about 6,137 square feet. The majority of regional food manufacturers are also single-branch locations, as opposed to corporate subsidiaries.

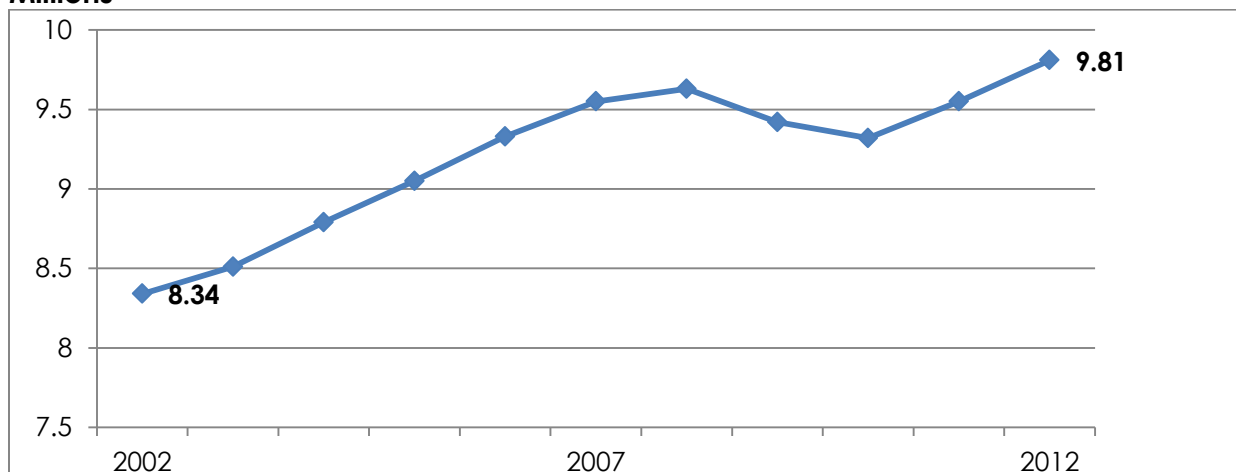
Dun & Bradstreet prescreen scores also indicate that most regional food manufacturers are low-risk for delinquency of payments. Very often, regional food manufacturers have also been in operation for at least a decade.⁴⁴ Additionally, the region has examples of family owned businesses, such as Murray Cider Company and John Etzler Farms (a producer of country hams). Examination of firm information also indicates that two regional food manufacturers are reported to be woman-owned, and one is classified as minority owned.

⁴⁴ Note: Dun and Bradstreet prescreen scores predict the likelihood of a firm paying in a severely delinquent manner (90+days past terms) over the next 12 months.

Section 2: Overview of Food Services and Drinking Places

Nationally, an estimated 9.84 million individuals are currently employed by the food services and drinking places industry sector.⁴⁵ This is currently the nation's third largest NAICS 3-digit industry sector, falling only slightly below educational services and government. Despite challenging domestic economic conditions beginning in 2008, this industry experienced overall moderate employment growth during the past decade. Since 2002, the sector has added 1.45 million jobs (15%).⁴⁶

Chart 16: National Food Services and Drinking Places Employment Growth 2002- 2012, in Millions⁴⁷



Source: U.S. Census Bureau-Current Employment Statistics

Sales for food services and drinking places also increased steadily during the past decade. Examination of annual trends shows that during 2010 sales for this industry sector were in excess of \$466 billion dollars.⁴⁸ This total is 35% greater (+\$161 billion) than comparable totals at the start of the millennium. Chart 17 provides a summary of sales growth for the food services and drinking places industry sector.

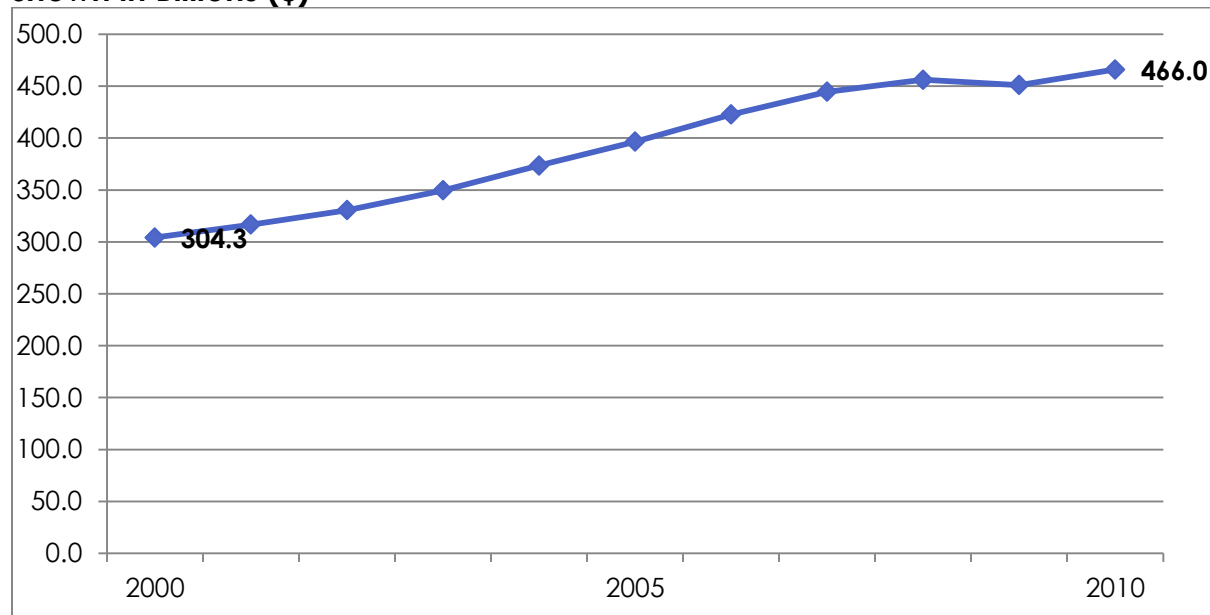
⁴⁵ Source: U.S. Bureau of Labor Statistics. Current Employment Statistics Survey (March 2002-March 2012). Employment, Hours, and Earnings for NAICS 722. Data for seasonally adjusted workers.

⁴⁶ Source: U.S. Bureau of Labor Statistics. Current Employment Statistics Survey (March 2002-March 2012). Employment, Hours, and Earnings for NAICS 722. Data for seasonally adjusted workers.

⁴⁷ Source: U.S. Census Bureau. Current Employment Statistics Survey (March 2002-March 2012). Employment, Hours, and Earnings for NAICS 722. Data for seasonally adjusted workers.

⁴⁸ Source: U.S. Census Bureau. Estimated Annual Sales of U.S. Accommodation and Food Services Firms by Kind of Business, 2000-2010.

Chart 17: National Food Services and Drinking Places Sales Growth 2000- 2010, shown in Billions (\$)⁴⁹



Source: U.S. Census Bureau

Full service restaurants are the largest employment group of the industry, accounting for 4.47 million workers during 2010.⁵⁰ Limited-service eating places is the second leading industry group, employing an estimated 4.01 million workers. Combined, workers employed in either full service restaurants or limited-service eating places represent 91% of the total food services and drinking places industry sector.⁵¹

As depicted in Table 4, limited-service eating places and full service restaurants have the greatest number of establishments. The majority of these operations are small establishments, as over 93% of businesses report to have fewer than 50 employees.⁵² OED estimates that 53.1% of limited-service eating places are franchise establishments,

⁴⁹ Source: U.S. Census Bureau. Estimated Annual Sales of U.S. Accommodation and Food Services Firms by Kind of Business, 2000-2010.

⁵⁰ Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages. 2001-2010. Data is for private sector employment.

⁵¹ Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages. This total is based on 2010 data. This is the most comparable annual data available for NAICS 4-digit industry groups. Data is for private sector employment

⁵² Source: National Restaurant Association. Top Ten Facts in 2012 (from the 2012 Restaurant Industry Forecast). Accessible online at <http://www.restaurant.org/research/facts/>.

as compared to 13.7% of full service restaurants.⁵³ Less than 1% of special food services and drinking places are estimated to be franchise establishments. According to the National Restaurant Association, 7 out of 10 eating and drinking places are single-unit operations.⁵⁴

Table 4: Food Services and Drinking Places Employment and Establishments in the United States, by Industry Group-2010.⁵⁵

		Annual Employment	# of Establishments
7221	Full Service Restaurants	4,466,770	219,375
7222	Limited-Service Eating Places	4,011,225	260,924
7223	Special Food Services	534,590	29,355
7224	Drinking Places	343,236	46,034

Source: U.S. Bureau of Labor Statistics- QCEW

Food Services and Drinking Places in Virginia

Statewide, there are an estimated 266,038 individuals employed in the food services and drinking places industry sector.⁵⁶ Since 2001, this industry sector has grown at a faster than the comparable national average pace (20.8%), adding almost 50,000 jobs.⁵⁷ As population density is a major factor influencing the location of food and drinking establishments, much of the state's employment for this sector is concentrated in metropolitan areas.⁵⁸ EMSI data estimates that Virginia has a total of 13,732 establishments in this industry sector. Most of these companies are small operations; the majority employs an estimated 1-4 people.⁵⁹

⁵³ Source: U.S. Census Bureau. OED derived current estimates from franchise data estimates produced by the 2007 Economic Census: Summary Statistics by Franchise Status for the US.

⁵⁴ Source: National Restaurant Association. Top Ten Facts in 2012 (from the 2012 Restaurant Industry Forecast). Accessible online at <http://www.restaurant.org/research/facts/>.

⁵⁵ Source: U.S. Bureau of Labor Statistics. Quarterly Census of Employment and Wages. Data is for private sector employment only.

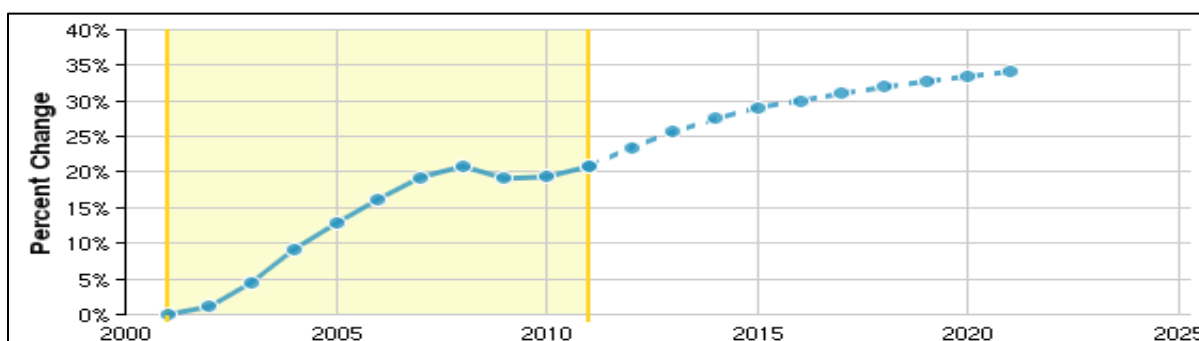
⁵⁶ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2011 Employment. 2011 employment utilized to present comparable NAICS 4-Digit breakout.

⁵⁷ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment.

⁵⁸ Source: Virginia Workforce Connection. Industry Employment for NAICS 722.

⁵⁹ Source: County Business Patterns (NAICS 722). Trend based on most recent available data-2009.

Chart 18: Employment in Virginia Food Services and Drinking Places Industry, 2001-2011



	2001 Jobs	2011 Jobs	% Growth
■ Virginia	220,217	266,038	20.8%

Source: emsiAnalyst

Similar to national trends, full-service restaurants are Virginia's largest employer within the overall NAICS 722 industry sector. During 2011, a total of 127,454 individuals worked in 5,873 establishments across the state.⁶⁰ Limited service eating places are the second largest industry group of the sector, employing a total of 113,220 individuals at 7,096 establishments.⁶¹ For the period 2001-2011, Virginia's full service restaurants and limited - service eating places industry groups experienced moderate growth rates, similar to comparable national averages.

As depicted in Table 5, Virginia's special food services industry group also experienced notable growth during 2001-2011. To better understand the dynamics for growth in this particular industry sector, OED further disaggregated this industry group to the NAICS 5-digit subsectors. Through this process, OED discovered that food service contractors (NAICS 72231) added the greatest volume of jobs (+6,370) and recorded a growth rate of 52.5%; this growth rate is notable in that it is almost double the comparable national growth rate of 26.5%.⁶² Growth of Virginia's mobile food services (NAICS 72233) is also impressive for the period and may be reflective of increased food truck presence in

⁶⁰ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment.

⁶¹ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment.

⁶² Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment.

urban downtowns. Mobile food services added a total of 622 jobs during the period, representing a growth rate of 103.7%.⁶³ While Virginia trends indicate overall above-average growth for the special food services industry group, Virginia's catering industry group (NAICS 72232) has grown at pace much slower than the comparable national average – 1.7% for Virginia versus 12.9% for the nation.⁶⁴ For the ten year period, Virginia's catering industry added only 82 new jobs.⁶⁵

Virginia's Drinking Places (NAICS 7224)

In Virginia, state law requires that establishments receiving retail licenses to sell alcoholic beverages must have minimum monthly food sales. As such, there can be no true 'bars' or drinking places in Virginia. Rather, businesses which often fall into the national taxonomy of drinking places in Virginia will in actuality be either a full service restaurant or a limited service eating place.

Table 5: Food Services and Drinking Places Employment and Establishments in Virginia, by Industry Group: 2011.⁶⁶

		Annual Employment	# of Establishments	Growth % (2001-2011)	
				VA	US
7221	Full Service Restaurants	127,454	5,873	22.1%	17.0%
7222	Limited-Service Eating Places	113,220	7,096	15.6%	16.4%
7223	Special Food Services	24,787	750	39.9%	22.3%
7224	Drinking Places	578	14	--	-7.0%

Source: emsiAnalyst

⁶³ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment.

⁶⁴ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment.

⁶⁵ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment.

⁶⁶ Source: EMSI Analyst. Food Services and Drinking Places (NAICS 722) Report. 2002-2012 Employment. Note: In Virginia, establishments must serve food in order to receive an alcoholic beverage license; therefore, Virginia companies cannot be considered true bars or drinking places. Rather, employment and establishments in this sector will likely fall into either the full service restaurants or limited-service eating places classifications.

Regional Food Services and Drinking Places

To assess the number of regional food service and drinking places businesses in the Roanoke MSA, OED utilized proprietary databases and examined health department inspection records. Through this process, OED estimates there to be at least 669 food service and drinking places establishments in the Roanoke MSA. Almost half (47%) of all food service and drinking places are located in the City of Roanoke. Roanoke County is the second leading locality for regional food service and drinking places companies, hosting 164 establishments.

Table 6: Food Service and Drinking Places Locations in the Roanoke MSA, 2011⁶⁷

	Botetourt	Craig	Franklin	Roanoke (City)	Roanoke	Salem (City)
Est. # of Companies	32	7	61	316	164	89
Est. # of Employees	658	33	802	5,423	2,248	1,263

Source: VT- OED

Full service restaurants are the largest industry subsector of the regional food service and drinking places sector, representing 346 establishments (51.7%). Limited service eating places are the second largest subsector with a total of 283 establishments. Across the Roanoke MSA, a total of 40 businesses were classified as special food services, predominately catering-related.

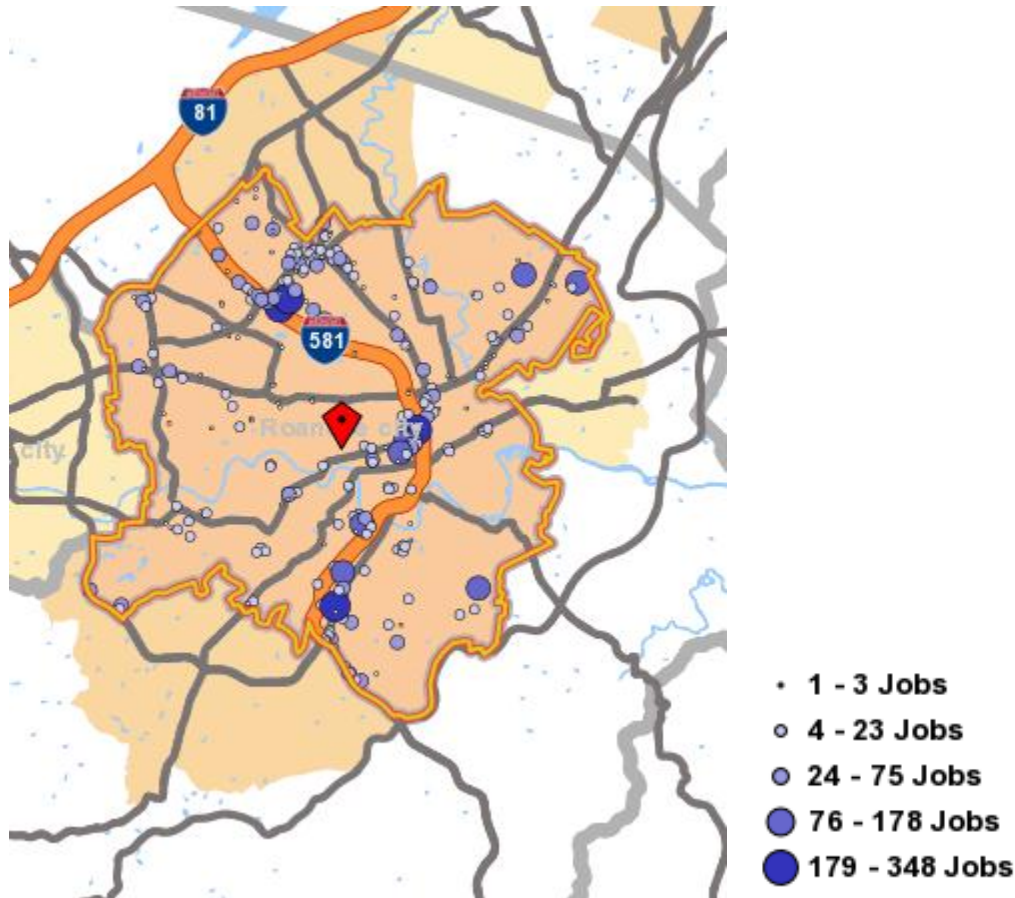
OED estimates annual regional sales for food services and drinking places to exceed \$492 million.⁶⁸ Examination of Dun and Bradstreet prescreening scores for regional food services and drinking places establishments reflects that an estimated 70.9% of businesses as low-risk, 17.4% are medium risk, and 12.6% are high risk.⁶⁹ A total of 35 regional firms are reported to be women owned and 13 are reported to be minority owned.

⁶⁷ Source: Number of companies determined through cross examination of health department records, Hoovers, EMSI Analyst, and the Virginia Employment Commission. Estimated employment is from Q4 2011.

⁶⁸ Source: emsiAnalyst. Annual sales for NAICS 722 Food Services and Drinking Places.

⁶⁹ Source: Hoovers. D&B Standard Marketing Prescreen Scores predict the likelihood of a firm paying in a severely delinquent manner (90+days past terms) over the next 12 months. Scores are calculated using statistical models and the most recent payment information in D&B's commercial database.

Figure 5: Where Accommodation and Food Services Employees (NAICS 72) Work- Roanoke city, 2010⁷⁰



Source: U.S. Census Bureau- OnTheMap- NAICS 72

The City of Roanoke itself has a total of 316 food services and drinking places establishments which employ an estimated 5,423 individuals. The majority of these establishments (55.7%) are categorized as full service restaurants. Full service restaurants are also the largest food service and drinking places subsector employer, representing a total of 3,071 workers. Limited service eating places are the second largest food service and drinking places subsector in the City of Roanoke. A total of 2,210 individuals are estimated to be employed at 119 establishments within this subsector.

⁷⁰ Source: U.S. Census Bureau. OnTheMap. 2010 Work Area Profile Analysis for NAICS 72: Accommodation and Food Services Sector. Note: This includes accommodation employment in addition to food services. Data not currently available for just food services and drinking places industry group (NAICS 722).

As depicted in Figure 5, the majority of food services and drinking places employment is concentrated in the Valley View, Downtown, and South Roanoke areas along the 581 corridor.

Roanoke city's special food services industry subsector is largely comprised of catering establishments. A small presence of food service contractors is also represented by companies such as Aramark. Additional examination of health department records also reveals several mobile food truck units which are owned by existing businesses concurrently classified as either full service restaurants or limited service eating places.

Section 3: Staffing Patterns and Wages for Food-Related Industries

Food Manufacturing

Staffing Patterns

Nationally, production occupations account for 79% of employment in food manufacturing establishments. This trend is also similar for staffing patterns within state and regional food manufacturing facilities. Table 7 below lists the top five occupations in food manufacturing for the United States, Virginia, and the Roanoke MSA.

Table 7: Top Five Occupations (Employment) in Food Manufacturing for the United States, Virginia, and the Roanoke MSA⁷¹

	USA	VA	Roanoke MSA
1	Packaging and Filling Machine Operators & Tenders	Meat, Poultry, and Fish Cutters & Trimmers	Bakers
2	Food Batchmakers	Packaging and Filling Machine Operators & Tenders	Food Batchmakers
3	Slaughters & Meat Packers	Food Batchmakers	Packaging and Filling Machine Operators & Tenders
4	Bakers	Packers & Packagers, Hand	Packers & Packagers, Hand
5	First-Line Supervisors/Managers of Production and Operating Workers	Slaughterers & Meat Packers	First-Line Supervisors/Managers of Production and Operating Workers

Source: BLS, emsiAnalyst

As depicted in the table above, top employing occupations for Virginia and the Roanoke MSA are reflective of workforce needs to service the primary food manufacturing industry groups located in these areas. For example, Virginia's top employing occupation for food manufacturing is 'meat, poultry, and fish cutters & trimmers.' Consequently, animal slaughtering and processing is also the state's top food manufacturing industry group.

⁷¹ Source: National data retrieved from the NAICS 311 listing in *Industries at a Glance*, publication produced by the U.S. Bureau of Labor Statistics. Virginia and regional data retrieved from EMSI Analyst- Staffing Patterns for NAICS 311.

In an effort to better understand local food manufacturing workforce characteristics, OED examined age and gender demographics for Roanoke city employment across each of the region's top five food manufacturing occupations. Results of this examination are provided in Table 8. Additionally, OED examined national trends to identify common occupation job duties and educational requirements for top food manufacturing occupations. This analysis helps to increase understanding for how regional workforce aptitude and availability may align with overall food manufacturing industry need.

Table 8: Age and Gender Demographics for the Region's Top Five Manufacturing Occupations (Employees based in the City of Roanoke)⁷²

	Gender		Age			
	Male	Female	14-24	25-44	45-64	65+
Bakers	89%	11%	16%	56%	25%	4%
Food Batchmakers	62%	38%	10%	50%	40%	0%
Packaging and Filling Machine Operators and Tenders	61%	39%	2%	54%	42%	2%
Packers and Packagers, Hand	45%	55%	1%	52%	46%	1%
First-Line Supervisors/Managers of Production and Operating Workers	90%	10%	1%	38%	59%	2%

Source: emsiAnalyst

Overview of Top Food Manufacturing Occupations

Bakers create breads, pastries, and other assorted baked goods.⁷³ Unsurprisingly, the majority (31%) of workers are employed in establishments classified as bakeries and tortilla manufacturers.⁷⁴ Quite often, bakers also find employment opportunities in non-traditional manufacturing industries as well. For example, grocery stores employ 27% of the nation's bakers and limited-service eating places employ approximately 12%.⁷⁵

⁷² Source: EMSI Analyst. Occupation Reports.

⁷³ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Bakers. 2012-2013.

⁷⁴ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Bakers. 2012-2013.

⁷⁵ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Bakers. 2012-2013.

Common occupational duties of bakers include⁷⁶:

- Check the quality of ingredients
- Prepare equipment for baking
- Measure and weigh flour and other ingredients
- Combine measured ingredients in mixers or blenders
- Knead, roll, cut, and shape dough
- Place dough in pans, molds, or on sheets
- Set oven temperatures
- Place and bake items in hot ovens or on grills
- Observe color and state of products being baked
- Apply glazes, icings, or other toppings using spatulas or brushes

Educational requirements for bakers often vary based on the type of establishment. Most bakers begin their careers through career and technical education coursework, apprenticeships, or culinary programs. On-the-job training and work experience is the most common requirement for advancement.

Food batchmakers “set-up, operate, and tend cooking equipment which mixes, blends, cooks, or otherwise processes ingredients used to manufacture food products.”⁷⁷

According to the U.S. Bureau of Labor Statistics, most food batchmakers are employed in bakery and tortilla manufacturing establishments. Common tasks include mixing ingredients to make dough, load/unload commercial ovens, operate noodle extruders, and perform other similar large-scale industrial bakery operations.⁷⁸

Many duties of food batchmakers require workers to oversee mixing processes, and monitor temperature and pressure controls.⁷⁹ Occupational requirements thereby require workers with at least a high school diploma and appropriate mathematical aptitude. Similar to other types of food manufacturing production occupations, food batchmakers work on assembly lines.⁸⁰

⁷⁶ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Bakers. 2012-2013.

⁷⁷ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Operators- Food Batchmakers. 2012-2013.

⁷⁸ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Operators- Food Batchmakers. 2012-2013.

⁷⁹ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Operators- Food Batchmakers. 2012-2013

⁸⁰ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Operators- Food Batchmakers. 2012-2013

Packaging and filling machine operators and tenders are common occupations across multiple types of manufacturing industry sectors. Broadly defined, this occupation “operates or tends machines to prepare industrial or consumer products for storage or shipment.”⁸¹ Common tasks of packaging and filling machine operators and tenders include⁸²:

- Sort, grade, weigh, and inspect products, verifying and adjusting product weight or measurement to meet specifications.
- Observe machine operations to ensure quality and conformity of filled or packaged products to standards.
- Monitor the production line, watching for problems such as pile-ups, jams, or glue that isn't sticking properly.
- Attach identification labels to finished packaged items, or cut stencils and stencil information on containers, such as lot numbers or shipping destinations.
- Stock and sort product for packaging or filling machine operation, and replenish packaging supplies, such as wrapping paper, plastic sheet, boxes, cartons, glue, ink, or labels.
- Package the product in the form in which it will be sent out, for example, filling bags with flour from a chute or spout.
- Inspect and remove defective products and packaging material.
- Start machine by engaging controls.
- Remove finished packaged items from machine and separate rejected items.
- Count and record finished and rejected packaged items

The work environment for this occupation is typically an assembly line model. Most individuals (72%) have at least a high school diploma or GED.⁸³ In some instances, advanced knowledge and skills sets may be needed to operate more sophisticated label -making software and production equipment.

Packers and packagers, hand workers employed in manufacturing establishments are primarily responsible for the loading of materials and products into packaging

⁸¹ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Packaging and Filling Machine Operators and Tenders.

⁸² Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Packaging and Filling Machine Operators and Tenders.

⁸³ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Packaging and Filling Machine Operators and Tenders.

equipment.⁸⁴ Although similar to packaging and filling machine operators and tenders, this occupation requires additional physical capacity for materials moving. Common tasks of packers and packagers, hand include⁸⁵:

- Load materials and products into package processing equipment.
- Clean containers, materials, supplies, or work areas, using cleaning solutions and hand tools.
- Record product, packaging, and order information on specified forms and records.
- Examine and inspect containers, materials, and products to ensure that packing specifications are met.
- Measure, weigh, and count products and materials.
- Mark and label containers, container tags, or products, using marking tools.
- Place or pour products or materials into containers, using hand tools and equipment, or fill containers from spouts or chutes.
- Remove completed or defective products or materials, placing them on moving equipment such as conveyors or in specified areas such as loading docks.
- Transport packages to customers' vehicles.
- Assemble, line, and pad cartons, crates, and containers, using hand tools.

First-line supervisors/ managers of production and operating workers “directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.⁸⁶” This occupation requires advanced knowledge and manufacturing skills sets which often require at least a high school diploma or postsecondary credential. While specific tasks of first-line supervisors vary considerably across different manufacturing industry sectors, examples of job duties often include⁸⁷:

- Enforce safety and sanitation regulations.
- Direct and coordinate the activities of employees engaged in the production or processing of goods, such as inspectors, machine setters, and fabricators.

⁸⁴ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Packers and Packagers, Hand.

⁸⁵ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Packers and Packagers, Hand.

⁸⁶ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for first-line supervisors of production and operating workers.

⁸⁷ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for first-line supervisors of production and operating workers.

- Confer with other supervisors to coordinate operations and activities within or between departments.
- Plan and establish work schedules, assignments, and production sequences to meet production goals.
- Inspect materials, products, or equipment to detect defects or malfunctions.
- Observe work and monitor gauges, dials, and other indicators to ensure that operators conform to production or processing standards.
- Conduct employee training in equipment operations or work and safety procedures, or assign employee training to experienced workers.
- Interpret specifications, blueprints, job orders, and company policies and procedures for workers.
- Keep records of employees' attendance and hours worked.
- Read and analyze charts, work orders, production schedules, and other records and reports to determine production requirements and to evaluate current production estimates and outputs.

Meat, poultry, and fish cutters and trimmers “produce ready-to-eat, partially cooked, easy-to-prepare, and display-ready packages of meat, poultry, and fish products at processing plants, ultimately for sale in grocery and specialty food stores.” Duties of these workers may include⁸⁸:

- Perform a cut in the production of a meat, poultry, or fish product
- Clean, trim, and cut carcasses to prepare them for further processing
- Lift carcasses onto conveyors
- Inspect products for defects and irregularities
- Operate hand tools, such as hand vacuums, knives, and saws
- Sharpen knives and take care of equipment
- Label or identify goods to make transporting and using them easy

Although similar to butchers, most meat, poultry, and fish cutters and trimmers work in industrial environments instead of grocery and specialty foods stores.⁸⁹ Work is often performed in an assembly line model, with each employee is responsible for one specific task.⁹⁰ Education requirements often require less than a high school diploma. On-the-job training or apprenticeships help to promote opportunities for advancement.

⁸⁸ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Occupations- Meat, Poultry, and Fish Cutters and Trimmers. 2012-2013.

⁸⁹ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Occupations- Meat, Poultry, and Fish Cutters and Trimmers. 2012-2013.

⁹⁰ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Occupations- Meat, Poultry, and Fish Cutters and Trimmers. 2012-2013.

Because this occupation requires utilization of knives and other sharp cutting tools, careful attention to safety precautions is important to help reduce instances of workplace injury.⁹¹

Slaughters and meat packers perform many duties similar to meat, poultry, and fish cutters and trimmers; however, a key difference is that slaughters and meat packers are more directly engaged in the slaughter of the animal and early-stages of carcasses preparation.⁹² Examples of occupational tasks often includes killing the animal, opening and eviscerating the carcasses, draining animal blood, and preparing carcass/hide for further processing.⁹³ Although this occupation often requires less than a high school diploma, the nature of this work is very physical and requires considerable strength and dexterity.⁹⁴

Occupation Compensation Trends

On average, bakers and food batchmakers in the Roanoke region earn wages slightly higher than comparable state and national rates. This is important given that bakers and food batchmakers are most often employed in food-related industry sectors, as opposed to general manufacturing or other service industries. For the Roanoke region in particular, most bakers (33.4%) and food batchmakers (34.8%) are employed in commercial bakeries.⁹⁵ In contrast, packaging and supervisory occupations often serve other industry sectors, thereby making it more difficult to assess their wage rates as such pertain specifically to food manufacturing. For example, temporary help services, soft drinking manufacturing, and biological product manufacturing industries employ the majority of regional packaging workers, while wood products and plastics and rubber product manufacturers employ most first-line supervisors.

⁹¹ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Processing Occupations- Meat, Poultry, and Fish Cutters and Trimmers. 2012-2013.

⁹² Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Slaughters and Meat Packers.

⁹³ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Slaughters and Meat Packers.

⁹⁴ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Slaughters and Meat Packers.

⁹⁵ Source: emsiAnalyst. Occupation reports for bakers and food batchmakers in the Roanoke region.

Table 9: 2011 Median Hourly Wage Rates, by Region for Top Occupations in Food Manufacturing (NAICS 311)[%]

	Roanoke MSA	Roanoke MSA Median Wage (2011)	VA Median Wage (2011)	US Median Wage (2011)
1	Bakers	\$12.28	\$12.82	\$11.70
2	Food Batchmakers	\$14.96	\$11.84	\$11.76
3	Packaging and Filling Machine Operators & Tenders	\$11.00	\$11.28	\$12.07
4	Packers & Packagers, Hand	\$8.78	\$9.08	\$9.35
5	First-Line Supervisors/ Managers of Production and Operating Workers	\$22.66	\$24.49	\$24.49

Source: emsiAnalyst

Food Services and Drinking Places

Staffing Patterns

Combined food preparation and serving workers (including fast food) is the most common occupational group within the food services and drinking places industry group. Nationwide, this occupation group represents over 2.3 million employees, or an estimated 24.3% of the industry's workforce. Waiters and waitresses are the second largest occupation of the industry group, employing almost 2 million individuals across the country. With the exception of dishwashers, staffing patterns for the state and Roanoke region food services and drinking places industry group are largely reflective of national trends.

[%] Source: EMSI Analyst. Occupation Reports. Median Wages by Occupation for 2011.

Table 10: Top Five Occupations in Food Services and Drinking Places for the United States, Virginia, and the Roanoke MSA⁹⁷

	USA	VA	Roanoke MSA
1	Combined Food Preparation and Serving Workers, Including Fast Food	Combined Food Preparation and Serving Workers, Including Fast Food	Combined Food Preparation and Serving Workers, Including Fast Food
2	Waiters and Waitresses	Waiters and Waitresses	Waiters and Waitresses
3	Cooks, Restaurant	Cooks, Restaurant	Cooks, Restaurant
4	First-Line Supervisors/Managers of Food Preparation and Serving Workers	First-Line Supervisors/Managers of Food Preparation and Serving Workers	First-Line Supervisors/Managers of Food Preparation and Serving Workers
5	Cooks, Fast Food	Dishwashers	Dishwashers

Source: U.S. BLS OES and emsiAnalyst

Demographic staffing patterns for top regional occupations exhibit interesting variance by gender and age. For example, combined food preparation and serving workers (including fast food) are majority female and/or under age 25. In contrast, cooks (restaurant) are majority male and/or between age 25-44.

Table 11: Age and Gender Demographics for the Region's Top Five Food Services and Drinking Places Occupations (Employees based in Roanoke city)⁹⁸

	Gender		Age			
	Male	Female	14-24	25-44	45-64	65+
Combined Food Preparation and Serving Workers, Including Fast Food	32%	68%	70%	18%	10%	2%
Waiters and Waitresses	51%	49%	39%	55%	5%	0-1%
Cooks, Restaurant	61%	39%	41%	45%	11%	2%
First-Line Supervisors/Managers of Food Preparation and Serving Workers	41%	59%	30%	49%	19%	2%
Dishwashers	74%	26%	65%	25%	9%	1%

Source: emsiAnalyst

⁹⁷ Source: National data retrieved from the U.S. Bureau of Labor Statistics Occupational Employment Statistics Query System. Virginia and regional data retrieved from EMSI Analyst-Staffing Patterns for NAICS 311.

⁹⁸ Source: EMSI Analyst. Occupation Reports.

Overview of Top Food Manufacturing Occupations

Combined food preparation and serving workers, including fast-food workers, perform a wide variety of tasks which include brewing coffee and tea, preparing ingredients for use by cooks or food supervisors, maintaining clean buffets or salad bar areas, and taking customer orders and processing payments.⁹⁹ Nationally, an estimated 25% of combined food preparation and serving workers, including fast-food workers were employed in full-service restaurants.¹⁰⁰ Limited-service eating places employ 21% of individuals classified in this occupation group.¹⁰¹ Grocery stores, nursing homes, and school cafeterias are also common establishments employing combined food preparation and serving workers, including fast-food workers.¹⁰²

No formal education or previous experience is required for job entry. Most training is short-term and on-the-job.¹⁰³ Instruction and certification in food safety practices may be required for certain types of employers.

Waiters and Waitresses are responsible for collecting customer orders and serving prepared food to customers. Ability to communicate effectively, attention to customer service, and knowledge of safe food handling practices are important skills sets necessary to perform occupational duties. Nationwide, an estimated 76% of waiters and waitresses are employed in full-service restaurants.¹⁰⁴

⁹⁹ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Preparation Workers. 2012-2013. O*NET database entry for Combined food preparation and serving workers, including fast-food workers was also utilized.

¹⁰⁰ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Preparation Workers. 2012-2013. O*NET database entry for Combined food preparation and serving workers, including fast-food workers was also utilized.

¹⁰¹ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Preparation Workers. 2012-2013. O*NET database entry for Combined food preparation and serving workers, including fast-food workers was also utilized.

¹⁰² Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Preparation Workers. 2012-2013. O*NET database entry for Combined food preparation and serving workers, including fast-food workers was also utilized.

¹⁰³ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Food Preparation Workers. 2012-2013. O*NET database entry for Combined food preparation and serving workers, including fast-food workers was also utilized.

¹⁰⁴ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Waiters and Waitresses. 2012-2013.

Waiters and waitresses are considered entry level jobs which often require little to no prior working experience. Some establishments may require company or franchise specific training.¹⁰⁵ For establishments serving alcoholic beverages, most states require that waiters and waitresses be at least 18 years old.¹⁰⁶

Restaurant cooks prepare a wide variety of dishes and cook dishes specific to individual customer orders.¹⁰⁷ In certain types of restaurants, cooks may also be responsible for ordering food and kitchen supplies, setting menu prices, and constructing a daily menu.¹⁰⁸ **Fast-food cooks** differ slightly from restaurant cooks in that they often prepare a limited selection of menu items. Fast-food cooks also primarily cook using previously packaged foods/ingredients. Common tasks of all cooks include¹⁰⁹:

- Check freshness of food and ingredients before cooking
- Weigh, measure, and mix ingredients according to recipes
- Bake, roast, grill, broil, or fry meats, fish, vegetables, and other foods
- Boil and steam meats, fish, vegetables, and other foods
- Garnish, arrange, and serve food
- Clean work areas, equipment, utensils, dishes, and silverware
- Cook, hold, and store food or food ingredients

Education and training requirements for cooks often occur through short-term and on-the-job training courses.¹¹⁰ Postsecondary training through career and technical education facilities, community colleges, and professional culinary institutes is often required for restaurant cooks seeking industry certifications or career advancement. Industry associations and trade unions also offer many opportunities for apprenticeship.

¹⁰⁵ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Waiters and Waitresses. 2012-2013.

¹⁰⁶ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Waiters and Waitresses. 2012-2013.

¹⁰⁷ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Cooks. 2012-2013.

¹⁰⁸ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Cooks. 2012-2013.

¹⁰⁹ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Cooks. 2012-2013.

¹¹⁰ Source: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. Cooks. 2012-2013.

First-Line Supervisors/Managers of Food Preparation and Serving Workers oversee the coordination of food preparation and serving workers¹¹¹. Job duties may also require employees to also perform basic organizational management tasks. Common occupational responsibilities are¹¹²:

- Train workers in food preparation, and in service, sanitation, and safety procedures.
- Compile and balance cash receipts at the end of the day or shift.
- Perform various financial activities such as cash handling, deposit preparation, and payroll.
- Supervise and participate in kitchen and dining area cleaning activities.
- Estimate ingredients and supplies required to prepare a recipe.
- Resolve customer complaints regarding food service.
- Control inventories of food, equipment, small ware, and liquor, and report shortages to designated personnel.
- Purchase or requisition supplies and equipment needed to ensure quality and timely delivery of services.
- Observe and evaluate workers and work procedures to ensure quality standards and service, and complete disciplinary write-ups.
- Specify food portions and courses, production and time sequences, and workstation and equipment arrangements.

Dishwashers are responsible for tasks necessary to maintain a clean food preparation equipment, dishes, and kitchen utensils. Occupational duties also include sweeping and scrubbing floors, cleaning garbage cans with water or steam, removing trash, and transferring supplies or equipment between storage and work areas.¹¹³ Little or no previous work-related experience satisfies requirements for entry-level employment. Educational attainment for entry-level positions is also less than a high school diploma.

Occupational Compensation Trends

Industry-wide, wages for most food services and drinking places occupations range between \$8-\$14/hour. An exception to this trend would be for management teams of

¹¹¹ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for First-Line Supervisors of Food Preparation and Serving Workers.

¹¹² Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for First-Line Supervisors of Food Preparation and Serving Workers.

¹¹³ Source: U.S. Department of Labor/ Bureau of Labor Statistics. Information retrieved from the O*NET Online data base- Summary Report for Dishwashers.

franchise operations, who regionally may earn an average of \$45-\$53 per hour.¹¹⁴ Examination of wage rates for the Roanoke region shows that very often, food service and drinking places employees earn wage rates very comparable to national and state trends.

Table 12: 2011 Median Hourly Wage Rates, by Region for Top Occupations in Food Services and Drinking Places (NAICS 722)¹¹⁵

	Roanoke MSA	Roanoke MSA Median Wage (2011)	VA Median Wage (2011)	US Median Wage (2011)
1	Combined Food Preparation and Serving Workers, Including Fast Food	\$8.55	\$8.41	\$8.43
2	Waiters and Waitresses	\$8.57	\$9.19	\$8.61
3	Cooks, Restaurant	\$10.69	\$10.57	\$10.75
4	First-Line Supervisors/ Managers of Food Preparation and Serving Workers	\$14.06	\$14.41	\$14.22
5	Dishwashers	\$8.51	\$8.37	\$8.53

Source: emsiAnalyst

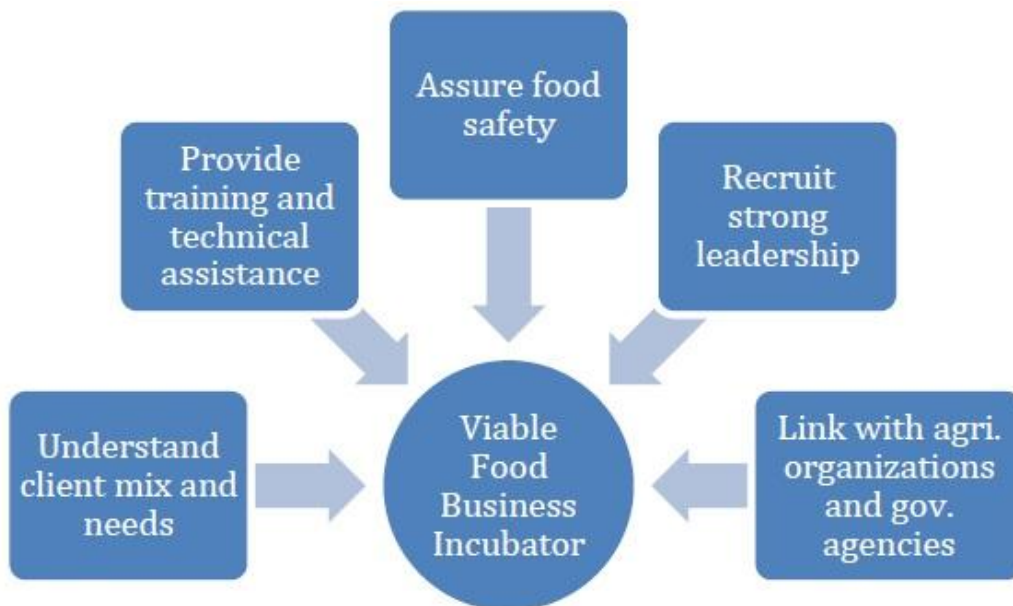
¹¹⁴ Source: EMSI Analyst. Occupation Reports. Median Wages by Occupation for 2011.

¹¹⁵ Source: EMSI Analyst. Occupation Reports. Median Wages by Occupation for 2011.

Part C: Examination of Community Kitchen/Food Business Incubator Models

In order to understand how a proposed community kitchen facility could serve as a tool to promote business development and entrepreneurship, OED examined best practice models for food business incubators. Much like tradition incubators, food business incubators fill a community need: they provide business development information, workforce training and development, assistance in turning out value-added products, and reduced start-up costs. In addition, they ensure compliance with local, state and national food safety regulations, a particular aspect of a kitchen incubator that is often complex, requiring extensive time and expertise, yet essential for the survival of the incubator and the businesses benefiting from its services¹¹⁶. Lawless and the National Business Incubation Association highlight several key ingredients to creating a viable kitchen or food business incubator, as seen below in Figure 6:

Figure 6: Key Ingredients of Viable Food Business Incubator¹¹⁷



Based on experiences and realities of several existing kitchen incubators, several other trends and practices have emerged that aid in successful and sustainable organizations.

¹¹⁶ Rutgers. (2010). Overview and Case History Retrieved January, 2012, from <http://foodinnovation.rutgers.edu/CaseHistory2010.pdf>

¹¹⁷ Lawless, G. P., Anne; Fransworth, Lindsey D. (2010). Food Business Innovation Network (Food BIN) Year One Report: Food Business Innovation Network; NBIA (2004). A comprehensive guide to business incubation. Athens, Ohio: National Business Incubation Association; Special thanks to Swetha Kumar for the development of this diagram and other research presented in this section

Physical Design

The physical size of a kitchen incubator may range from an old renovated house with no more than 1,500 sq. ft. of kitchen space to a larger industrial plant sized space with 11,000 sq. ft. or more. Current food business incubators truly vary in their facility layouts depending on the nature of the building and the amount of renovation or development required. ***They share similar design concepts, however, such as multiple cooking areas for different groups; flexibility of equipment; and open space for classes, gatherings, multi-use activities or group cooking.***

These incubators often have three or more individual spaces for cooking, depending on the nature of the food, although they may often be located in the same room. Logan Square Kitchen, which occupies a renovated multi-story house in central Chicago, has two pastry galleys and one savory galley, all located in one large kitchen to the back of the building¹¹⁸. Blue Ridge Food Ventures, located in an 11,000 sq. ft. facility, contains a wet product preparation area (sauces and jelly), a dry product preparation area (baked goods, herbs, teas and trail mix), and a space for natural product production. Similar to Logan Square Kitchen's savory galley, the wet product preparation area in Blue Ridge serves the needs of caterers, personal chefs and mobile food cart vendors¹¹⁹. Likewise, Pasco Specialty Kitchen in Pasco, WA, a municipality suffering from high rates of poverty, contains a main kitchen, center kitchen and food preparation kitchen¹²⁰.

Dry and cold storage areas are also very important to these facilities as they offer additional space to clients, additional revenue for the facility and may offer opportunities for clients to combine their financial resources to buy bulk ingredients to store at the incubator and use when needed. Dry storage generally comes in the form of security cages for individual use and pantry lockers, while cold storage is a walk-in unit.

Equipment for the kitchens is often mobile to create a more flexible kitchen space.

Some equipment may be more appropriate for certain galleys; for instance, a dehydrator is located in the dry product preparation area at Blue Ridge Food Ventures. Examples below provide information about specific types of equipment utilized in food business incubator/community kitchen facilities.

¹¹⁸ Logan Square Kitchen, <http://logansquarekitchen.com/welcome>.

¹¹⁹ Blue Ridge Food Ventures, http://www.advantagewest.com/content.cfm/content_id/144/section/food.

¹²⁰ Pasco Specialty Kitchen, <http://www.pascospecialtykitchen.com/>.

Blue Ridge Food Ventures offers a list of equipment that has proven useful to its facility:

- Steam Kettles
- Commercial Ranges
- Roll-In Rack Oven
- Convection Ovens
- Grill
- Vertical Cutter-Mixer
- Commercial Mixers and Food Processors
- Tilt Skillet/Braiser
- Dehydrator
- Juicer/Pulper
- Meat Slicer
- Auger Filler for Dry, Flowable Products
- Grinders
- Apple Peeler/Slicer/Corer
- Dicer/Slicer for Fruits & Vegetables
- Refrigeration and Freezers
- Bottlers/Fillers
- Labeler
- Heat Band Sealer
- Vacuum Sealer
- Weigh-Fill Packaging Machine

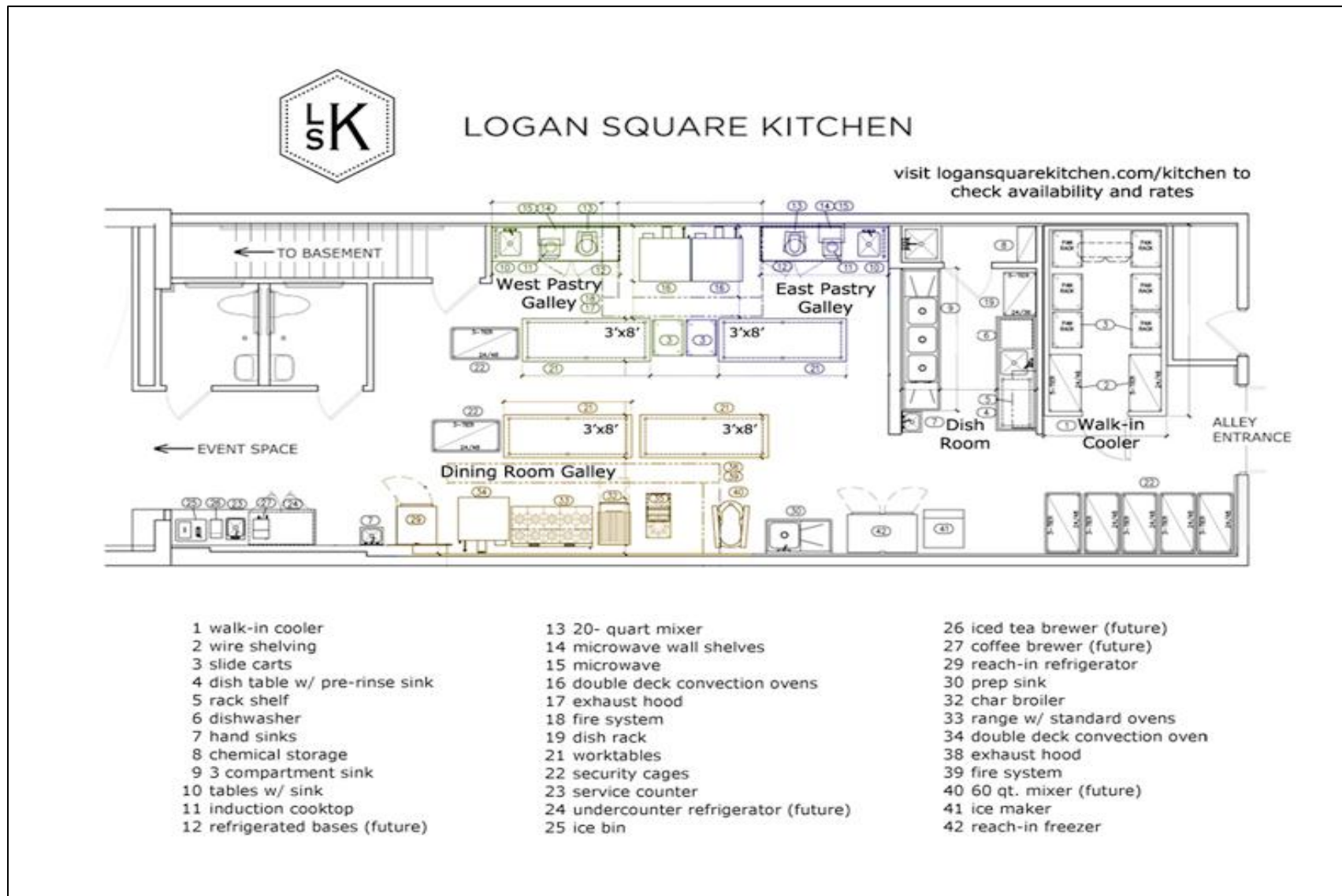
Pasco Specialty Kitchen and Logan Square Kitchen also provide pictures and details of their kitchen equipment and facility layout:

- **Pasco Specialty Kitchen:**
<http://www.pascospecialtykitchen.com/facilities/kitchen-equipment.html>
- **Logan Square Kitchen:**<http://logansquarekitchen.com/kitchen>.
 - Figure 8 provides a layout of the Logan Square Kitchen.



Figure 7: Pasco Specialty Kitchen

Figure 8: Logan Square Kitchen Facility Layout



Both Logan Square Kitchen and Pasco Specialty Kitchen share similar community engagement objectives in addition to their traditional incubator goals. As such, they both have **space in which to gather community groups** and sell client and other local products. Logan Square Kitchen has event space in the front of its building where it showcases chefs, artists and other local entrepreneurs. Pasco Specialty Kitchen, conveniently located across the street from a farmers market, has a small shop that sells client, local and regional products, a 24-hour conference room and a 24-hour lounge area for small gatherings.

Funding

Start-up funding for most of these ventures originated from partnerships with economic development non-profits, federal and local government agencies, and national and community foundations. One exception was Logan Square Kitchen, a private business started by one couple with the help of a community foundation grant and commercial bank loans. Examples of start-up funding sources include: community foundations, university funding for food research, Appalachian Regional Commission (ARC), state department of justice, USDA, BB&T, Tobacco Trust Fund, U.S. Department of Commerce Economic Development Administration (EDA), Community Development Block Grant (CDBG) Program, regional authorities, public school systems for providing culinary teaching space. In the case of Shoals Entrepreneurial Center Culinary Complex, for instance, USDA and ARC provided the monetary funding, the Tennessee Valley Authority gave supplies, and the Florence City School System offered the space.¹²¹

Revenue to operate the incubators then comes from client usage fees, private space/event rental, client product revenues, fees from classes that occur in the incubators, and additional grant funding. As a private incubator, Logan Square Kitchen is financially self-sustaining. Its operating revenue derives from client usage fees, rental fees for its front events area, revenue from seasonal events that the owners host, and rental income from the second and third floor apartments overlooking the incubator. In Hawaii, Paauilo Incubator Kitchen acts as a cooperative in which all clients share staff salary, maintenance fees, utilities and administrative charges. The Hawaiian kitchen incubator does rely on some grant funding for its special projects such as a farm-to-table program with the local elementary school¹²². Logan Square Kitchen, Blue Ridge Food Ventures and Pasco Specialty Kitchen all offer **opportunities for clients to market their products through events, gift/holiday boxes and product displays, and the incubators absorb a portion of the profits to go toward their operating expenses.**

¹²¹ Shoals Entrepreneurial Center Culinary Complex, <http://www.shoalsec.com/index.html>.

¹²² Kumar, S. (2012). Fostering Small Business Development in the Food Industry: A Closer Look at Food Business Incubators. Virginia Tech.

As another means of supplementing their income, The University of Idaho's Food Technology Center in Caldwell, ID, Pasco Specialty Kitchen and the Shoals Entrepreneurial Center Culinary Complex have partnered with other organizations or developed their own **culinary classes** in addition to the classes offered as services to clients¹²³. Pasco, for instance, has partnered with local public schools to offer classes to juniors and seniors, preparing them for careers in the food processing industry. In some incubators, client fees and product revenues go to facility and equipment maintenance while grant funding is used to cover administrative costs of incubator staff. In sum, current kitchen incubators rely on multiple sources of income and find that diversifying their funding streams has strengthened their abilities to sustain their organizations.

Facility Management Structure

Many kitchen incubators operate under a **board of supervisors** either from one nonprofit agency sometimes focused on economic development or from multiple agencies (nonprofit, government and/or academic) that have partnered and share oversight. These boards often make final decisions of capital investments and regularly review incubator operations. Day-to-day operations are then handled by a one to four-member staff. Smaller incubators consist of one **manager with extensive experience in the food sector**. Managers may also have degrees or experience in business and/or public health.

Some managers of these facilities have described the qualities needed to maintain a kitchen incubator. These include:

- Experience and knowledge of food and restaurant industries and regulations;
- Demonstrate business development and financial skills
- Have strong negotiating and problem solving skills;
- Ability to monitor client needs and market trends;
- Ability to market to new clients;
- Desire to serve the community without a political agenda;
- Keep well informed of successful incubator practices and community resources that may facilitate everyday operations and help overcome obstacles to successful business development such as regulatory issues.¹²⁴

¹²³ Food Technology Center, <http://www.cals.uidaho.edu/ftc/index.htm>.

¹²⁴ Special thanks to Swetha Kumar for data collection

Licenses and Regulations

Prior to opening, a kitchen incubator must acquire the appropriate business licenses, occupancy permit, insurance and valid tuberculosis tests in addition to observing federal and state mandated regulations¹²⁵. Because they deal with food, **kitchen incubators are held to a particularly high standard**, requiring food safety licenses from the state and FDA/USDA¹²⁶. They must maintain diligent records of regulatory documents and have written food safety procedures¹²⁷. These procedures are often read and signed by clients as an agreement to observe these practices while working in the kitchen incubator. **The management staff is vital for maintaining these documents and procedures.**

Licensing and government regulations can sometimes be a hindrance to kitchen incubator development. Kitchen incubators may not fit the licensing, zoning and other typical categories recognized by government offices, making paperwork and municipal consent to start and run a kitchen incubator difficult. Due to the hostile licensing and business environment for food incubators in Chicago, for example, the highly successful Logan Square Kitchen incubator closed its doors in June 2012. Ironically some of the problems this incubator encountered may have been due to its innovative approach to self-funding its operations through several different events and rental methods rather than relying on grants and other funding sources. Logan Square had three licenses at the time of its closing: a shared kitchen license, a liquor license and a public place of amusement license.

Once the incubator has been licensed and approved, individual clients must also obtain appropriate licenses and paperwork, which may include a business license, a food establishment license, a processing license, product liability insurance, and a sanitation certificate. Incubators generally require these types of documents as a prerequisite to working the facility. In addition, they also require clients to fill out an application/agreement and sometimes present a business plan, participate in a class or workshop before using the facility, or pay a marketing fee. The Pasco Specialty Kitchen requests such a marketing fee (\$50), which grants clients membership to three regional Chambers of Commerce and the local Visitors & Convention Bureau.

¹²⁵ Hollyer, J. C., Luisa; Salgado, Cathy; Cox, Linda; Hodgson, Aurora; Thom, Wayne; Yurth, Carol; Kam, Peter; Kwok, Milton. (2000). Some Costs and Considerations for Establishing an Entrepreneurial Community Shared-Use Kitchen or "Test-Kitchen Incubator". *Food Manufacturing and Technology*, (March 2000), 1-15. Retrieved from <http://www.ctahr.hawaii.edu/oc/freepubs/pdf/FMT-2.pdf>

¹²⁶ NBIA. (2004). *A comprehensive guide to business incubation*. Athens, Ohio: National Business Incubation Association.

¹²⁷ Lawless, G. P., Anne; Fransworth, Lindsey D. (2010). Food Business Innovation Network (Food BIN) Year One Report: Food Business Innovation Network.

The Shoals Entrepreneurial Center Culinary Complex provides a checklist to potential clients, which outlines their obligations and offers resources for developing their business plan. To see this client checklist, please visit :

http://www.shoalsec.com/ccc/Culinary_Center/Become_Client/index.html.

Space Rental

Kitchen incubator hours of operation vary, many being open at least 8 am to 5 pm each day, some being open 24/7 and others opening their doors upon request. Clients tend to reserve kitchen use time and pay an hourly or monthly fee. Regular clients often have a fixed monthly rate while rates may vary for one-time users. Fees may be fixed or depend on the equipment being used.

Client Services

A key component necessary in any incubator is the provision of extensive client services through the utilization of community support and existing businesses¹²⁸. The current examples of kitchen incubators illustrate a large set of services to clients to aid them in the culinary endeavors:

- Providing business development and marketing consulting
- Offering in-house classes: courses in starting a food business, food safety and sanitation, proper equipment use, product development, food processing, alternative food production methods, identifying obstacles to production and packaging, microbiology, marketing. The Food Technology Center in Idaho offers many of these classes as prerequisites to becoming an incubator client.
- Partnerships with other business incubators and community colleges to build client skills. Pasco Specialty Kitchen, for instance, partners with local banks and community colleges to provide these courses
- Encouraging client-to-client collaboration, feedback and relationships. E.g. client partnering to buy items at wholesale and monthly client networking lunches
- Chamber of Commerce memberships and networking assistance
- Connecting clients with wholesalers, local professionals and essential resources

¹²⁸ Ibid.

- Market between old and new clients as well as businesses in the area to help different parties interact and exchange knowledge
- Product showcasing for clients through shop displays, events and holiday gift boxes
- In a few cases, incubators encourage, even require, clients to track their performance through gross sales, revenue increases, capital expenditures, employee wages and profits. These measures are meant to improve performance of clients and offer metrics of success for the incubator itself. Such is the case in the Shoals Entrepreneurial Center Culinary Complex.

[To learn more about the kitchen incubators researched in the report, please see:](#)

Blue Ridge Food Ventures

Established: 2005 1461 Sand Hill Road Candler, NC 28715 Phone: 828.348.0128 Email: mlsurgi@awnc.org www.awnc.org

Food Technology Center University Of Idaho

Established: 2004 1908 E. Chicago St. Caldwell, ID 83605 Phone: (208) 795-5331 www.cals.uidaho.edu/ftc/

La Cocina Community Kitchen

Established: 2005 2948 Folsom St. San Francisco, CA 94110 Phone: 415.824.2729
Email: info@lacocinasf.org www.lacocinasf.org

Logan Square Kitchen

Established: 2009 2333 North Milwaukee Avenue Chicago, IL 60647 Phone: 773.342.2333
Email: info@logansquarekitchen.com <http://logansquarekitchen.com>

Paaulio Incubator Kitchen

Established: 1998 PO Box 157 Paaulio, HI 96776 Phone: 808.776.1061

Pasco Specialty Kitchen

Established: 2003 720 W. Lewis St. Pasco, WA 99301 Established: 2003 Phone: 509.545.1172 Email: pdda@qwest.net www.pascospecialtykitchen.com

Shoals Commercial Culinary Center

Established: 2001 610 W. College Street Florence, AL 35630 Phone: 256. 760.9014 Email: giles@shoalsec.com www.shoalsec.com

Urban Horizons

Established: 2002 50 East 168th Street Bronx, NY 10452 Phone: 718.839.1100 Email: mgotay@whedco.org <http://www.whedco.org/economicdevelopment/foodbusiness>.

Part D: Region Asset Scan

The existing mix of business, education, and local foods groups in the Roanoke MSA provides a healthy environment in which to create a community kitchen, and can contribute valuable knowledge and resources for the creation of the facility. This regional asset scan identifies potential regional stakeholders that could be relevant for the creation of the community kitchen. This analysis examined business assistance resources, education and culinary arts training programs, local foods advocacy and awareness groups, and organizations working to address food insecurity.

Business Assistance Programs

The following organizations specialize in offering guidance and assistance to new or existing small business. All of the following organizations provide services that are available for entrepreneurs in the Roanoke area. In the event that the proposed kitchen facility in the West-End Neighborhood is used to any extent as a business incubator for food-based businesses, the following organizations could assist in consulting and offering capacity-building assistance to those businesses.

- The **Virginia Department of Business Assistance (DBA)** provides a one-stop-service for technical assistance related to business formation, access to capital, and workforce development. VDBA works with existing businesses as they grow their workforce and mentors entrepreneurs from ideas to launching their first business venture. See: <http://www.dba.virginia.gov/index.html>
- The Roanoke Regional Chamber of Commerce partners with the U.S. Small Business Administration, the City of Roanoke, City of Salem, Roanoke County, Botetourt County, Radford University, and George Mason University to operate the **Roanoke Regional Small Business Development Center**. The Roanoke Regional Small Business Development Center is part of the **Virginia Small Business Development Centers (SBDCs)**. SBDCs are a network of 29 offices across the state that provide professional business counseling, training and information resources to help grow and strengthen Virginia businesses. Services include one-on-one counseling and training programs; the local office in Roanoke offers both services. SBDC professionals assist with business

planning, marketing, financial analysis, access to capital, business start-up and other specialized services as requested. Please visit <http://virginiasbdc.org/> for more information.

Education and Culinary Arts Training

Organizations in this section are involved in the culinary arts either in industry or education. If industrial kitchen rental space is identified as insufficient in the Roanoke region, the premium space contained in the proposed facility could be of use to many in the area. The following organizations may be interested in the proposed kitchen space in the West-End Neighborhood for the purposes of expanding their existing operations or outreach activities.

- **Virginia Western Community College** offers Career Studies Certificates and an Associate of Applied Science in the culinary arts. Virginia Western also offers non-credit cook classes designed to increase participant knowledge of basic cooking techniques. The Associate of Applied Science (A.A.S.) degree in Culinary Arts is a 65-credit program designed to prepare graduates, to differing degree, for careers as cooks and/or chefs. Individuals completing this degree program also possess the requirements necessary to test for American Culinary Federation credentials at the Certified Culinarian (CC) and Certified Pastry Culinarian (CPC) levels.

Virginia Western provides two types of Career Studies Certificates (CSC); the first focuses on baking and pastry making, and the second encompasses general culinary arts training. CSC-Baking and Pastry is a 27 credit program preparing students for entry-level baker positions. Examples of courses include Artisan Breads, European Torts and Cakes, and Chocolate and Sugar Arts. CSC-Culinary Arts is also a 27 credit curriculum. CSC-Culinary Arts provides a much wider scope of training which also includes an introductory course for hospitality management. Both CSCs require a course in sanitation and food safety. In addition to coursework, culinary students at Virginia Western also participate in a wide-variety of educational and outreach activities. Virginia Western A.A.S. Culinary completions average between 10-18 annually. On average, Virginia Western also fills 400 seats annually in culinary-related credit and non-credit courses. For more information about Virginia

Western's Culinary programs and non-credit courses, please visit:

<http://www.viriniawestern.edu/academics/bet/programs/culinary.php>

- **Roanoke City Public Schools** offer culinary arts courses through the Roanoke Technical Education Center's Gibboney campus at Patrick Henry High School. The Roanoke Technical Education Center's program services students from Patrick Henry High School, William Flemming High School, Forest Park Academy, and the Noel C. Taylor Learning Academy. In fall 2010, the Roanoke Technical Education Center opened a new training kitchen facility which greatly increased capacity to provide culinary arts programming. During academic year 2009-2010, over 100 students participated in coursework offered through this facility.¹²⁹ The Roanoke Technical Education Center's kitchen includes four teaching kitchens and an instruction kitchen. Students enrolled in this program also have the potential to earn a Cook Level 1 certification through the National Occupational Competency Testing Institute.
- **Roanoke County Public Schools** provide culinary arts courses through the Burton Center for Arts and Technology. The Burton Center serves students from each of the five high schools across the county. Based in Salem, the Burton Center first began offering culinary arts during the 2011-2012 academic year. The center is equipped with commercial kitchen facilities and offers students the potential to receive ServSafe and OSHA certifications. The Burton Center's culinary arts program also offers students to pursue dual enrollment coursework for up to 12 credits with Virginia Western Community College.
- **Roanoke International Cooking Experience (R.I.C.E.)**: is a Roanoke County-based program providing cooking classes and culinary events across the region. This program specializes in Asian and southeast Asian cuisines. R.I.C.E. classes are structured to be small- no more than 10-12 students. R.I.C.E. offers programs through the Roanoke County Parks, Recreation & Tourism department at the Brambleton Recreation Center. The Brambleton Recreation center has a small kitchen facility

¹²⁹ Source: Roanoke Times. "A taste of a new home: Culinary program moves to Roanoke Technical Education Center." September 15, 2010. Accessible online at <http://www.roanoke.com/news/roanoke/wb/260456>.

with capacity/occupancy of 10-12 individuals. The Virginia Cooperative Extension offices for Roanoke are also co-housed in the Brambleton Recreation Center; Virginia Cooperative Extension utilizes the Brambleton Recreation Center as appropriate to deliver food-related programming.

- **Virginia Cooperative Extension-Roanoke:** *Please see notes above and below.*
- **Virginia Tech's Food Processor Technical Assistance Program** is an outreach/engagement operation within Virginia Tech's Department of Food Science and Technology. The Food Processor Technical Assistance Program trains students and educators to work in food-related industries and provides research and extension to help the food-based businesses in the state of Virginia to prosper. Examples of workshops and technical assistance subject areas include regulatory and business assistance services necessary for food-related business start-ups, acidity, chemical, and nutritional testing services, processing and food manufacturing product/process/package consultations, and food safety technical assistance. For more information about Virginia Tech's Food Processor Technical Assistance Program and the Virginia Tech Department of Food Science and Technology, please visit:

<http://www.apps.fst.vt.edu/extension/valueadded/foodbusiness.html>

Local Foods Groups and Farmer's Markets

The following includes organizations which advance market opportunities for locally produced food/agricultural products. Others listed are examples of regional producers of food/agricultural products. These organizations may be interested in utilizing the proposed kitchen facility to explore new value-added production, processing, packaging, or market ventures.

Local Food Advocacy and Awareness

- The **Virginia Tech Roanoke Center and the Catawba Sustainability Center** are exploring new opportunities to advance agricultural and local food activities across the region. Located on 377 acres near the Catawba Hospital, the Catawba Sustainability Center is a demonstration, learning, teaching facility to promote

sustainability issues and showcase innovative land management. For more information, please see: <http://www.vtrc.vt.edu/catawba/>

- **Virginia Cooperative Extension of Roanoke (VCE)** offers several services to individuals interested in local foods and food-based businesses. Examples of these services include:
 - The Grower's Academy: this is an 8-week learning series designed to build a peer cohort to assist new and transitioning vegetable production businesses.
 - The VCE Master Gardeners who lead sessions hosted by the Roanoke Community Garden Association. These sessions focus on community food production topics and include instruction in techniques for cultivation and preparation of home-grown produce.
 - VCE also offers recertification classes to private and commercial growers in the region.
- **Roanoke Natural Foods Co-Op** This business provides the local community with nutritious food choices and earth friendly products. However, the Roanoke Natural Foods Co-Op supports/facilitates regional activities which advance sustainable environmental practices, local organic farming, local food-related businesses growth and community development. The Co-op also offers classes on cooking and health along with other workshops. For more information, please visit <http://roanokenaturalfoods.com/>

Farmers Markets

- **West End Community Market:** Located at the West End Center on the corner of 13th and Patterson Avenue. The West End Community Market supports local sustainable agriculture by “connecting the public with local farmers, artisans, and other producers.” This market accepts SNAP, EBT, and WIC as payment for all food items. The West End Community Market is open Wednesdays from 4 pm - 7 pm, June through September.
- **Grandin Village Community Market:** Operating on Saturdays from 8am-noon, the Grandin Village Community Market is located at 1319 Grandin Road. According to the market's website, all items sold are from within 100 miles of the Grandin Village.

Tenants of this market sell a variety of baked goods, herbs, fruits, and fresh cut flowers. For more information please visit:

<http://www.grandinvillagecommunitymarket.blogspot.com/>

- **Historic Roanoke City Market:** Located at the Intersection of Campbell Avenue and Market Street in Downtown Roanoke, the Roanoke City Market offers an assortment of plants, fresh fruits, and vegetables available during the growing season. Open year-round, seven days a week, and closes only on Christmas and New Year's. The Market hours are 8 am - 5 pm Monday through Saturday and 10 am - 4 pm on Sunday. Please visit www.downtownroanoke.org/market.htm

Other Regional Farmers Markets Include:

- **Botetourt Farmers Market**
- **Catawba Valley Farmers Market**
- **Salem Farmers Market**
- **Troutville Farmers Market in the Park**
- **Vinton Farmers Market**

Organizations Working to Address Food Insecurity

The Roanoke area has several organizations intent on feeding the homeless and those that cannot provide regular meals for themselves. Some of these organizations serve as warehouses for donated food items and distribute them to those in need; others provide hot meals to hungry residents. Two of these philanthropic organizations, Meals on Wheels and Roanoke Area Ministries (RAM), provide hot meals to the less fortunate. Some of these aforementioned organizations may be interested in utilizing the proposed facility in the West-End Neighborhood either to provide hot meal opportunities or expand existing operations. Below is a list of these organizations.

Providers of Hot Meals

- **Meals on Wheels**- Meals on Wheels is available to homebound seniors, aged 60 and older, who are residents of the [LOA's service area](#). The senior must be unable to prepare a nutritious mid-day meal with no one available or willing to prepare the meal for them. These meals are delivered by volunteers in the Roanoke Valley. <http://www.loaa.org/meals-on-wheels/>
- **Roanoke Area Ministries**- Roanoke Area Ministries is an ecumenical, urban ministry that serves the Roanoke Valley by providing safe shelter for the homeless, a nutritious lunch, and emergency financial aid to those in need. The RAM kitchen serves nearly 130 people for lunch each day. These people include the elderly and children, men and women, veterans and disabled persons, homeless and at-risk alike. <http://www.roanokeareaministries.org/about/feed-the-hungry/>

Roanoke-Area Food Pantries

- [Southwestern VA Second Harvest Food](#)
1111 Shenandoah Ave NW
Roanoke – VA 24017
(540) 342-3011
- [St Francis House](#)
824 Campbell Ave
Roanoke – VA 24012
(540) 362-3941
- [Food Plus](#)
1111 Shenandoah Avenue NW
Roanoke, VA 24017
(540) 342-1787
- [Feeding America Southwest Virginia](#)
1025 Electric Road
Salem, VA 24153
(540) 342-3011

Recommendations

Based on the factors summarized above, our report identifies several strategies that project leadership in Roanoke city may consider implementing to achieve the goals of supporting a community kitchen/food business incubator facility. These recommendations include the following:

- Create a **project management team** to oversee continued efforts to explore creation of a community kitchen facility/food business incubator in the West End Neighborhood.
 - This project management team would provide several important functions including: convening additional project stakeholders, exploring future funding opportunities, etc.
Key Stakeholders: Freedom First Credit Union, City of Roanoke, the West End Neighborhood Association, and the West End Community Center.
- Create a **technical advisory board** to provide guidance to the project management team on legal and regulatory issues which may impact the development and operation of the community kitchen/food business incubator facility.
 - Possible topics presented to the technical advisory board could include zoning regulations, business licensing and permitting, food safety compliance, etc. The technical advisory board should include individuals with expertise relevant to regulatory issues which may impact both the program/facility, as well as potential clients serviced by the facility.
Key Stakeholders: City of Roanoke, the Roanoke City Health District, Virginia Tech Department of Food Science and Technology, and the Virginia Department of Agriculture and Consumer Services.
- Convene and **engage regional partners** in program and facility development activities. *Host a roundtable series which assembles multi-sector stakeholders in target programmatic areas.*
 - The purpose of these roundtables will be to discuss ways the facility/programs may leverage, or partner with existing organizations to create new opportunities which advance community, economic, and workforce development in Roanoke city and the surrounding Roanoke region. The roundtables also serve as the basis for future working groups to develop facility and programmatic services. Potential roundtable themes and participants may include:
 - **Business Assistance:** Entrepreneurial training, access to capital, and business planning assistance are common services delivered by food business incubators.

Key Participants: City of Roanoke, Roanoke Chamber of Commerce, Virginia Department of Business Assistance (DBA), the Roanoke Regional Small Business Development Center (SBDC), Freedom First, local lenders/banking community

- **Education and Culinary Arts Training:** Potential collaboration with Virginia Western Community College (VWCC) could generate many opportunities to promote entrepreneurship and workforce development. VWCC graduates over 20 students annually from its Culinary Arts programs thereby offering a potential pool of individuals who may be aspiring food business entrepreneurs. VWCC also offers many non-credit cooking courses which may be expanded through utilization of the proposed facility. Secondary school systems offering Career & Technical education courses in Culinary Arts also serve as important workforce development partners.

Key Participants: Virginia Western Community College, Roanoke City Public Schools, Roanoke County Public Schools, Salem City Public Schools

- **Local Foods Advocacy and Awareness:** A community kitchen/food business incubator facility could provide small agricultural and food-related enterprises with access to equipment and/or marketing/branding services to help promote their products or services as 'value-added' or 'locally produced.'

Key Participants: Leadership of local Farmers' Markets, the Roanoke Natural Foods Co-Op, Virginia Cooperative Extension, the Virginia Tech Catawba Sustainability Center, Virginia Department of Agriculture and Consumer Services

- **Organizations Address Food Insecurity and/or Poverty:** Career pathways to employment in food-related industries often have low barriers to accessibility in terms of educational attainment and prior skills training. Several non-profit and public sector organizations offer workforce training initiatives which seek to develop skills of low income, homeless, and at-risk populations programs across the country. Examples include Starfish Café' in Savannah, GA (a partnership between Union Mission and Savannah Technical College) and the Culinary Arts Training program of the Philadelphia Housing Authority.

Key Participants: Roanoke Area Mission (RAM) House, Total Action Against Poverty (TAP), Goodwill Industries of the Valleys, Western

Virginia Workforce Investment Board, Roanoke City Department of Social Services, Meals on Wheels, United Way of the Roanoke Valley

- **Healthy Communities:** Across the nation, many localities are developing multi-sector partnership to promote healthy lifestyles and dietary choices. The Center for Disease Control's (CDC) Healthy Communities Program provides information for developing community initiatives which could be beneficial to understanding how the proposed community kitchen/food business incubator could serve as a nexus for helping to promote nutrition education and outreach activities throughout Roanoke city. Examples could include a community garden program or hosting of healthy cooking workshop classes.
Key Participants: Carilion Clinics, YMCA, City of Roanoke, Roanoke City Public Schools, the West End Center
- Identify and **engage existing small-medium sized enterprises** which may be potential clients of the community kitchen/food business incubator facility or the facility's programmatic services. **Administer a survey** to these enterprises to further assess potential market demand and identification of specific equipment or service needs.
 - The University of Wisconsin-Extension provides several tools for assessment of food business incubator client needs:
<http://fyi.uwex.edu/foodbin/resources/>
 - Key Stakeholders: City of Roanoke, Roanoke Regional Partnership, Roanoke Regional Chamber of Commerce/Roanoke Regional SBDC, Virginia Tech Office of Economic Development
- Administer a **survey to students enrolled in Virginia Western Community College's Culinary Arts programs**. This survey will help to further assess market demand from the emerging culinary workforce, as well as gauge specific needs of aspiring food-related entrepreneurs.
 - Key Stakeholders: Virginia Western Community College

Appendix

NAICS 4-Digit Subsectors for Food Manufacturing

- **Animal Food Manufacturing (NAICS 3111)**
 - This industry comprises establishments primarily engaged in manufacturing food and feed for animals from ingredients, such as grains, oilseed mill products, and meat products.
- **Grain and Oilseed Milling (NAICS 3112)**
 - This industry group comprises establishments primarily engaged in milling grains and oilseeds; refining and blending fats and oils; and making breakfast cereal products. Excluded from this subsector is milling grain to make animal feed (see 3111 animal food manufacturing).
- **Sugar and Confectionery Product Manufacturing (NAICS 3113)**
 - This industry group comprises (1) establishments that process agricultural inputs, such as sugarcane, beet, and cacao, to give rise to a new product (sugar or chocolate), and (2) those that begin with sugar and chocolate and process these further.
- **Fruit and Vegetable Preserving and Specialty Food Manufacturing (NAICS 3114)**
 - This industry group includes (1) establishments that freeze food and (2) those that use preservation, such as pickling, canning, and dehydrating. Both types begin their production process with inputs of vegetable or animal origin.
- **Dairy Product Manufacturing (NAICS 3115)**
 - This industry group comprises establishments that manufacture dairy products from raw milk, processed milk, and dairy substitutes.
- **Animal Slaughtering and Processing (NAICS 3116)**
 - This industry comprises establishments primarily engaged in one or more of the following: (1) slaughtering animals; (2) preparing processed meats and meat byproducts, and (3) rendering and/or refining animal fat, bones, and meat scraps. This industry includes establishments primarily engaged in the assembly and cutting and packing of meats (i.e., boxed meats) from purchased carcasses.

- **Seafood Product Preparation and Packaging (NAICS 3117)**

- This industry comprises establishments primarily engaged in one or more of the following: (1) canning seafood (including soup); (2) smoking, salting, and drying seafood; (3) eviscerating fresh fish by removing heads, fins, scales, bones, and entrails; (4) shucking and packing fresh shellfish; (5) processing marine fats and oils; and (6) freezing seafood. Establishments known as “floating factory ships” that are engaged in the gathering and processing of seafood into canned seafood products are included in this industry.

- **Bakeries and Tortilla Manufacturing (NAICS 3118)**

- This industry group comprises establishments primarily engaged in manufacturing baked goods. Establishments primarily engaged in manufacturing bakery products, for retail sale, but not for immediate consumption, are included.

- **Other Food Manufacturing (NAICS 3119)**

- This industry group comprises establishments primarily engaged in manufacturing food (except animal food; grain and oil seed milling; sugar and confectionery products; preserved fruit, vegetable, and specialty foods; dairy products; meat products; seafood products; and bakeries and tortillas). The industry group includes industries with different production processes, such as snack food manufacturing; coffee and tea manufacturing; concentrate, syrup, condiment, and spice manufacturing; and, in general, an entire range of other miscellaneous food product manufacturing.

NAICS 4-Digit Subsectors for Food Services and Drinking Places

- **Full Service Restaurants (NAICS 7221)**

- This industry group comprises establishments primarily engaged in providing food services to patrons who order and are served while seated (i.e., waiter/waitress service) and pay after eating. Establishments that provide these types of food services to patrons with any combination of other services, such as takeout services, are classified in this industry.

- **Limited Service Eating Places (NAICS 7222)**

- This industry group comprises establishments primarily engaged in providing food services where patrons generally order or select items and pay before eating. Most establishments do not have waiter/waitress

service, but some provide limited service, such as cooking to order (i.e., per special request), bringing food to seated customers, or providing off-site delivery.

- **Special Food Services (NAICS 7223)**

- This industry group comprises establishments primarily engaged in providing food services at one or more of the following locations: (1) the customer's location; (2) a location designated by the customer; or (3) from motorized vehicles or nonmotorized carts.

5-digit Special Food Services industry groups include:

- *Food Service Contractors (NAICS 72231)*
 - This industry comprises establishments primarily engaged in providing food services at industrial, governmental, commercial, or industrial locations of others based on contractual arrangements with these types of organizations for a specified period of time. The establishments of this industry provide food services for the convenience of the contracting organization or the contracting organization's customers. The contractual arrangement of these establishments with contracting organizations may vary from type of facility operated (e.g., cafeteria, restaurant, fast-food eating place), revenue sharing, cost structure, to providing personnel. Management staff is always provided by the food service contractors.
- *Caterers (NAICS 72232)*
 - This industry comprises establishments primarily engaged in providing single event-based food services. These establishments generally have equipment and vehicles to transport meals and snacks to events and/or prepare food at an off-premise site. Banquet halls with catering staff are included in this industry. Examples of events catered by establishments in this industry are graduation parties, wedding receptions, *business or retirement luncheons*, and *trade shows*.
- *Mobile Food Services (NAICS 72233)*
 - This industry comprises establishments primarily engaged in preparing and serving meals and snacks for immediate

consumption from motorized vehicles or nonmotorized carts. The establishment is the central location from which the caterer route is serviced, not each vehicle or cart. Included in this industry are establishments primarily engaged in providing food services from vehicles, such as hot dog carts and ice cream trucks.

- **Drinking Places (NAICS 7224)**

- This industry group comprises establishments primarily engaged in preparing and serving alcoholic beverages for immediate consumption.