Greater Good

The Economic Case for More Local, Resilient, and Equitable Food Systems

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economics | strategy | insight

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1. Introduction

"This report by Econsult shows that the more investment we make in a 'Good Food' system, the more jobs we create, and greater economic equity, sustainability, and resilience in a region."
Paula Daniels, Project Lead
Co-Founder of the Center for Good Food Purchasing

1.1. Report Purpose

This report quantifies the positive impacts created when regions organize their infrastructure investments toward a more locally sourced food system. The Center for Good Food Purchasing (the Center), which advances an analytical model that helps direct large scale food service purchasing towards a more equitable food system that prioritizes the health and well-being of people, animals, and the environment, requested this specific analysis to further develop the knowledge potential of their database, which has been amassed over the course of the last ten years from dozens of institutions across the country.

In this report, we examine the positive economic and social ramifications of intensifying the local portion of regional food systems, in which those food systems hypothetically source a great proportion of their goods and services needs locally. The goals of the Center and its advisors are to characterize and quantify the jobs potential in a resilient, equitable, and local food system with a hypothesis of a 30% level of local availability of such attributes. This report focuses on quantifying the local economies aspect of such a system and provides an analysis of the type of jobs that would be developed in such a system.

Six regions were chosen across the U.S. for this analysis, reflecting a diversity of economic contexts and demographic profiles. This report serves as a pilot analysis of the economic and social impact of a more locally sourced regional food system, from which additional regions can be similarly studied. This report describes the methodological approaches, quantitative results, and illustrative examples that have emerged from this initial body of research.

1.2. The Economic Impacts of Moving Towards a Resilient and Equitable Food System

This report builds on the growing body of literature around the positive economic and social consequences of a more localized food system. A localized system can – if properly designed – result in a food system that is more resilient and equitable for its stakeholders. Some of this research is referenced in Section 2 of this report as background for how certain terms are defined and what are commonly held beliefs. This report takes a comprehensive and data-oriented approach to understanding the current state of regional food systems in the six study regions, and to setting an aspirational but achievable

target level for greater local sourcing within the food systems of those regions. A more locally sourced food system will result in greater economic impact in a region, as less economic activity leaks out to the surrounding areas and more circulates within the original geography. This report seeks to quantify the scale of that economic impact and give greater insight into the composition of that impact, in terms of which industries will benefit from that increased economic activity.

Specifically, this report relies on industry standard input-output modeling techniques to translate a more locally intensive food system into the greater economic impact it produces. More local sourcing means more economic opportunities for local businesses, which increases the indirect effect of an activity's local supply chain, resulting in greater economic impact in the region. In parallel, more local sourcing means more jobs and labor income stay local, increasing the induced effect from an activity paying out salaries and wages. A portion of this income, representing the induced effect, is then spent back into a regional economy, supporting additional economic activity. This report endeavors to estimate the magnitude of this indirect and induced effect gain, in terms of the increased economic activity resulting from a more locally sourced regional food system, as well as the distribution of the indirect and induced effect gain, in terms of how those gains distribute to industries throughout a regional economy and produce jobs.

Here are some value characteristics of the anticipated economic gains:

More local sourcing means more local jobs – Intensifying the multiplier effect of each region's food system and yielding more local jobs and more local tax revenues to fund critical local public services, with a particular focus on the potential for mid- and small-scale farming operations.

Better paying jobs means more money in local pockets – A regional food system results in more money in the pockets of members of a region's lower-income households, providing them with a financial boost, and in turn their household spending serves as an additional boost to their local economies.

Creates greater resilience against supply chain disruptions – Greater localization of regional food systems also buffer those systems against the shocks of disruptions or even cessations in the global food supply chain, creating greater resilience against the kinds of price shocks and temporary shortages that can disproportionately harm a region's most vulnerable households.

Focus on Equity creates greater economic opportunity – Similarly, a focus on equity of economic opportunity brings otherwise marginalized residents into employment opportunities and under-represented businesses into revenue opportunities, increasing the strength and resilience of a region's economy by bringing more active participants into it.

Fosters environmental resilience – Finally, environmental objectives yield the sort of positive outcomes – preserving this fragile planet, safeguarding clean air and water, ensuring the long-term sustainability of food sources – that people

desire and benefit from, improving their quality of life and lowering the risk of costly or even catastrophic future shocks that may imperil that quality of life.

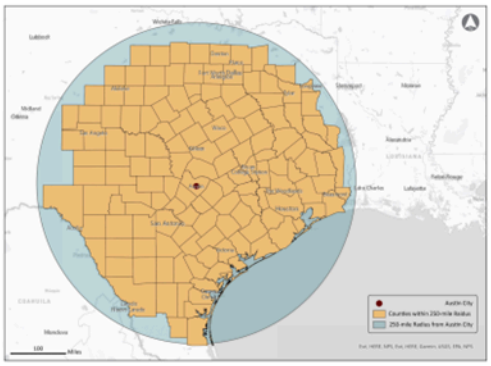
1.3. Six Study Regions

The Center and its expert advisors selected six regions to be studied in this report (see Figure 1.1). The regions were selected through an assessment, based on their knowledge of the character and amount of food system localization activity (political, social, financial) across the country, the varying degrees of success and scale, and the geographically representative aspects of the regions. Each study region is anchored by a major city and was determined by using the Center's definition of "local" for food systems, which is 250 miles.[1] The geographic scope of our six study regions was defined by drawing a 250-mile radius around the center-point of that city and including all counties within that radius.

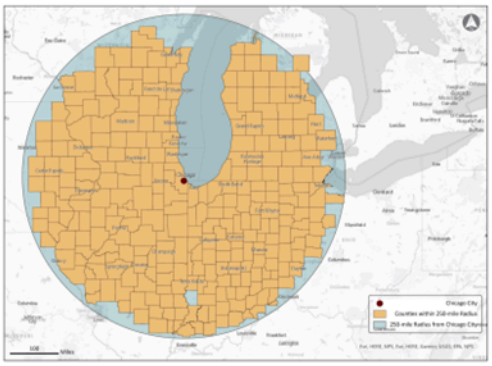
[1] The definition was developed by the Center over the course of a three-year intensive research and stakeholder informed process.

Figure 1.1 Six Regions Studied in This Report[2]

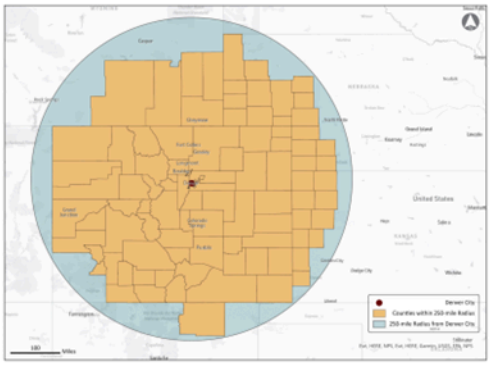
Major City: Austin
Number of Counties: 146
Population: 25.2 million



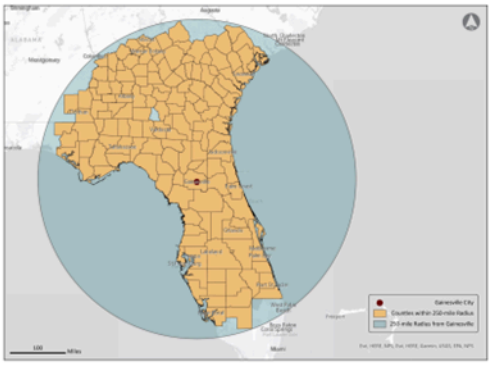
Major City: Chicago
Number of Counties: 293
Population: 34.6 million



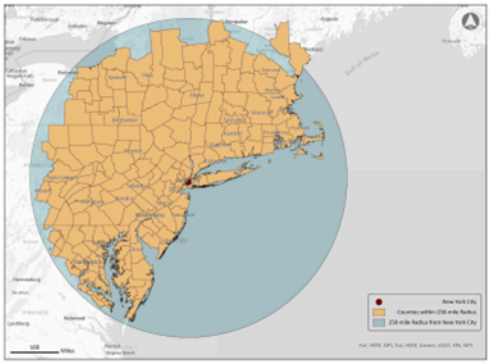
Major City: Denver
Number of Counties: 92
Population: 6.1 million



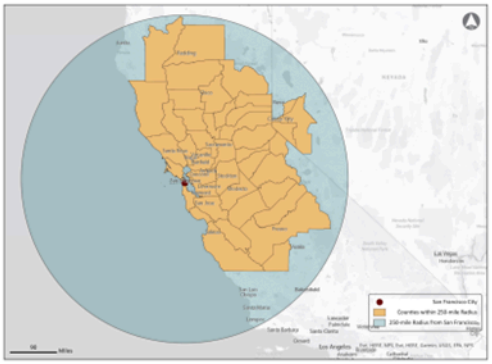
Major City: Gainesville
Number of Counties: 145
Population: 17.4 million



Major City: New York City
Number of Counties: 193
Population: 60.9 million



Major City: San Francisco
Number of Counties: 44
Population: 15.1 million



Source: Econsult Solutions (2023), ArcGIS (2023)

[2] See Appendix A for demographic summary tables and a list of counties that comprise each of the six regions.

The six regions were selected to collectively represent a diverse selection of demographic profile and food system composition, with the goal that these regions could be representative of how impacts may scale throughout the nation. Also, the analytical techniques employed in this report for these six regions can be replicated with other regions to yield a similar outcome in terms of filling knowledge gaps on the impact from achieving aspirational localization levels.

1.4. Report Overview

This report is structured as follows:

- Section 2 gives a brief literature review of the key concepts and terms that are employed throughout the report, including which industries and commodities make up a food system, and how to define a "good job."
- Section 3 provides extensive detail on the current magnitude and localization percentage of the food system in the six regions, and what an aspirational yet achievable level of greater localization would look like by region.
- Section 4 displays and narrates the overall economic footprint of the food system in the six regions, and what the economic impact would be if those regions achieved a higher level of local sourcing in its food system.
- Section 5 describes six illustrative jobs, one for each study region, the number of which would be increased if greater localization of the food system were accomplished, to provide further insight as to how a more locally sourced food system creates both economic gains and a wide range of positive social impacts.
- Section 6 concludes the report with a framing of these impacts in "return on investment" terms, which is to say that understanding the gains from a more locally intensive food system helps drive whether and how to invest meaningful resources to achieve that aspiration.

2. Seeking a Resilient and Equitable Food System

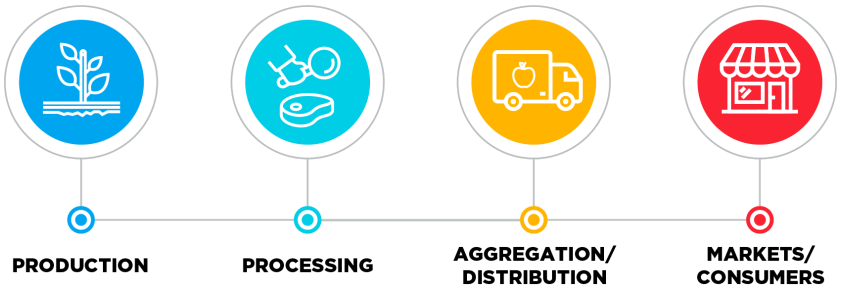
2.1. Section Overview

The foundational basis for the quantification analysis presented in this report is the merging conceptual frame of the need for more resilient and equitable food systems, as captured in contemporary literature on the subject. In this section we explain our understanding of:

- The growing municipal interest, particularly past COVID-19 pandemic, towards greater resilience in food systems, which often includes localization due to the shorter and less intermediated supply chains based on more robust and community-oriented relationships.
- Our working definition of "good quality jobs."

2.2. Greater Localization of Food Systems Can Lead to Greater Resilience

Over the years since the Center launched its signature Good Food Purchasing Program (first adopted by the City of Los Angeles in 2012[3]), there has been increasing momentum at the municipal, national, and international level toward more holistic approaches toward food system reform. At the municipal level, there is a need for consistent government funding to promote value-chain innovation among local vendors to help build shorter supply chains and quickly redirect these supply chains when necessary.[4] The COVID-19 pandemic caused considerable disruptions to all parts of local food systems. The U.S. Department of Agriculture (USDA) created a framework to ensure that when the food systems recover from the pandemic, they are more resilient. The framework includes provisions for increasing access to affordable and nutritious food, decreasing market dominance, increasing distribution of food systems, and reducing climate impacts.[5]



At the international level, recognizing the issue and the need for more local levels of engagement, Olivier De Schutter, United Nations Special Rapporteur on the Right to Food, from 2008-2014, wrote in his prescient January 2014 final report to the United Nations:[6]

> *"Most stakeholders agree, in general terms, on the urgent need for reform. Measured against the requirement that they should contribute to the realization of the right to*

[3] City of Los Angeles Executive Directive 24, found at http://ens.lacity.org/mayor/villaraigosa/mayorvillaraigosa331283141_10242012.pdf.
[4] Daniels, P., & Delwiche, A. (2020, June 20). *Investing in a Good Food Future*. resilience. HYPERLINK "https://www.resilience.org/stories/2020-06-25/investing-in-a-good-food-future/"https://www.resilience.org/stories/2020-06-25/investing-in-a-good-food-future/
[5] *USDA Announces Framework for Shoring Up the Food Supply Chain and Transforming the Food System to Be Fairer, More Competitive, More Resilient*. (2022, June 1). U.S. Department of Agriculture. https://www.usda.gov/media/press-releases/2022/06/01/usda-announces-framework-shoring-food-supply-chain-and-transforming
[6] De Schutter, O. (2014, January 24). *Final report: The transformative potential of the right to food, Report of the Special Rapporteur on the right to food*. United Nations General Assembly. Retrieved June 17, 2020, from http://www.srfood.org/images/stories/pdf/officialreports/20140310_finalreport_en.pdf

> *food, the food systems we have inherited from the twentieth century have failed. Of course, significant progress has been achieved in boosting agricultural production over the past fifty years. But this has hardly reduced the number of hungry people, and the nutritional outcomes remain poor."*

The UN Special Rapporteur advocated for rebuilding local food systems:[7]

> *"The modernization of food supply chains, together with the implementation of agricultural policies focused more on the production of commodities than on food, has led to the marginalization of local food systems over recent years... This trend must be reversed. Small-scale food producers must be provided with greater opportunities to sell on the local markets, which they can more easily supply without having to be dependent on large buyers. Furthermore, the poorest consumers, who now often rely on large retailers or fast-food outlets to feed themselves, must have the possibility to purchase food that is fresh and nutritious, and therefore healthier. These include the urban poor…Local food systems can be rebuilt through appropriate investments in infrastructure, packaging and processing facilities, and distribution channels, and by allowing smallholders to organize themselves in ways that yield economies of scale and allow them to move towards higher-value activities in the food supply chain. This would support rural development and the reduction of rural poverty, and slow down rural-to-urban migration… The strengthening of local food systems would also improve the resilience of cities."*

In that same year, the Milan Urban Food Policy Pact was launched, which includes a series of best practices to which its signatory cites commit.[8] The Pact acknowledges that:

> *"…current food systems are being challenged to provide permanent and reliable access to adequate, safe, local, diversified, fair, healthy and nutrient rich food for all; and that the task of feeding cities will face multiple constraints posed by inter alia, unbalanced distribution and access, environmental degradation, resource scarcity and climate change, unsustainable production and consumption patterns, and food loss and waste."*

The signatory cities to the Pact commit to, among many other things:

- Develop sustainable food systems that are inclusive, resilient, safe, and diverse, that provide healthy and affordable food to all people in a human rights-based framework, that minimize waste and conserve biodiversity while adapting to and mitigating impacts of climate change.
- Encourage interdepartmental and cross-sector coordination at municipal and community levels, working to integrate urban food policy considerations into social, economic and environment policies, programs, and initiatives, such as, inter alia, food supply and distribution, social protection, nutrition, equity, food production, education, food safety, and waste reduction.

[7] Id., at page 15
[8] Milan Urban Food Policy Pact. (n.d.).

Over 250 cities around the world (including Austin, Chicago, New York, and San Francisco, four of our six study regions) have now signed the Pact, which includes as Act 20: "Promote and strengthen urban and peri-urban food production and processing based on sustainable approaches and integrate urban and peri-urban agriculture into city resilience plans." Indicator 26 of the Pact calls out: "Presence of municipal policies and regulations that allow and promote agriculture production and processing in the municipal area" (In 2022, New York City won an award from the Milan Urban Food Policy Pact for its policy framework adopting the Good Food Purchasing Program).[9]

In 2018, the Food and Agriculture Organization of the United Nations provided further support for the need of regional, localized food systems in its initiative called "Scaling Up Agroecology Initiative: Transforming Food and Agriculture Systems in Support of the SDGs." They describe agroecology as:

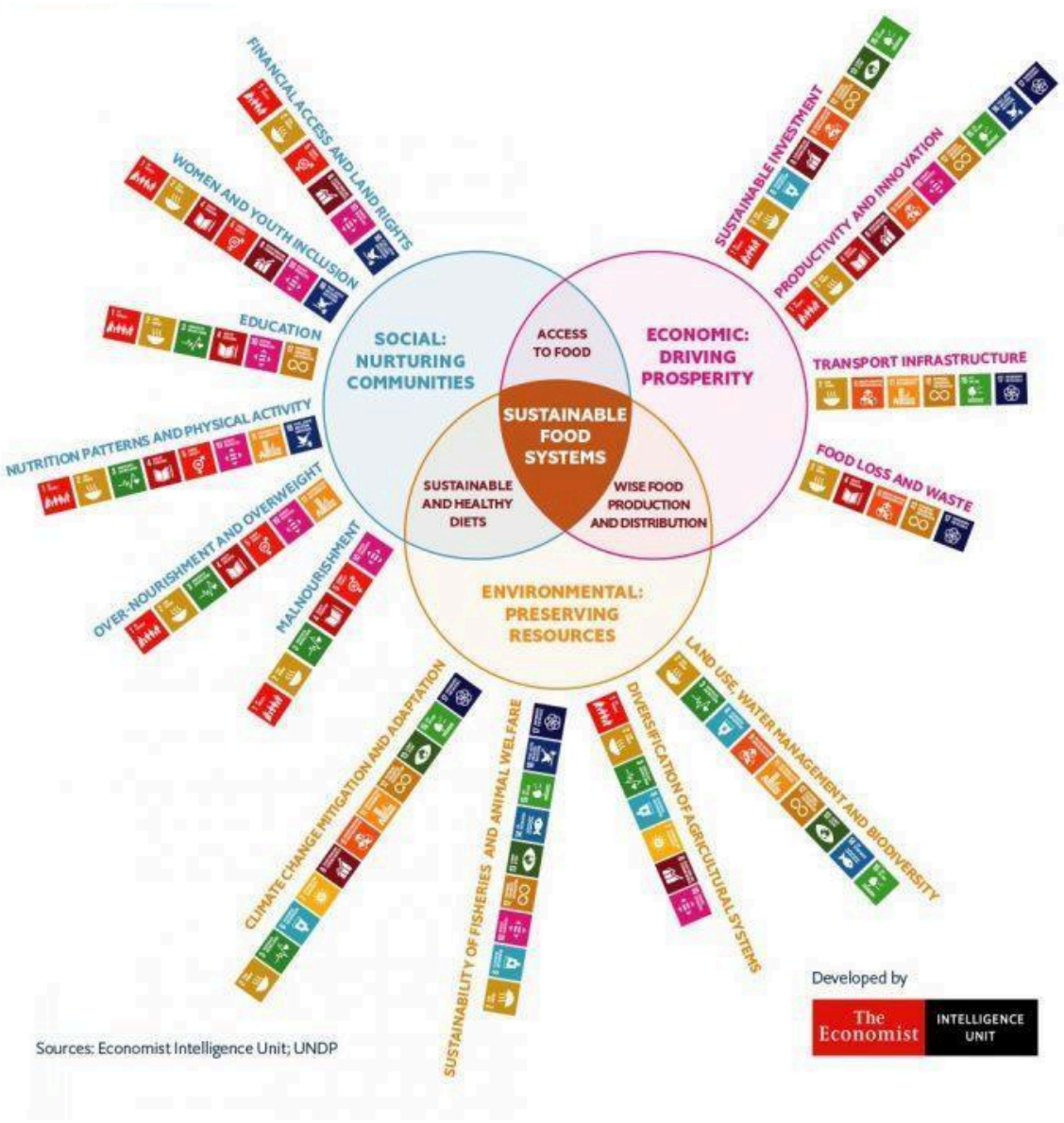
> *"…fundamentally different from other approaches to sustainable development. It is based on bottom-up and territorial processes, helping to deliver contextualized solutions to local problems. Agroecological innovations are based on the co-creation of knowledge, combining science with the traditional, practical, and local knowledge of producers. By enhancing their autonomy and adaptive capacity, agroecology empowers producers and communities as key agents of change."*

The 10 Elements of Agroecology resulted from a multi-stakeholder process spearheaded by Food and Agriculture Organization (FAO) of the United Nations intended to generate a system re-design framework to be optimized and adapted to local contexts. The framework was created to strengthen policy processes; allow for the compilation and dissemination of knowledge, science, and innovation; provide provisions of technical assistance; and execute field projects. The initiative aims to accompany and support national agroecology transition processes through policy and technical capacity that builds synergies between countries. The initiative develops, implements, and continuously improves tools, instruments, and documents for guiding national agroecological transitions.[10]

Sustainable food systems are also at the intersectional heart of the United Nations' 17 Sustainable Development Goals. Figure 2.1 by the Economist Intelligence Unit and the Barilla Center for Food and Nutrition sorts the United Nations Sustainable Development Goals (UN SDG) into three pillars of: nurturing social communities, driving economic prosperity, and preserving environmental resources, to illustrate how sustainable food systems apply to all UN SDG goals.[11]

[9] Milan Pact Awards 2022. (n.d.). Milan Urban Food Policy Pact. https://www.milanurbanfoodpolicypact.org/milan-pact-awards/milan-pact-awards-2022/
[10] *Agroecology Knowledge Hub*. (2018). Food and Agriculture Organization of the United Nations. https://www.fao.org/agroecology/overview/overview10elements/en/
[11] "Food Sustainability Index." (2018). Economist Intelligence Unit. https://impact.economist.com/projects/foodsustainability/.

Figure 2.1 Sustainable Food Systems and United Nations Sustainable Development Goals



Source: Economic Intelligence Unit, UNDP (2018)

The journey towards greater localization brings to light shared global concerns by sector, geographies, and culture. The development of sustainable food systems must have shared development goals that work towards ending extreme poverty, reducing inequities, and protecting the plant. No matter where one lives, there is a mutual set of outcomes that will help determine the future of how we work, live, and care for the environment. Redefining good jobs in the food systems is an important part of the path for developing a sustainable food system.

2.3. The Rising Importance of Environmental Sustainability in Food Production

Along with a growing recognition of the need to pursue resilience in food systems through greater localization, another trend is environmental sustainability in food production, which among other things has led to a boom in alternative and plant-based food production. This area of food production revenue has exploded over the past decade, following a similar explosion in the proportion of the population who identify as vegan or vegetarian. The U.S. witnessed a 30-fold surge in the number of vegans between 2004 and 2019.[12] Likewise, over the past three years alone, U.S. plant-based food sales grew by 44% to $8.0 billion.[13] One study found that the U.S. "Alternative Food Market" is expected to grow at a compound annual growth rate of 11.7 percent through 2027.[14] Growth in the alternative food industry is expected to create increased demand for food scientists, manufacturing directors, research and development experts, material scientists, biotechnologists, policy specialists, operations associates, and more.[15]

Different food alternatives have reached varied levels of disruption to the conventional/traditional sources of dairy, meat, and eggs. In the U.S. retail market, plant-based milk accounts for 15 percent of the total milk dollar share, plant-based meat holds a one percent dollar share of the total meat market, and the plant-based egg category represents 0.5 percent of the overall egg dollar share.[16] The growing alternative and plant-based food production business has been and will continue to create job opportunities in a variety of fields, from food scientists to marketing managers, research and development technicians, sales specialists, financial professionals, production engineers, communications specialists, IT experts, manufacturing technicians, and more. Alternative food companies will require personnel to handle every step of the product creation process, in addition to business-oriented jobs that every customer facing industry requires.

The plant-based and alternative protein industry has similarly skyrocketed over the past decade. Over the past five years, plant-based meat producers have seen a compound annual growth rate of 16.2 percent. This rapid increase has been driven both by individual purchases, but also by fast food partnerships by prominent alternative protein producers.[17] A study by Boston Consulting Group and Blue Horizon found that the global alternative protein market is expected to reach at least $290 billion by 2035. The report expects alternative proteins to reach parity with animal proteins in three stages from 2023-2032, driving new waves of growth in the market share.[18] A key focus for the Alternative Protein Industry is increasing the affordability and availability of products, both of which have been strained by

[12] *Soylent - Vegan Statistics*. (n.d). Soylent. https://soylent.com/pages/vegan-statistics#:~:text=Key%20Highlights,the%20US%20increased%2030%20fold.
[13] *Key plant-based food sales metrics and purchase dynamics*. (2023). Good Food Institute. .https://gfi.org/marketresearch/
[14] *Global Alternative Food Market (2022 to 2027) - Featuring Beyond Meat, Nestle and Impossible Foods Among Others*. (2022, May 12). GlobalNewswire https://www.globenewswire.com/news-release/2022/05/12/2441819/0/en/Global-Alternative-Food-Market-2022-to-2027-Featuring-Beyond-Meat-Nestle-and-Impossible-Foods-Among-Others.html
[15] *Alt protein careers board*. (n.d.). Good Food Institute. Retrieved May 23,2023 from https://gfi.org/vocation/
[16] *Key plant-based food sales metrics and purchase dynamics*. (2023). The Good Food Institute. https://gfi.org/marketresearch/.
[17] *Meat Alternatives Production in the US industry trends (2018-2023)*. (2023, March 21). IBISWorld. https://www.ibisworld.com/united-states/market-research-reports/meat-alternatives-production-industry/
[18] *Alternative-Protein Market to Reach at Least $290 Billion by 2035*. (2021, March 23). BCG Global. https://www.bcg.com/press/23march2021-alternative-protein-market-reach-290-billion-by-2035

political factors, outbreaks of the avian flu, extreme weather, continued pandemic impacts (i.e., labor shortages), and other supply chain disruptions. This is essential for continued growth in the industry, with 25 percent of consumers listing cost as a reason why they have not tried plant-based meat.[19]

2.4. Our Taxonomy for Regional Food System Study Areas

For the purpose of this report, the following categories are used, largely hewing to approaches taken by other contemporary food systems research shown in Figure 2.2 below.[20]

Figure 2.2 Food Systems Taxonomy Used in This Report

Agriculture involves the cultivation of crops, rearing of animals, and other farming activities to produce grains, vegetables, or milk and cheese.

Manufacturing encompasses the conversion of raw materials into finished food products.

Transportation includes the movement of food products from one location to another such as the place of production to the place of manufacturing.

Wholesale refers to the sale of food products in large quantities to retailers and other businesses.

Retail involves the direct sale of food products to consumers through grocery stores, farmers markets, and online platforms.

Food service component includes the provision of food and beverages to other businesses and organizations, in a B2B (business to business) setting, and to individual consumers for final consumption, in a B2C (business to consumer) setting.

Delivery involves the transportation of food products from food service establishments to customers' locations.

Other denotes overhead functions required of food businesses that are required of all businesses (e.g., utilities).

Source: Econsult Solutions (2023)

[19] *Key plant-based food sales metrics and purchase dynamics*. (2023). The Good Food Institute. https://gfi.org/marketresearch/.
[20] Klavinski, R. (2012, November 13). What is a community food system? MSU Extension. https://www.canr.msu.edu/news/what_is_a_community_food_system

2.5. Defining a Good Quality Job

A working definition of a good quality job for this report is one that ensures that farm and food chain workers have the right to freedom of association; to organize a union; and to bargain collectively, free from reprisal, for livable wages and safe and healthy working conditions. Food businesses that uphold and implement principles of workers' rights; cooperative ownership; democratic decision-making; and migrant, racial, and gender justice help to ensure that food workers can live and work with dignity.[21]

[21] "Good Food Purchasing Program: PURCHASING STANDARDS FOR FOOD SERVICE INSTITUTIONS V3.0", Center for Good Food Purchasing, https://gfpp.app.box.com/v/GFPPStandards2023

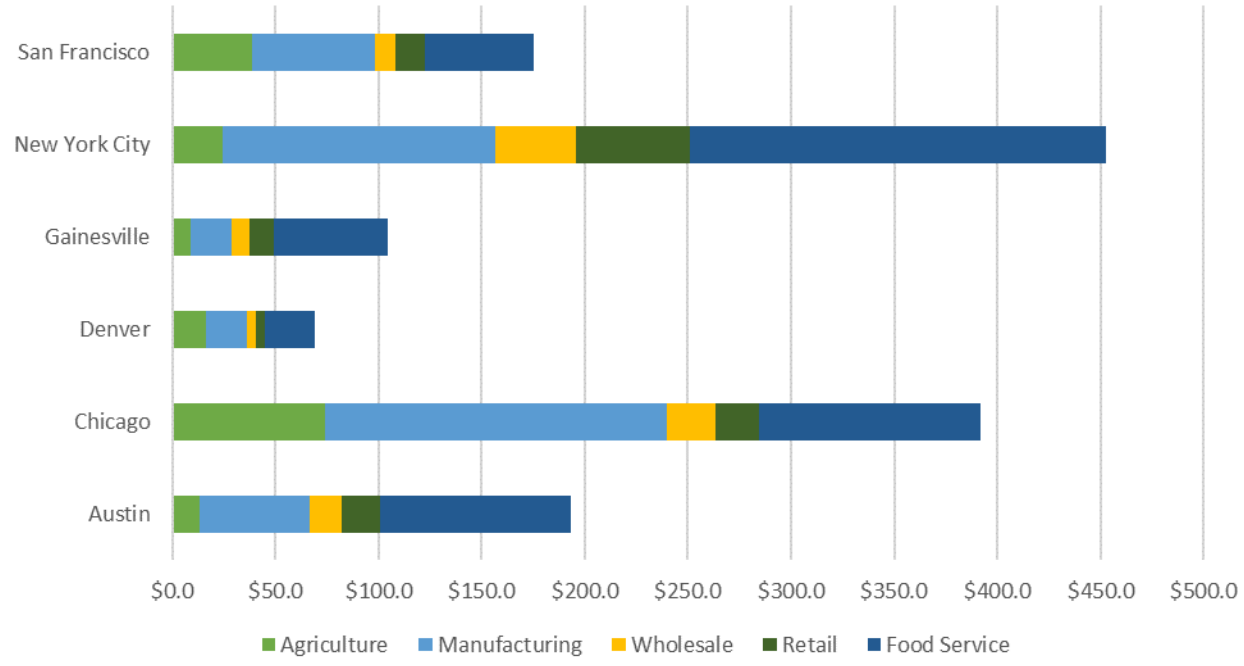
3. Regional Food Systems, Current vs. Aspirational

3.1. Section Overview

The purpose of this section is to estimate the current size of the food system in the six regions, as well as how much larger the food system will be if each region is successful in achieving a higher level of local sourcing within its food system.

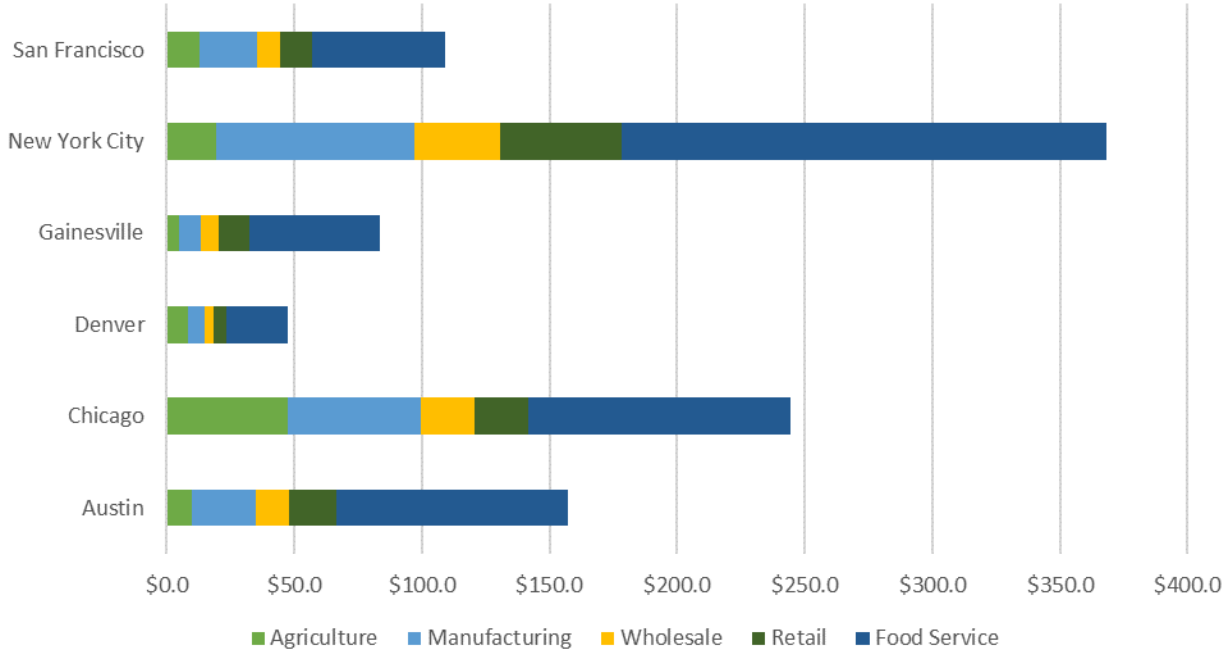
For each region, we determined the value of the output and inputs for the food system. The outputs are the commodity production, and the inputs are the intermediate economic activity needed for each sector. We will use the output side, the commodity production, to measure localization and determine what the impact is when that localization increases. Figure 3.1 demonstrates the significant amount of direct economic activity in commodity production in each region, from $69.3 billion in the Denver region to $452.8 billion in the New York City region. These commodities come from five different sectors (agriculture, manufacturing, wholesale, retail, and food service). Of the commodities produced by each region, only a limited percentage stays within the local economies (see Figure 3.2). In Denver and New York City, $47.3 billion and $368.2 billion stay local, respectively. Achieving higher levels of localization in these regional food systems would generate even more economic activity (see Figure 3.3). This in turn would support a larger number of jobs and generate additional tax revenues to fund critical public services, the magnitude and composition of which are explored in Section 4.

Figure 3.1 Current Commodity Production by Region (in $B)



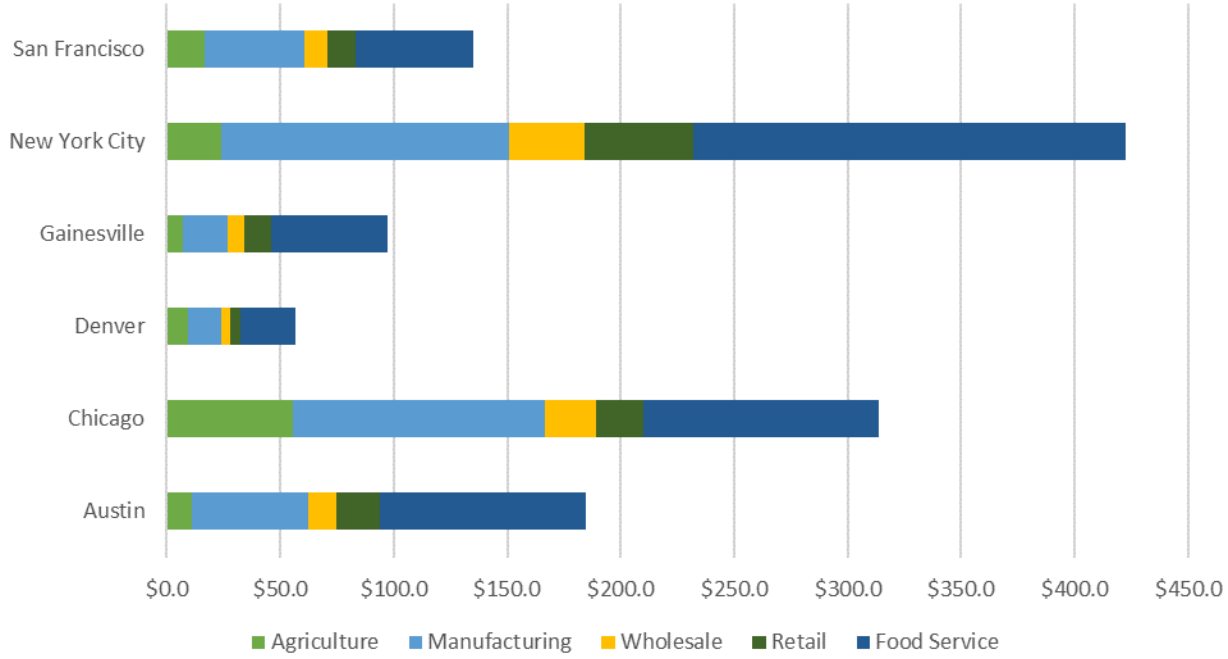
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 3.2 Local Use of Local Production by Region (in $B)



Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 3.3 Projected Local Use of Local Production with Localization Increase by Region (in $B)



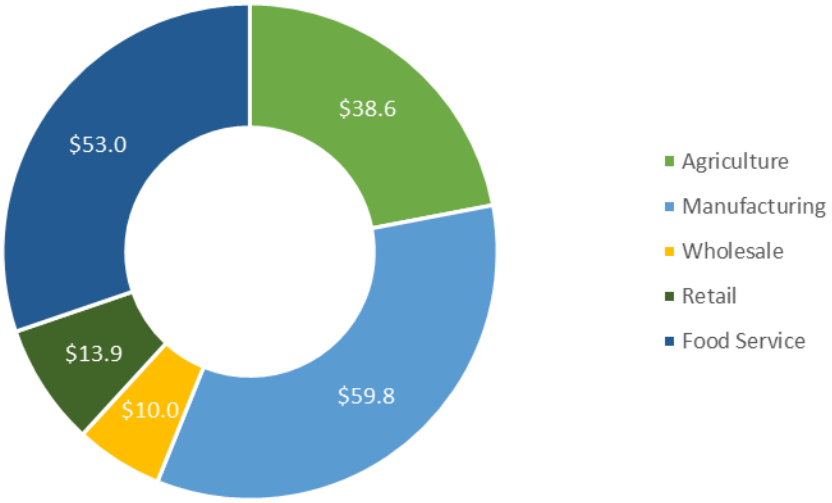
Source: Econsult Solutions (2023), IMPLAN (2023)

3.2. Data Sources and Analysis Methodology

To estimate the current size of the food system by region, ESI used values from each of the region's food sectors found in the IMPLAN data set. Based on the county level data, we aggregated the counties that form each of the six regions of the study. After setting the grouped counties areas, we selected the industries that comprise the food system. Of the 546 industries currently in IMPLAN, ESI found that 64 could be attributable to the production, processing, and consumption of food.[22]

With the selection of industries that make up a region's food system, ESI determined the dollar value of the commodity production of each system, aggregating these by five categories (agriculture, manufacturing, wholesale, retail, and food service). The San Francisco region's amounts and distributions are shown in Figure 3.4.

Figure 3.4 San Francisco's region's amounts and distributions (in $B)



Source: Econsult Solutions (2023), IMPLAN (2023)

The localization ratios were estimated using IMPLAN's regional purchase coefficient for food commodities. These coefficients show the share of demand for a commodity produced locally. For example, in the San Francisco 250-mile radius area, the demand for grains is supplied 26 percent by local sources (giving it a regional purchase coefficient of 0.26). The rest of the demand, 74 percent needed in the region, is supplied by imports from other areas outside the defined region. ESI compiled the regional purchase coefficient for all 64 commodities for the six study regions.

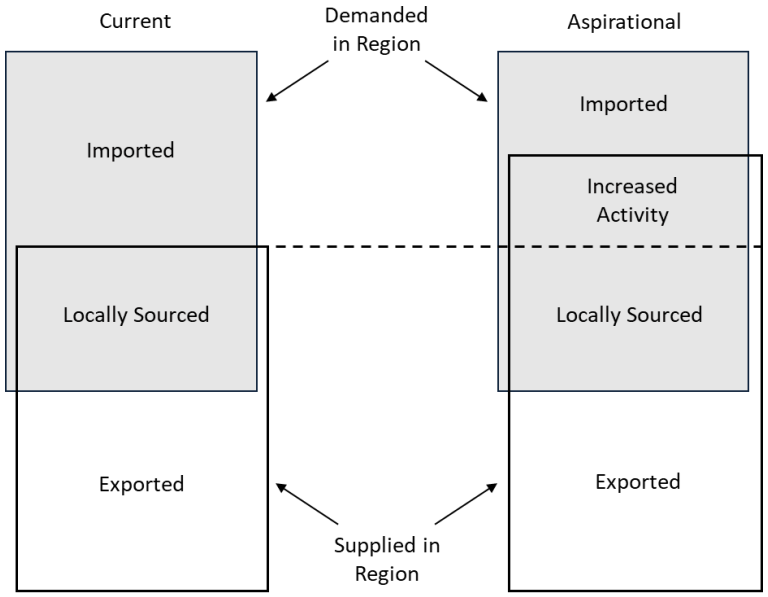
[22] See Appendix B for a taxonomy of the food system categories used in this report, based on groupings by IMPLAN Industry.

In addition to the regional purchasing coefficient, ESI calculated how much this coefficient could increase in each region based on current local capacity. This local capacity was determined by looking into the regional supply coefficient. This coefficient is provided by IMPLAN and describes the percentage of local production of a given commodity that stays in the local economy. For example, the regional supply of grains in the San Francisco 250-mile radius area, is 79 percent. This means that 79 percent of the commodity supply produced locally stays in the region. The rest of the commodity that is not used locally is exported to other regions. This provides an opportunity to increase localization.

The increase in localization is governed by the regional supply coefficient, and how much local production capacity is staying local versus how much is being exported. This way, the increase in regional purchase coefficient would fall within current production patterns and would not exceed current production capacity of each region for each individual commodity.

It is important to note that the goal in greater localization of food systems is not to exchange export opportunities with fulfillment of needs within a region. Export is a healthy and necessary aspect of any regional economy; indeed, regional economies can only grow and thrive when they include goods and services being made locally and consumed elsewhere, thus bringing dollars into a region to support local jobs and the local tax base. By scaling localization opportunity to current production, this analysis hews to conservative growth opportunities, with an assumption that, at appropriate scale, a regional food system would contribute more locally while still meeting or exceeding past export opportunity levels, thus increasing economic activity within a region, and yielding significant spillover benefits throughout that region in terms of jobs supported and tax revenues generated.

Figure 3.5 Increase in Aspirational Localization



Source: Econsult Solutions (2023)

The next two sub-sections show first the distribution and size of the current food system in the six study regions, and then how much larger those food systems would be if regions achieved greater local sourcing. Achieving those aspirations would create a bigger economic footprint, generating numerous jobs and new tax revenues in the process.

3.3. Current Economic Footprint of Regional Food Systems

Based on the methodology described in the previous section, ESI calculated the current size of the local food system for each of the six study regions. The annual production of food industries by region is displayed in Figure 3.6. For Austin, the total production amounts to $193.5 billion, for Chicago, it is $392.0 billion, for Denver, it is $69.3, for Gainesville, it is $104.6 billion, for New York City, it is $452.8 billion, and for San Francisco, it is $175.3 billion. These amounts correspond to the dollar amount of total outputs produced by the five sectors.

Although manufacturing and food service categories are the largest producing sectors across geographies, the New York City area stands out, as the food service category equals almost half of the total annual production and the manufacturing category is more than five times the agricultural production output. This could become an opportunity to strengthen the role and relationship between agriculture and manufacturing.

Figure 3.6 Current Annual Production of Food Systems by Region

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Population (M)	25.2	34.6	6.05	17.4	60.9	15.1
Agriculture ($B)	$13.2	$74.1	$16.0	$9.0	$24.2	$38.6
Manufacturing ($B)	$53.2	$165.7	$20.2	$19.6	$132.2	$59.8
Wholesale ($B)	$15.4	$23.4	$3.9	$8.7	$39.2	$10.0
Retail ($B)	$18.7	$21.1	$4.6	$11.9	$55.6	$13.9
Food Service ($B)	$93.0	$107.8	$24.4	$55.4	$201.6	$53.0
Total ($B)	**$193.5**	**$392.0**	**$69.3**	**$104.6**	**$452.8**	**$175.3**

Source: Econsult Solutions (2023), IMPLAN (2023)

Additionally, we calculated the size of the intermediate inputs needed in each region's food system, based on eight defined categories (agriculture, manufacturing, transportation, wholesale, retail, food service, delivery, and other). Intermediate inputs are the commodities and services that are used by the food system as part of its production process. The annual intermediate inputs results are displayed in Figure 3.7. These inputs will also increase with the growth in localization of food systems. From the current intermediate inputs, we can observe that most of the regions use less agricultural intermediate products than they produce, except for the Austin and New York City regions. New York City in particular stands out as it needs $30.5 billion in agriculture intermediate inputs for its industries, while it produces $24.2 billion of agricultural activity in the region. This indicates the presence of a strong manufacturing and consumption industry, which in turn demands agricultural goods. A conclusion could be that the investment in value added food production has yielded greater local economic activity.

Figure 3.7 Current Annual Intermediate Inputs of Food Systems by Region

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Population (M)	25.2	34.6	6.05	17.4	60.9	15.1
Agriculture ($B)	$14.8	$65.4	$10.4	$5.1	$30.5	$16.8
Manufacturing ($B)	$27.5	$63.5	$8.8	$13.5	$61.0	$23.4
Transportation ($B)	$8.0	$18.8	$3.3	$4.3	$19.0	$6.9
Wholesale ($B)	$8.7	$23.8	$3.8	$4.4	$20.2	$9.5
Retail ($B)	$1.6	$2.5	$0.4	$0.9	$3.2	$1.0
Food Service ($B)	$0.8	$1.1	$0.2	$0.5	$1.6	$0.5
Delivery ($B)	$0.6	$0.9	$0.2	$0.4	$1.5	$0.4
Other ($B)	$42.5	$65.6	$12.3	$24.7	$90.1	$26.0
Total ($B)	**$104.4**	**$241.6**	**$39.5**	**$53.6**	**$227.1**	**$84.6**

Source: Econsult Solutions (2023), IMPLAN (2023)

3.4. Aspirational Economic Footprint of Regional Food Systems

Based on the numbers defined by ESI as the size of the local use of locally produced food for each region (Figure 3.8), a new localization percentage was used as the aspirational localization to achieve. The new localization percentage was determined using the methodology described in Section 3.2. Based on the results of the new localization, the projected size of the local use of locally produced food was

determined for each region alongside their intermediate inputs, shown in Figures 3.9 and 3.10.

Figure 3.8 Current Annual Local Use of Local Supply by Region

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Agriculture ($B)	$9.7	$47.5	$8.6	$4.9	$19.7	$12.9
Manufacturing ($B)	$25.5	$51.9	$6.5	$8.5	$77.6	$22.6
Wholesale ($B)	$12.8	$21.1	$3.5	$7.1	$33.1	$9.3
Retail ($B)	$18.7	$21.1	$4.6	$11.8	$48.0	$12.3
Food Service ($B)	$90.7	$102.8	$24.0	$51.1	$189.8	$52.0
Total ($B)	**$157.4**	**$244.4**	**$47.3**	**$83.4**	**$368.2**	**$109.0**

Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 3.9 Projected Annual Local Use of Local Supply by Region if Greater Local Sourcing Levels Were Achieved

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Agriculture ($B)	$11.3	$55.5	$9.5	$7.0	$24.0	$16.7
Manufacturing ($B)	$50.8	$111.2	$14.8	$19.6	$126.9	$44.1
Wholesale ($B)	$12.9	$22.2	$3.6	$7.3	$33.2	$10.0
Retail ($B)	$18.7	$21.1	$4.6	$11.9	$48.0	$12.3
Food Service ($B)	$90.9	$103.5	$24.1	$51.4	$190.2	$52.1
Total ($B)	**$184.6**	**$313.5**	**$56.6**	**$97.3**	**$422.3**	**$135.1**
% Increase	**17%**	**28%**	**20%**	**17%**	**15%**	**24%**

Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 3.10 Projected Annual Intermediate Inputs of Food Systems by Region if Greater Local Sourcing Levels Were Achieved

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Agriculture ($B)	$14.8	$72.0	$11.0	$6.1	$32.4	$19.7
Manufacturing ($B)	$36.1	$91.2	$12.1	$16.0	$76.9	$32.4
Transportation ($B)	$8.0	$18.8	$3.3	$4.3	$19.0	$6.9
Wholesale ($B)	$9.1	$25.1	$4.2	$4.7	$20.7	$10.6
Retail ($B)	$1.7	$2.5	$0.4	$1.0	$3.4	$1.0
Food Service ($B)	$0.9	$1.2	$0.3	$0.5	$1.6	$0.5
Delivery ($B)	$0.6	$0.9	$0.2	$0.4	$1.5	$0.4
Other ($B)	$42.5	$65.6	$12.3	$24.7	$90.1	$26.0
Total ($B)	**$113.7**	**$277.3**	**$43.7**	**$57.6**	**$245.6**	**$97.5**
% increase	**8.9%**	**14.8%**	**10.7%**	**7.4%**	**8.1%**	**15.3%**

Source: Econsult Solutions (2023), IMPLAN (2023)

4. Economic Impact from Greater Localization of Food System Activity

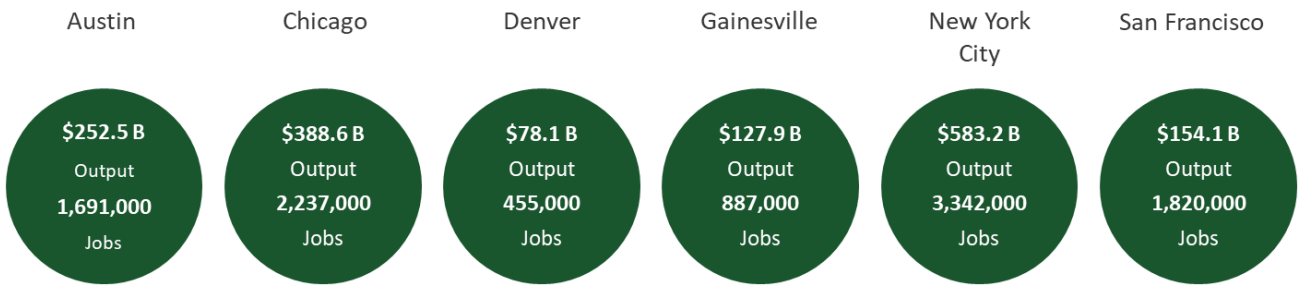
4.1. Section Overview

The purpose of this section is to estimate the current economic impact of the food system in the six regions, as well as how much larger that impact will be if each region is successful in achieving a higher level of local sourcing within its food system.

For each region, the food system currently represents a significant amount of economic activity (see Figure 4.1). This in turn supports a large number of jobs and generates significant tax revenues to fund critical public services.

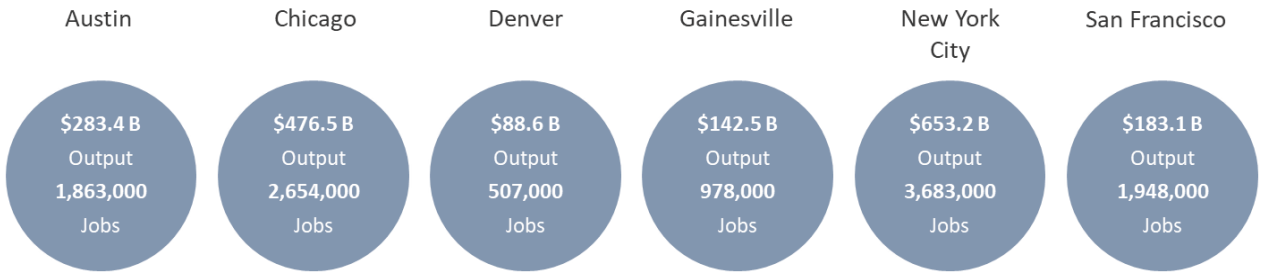
A higher level of greater local sourcing would mean more economic activity within a region, as well as a more locally intensive food system, which in turn produces greater economic impact, supports more jobs, and generates more tax revenues (see Figure 4.2 and Figure 4.3). These economic gains from achieving a more local food system are an important part of the return that will result from investing in that which is needed to achieve a more local food system.

Figure 4.1 Current Annual Economic Impact of Food Systems in Each Region



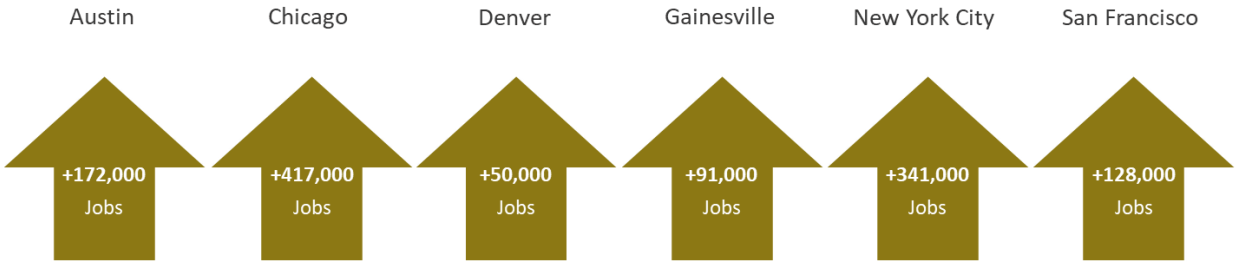
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.2 Projected Annual Economic Impact of Food Systems in Each Region if Greater Local Sourcing Levels Were Achieved



Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.3 Increase in Annual Jobs Supported in Each Region if Greater Local Sourcing Levels Were Achieved



Source: Econsult Solutions (2023), IMPLAN (2023)

4.2. Data Sources and Analysis Methodology

To estimate the economic impact of regional food systems, ESI employed industry-standard economic modeling techniques to translate direct economic activity generated by local food systems into total economic impact within their respective regions.

Data inputs for the input-output modeling were established by increasing the localization coefficient of food related commodities (see Section 3.2 for localization coefficients). Food related commodities were distributed in five categories: agriculture, manufacturing, wholesale, retail, and food service.[23] See Figure 4.4 for current annual economic footprint inputs, and Figure 4.5 for the new annual economic footprint achieved with greater localization inputs. These inputs were used to estimate the current and future impact of food systems in each region in section 4.3.

Economic impact estimates are generated by utilizing input-output models to translate an initial amount of direct economic activity into the total amount of activity that it supports, which includes multiple waves of spillover impacts generated by food system industries spending on goods and services as well as spending of labor income by employees. The economic impacts from organizational expenditures are modeled using IMPLAN, an industry standard input-output model software program. Such models are designed to estimate two sets of spillover impacts from organizational expenditures:

- The indirect effect, which measures the multiplier effect from the purchase of goods and services from local vendors (i.e. supply chain impacts); and
- The induced effect, which measures the multiplier effect from the spending of labor income by employees within a geography (i.e. labor income impacts).

[23] The eight categories distribution in Section 3 refer to the industries that participate in the food systems, while this five-category distribution represents food related commodities.

Figure 4.4 Current Direct Annual Economic Footprint for Food Systems in Each Region (in $B)

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Agriculture	$9.7	$47.5	$8.6	$4.9	$19.7	$12.9
Manufacturing	$25.5	$51.9	$6.5	$8.5	$77.6	$22.6
Wholesale	$12.8	$21.1	$3.5	$7.1	$33.1	$9.3
Retail	$18.7	$21.1	$4.6	$11.8	$48.0	$12.3
Food Services	$90.7	$102.8	$24.0	$51.1	$189.8	$52.0
Total	**$157.4**	**$244.4**	**$47.3**	**$83.4**	**$368.2**	**$109.0**

Source: Econsult Solutions (2023), IMPLAN (2021)

Figure 4.5 Projected Direct Annual Economic Footprint for Food Systems in Each Region if Greater Local Sourcing Levels Were Achieved (in $B)

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Agriculture	$11.3	$55.5	$9.5	$7.0	$24.0	$16.7
Manufacturing	$50.8	$111.2	$14.8	$19.6	$126.9	$44.1
Wholesale	$12.9	$22.2	$3.6	$7.3	$33.2	$10.0
Retail	$18.7	$21.1	$4.6	$11.9	$48.0	$12.3
Food Services	$90.9	$103.5	$24.1	$51.4	$190.2	$52.1
Total	**$184.6**	**$313.5**	**$56.6**	**$97.3**	**$422.3**	**$135.1**

Source: Econsult Solutions (2023), IMPLAN (2021)

4.3. Economic Impact

These large direct economic footprints from food systems in turn support additional downstream economic activity, creating an even larger economic impact throughout each regional economy. Adjusting for the fact that some of this spillover impact is already accounted for in the food systems themselves (i.e., because "food system" as defined in this analysis is inclusive of many of the inter-linkages between industries and functions within a regional food system), this multiplier effect makes food systems even more impactful on each regional economy.

At present, the annual economic impact of food systems in the six regions ranges from $78.1 billion in the Denver region to $583.2 billion in the New York City region (see Figure 4.6). Should aspirational localization levels be achieved, the annual economic impact of food systems would increase significantly, creating billions of dollars in additional economic activity and supporting hundreds of thousands of additional jobs (see Figure 4.7, Figure 4.8, Figure 4.9, and Figure 4.10).

Figure 4.6 Current Annual Economic Impact of Food Systems by Region

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Direct Output ($B)	$123.7	$186.9	$38.2	$65.2	$279.5	$83.8
Indirect and Induced Impact ($B)	$128.8	$201.7	$39.9	$62.8	$303.7	$70.3
Total Output ($B)	$252.5	$388.6	$78.1	$127.9	$583.2	$154.1
Jobs Supported (FTE)	1,691,000	2,237,000	455,000	887,000	3,342,000	1,820,000
Labor Income ($B)	$73.5	$102.8	$21.8	$38.0	$186.6	$50.3

Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.7 Projected Annual Economic Impact of Food Systems by Region if Greater Local Sourcing Levels Were Achieved

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Direct Output ($B)	$139.0	$228.9	$43.3	$72.5	$313.4	$99.5
Indirect and Induced Impact ($B)	$144.4	$247.6	$45.3	$70.0	$339.7	$83.6
Total Output ($B)	$283.4	$476.5	$88.6	$142.5	$653.2	$183.1
Jobs Supported (FTE)	1,863,000	2,654,000	505,000	978,000	3,683,000	1,948,000
Labor Income ($B)	$82.0	$124.7	$24.7	$42.2	$207.2	$58.8

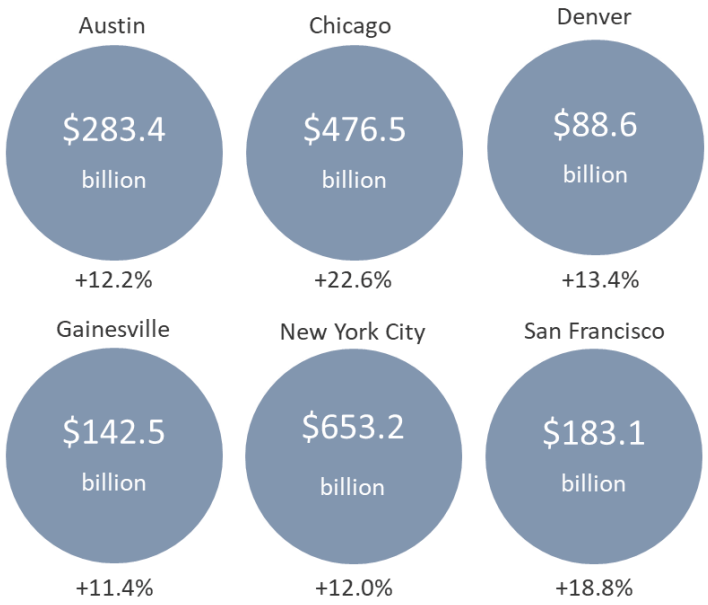
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.8 Percentage Change in Annual Economic Impact of Food Systems by Region if Greater Local Sourcing Levels Were Achieved

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Total Output (Current)	$252.5	$388.6	$78.1	$127.9	$583.2	$154.1
Total Output (Projected)	$283.4	$476.5	$88.6	$142.5	$653.2	$183.1
Total Output (% Change)	12.2%	22.6%	13.4%	11.4%	12.0%	18.8%
Jobs Supported (Current)	1,691,000	2,237,000	455,000	887,000	3,342,000	1,820,000
Jobs Supported (Projected)	1,863,000	2,654,000	505,000	978,000	3,683,000	1,948,000
Jobs Supported (% Change)	10.2%	18.6%	11.0%	10.3%	10.2%	7.0%

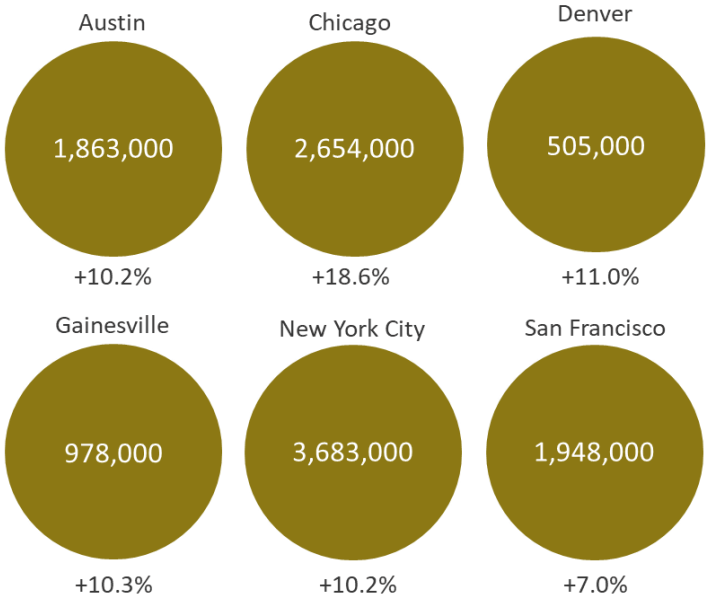
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.9 Projected Annual Economic Impact of Food Systems by Region if Greater Local Sourcing Levels Were Achieved



Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.10 Projected Total Job Impact by Region if Greater Local Sourcing Levels Were Achieved



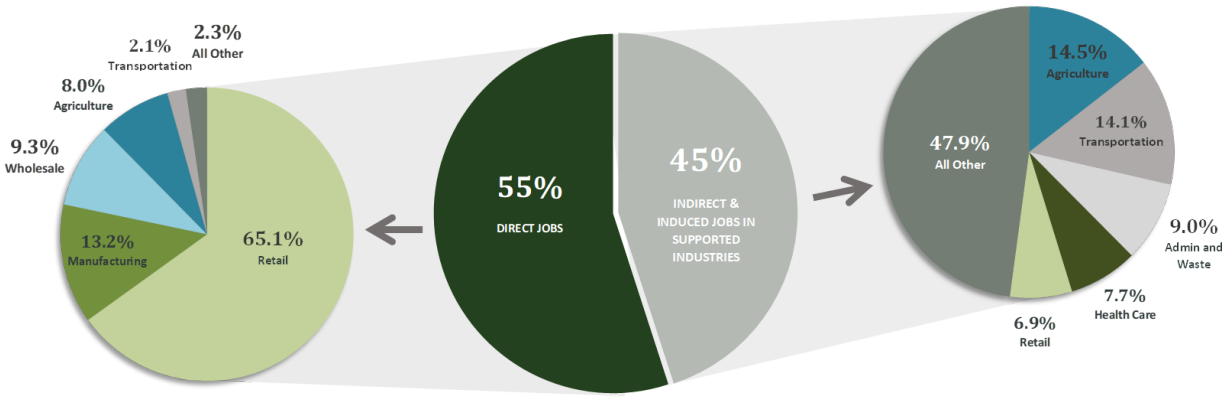
Source: Econsult Solutions (2023), IMPLAN (2023)

4.4. Industry Distribution of Economic Impact

The economic impacts associated with food systems affect a wide range of industries, far beyond the industries that are part of the system. The distribution of employment across industries includes retail trade, agriculture, manufacturing, transportation, and wholesale trade. These industries see significant benefits from the indirect (supply chain) and induced (labor income) impacts of the food systems activity within each region.

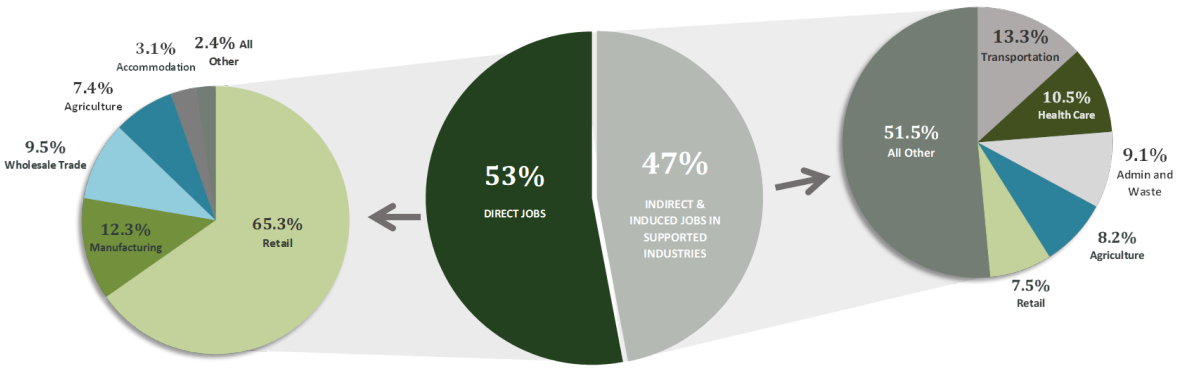
Figures 4.11 to 4.16 show the proportion of the total employment associated with food systems economic impact. For each region, the charts show the percentage of jobs that are directly part of the food system, and which jobs are from indirect and induced activities. Moreover, the charts show the top five industries with the most jobs and their percentages.

Figure 4.11 Employment Distribution for Austin



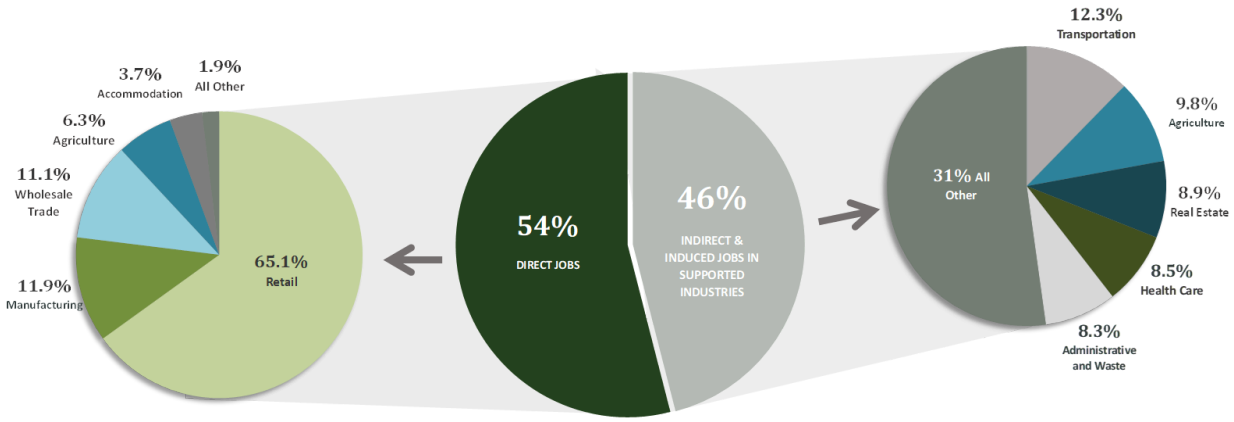
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.12 Employment Distribution for Chicago



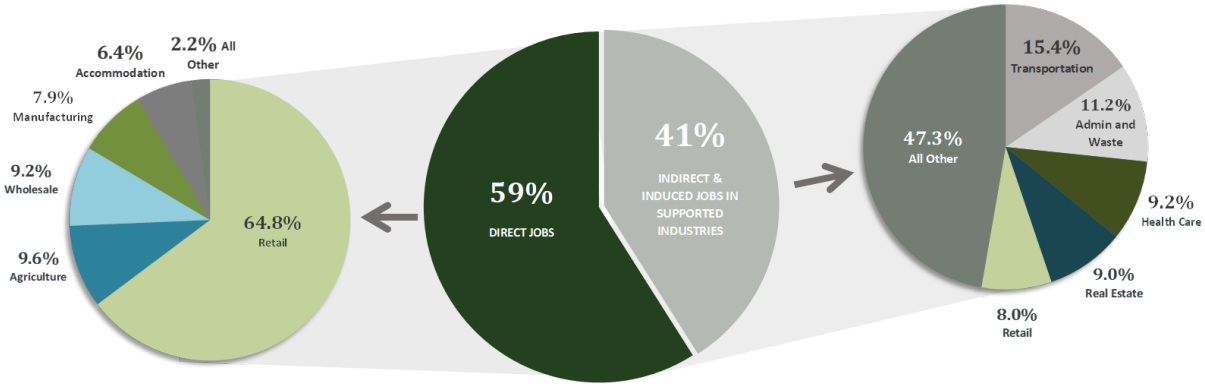
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.13 Employment Distribution for Denver



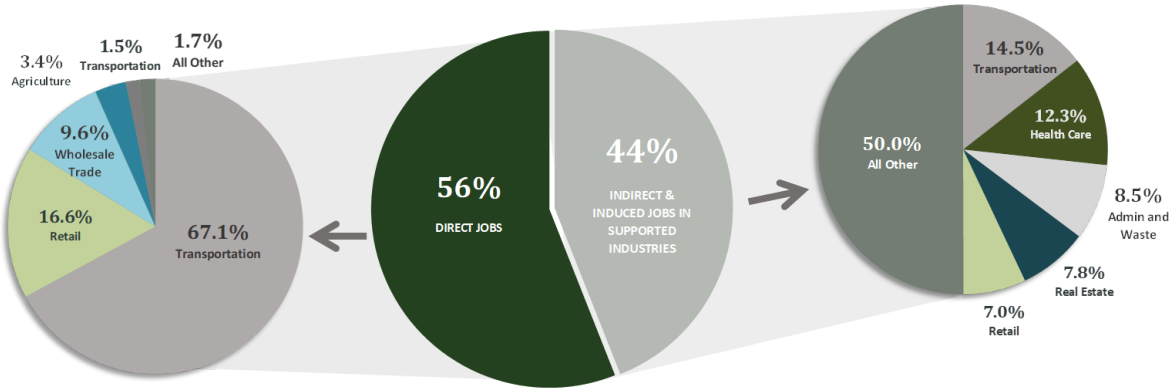
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.14 Employment Distribution for Gainesville



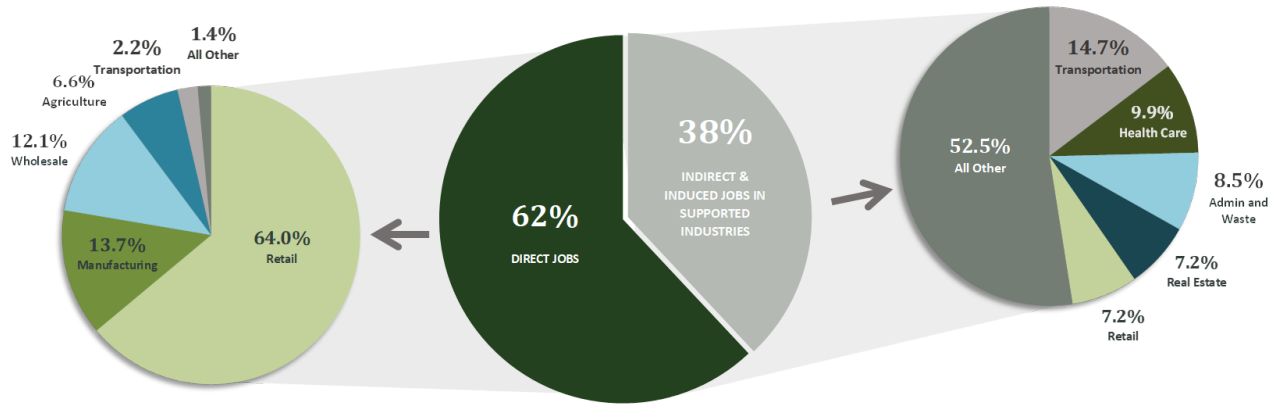
Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.15 Employment Distribution for New York City



Source: Econsult Solutions (2023), IMPLAN (2023)

Figure 4.16 Employment Distribution for San Francisco



Source: Econsult Solutions (2023), IMPLAN (2023)

4.5. Tax Revenue Impact

Food systems have a very large economic footprint in a region, and thus represent economic activity that is taxed and therefore generates tax revenues for critical public services at the federal, state, and local level. Greater localization of these food systems, in turn, increases both the amount of economic activity supported by food systems in a region as well as the amount of tax revenues generated. For the purposes of this analysis, IMPLAN was used to determine how current and projected economic impact translates into tax revenues generated at the federal, state, and local levels:

- Federal tax revenues include the federal income tax and fund key public services provided at the national level, such as transportation infrastructure.
- State tax revenues may be enjoyed by one or more states depending on where a region's boundaries fall. These tax revenues may come from various sources depending on the state, and often include taxes such as personal income taxes and sales taxes. These taxes in turn fund key public services provided at the state level, such as public education.
- Local tax revenues are those generated at the individual municipal level. Some of the major cities in the six study regions are fairly high tax in nature, such that economic activity within those jurisdictions will generate significant amounts of tax revenues for those jurisdictions, New York City being an example of this. Local tax revenues fund critical public services provided at the local and community level, such as public safety and social services.

Figure 4.17 shows the estimated tax revenue implications of the economic impact from the current food systems in the six study regions as well as from the projected food systems in those regions given greater localization percentages. Across all levels of government, billions of dollars are being generated, and billions more to be generated, in support of all manner of public services for these regions.

Figure 4.17 Tax Revenue Table for Current and Projected (in $B)[24]

	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Tax Revenues Current						
Local[25]	$3.6	$6.4	$1.4	$2.0	$15.7	$3.2
State	$3.1	$9.8	$1.3	$2.2	$15.1	$5.5
Federal	$16.0	$23.4	$5.2	$9.5	$43.3	$11.7
Total Tax Revenue	**$22.7**	**$39.7**	**$7.9**	**$13.6**	**$74.1**	**$20.4**
Tax Revenue Projected						
Local	$4.4	$8.4	$1.7	$2.4	$18.3	$4.3
State	$3.7	$12.5	$1.5	$2.6	$17.2	$6.8
Federal	$17.7	$28.2	$5.8	$10.5	$47.8	$13.5
Total Tax Revenue	**$25.9**	**$49.1**	**$9.1**	**$15.4**	**$83.4**	**$24.6**

Source: Econsult Solutions (2023), IMPLAN (2023)

4.6. Economic Implications

Food systems encompass a vast amount of economic activity, covering agricultural fields and supermarkets and everything in between. In the six study regions, food systems represent billions of dollars of economic activity each year, supporting millions of jobs. Yet there is an opportunity to invest in a greater localization of those food systems, and to do so in ways that create a more resilient and equitable economy, and that support jobs and generate tax revenues in the process. This section has endeavored to estimate the magnitude and composition of that potential impact, and it is significant and thus worthy of further consideration and strategic investment. A greater localization of food systems in these six study regions would unlock meaningful gains in regional economic activity, creating job opportunities for local residents and producing tax revenues to fund critically needed public services in these communities. Importantly, a greater localization would also achieve desired objectives around environmental resilience and social equity.

In the ensuing section, attention is given to different types of efforts in these study regions which will either help make food systems more local in nature, and/or greater localization of food systems will yield increased employment opportunities. These case studies demonstrate the power of advocating for and achieving greater localization of regional food systems.

5. Illustrative Local Food Jobs

5.1. Section Overview

The previous section looked at the current magnitude of the food system in the six study regions, and the larger impact of that food system if it were to become more localized within those regions. Given the centrality of food to economic regions and the aspirational goals being set to increase local intensity,

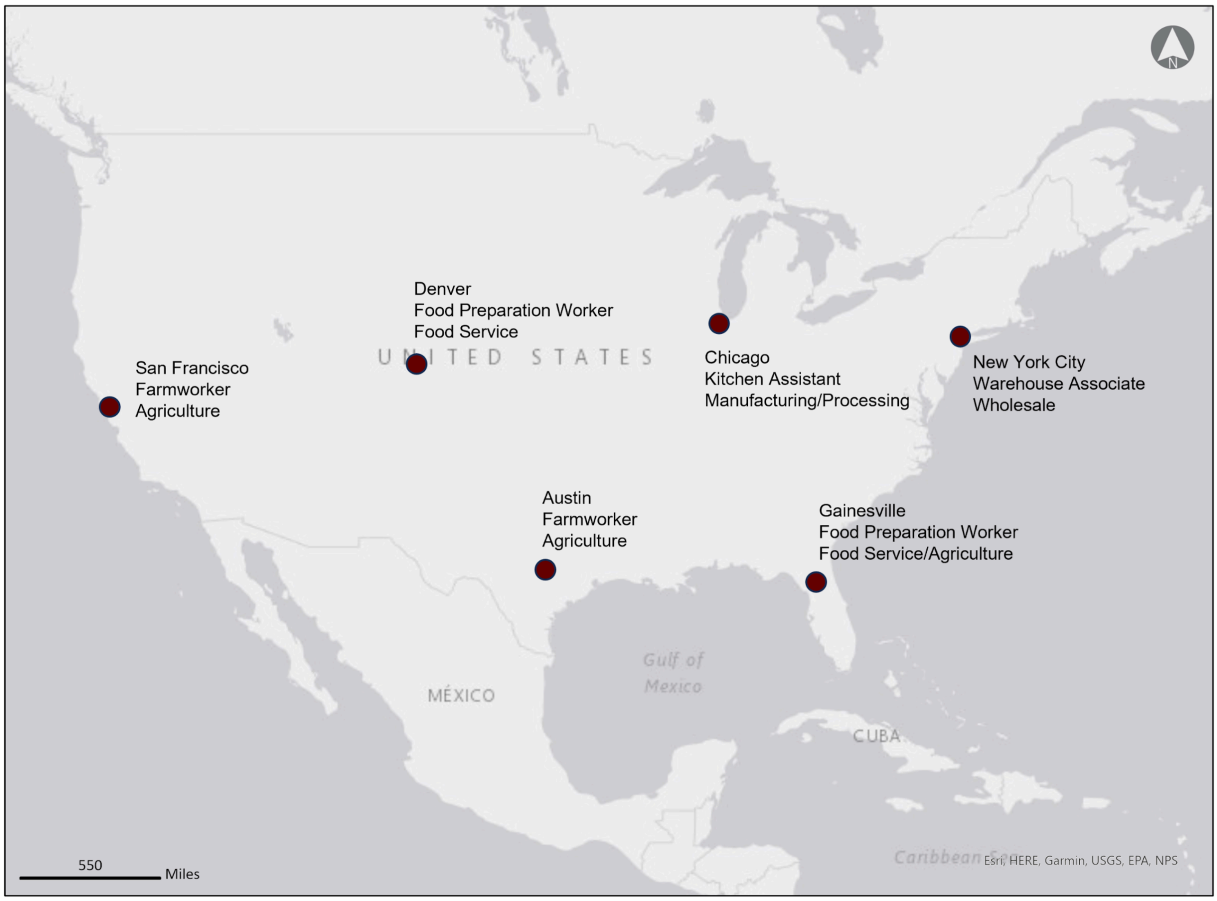
[24] See Appendix E for tax revenue details per region.
[25] Local taxes correspond to County and Sub-County taxes for all jurisdictions within the study area of each region.

these impacts represent billions of dollars of economic activity, tens of thousands of jobs, and millions of dollars in tax revenues to support critical public services.

To supplement that analysis, this section takes a closer look at illustrative jobs in the food systems in the six study regions. The case study write-ups in this section are selected to highlight some representative local jobs and/or initiatives in the six study regions. Further research is needed to develop an in depth quantitative analysis of local food market orientation and labor intensity, and to connect it to qualitative analyses of additional indicators, such as land use characteristics, production methods, supply chain characteristics, and equitable access to resources. The regionalized ecosystem would ideally contain attributes of community resilience, health, and well-being, due to: (1) shorter supply chains based on localized, community based relationships which are more responsive in times of disruption (such as with pandemics or natural disasters); (2) community health due to a prioritized emphasis on local preparation of whole and minimally processed healthy foods; (3) economic well-being due to valued workforce relationships which prioritize worker well-being, job quality, and fair pay.

Good policy and good investment can have an impact on elevating indicators of resiliency in a given place's food system. Integrated with the other data points (shown over the course of a determined time period), this will enable us to illustrate how a set of policies link to desired outcomes over time.

Figure 5.1 Local Food Jobs Highlighted in this Report



Source: Econsult Solutions (2023), ArcGIS (2023)

5.2. Illustrative Job in New York City Region

The Common Market (Mid-Atlantic operation)

Industry: Wholesale, Distribution

Established in 2008

The Common Market consists of regional food hubs that deliver products from local farms to wholesale customers and communities.

Illustrative Job

Warehouse Associate: will process, and package orders, fill out customer invoices, and organize and maintain inventory.

The job is an entry level position and does not require advanced degrees, making it more accessible to all. It offers advancement opportunities that can help people develop their skills and advance their careers.

The Common Market distributes produce locally rather than exporting. This supports local farmers and businesses and helps reduce the environmental impact of food transportation.

Why will Greater Localization Increase the Demand for this Job?

The expansion of this initiative will increase the amount of produce that can be transported, thus making more locally sourced food available to area residents.

An increase in demand for local products can result in a greater need for distribution of fresh produce and lead to more jobs in this industry.

Since 2008, the Common Market has invested over $13 million in local communities through food purchases and distributed over 280,000 farm-fresh boxes.

2022 achievements:

- Supported 118 family farms, 20 percent representing BIPOC growers.
- Distributed over $5 million healthy meal equivalents.
- Provided over $580,000 in farmer loans.
- The Mid-Atlantic operation received the support of the Green Family Foundation to strengthen the Philadelphia metro food system.

Other Examples of This Illustrative Job in the New York City Region

Hunts Point Produce Market

Industry: Retail, Distribution

Hunts Point Produce Market sells produce to wholesalers, retailers, independent grocers, and restaurants. The market was first established in 1790, in Manhattan, but moved to a larger site in the Bronx in 1967. Hunt Point Produce Market is now over 1 million square feet and has over 30 merchants who sell at the market. Every year, more than 210 million packages of produce pass through the market with over three million pounds of produce provided to soup kitchens and food pantries in 2019. The market supplies 60 percent of New York City's produce.

Hunts Point Produce Market supports the creation of entry level jobs in the distribution sector, a vital part of a local food system. Jobs such as Stocker and Order Filler created by the market provide opportunities for workers who do not have an advanced degree and can receive on the job training to succeed. This initiative connects businesses and individuals with fresh, local produce, and as demand for local produce increases, more individuals will be required to take on distribution and wholesale positions.

East New York Farms (ENYF)

Industry: Agriculture

Founded in 1998, ENYF facilitates community-led farmers markets to distribute local fresh produce. The farms and gardens are operated by United Community Centers (UCC). ENYF aims to address food justice in the community by promoting local, sustainable agriculture and community-led economic development. The organization has also been creating nutrient-rich compost for the last 15 years, that is used in East New York community gardens, directly promoting environmental sustainability. ENYF runs two urban farms and two gardens, including the UCC Youth Farm established in 2000, cultivating over 70 vegetable varieties on a 0.5-acre site, and the Pink Houses Community Farm, founded in 2015, focused on providing food for NYCHA Pink Houses residents.

Jobs at ENYF promote resilience in the food system by sharing farming knowledge and empowering people to grow their own food, which helps to localize food systems. Jobs like Farm Manager directly contributes to producing healthy, local foods that are then distributed to the community and supports collaboration with local residents to help their gardens thrive.

5.3. Illustrative Job in Chicago Region

The Hatchery

Industry: Manufacturing/ Processing

Joint venture between Allies for Community Business and the Industrial Council of Nearwest Chicago

Established in 2018

The Hatchery is an incubator that helps local entrepreneurs launching new food and beverage businesses to grow and succeed.

Illustrative Job

Kitchen Assistant at Laos to Your House: responsibilities include cooking and packing orders.

The job pays over the Chicago minimum wage.

The kitchen assistant will receive on-the-job training, and the company will pay for the employee's food handling certification exam.

The kitchen assistant's work supports a new business and contributes to local production of food products.

Why will Greater Localization Increase the Demand for this Job?

The success of this initiative will bring many new businesses to the Chicago area, which creates more local jobs and creates more opportunities for food products to be purchased from local sources.

The Hatchery offers commercial kitchen space, entrepreneurship classes, and has connections to foundations and corporate sponsors.

This initiative allows entrepreneurs to start or expand their businesses and offers them the opportunity to receive as much or as little support as needed during the process.

The businesses which rent The Hatchery's 54 commercial kitchens are projected to create 900 jobs during their first five years, generating $25 million in taxable wages.

Other Examples of This Illustrative Job in Other Parts of the U.S.

Illustrative List of Kitchen Incubators

Industry: Manufacturing/ Processing

Kitchen incubators offer shared commercial kitchen spaces and cost-effective access to licensed and equipped kitchens, reducing barriers to entry for food entrepreneurs. They foster collaboration and innovation and support local food system development.

Hot Bread Kitchen Incubates, New York, NY

Founded in 2008

Hot Bread Kitchen (HBK) Incubates is a kitchen incubator that focuses on supporting food businesses led by women and entrepreneurs from diverse backgrounds. It offers shared kitchen space, business training, marketing support, and access to markets. The organization's commitment to diversity, inclusivity, and skill development has contributed to its success. HBK supports the creation of jobs that will have a direct impact on the community. The success and growth of the organization can help create more opportunities for immigrant women and women of color through job skills training, food entrepreneurship programs, and an ecosystem of support in New York City.

The Cook's Nook, Austin, TX

Founded in 2016

The Cook's Nook is a kitchen incubator that provides fully equipped shared kitchen space, business support, and educational resources for food entrepreneurs. The company incubates local new, early-stage or growing food-based businesses, including caterers, food trucks and retailers, in Central Texas. Its success lies in its ability to facilitate access to markets and distribution channels for its members and fostering a collaborative community and offering mentorship programs.

La Cocina, San Francisco, CA

Founded in 2005

La Cocina is a highly successful kitchen incubator that supports low-income food entrepreneurs, primarily women from immigrant communities and seeks to create an innovative, vibrant, and inclusive economic landscape for small entrepreneurs. It provides affordable commercial kitchen space, business training, access to markets, and mentorship programs. La Cocina's commitment to equity, inclusivity, and social impact and their mission to help women entrepreneurs from immigrant households gain financial security has contributed to its recognition and success.

5.4. Illustrative Job in Austin Region

Sustainable Food Center

Industry: Agriculture, Retail

Founded in 1975

The Sustainable Food Center is a 501(c)(3) nonprofit organization that supports small and mid-sized farmers in the Austin region and offers educational resources to the Austin community to promote healthy food choices.

Illustrative Job

The Sustainable Food Center supports small and mid-sized farms and helps them to grow.

Why will Greater Localization Increase the Demand for this Job?

Increased localization of the food systems would lead to the creation of more local farms, increasing the demand for this type of job.

Smaller farming operations typically grow a wide variety of crops, which leads to more resilient food systems that can withstand adverse climate events.

Initiatives such as this help to grow and distribute nutritious food and provide a more secure local food system.

The mission of the Center is to strengthen local food systems to support a healthy community.

The Center offers farm scholarships, business and marketing training, and grant writing assistance to local farms. For the community, the Center offers cooking classes and matches SNAP, WIC, and FMNP benefits at Austin area farmers markets.

2022 Achievements:

- $2.3 million in sales at SFC farmers markets
- 10th anniversary of the Center's Double Up Bucks program that supports SNAP and WIC benefits
- 21,833 Texas households used the Double Up Bucks program in 2022
- Over 300 attendees came to cooking, nutrition, and gardening classes
- 25 farm visits and 8 farm business consultations
- 10 schools engaged in the Farm to School Learning Collaborative

Other Examples of This Illustrative Job in Other Parts of the Austin Region

Fruitful Commons

Industry: Regenerative Agriculture

Fruitful Commons is a 501(c)(3) nonprofit organization that provides support to individuals and organizations that are operating equitable and regenerative agriculture efforts. The types of operations supported include food forests, community gardens, and organic growing cooperatives.

This organization supports the creation of farming jobs, particularly in farms that utilize regenerative practices. Incorporating these practices is critical because they improve soil conditions, encourage biodiversity, and protect water resources, which contributes to a more resilient and secure food system. Jobs supported by this initiative help to maintain natural resources and increase the efficiency of existing farmlands, which encourages sustained farming in the same areas and allows for greater localization of food systems.

5.5. Illustrative Job in Denver Region

Chef Ann Foundation
Industry: Food Service
Founded in 2009

The Chef Ann Foundation helps schools transition from a heat and serve model to scratch cooking model for meals provided to K-12 students.

This organization was founded to ensure that all children have daily access to fresh food and to minimize the consumption of ultra-processed foods that are contributing to nutrition-related diseases. The Chef Ann Foundation aims to address this by assisting school food programs in serving scratch-cooked meals that utilize fresh ingredients, supporting both the nutritional well-being of students and the health of the planet.

Illustrative Job

A role established through the efforts of this organization is the School Food Specialist position, responsible for following the scratch cook model to prepare meals for schools using fresh, healthy ingredients.

Workers connected to positions through the Chef Ann Foundation are on the front lines of helping kids have access to more nutritious food and build healthy habits for the future.

This is an entry level position and allows for on-the-job training and potential for advancement. In addition this pathway provides better hours and benefits compared to non-school food service jobs.

Why will Greater Localization Increase the Demand for this Job?

The organization's work supports more local ingredient procurement by school food programs. As this initiative expands, there will be a growing need for more school food workers to prepare fresh meals.

In order to help schools move to scratch cooking, the foundation provides grant funding, professional development opportunities, and open-sourced resources. The foundation operates in K-12 schools in all 50 states.

2023 achievements to date:

- Programming has reached 3.4 million children
- 14,129 schools have been reached
- Over 6,000 salad bars have been granted
- 120,000 scratch-cook school food resources downloaded

Other Examples of This Illustrative Job in Other Parts of the Denver Region

We Don't Waste

Industry: Food Waste/Distribution

We Don't Waste recovers unused and unwanted food from various parts of the food industry and distributes it to nonprofit partners including food pantries, soup kitchens, shelters, schools, daycare centers, and more. Since its inception in 2009, the organization has saved an estimated 180 million servings of food.

Combatting food waste in our food systems helps to make food systems more efficient, as well as increasing food access through redistribution efforts.

5.6. Illustrative Job in San Francisco Region

Swanton Berry Farm

Industry: Agriculture

Founded in 1983

Founded by Jim Cochran, Swanton Berry Farms is the first certified organic strawberry farm in California.

Illustrative Job

Farm Hand: responsibilities include planting, cultivating, and harvesting strawberries.

Swanton focuses on ethical practices and organic farming practices, which creates an operation that is beneficial to workers and the planet.

Why will Greater Localization Increase the Demand for this Job

A more localized food system would increase demand at this farm as they would likely be one of the primary berries producing farms for the California region, leading to more jobs created in the field.

Swanton combines organic farming practices and union labor to produce fruits, jams, and baked goods.

Swanton Farm has a farmstand store open every day. They also offer U-Pick on Saturdays and Sundays, directly involving the public in the harvesting of strawberries, reducing the price of fresh local produce available to consumers.

Swanton Farm, in 1998, became the first organic farm in the U.S. to sign a contract with United Farm Workers AFL-CIO.

Other Examples of This Illustrative Job in Other Parts of the San Francisco Region

Yolo Food Hub Network

Industry: Processing, Packaging, Distribution

Developed by New Season Community Development Corporation

Project formed in 2021, set to begin operation in 2024

The Yolo Food Hub Network, located in the rural community of Esparto, Yolo County, California, is being developed to support local agriculture, strengthen supply chain resiliency, and increase access to high quality locally grown foods. The hub facility initially will store, aggregate, pack, and distribute local and regional food products across the Greater Sacramento Region, with next phases focused on processing/value-added capabilities and serving Northern California. The Food Hub Network will include growers, hubs, and food producers across the region and beyond, to build market scale and impact.

The initiative will support the creation of processing, packing, and distribution jobs which will directly contribute to the sustainability and greening of the Greater Sacramento regional food system. These jobs will help ensure that residents in the region have access to new jobs with upskilling opportunities, and easier access to locally produced foods. The success of this initiative will accelerate the growth of new markets and economic impacts through increased consumption of local products, especially through increased institutional procurement and gaining more value-added through processing, and capturing more dollars currently leaving the region through food purchases from outside the region. Its success will also lead to the construction of similar facilities across California that incorporate sustainability practices and support climate smart agriculture, leading to more employment opportunities in the sector.

Center for Regenerative Agriculture and Resilient Systems (CRARS), at CSU Chico

Industry: Regenerative Agriculture

Established in 2019

CRARS focuses on promoting regenerative agriculture practices, prioritizing soil health, biodiversity, and ecological sustainability. In collaboration with 12 conservation partners, CRARS supports the implementation of soil health management systems in northern California through the Regional Conservation Partnership Program (RCPP), sponsored by the USDA's Natural Resources Conservation Service (NRCS). This project aims to assist orchard, vineyard, rangeland, dairy, and row crop producers in enhancing their resilience to extreme weather, degraded soil health, and biodiversity loss, ultimately fortifying food and fiber production in the region.

By supporting the adoption of regenerative agriculture practices, the initiative contributes to increased soil fertility and water retention, leading to more productive and resilient farms. This, in turn, enhances the region's overall agricultural productivity, food security, and economic stability. As the demand for locally produced, sustainable food increases, more farmers will seek the expertise of Regenerative Agriculture Specialists to transition from conventional methods to regenerative practices, creating more job opportunities.

5.7. Illustrative Job in Gainesville Region

Alachua County Schools Farm to School to Work

Industry: Agriculture, Education

Started in 2014

Farm to School to Work makes sure that school lunches contain the freshest and healthiest produce from local farms, as well as educate the students about the connection between food and health and how to grow their own food.

Food is sourced from local farms and school gardens. The Farm to School Hub produces over 150 heads of lettuce per week and aggregates and packages produce from local farms to school lunches throughout the district.

The farms that this initiative sources from are all within the 100 miles of Gainesville, helping to localize the food system and increase local resilience.

Why will Greater Localization Increase the Demand for this Job?

As this initiative grows and expands to other school districts in Florida and beyond, there will be increased demand at these farms and other local farming efforts for more farm workers.

The program also operates a fresh food truck that serves high school students and takes part in the USDA Fresh Fruits and Vegetables program to provide a fruit or vegetable snack every day for elementary school students.

Impact:

- During the 2022-2023 school year, the program had distributed over 70,000 pounds of fresh food.
- During the 2020-2021 school year, the school farms distributed almost 60,000 pounds of fresh food.
- During the 2020-2021 school year, the individual gardens produced almost 450 pounds of produce for their school cafeterias.

Other Examples of This Illustrative Job in Other Parts of the US

Working Food

Industry: Warehousing, Preparing

Working Food provides business development support for food businesses and community education about gardening, seed stewardship, and cooking. Their facility includes a commercial kitchen, warehouse, outdoor event space, and home for the Southern Heritage Seed Collective. The community kitchen is utilized by more than 20 food and beverage entrepreneurs, and the garden and culinary classes have been in operation for over nine years and consist of over 100 students each week.

Working Food educates youth and adults about gardening, seed stewardship, nutrition, and cooking, which will empower them to grow their own food and prepare nutritious food for their families. They also work to build food literacy, highlight food-based career options and build food system leadership skills. This supports the need for more Program Coordinators who administer the center's educational programs, thus increasing the knowledge base of North Central Florida residents and empowering them to grow and prepare their own healthy foods and advocate for local food regionally.

Illustrative List of Food Co-ops

Industry: Distribution

Food cooperatives, controlled and owned by their members, prioritize local, organic, and sustainable products, meeting economic, social, and cultural needs. They enhance local economies, promote locally produced food, and offer socially beneficial roles in the agricultural sector, making them vital to local food systems.

Earth Origins Market, Gainesville, FL

Founded in 1993

Earth Origins Market is a member-owned cooperative grocery store with several locations in Florida. They focus on natural and organic food options. By featuring locally sourced products, the cooperative helps to strengthen the local economy and build connections between consumers and regional food producers. They also provide educational resources, and host workshops and community events related to health, wellness, and sustainable living.

GreenStar Cooperative Market, Ithaca, NY

Founded in 1971

GreenStar Cooperative Market focuses on providing locally sourced, organic, and sustainably produced food to its members. Its success can be attributed to its emphasis on supporting local farmers and producers, offering educational programs, and promoting environmental sustainability through initiatives like renewable energy installations and waste reduction programs.

Chicago Market, Chicago, IL

Founded in 2015

Chicago Market focuses on providing local, sustainably produced, and ethically sourced food. Its success is driven by its dedicated community of member-owners who actively participate in shaping the cooperative, supporting local farmers and producers, and promoting food education and accessibility. Chicago Market aims to fill a gap in the city's food landscape, serving diverse neighborhoods and promoting equitable access to quality food.

5.8. Local Jobs Created

This section has endeavored to demonstrate the kinds of jobs that will make greater localization of regional food systems possible, and/or that will be created in greater numbers because of greater localization of regional food systems. Across the six study regions, these jobs represent a wide range of occupational types, industry classifications, and food system components, befitting the complex and inter-connected nature of regional food systems. Further details and demographic information about the level of employment, salaries, and current racial and ethnic distribution of food systems jobs can be found in Appendix F.

Figure 5.2 Impacts of Greater Localization

Image Source:
Econsult Solutions (2023)

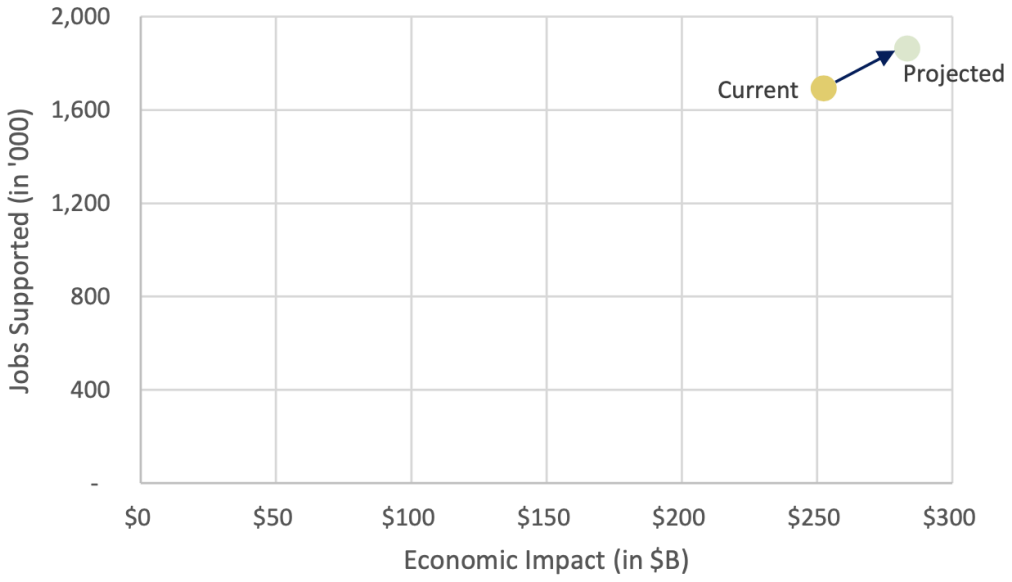
6. Return on Investing in a Resilient and Equitable Food System

6.1. Economic Impact Summary

Food systems in the six regions studied in this analysis directly and indirectly support a vast network of economic activity, representing billions of dollars of economic output and hundreds of thousands of jobs. Greater localization of these regional food systems is achievable by tapping into, increasing, and otherwise supporting local production and ensuring stronger linkages. This, along with the character and type of job created, can have positive social implications, such as greater resiliency, sustainability, and equity.

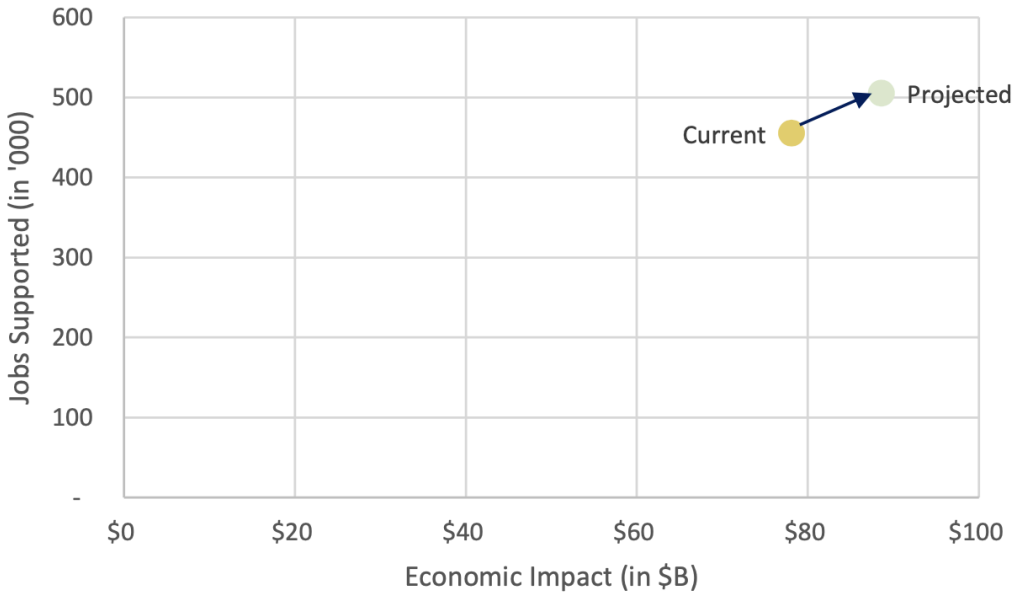
Further, increased localization produces significant economic benefits in the form of more economic output and more jobs supported (see Figure 6.1 through Figure 6.6). Hence, an important takeaway from this analysis is that food systems are major contributors to regional economies, and that their economic contribution can be even greater if they become more local.

Figure 6.1 Impact of Increased Localization in Economic Output and Jobs for Austin



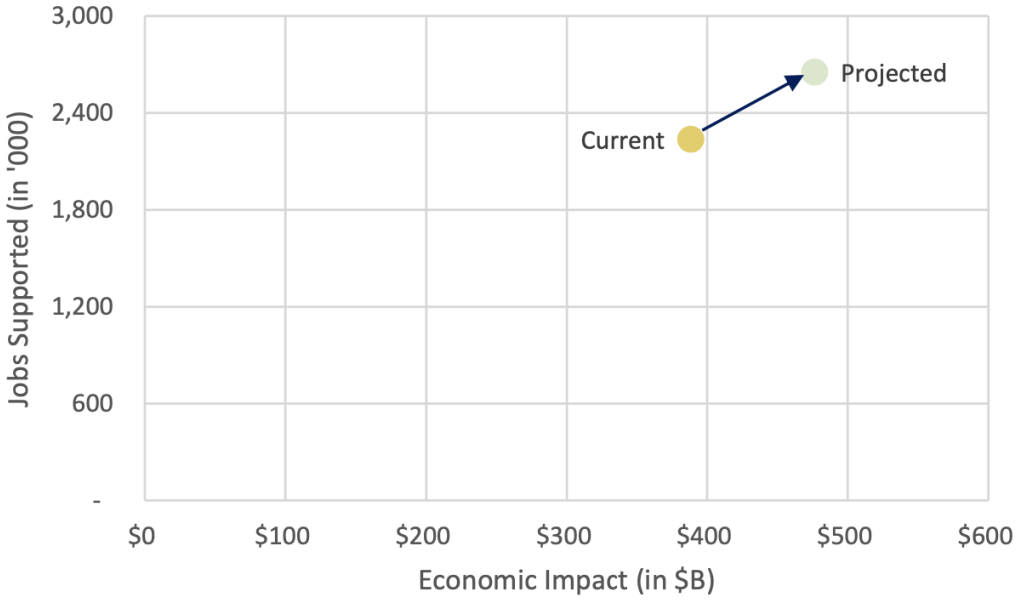
Source: Econsult Solutions (2023)

Figure 6.2 Impact of Increased Localization in Economic Output and Jobs for Denver



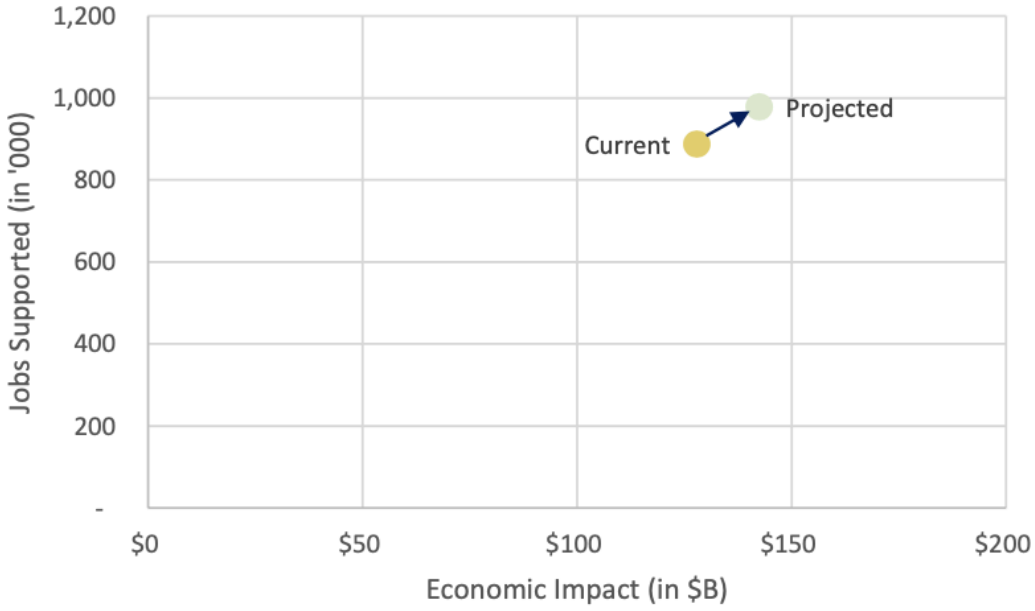
Source: Econsult Solutions (2023)

Figure 6.3 Impact of Increased Localization in Economic Output and Jobs for Chicago



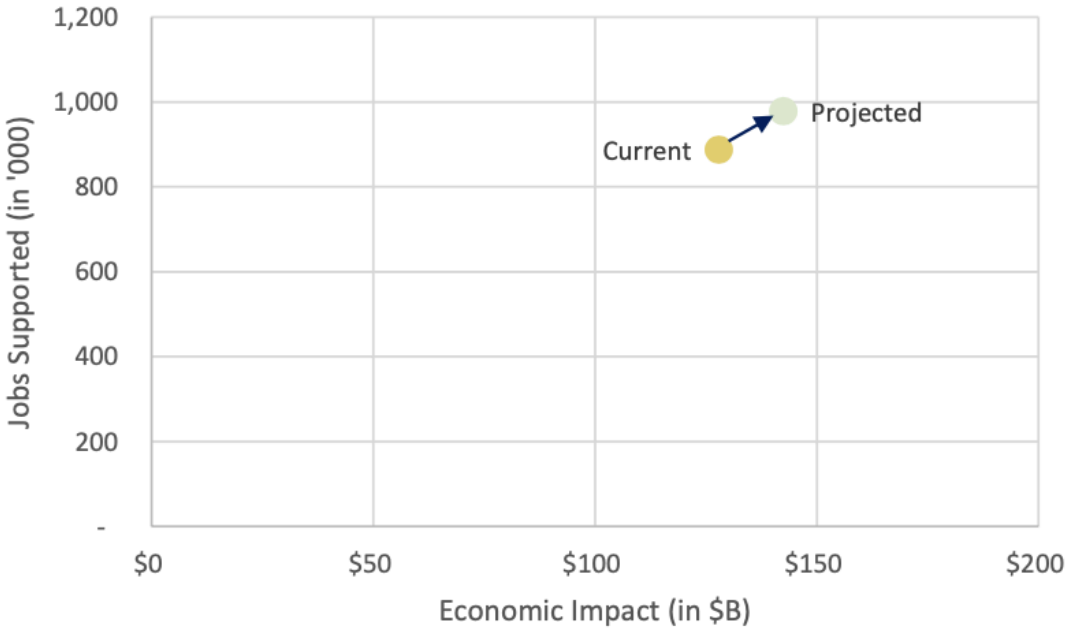
Source: Econsult Solutions (2023)

Figure 6.4 Impact of Increased Localization in Economic Output and Jobs for Gainesville



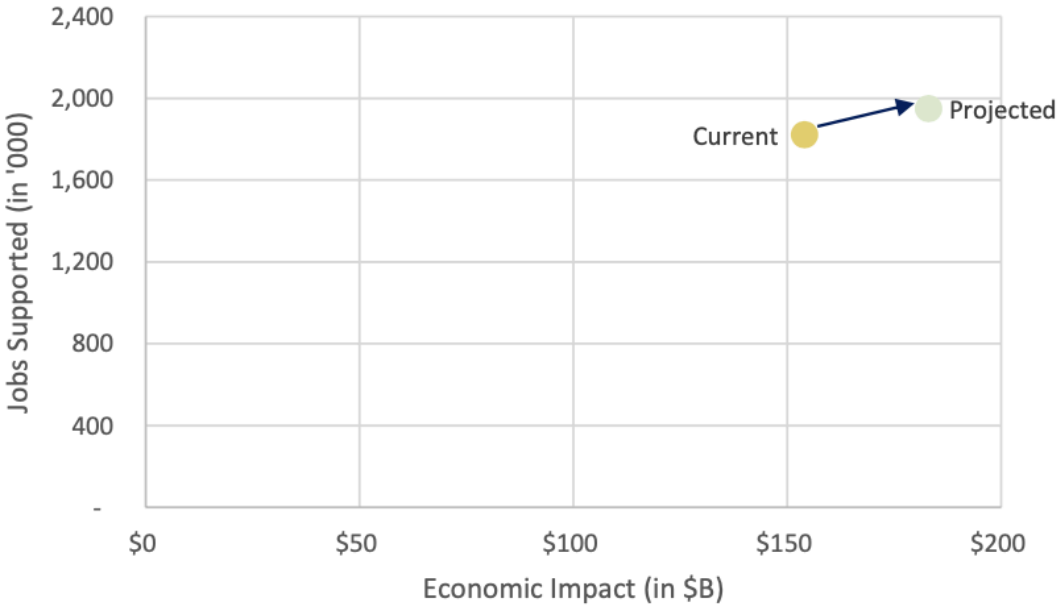
Source: Econsult Solutions (2023)

Figure 6.5 Impact of Increased Localization in Economic Output and Jobs for New York City



Source: Econsult Solutions (2023)

Figure 6.6 Impact of Increased Localization in Economic Output and Jobs for San Francisco

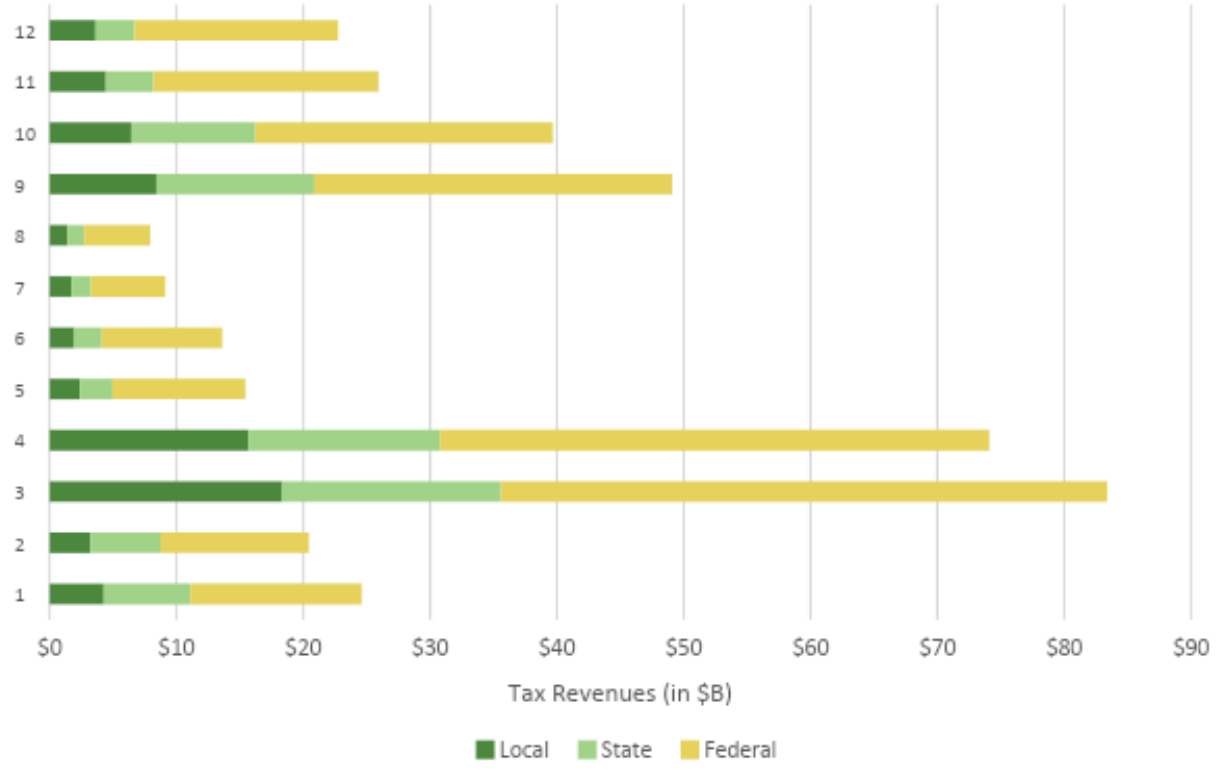


Source: Econsult Solutions (2023)

6.2. Tax Revenue Implications

Food systems represent, directly and indirectly, a significant amount of economic activity, which will only increase as they become more localized in nature. This in turn yields a large and growing amount of tax revenues, which for each of the six study regions represents billions of dollars for local, state, and federal governments (see Figure 6.7).

Figure 6.7 Tax Revenue Summary



Source: Econsult Solutions (2023)

6.3. Evaluating Resilient and Equitable Food System Support from an ROI Lens

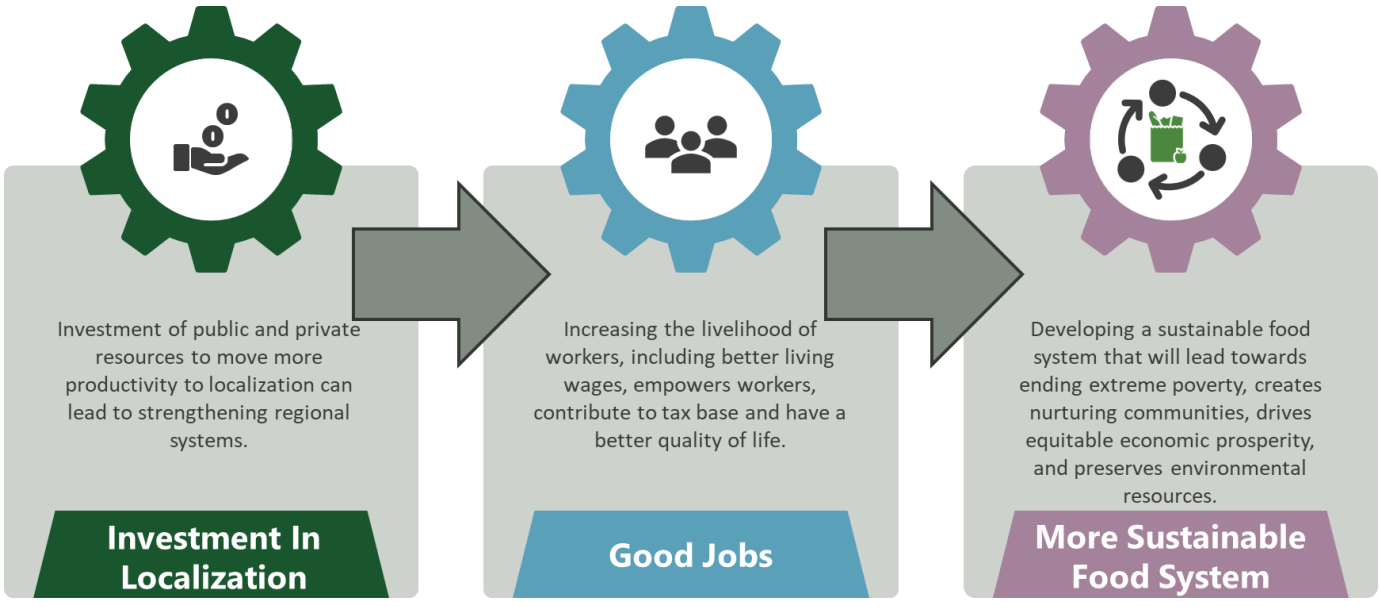
This report has demonstrated the greater economic activity and enhanced social outcomes that result from greater localization of regional food systems. Thus, to the extent that public dollars are needed to make greater localization of food systems possible, this is an important aspect of the return that results from such an investment. Indeed, the best public investments have these characteristics, that they yield important social objectives (in this case greater resiliency, sustainability, and equity), and that in the process of achieving those social aims they also sustain economic activity and produce tax dollars to fund key public services (see Figure 6.8).

Figure 6.8 Benefits of Investment for Greater Localization of Regional Food Systems

Source: Econsult Solutions (2023)

The historical perception is needed because it helps give a clear sense of the current position of food systems and the reasons for regional differentiation. Per the report, we understand that regional food systems collectively represent billions of dollars of economic activity and employ hundreds of thousands of people. Greater localization is achievable and would bring with it an even greater economic footprint, more jobs, and increased tax revenues to fund key public services, in addition to addressing environmental and other sustainability concerns (see Figure 6.9).

Figure 6.9 Impact of Investment of Resources in Localization



Source: Econsult Solutions (2023)

Appendix A: Additional Information on Study Regions

Figure A.1: Counties Included in New York Region

State	County	State	County
Connecticut	Fairfield	New York	Richmond
Connecticut	Hartford	New York	Rockland
Connecticut	Litchfield	New York	Saratoga
Connecticut	Middlesex	New York	Schenectady
Connecticut	New Haven	New York	Schoharie
Connecticut	New London	New York	Schuyler
Connecticut	Tolland	New York	Seneca
Connecticut	Windham	New York	Steuben
Delaware	Kent	Maine	York
Delaware	New Castle	New York	Suffolk
Delaware	Sussex	Maryland	Anne Arundel
District of Columbia	District of Columbia	New York	Sullivan
Maryland	Charles	New York	Tioga
Maryland	Dorchester	New York	Tompkins
Maryland	Frederick	New York	Ulster
Maryland	Harford	New York	Warren
Maryland	Howard	Maryland	Baltimore County
Maryland	Kent	New York	Washington
Maryland	Montgomery	Maryland	Calvert
Maryland	Prince George's	Maryland	Caroline
Maryland	Queen Anne's	New York	Wayne
Maryland	St. Mary's	Maryland	Carroll
Maryland	Somerset	New York	Westchester
New Hampshire	Carroll	Maryland	Cecil
New Hampshire	Cheshire	New York	Yates
Maryland	Talbot	Pennsylvania	Adams
New Hampshire	Hillsborough	Pennsylvania	Sullivan
New Hampshire	Merrimack	Pennsylvania	Susquehanna
Maryland	Washington	Pennsylvania	Tioga
Maryland	Wicomico	Pennsylvania	Union
New Hampshire	Rockingham	Pennsylvania	Berks
New Hampshire	Sullivan	Pennsylvania	Blair
Maryland	Worcester	Pennsylvania	Bradford
Maryland	Baltimore City	Pennsylvania	Bucks

New Jersey	Atlantic
New Jersey	Bergen
New Jersey	Burlington
New Jersey	Camden
New Jersey	Cape May
Massachusetts	Barnstable
Massachusetts	Berkshire
New Jersey	Cumberland
New Jersey	Essex
New Jersey	Gloucester
Massachusetts	Bristol
New Jersey	Hudson
New Jersey	Hunterdon
Massachusetts	Dukes
New Jersey	Mercer
New Jersey	Middlesex
New Jersey	Monmouth
New Jersey	Morris
Massachusetts	Essex
Massachusetts	Franklin
Massachusetts	Hampden
Massachusetts	Hampshire
Massachusetts	Middlesex
Massachusetts	Nantucket
Massachusetts	Norfolk
New Jersey	Ocean
New Jersey	Passaic
New Jersey	Salem
New Jersey	Somerset
New Jersey	Sussex
New Jersey	Union
Massachusetts	Plymouth
New Jersey	Warren
Massachusetts	Suffolk
Massachusetts	Worcester
New York	Albany
New York	Bronx
New York	Broome
New York	Cayuga
New York	Chemung
Pennsylvania	Cameron
Pennsylvania	Carbon
Pennsylvania	Centre
Pennsylvania	Chester
Pennsylvania	Wayne
Pennsylvania	Clinton
Pennsylvania	Columbia
Pennsylvania	Cumberland
Pennsylvania	Dauphin
Pennsylvania	Wyoming
Pennsylvania	Delaware
Pennsylvania	York
Rhode Island	Bristol
Pennsylvania	Franklin
Rhode Island	Kent
Pennsylvania	Fulton
Pennsylvania	Huntingdon
Rhode Island	Newport
Pennsylvania	Juniata
Pennsylvania	Lackawanna
Rhode Island	Providence
Pennsylvania	Lancaster
Rhode Island	Washington
Pennsylvania	Lebanon
Pennsylvania	Lehigh
Pennsylvania	Luzerne
Pennsylvania	Lycoming
Pennsylvania	Mifflin
Pennsylvania	Monroe
Pennsylvania	Montgomery
Pennsylvania	Montour
Pennsylvania	Northampton
Pennsylvania	Northumberland
Pennsylvania	Perry
Pennsylvania	Philadelphia
Pennsylvania	Pike
Pennsylvania	Potter
Pennsylvania	Schuylkill
Pennsylvania	Snyder
Vermont	Addison

New York	Chenango	Vermont	Bennington
New York	Columbia	Vermont	Rutland
New York	Cortland	Vermont	Windham
New York	Delaware	Vermont	Windsor
New York	Dutchess	Virginia	Westmoreland
New York	Fulton	Virginia	Alexandria
New York	Greene	Virginia	Accomack
New York	Hamilton	Virginia	Fairfax City
New York	Herkimer	Virginia	Falls Church
New York	Kings	Virginia	Arlington
New York	Madison	Virginia	Manassas
New York	Montgomery	Virginia	Manassas Park
New York	Nassau	Virginia	Clarke
New York	New York	Virginia	Winchester
New York	Oneida	Virginia	Fairfax County
New York	Onondaga	Virginia	King George
New York	Ontario	Virginia	Loudoun
New York	Orange	West Virginia	Berkeley
New York	Oswego	Virginia	Northumberland
New York	Otsego	Virginia	Prince William
New York	Putnam	Virginia	Richmond County
New York	Queens	West Virginia	Jefferson
New York	Rensselaer		

Figure A.2: Demographic Breakdown of Regional Population – New York

Demographic	2022 % of Pop.
White, Non-Hispanic	58%
Black, Non-Hispanic	15%
American Indian or Alaskan Native, Non-Hispanic	0%
Asian, Non-Hispanic	8%
Native Hawaiian or Pacific Islander, Non-Hispanic	0%
Two or More Races, Non-Hispanic	2%
White, Hispanic	13%
Black, Hispanic	2%
American Indian or Alaskan Native, Hispanic	1%
Asian, Hispanic	0%
Native Hawaiian or Pacific Islander, Hispanic	0%
Two or More Races, Hispanic	1%

Figure A.3: Counties Included in Denver Region

State	County	State	County
Colorado	San Juan	Colorado	Moffat
Colorado	Sedgwick	Colorado	Montrose
Colorado	Summit	Colorado	Morgan
Colorado	Teller	Colorado	Otero
Colorado	Washington	Colorado	Ouray
Colorado	Weld	Colorado	Park
Colorado	Yuma	Colorado	Phillips
Colorado	Adams	Colorado	Pitkin
Colorado	Alamosa	Colorado	Prowers
Colorado	Arapahoe	Colorado	Pueblo
Colorado	Archuleta	Colorado	Rio Blanco
Colorado	Baca	Kansas	Greeley
Colorado	Bent	Colorado	Rio Grande
Colorado	Boulder	Kansas	Hamilton
Colorado	Broomfield	Colorado	Routt
Colorado	Chaffee	Colorado	Saguache
Colorado	Cheyenne	Kansas	Logan
Colorado	Clear Creek	Kansas	Rawlins
Colorado	Conejos	Kansas	Sherman
Colorado	Costilla	Kansas	Stanton
Colorado	Crowley	Kansas	Thomas
Colorado	Custer	Kansas	Wallace
Colorado	Delta	Kansas	Wichita
Colorado	Denver	Nebraska	Arthur
Colorado	Douglas	Nebraska	Banner
Colorado	Eagle	Nebraska	Box Butte
Colorado	Elbert	Nebraska	Keith
Colorado	El Paso	Nebraska	Kimball
Colorado	Fremont	Nebraska	Chase
Colorado	Garfield	Nebraska	Cheyenne
Colorado	Gilpin	Nebraska	Morrill
Colorado	Grand	Nebraska	Deuel
Colorado	Gunnison	Nebraska	Perkins
Colorado	Hinsdale	Nebraska	Dundy
Colorado	Huerfano	Nebraska	Scotts Bluff
Colorado	Jackson	Nebraska	Sioux
Colorado	Jefferson	Nebraska	Garden
Colorado	Kiowa	Nebraska	Grant

Colorado	Kit Carson	Nebraska	Hayes
Colorado	Lake	Nebraska	Hitchcock
Colorado	Larimer	New Mexico	Colfax
Kansas	Cheyenne	Wyoming	Albany
Colorado	Las Animas	Wyoming	Carbon
Colorado	Lincoln	Wyoming	Goshen
Colorado	Logan	Wyoming	Laramie
Colorado	Mesa	Wyoming	Platte
Colorado	Mineral		

Figure A.4: Demographic Breakdown of Regional Population – Denver

Demographic	2022 % of Pop.
White, Non-Hispanic	67%
Black, Non-Hispanic	4%
American Indian or Alaskan Native, Non-Hispanic	1%
Asian, Non-Hispanic	3%
Native Hawaiian or Pacific Islander, Non-Hispanic	0%
Two or More Races, Non-Hispanic	3%
White, Hispanic	20%
Black, Hispanic	1%
American Indian or Alaskan Native, Hispanic	1%
Asian, Hispanic	0%
Native Hawaiian or Pacific Islander, Hispanic	0%
Two or More Races, Hispanic	1%

Figure A.5: Counties Included in Austin Region

State	County	State	County
Texas	Anderson	Texas	Kerr
Texas	Angelina	Texas	Kimble
Texas	Aransas	Texas	Kinney
Texas	Atascosa	Texas	Kleberg
Texas	Austin	Texas	La Salle
Texas	Bandera	Texas	Lampasas
Texas	Bastrop	Texas	Lavaca
Texas	Bee	Texas	Lee
Texas	Bell	Texas	Leon
Texas	Bexar	Texas	Liberty
Texas	Blanco	Texas	Limestone
Texas	Bosque	Texas	Live Oak
Texas	Brazoria	Texas	Llano
Texas	Brazos	Texas	Madison
Texas	Brooks	Texas	Mason
Texas	Brown	Texas	Matagorda
Texas	Burleson	Texas	Maverick
Texas	Burnet	Texas	McCulloch
Texas	Caldwell	Texas	McLennan
Texas	Calhoun	Texas	McMullen
Texas	Callahan	Texas	Medina
Texas	Chambers	Texas	Menard
Texas	Cherokee	Texas	Milam
Texas	Coke	Texas	Mills
Texas	Coleman	Texas	Montgomery
Texas	Collin	Texas	Nacogdoches
Texas	Colorado	Texas	Navarro
Texas	Comal	Texas	Nolan
Texas	Comanche	Texas	Nueces
Texas	Concho	Texas	Orange
Texas	Coryell	Texas	Palo Pinto
Texas	Dallas	Texas	Parker
Texas	Denton	Texas	Polk
Texas	DeWitt	Texas	Rains
Texas	Dimmit	Texas	Real
Texas	Duval	Texas	Refugio
Texas	Eastland	Texas	Robertson
Texas	Edwards	Texas	Rockwall

Texas	Ellis	Texas	Runnels
Texas	Erath	Texas	Rusk
Texas	Falls	Texas	San Augustine
Texas	Fayette	Texas	San Jacinto
Texas	Fort Bend	Texas	San Patricio
Texas	Freestone	Texas	San Saba
Texas	Frio	Texas	Schleicher
Texas	Galveston	Texas	Shackelford
Texas	Gillespie	Texas	Smith
Texas	Goliad	Texas	Somervell
Texas	Gonzales	Texas	Stephens
Texas	Gregg	Texas	Sterling
Texas	Grimes	Texas	Sutton
Texas	Guadalupe	Texas	Tarrant
Texas	Hamilton	Texas	Taylor
Texas	Hardin	Texas	Throckmorton
Texas	Harris	Texas	Tom Green
Texas	Hays	Texas	Travis
Texas	Henderson	Texas	Trinity
Texas	Hill	Texas	Tyler
Texas	Hood	Texas	Uvalde
Texas	Houston	Texas	Val Verde
Texas	Hunt	Texas	Van Zandt
Texas	Irion	Texas	Victoria
Texas	Jack	Texas	Walker
Texas	Jackson	Texas	Waller
Texas	Jasper	Texas	Washington
Texas	Jefferson	Texas	Webb
Texas	Jim Wells	Texas	Wharton
Texas	Johnson	Texas	Williamson
Texas	Jones	Texas	Wilson
Texas	Karnes	Texas	Wise
Texas	Kaufman	Texas	Wood
Texas	Kendall	Texas	Young
Texas	Kenedy	Texas	Zavala

Figure A.6: Demographic Breakdown of Regional Population – Austin

Demographic	2022 % of Pop.

White, Non-Hispanic	41%
Black, Non-Hispanic	14%
American Indian or Alaskan Native, Non-Hispanic	0%
Asian, Non-Hispanic	6%
Native Hawaiian or Pacific Islander, Non-Hispanic	0%
Two or More Races, Non-Hispanic	2%
White, Hispanic	34%
Black, Hispanic	1%
American Indian or Alaskan Native, Hispanic	1%
Asian, Hispanic	0%
Native Hawaiian or Pacific Islander, Hispanic	0%
Two or More Races, Hispanic	1%

Figure A.7: Counties Included in San Francisco Region

State	County	State	County
California	Kings	California	Alameda
California	Lake	California	Alpine
California	Madera	California	Sonoma
California	Marin	California	Amador
California	Mariposa	California	Stanislaus
California	Mendocino	California	Sutter
California	Merced	California	Butte
California	Monterey	California	Calaveras
California	Napa	California	Tehama
California	Nevada	California	Colusa
California	Placer	California	Trinity
California	Plumas	California	Contra Costa
California	Sacramento	California	Tuolumne
California	San Benito	California	El Dorado
California	San Francisco	California	Yolo
California	San Joaquin	California	Fresno
California	San Mateo	California	Glenn
California	Santa Clara	California	Yuba
California	Santa Cruz	Nevada	Douglas
California	Shasta	Nevada	Lyon
California	Sierra	Nevada	Storey
California	Solano	Nevada	Carson City

Figure A.8: Demographic Breakdown of Regional Population – San Francisco

Demographic	2022 % of Pop.
White, Non-Hispanic	40%
Black, Non-Hispanic	5%
American Indian or Alaskan Native, Non-Hispanic	1%
Asian, Non-Hispanic	20%
Native Hawaiian or Pacific Islander, Non-Hispanic	1%
Two or More Races, Non-Hispanic	4%
White, Hispanic	26%
Black, Hispanic	1%
American Indian or Alaskan Native, Hispanic	1%
Asian, Hispanic	1%
Native Hawaiian or Pacific Islander, Hispanic	0%

Two or More Races, Hispanic	1%

Figure A.9: Counties Included in Chicago Region

State	County	State	County
Illinois	Adams	Iowa	Dubuque
Illinois	Bond	Indiana	St. Joseph
Illinois	Boone	Iowa	Fayette
Illinois	Brown	Indiana	Scott
Illinois	Bureau	Indiana	Shelby
Illinois	Carroll	Iowa	Henry
Illinois	Cass	Iowa	Iowa
Illinois	Champaign	Indiana	Starke
Illinois	Christian	Indiana	Steuben
Illinois	Clark	Iowa	Jackson
Illinois	Clay	Indiana	Tippecanoe
Illinois	Coles	Iowa	Jefferson
Illinois	Cook	Indiana	Tipton
Illinois	Crawford	Iowa	Johnson
Illinois	Cumberland	Indiana	Union
Illinois	De Witt	Iowa	Jones
Illinois	DeKalb	Indiana	Vermillion
Illinois	Douglas	Indiana	Vigo
Illinois	DuPage	Indiana	Wabash
Illinois	Edgar	Indiana	Warren
Illinois	Edwards	Indiana	Washington
Illinois	Effingham	Indiana	Wayne
Illinois	Fayette	Indiana	Wells
Illinois	Ford	Indiana	White
Illinois	Fulton	Indiana	Whitley
Illinois	Greene	Iowa	Lee
Illinois	Grundy	Iowa	Linn
Illinois	Hancock	Iowa	Louisa
Illinois	Henderson	Iowa	Muscatine
Illinois	Henry	Illinois	Whiteside
Illinois	Iroquois	Illinois	Will
Illinois	Jasper	Illinois	Winnebago
Illinois	Jersey	Illinois	Woodford
Illinois	Jo Daviess	Iowa	Scott
Illinois	Kane	Iowa	Van Buren
Illinois	Kankakee	Iowa	Washington
Illinois	Kendall	Missouri	Clark
Indiana	Benton	Michigan	Allegan

Illinois	Knox	Michigan	Barry
Illinois	Lake	Michigan	Bay
Indiana	Blackford	Michigan	Benzie
Indiana	Boone	Michigan	Berrien
Illinois	LaSalle	Michigan	Branch
Indiana	Brown	Michigan	Calhoun
Illinois	Lawrence	Michigan	Cass
Illinois	Lee	Michigan	Clare
Illinois	Livingston	Michigan	Clinton
Illinois	Logan	Michigan	Eaton
Indiana	Carroll	Michigan	Genesee
Illinois	Macon	Michigan	Gladwin
Illinois	Macoupin	Michigan	Grand Traverse
Illinois	Marion	Michigan	Gratiot
Illinois	Marshall	Michigan	Hillsdale
Indiana	Cass	Michigan	Ingham
Illinois	Mason	Michigan	Ionia
Illinois	McDonough	Michigan	Isabella
Indiana	Clay	Michigan	Jackson
Illinois	McHenry	Michigan	Kalamazoo
Illinois	McLean	Michigan	Kent
Indiana	Clinton	Michigan	Lake
Illinois	Menard	Michigan	Lenawee
Illinois	Mercer	Michigan	Livingston
Illinois	Montgomery	Michigan	Manistee
Illinois	Morgan	Michigan	Mason
Indiana	Daviess	Michigan	Mecosta
Illinois	Moultrie	Michigan	Midland
Indiana	Dearborn	Michigan	Missaukee
Indiana	Decatur	Michigan	Monroe
Indiana	DeKalb	Michigan	Montcalm
Indiana	Delaware	Michigan	Muskegon
Illinois	Ogle	Michigan	Newaygo
Indiana	Dubois	Michigan	Oakland
Illinois	Peoria	Michigan	Oceana
Indiana	Elkhart	Michigan	Ogemaw
Indiana	Fayette	Michigan	Osceola
Illinois	Piatt	Michigan	Ottawa
Indiana	Fountain	Michigan	Saginaw
Indiana	Franklin	Michigan	Shiawassee

Illinois	Pike	Michigan	St. Joseph
Indiana	Fulton	Michigan	Van Buren
Illinois	Putnam	Michigan	Washtenaw
Illinois	Richland	Michigan	Wexford
Illinois	Rock Island	Ohio	Allen
Illinois	Sangamon	Ohio	Auglaize
Indiana	Gibson	Ohio	Butler
Illinois	Schuyler	Ohio	Champaign
Illinois	Scott	Ohio	Darke
Illinois	Shelby	Ohio	Defiance
Indiana	Grant	Ohio	Fulton
Illinois	Stark	Ohio	Hancock
Illinois	Stephenson	Ohio	Hardin
Indiana	Greene	Ohio	Henry
Illinois	Tazewell	Ohio	Logan
Illinois	Vermilion	Ohio	Lucas
Illinois	Wabash	Ohio	Mercer
Indiana	Hamilton	Ohio	Miami
Illinois	Warren	Ohio	Montgomery
Illinois	Wayne	Ohio	Paulding
Indiana	Hancock	Ohio	Preble
Indiana	Adams	Ohio	Putnam
Indiana	Allen	Ohio	Sandusky
Indiana	Hendricks	Ohio	Shelby
Indiana	Bartholomew	Ohio	Van Wert
Indiana	Henry	Ohio	Williams
Indiana	Howard	Ohio	Wood
Indiana	Huntington	Ohio	Wyandot
Indiana	Jackson	Wisconsin	Adams
Indiana	Jasper	Wisconsin	Brown
Indiana	Jay	Wisconsin	Calumet
Indiana	Jefferson	Wisconsin	Columbia
Indiana	Jennings	Wisconsin	Crawford
Indiana	Johnson	Wisconsin	Dane
Indiana	Knox	Wisconsin	Dodge
Iowa	Allamakee	Wisconsin	Fond du Lac
Indiana	Kosciusko	Wisconsin	Grant
Indiana	LaGrange	Wisconsin	Green
Indiana	Lake	Wisconsin	Green Lake
Indiana	LaPorte	Wisconsin	Iowa

Indiana	Lawrence	Wisconsin	Jefferson
Indiana	Madison	Wisconsin	Juneau
Iowa	Benton	Wisconsin	Kenosha
Iowa	Buchanan	Wisconsin	Kewaunee
Indiana	Marion	Wisconsin	La Crosse
Indiana	Marshall	Wisconsin	Lafayette
Indiana	Martin	Wisconsin	Manitowoc
Indiana	Miami	Wisconsin	Marquette
Iowa	Cedar	Wisconsin	Menominee
Indiana	Monroe	Wisconsin	Milwaukee
Iowa	Clayton	Wisconsin	Monroe
Indiana	Montgomery	Wisconsin	Outagamie
Indiana	Morgan	Wisconsin	Ozaukee
Indiana	Newton	Wisconsin	Portage
Iowa	Clinton	Wisconsin	Racine
Indiana	Noble	Wisconsin	Richland
Indiana	Ohio	Wisconsin	Rock
Iowa	Delaware	Wisconsin	Sauk
Indiana	Orange	Wisconsin	Shawano
Indiana	Owen	Wisconsin	Sheboygan
Indiana	Parke	Wisconsin	Vernon
Indiana	Pike	Wisconsin	Walworth
Indiana	Porter	Wisconsin	Washington
Indiana	Pulaski	Wisconsin	Waukesha
Iowa	Des Moines	Wisconsin	Waupaca
Indiana	Putnam	Wisconsin	Waushara
Indiana	Randolph	Wisconsin	Winnebago
Indiana	Ripley	Wisconsin	Wood
Indiana	Rush		

Figure A.10: Demographic Breakdown of Regional Population – Chicago

Demographic	2022 % of Pop.
White, Non-Hispanic	70%
Black, Non-Hispanic	12%
American Indian or Alaskan Native, Non-Hispanic	0%
Asian, Non-Hispanic	4%
Native Hawaiian or Pacific Islander, Non-Hispanic	0%
Two or More Races, Non-Hispanic	2%
White, Hispanic	10%

Black, Hispanic	0%
American Indian or Alaskan Native, Hispanic	0%
Asian, Hispanic	0%
Native Hawaiian or Pacific Islander, Hispanic	0%
Two or More Races, Hispanic	0%

Figure A.11: Counties Included in Gainesville Region

State	County	State	County
Alabama	Dale	Georgia	Calhoun
Alabama	Henry	Georgia	Camden
Alabama	Houston	Georgia	Candler
Florida	Alachua	Georgia	Charlton
Florida	Baker	Georgia	Chatham
Florida	Bay	Georgia	Chattahoochee
Florida	Bradford	Georgia	Clay
Florida	Brevard	Georgia	Clinch
Florida	Calhoun	Georgia	Coffee
Florida	Charlotte	Georgia	Colquitt
Florida	Citrus	Georgia	Crawford
Florida	Clay	Georgia	Crisp
Florida	Columbia	Georgia	Decatur
Florida	DeSoto	Georgia	Dodge
Florida	Dixie	Georgia	Dooly
Florida	Duval	Georgia	Dougherty
Florida	Flagler	Georgia	Early
Florida	Franklin	Georgia	Echols
Florida	Gadsden	Georgia	Effingham
Florida	Gilchrist	Georgia	Emanuel
Florida	Glades	Georgia	Evans
Florida	Gulf	Georgia	Glynn
Florida	Hamilton	Georgia	Grady
Florida	Hardee	Georgia	Houston
Florida	Hendry	Georgia	Irwin
Florida	Hernando	Georgia	Jeff Davis
Florida	Highlands	Georgia	Jenkins
Florida	Hillsborough	Georgia	Johnson
Florida	Holmes	Georgia	Lanier
Florida	Indian River	Georgia	Laurens
Florida	Jackson	Georgia	Lee
Florida	Jefferson	Georgia	Liberty
Florida	Lafayette	Georgia	Long
Florida	Lake	Georgia	Lowndes
Florida	Lee	Georgia	Macon
Florida	Leon	Georgia	Marion
Florida	Levy	Georgia	McIntosh
Florida	Liberty	Georgia	Miller

Florida	Madison	Georgia	Mitchell
Florida	Manatee	Georgia	Montgomery
Florida	Marion	Georgia	Peach
Florida	Martin	Georgia	Pierce
Florida	Nassau	Georgia	Pulaski
Florida	Okeechobee	Georgia	Quitman
Florida	Orange	Georgia	Randolph
Florida	Osceola	Georgia	Schley
Florida	Pasco	Georgia	Screven
Florida	Pinellas	Georgia	Seminole
Florida	Polk	Georgia	Stewart
Florida	Putnam	Georgia	Sumter
Florida	Sarasota	Georgia	Tattnall
Florida	Seminole	Georgia	Taylor
Florida	St. Johns	Georgia	Telfair
Florida	St. Lucie	Georgia	Terrell
Florida	Sumter	Georgia	Thomas
Florida	Suwannee	Georgia	Tift
Florida	Taylor	Georgia	Toombs
Florida	Union	Georgia	Treutlen
Florida	Volusia	Georgia	Turner
Florida	Wakulla	Georgia	Twiggs
Florida	Washington	Georgia	Ware
Georgia	Appling	Georgia	Washington
Georgia	Atkinson	Georgia	Wayne
Georgia	Bacon	Georgia	Webster
Georgia	Baker	Georgia	Wheeler
Georgia	Ben Hill	Georgia	Wilcox
Georgia	Berrien	Georgia	Wilkinson
Georgia	Bibb	Georgia	Worth
Georgia	Bleckley	South Carolina	Allendale
Georgia	Brantley	South Carolina	Beaufort
Georgia	Brooks	South Carolina	Hampton
Georgia	Bryan	South Carolina	Jasper
Georgia	Bulloch		

Figure A.12: Demographic Breakdown of Regional Population – Gainesville

Demographic	2022 % of Pop.
White, Non-Hispanic	60%

Black, Non-Hispanic	17%
American Indian or Alaskan Native, Non-Hispanic	0%
Asian, Non-Hispanic	3%
Native Hawaiian or Pacific Islander, Non-Hispanic	0%
Two or More Races, Non-Hispanic	2%
White, Hispanic	16%
Black, Hispanic	1%
American Indian or Alaskan Native, Hispanic	0%
Asian, Hispanic	0%
Native Hawaiian or Pacific Islander, Hispanic	0%
Two or More Races, Hispanic	1%

Appendix B: Taxonomy of Food System Categories by IMPLAN Industry

IMPLAN Code	IMPLAN Industry	Grouping
1	Oilseed farming	Agriculture
2	Grain farming	Agriculture
3	Vegetable and melon farming	Agriculture
4	Fruit farming	Agriculture
5	Tree nut farming	Agriculture
6	Greenhouse, nursery, and floriculture production	Agriculture
9	Sugarcane and sugar beet farming	Agriculture
10	All other crop farming	Agriculture
11	Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	Agriculture
12	Dairy cattle and milk production	Agriculture
13	Poultry and egg production	Agriculture
14	Animal production, except cattle and poultry and eggs	Agriculture
17	Commercial fishing	Agriculture
18	Commercial hunting and trapping	Agriculture
19	Support activities for agriculture and forestry	Agriculture
65	Flour milling	Manufacturing
66	Rice milling	Manufacturing
67	Malt manufacturing	Manufacturing
68	Wet corn milling	Manufacturing
69	Soybean and other oilseed processing	Manufacturing
70	Fats and oils refining and blending	Manufacturing
71	Breakfast cereal manufacturing	Manufacturing
72	Beet sugar manufacturing	Manufacturing
73	Sugar cane mills and refining	Manufacturing
74	Nonchocolate confectionery manufacturing	Manufacturing
75	Chocolate and confectionery manufacturing from cacao beans	Manufacturing
76	Confectionery manufacturing from purchased chocolate	Manufacturing
77	Frozen fruits, juices and vegetables manufacturing	Manufacturing
78	Frozen specialties manufacturing	Manufacturing
79	Canned fruits and vegetables manufacturing	Manufacturing
80	Canned specialties	Manufacturing
81	Dehydrated food products manufacturing	Manufacturing
82	Cheese manufacturing	Manufacturing
83	Dry, condensed, and evaporated dairy product manufacturing	Manufacturing
84	Fluid milk manufacturing	Manufacturing
85	Creamery butter manufacturing	Manufacturing
86	Ice cream and frozen dessert manufacturing	Manufacturing
87	Frozen cakes and other pastries manufacturing	Manufacturing

88	Poultry processing	Manufacturing
89	Animal, except poultry, slaughtering	Manufacturing
90	Meat processed from carcasses	Manufacturing
91	Rendering and meat byproduct processing	Manufacturing
92	Seafood product preparation and packaging	Manufacturing
93	Bread and bakery product, except frozen, manufacturing	Manufacturing
94	Cookie and cracker manufacturing	Manufacturing
95	Dry pasta, mixes, and dough manufacturing	Manufacturing
96	Tortilla manufacturing	Manufacturing
97	Roasted nuts and peanut butter manufacturing	Manufacturing
98	Other snack food manufacturing	Manufacturing
99	Coffee and tea manufacturing	Manufacturing
100	Flavoring syrup and concentrate manufacturing	Manufacturing
101	Mayonnaise, dressing, and sauce manufacturing	Manufacturing
102	Spice and extract manufacturing	Manufacturing
103	All other food manufacturing	Manufacturing
104	Bottled and canned soft drinks & water	Manufacturing
105	Manufactured ice	Manufacturing
106	Manufactured ice	Manufacturing
107	Wineries	Manufacturing
108	Distilleries	Manufacturing
398	Wholesale - Grocery and related product wholesalers	Consumption
406	Retail - Food and beverage stores	Consumption
509	Full-service restaurants	Consumption
510	Limited-service restaurants	Consumption
511	All other food and drinking places	Consumption

Appendix C: Local Food Systems Bibliography

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Appendix D: Good Quality Jobs Bibliography

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Appendix E: Tax Details Per Region

Figure E.1: Austin Projected Tax Revenue

	Federal Tax Impact
Social Insurance Tax- Employee Contribution	$5,052,441,258
Social Insurance Tax- Employer Contribution	$4,214,259,984
TOPI: Excise Taxes	-$798,005,786
TOPI: Custom Duty	-$831,800,208
OPI: Corporate Profits Tax	$1,740,629,932
Personal Tax: Income Tax	$8,368,756,077
Personal Tax: Estate and Gift Tax	$0
	$17,746,281,257

	State Tax Impact	County Tax Impact	Sub County (Special Districts) Tax Impacts	Sub County (General) Tax Impacts
Social Insurance Tax- Employee Contribution	$42,923,607	$0	$0	$0
Social Insurance Tax- Employer Contribution	$50,182,147	$0	$0	$0
TOPI: Sales Tax	$3,138,730,346	$40,558,508	$153,323,952	$443,609,352
TOPI: Property Tax	$0	$735,584,447	$2,337,927,652	$608,493,509
TOPI: Motor Vehicle License	$45,283,346	$5,937,699	$0	$461,415
TOPI: Severance Tax	$316,915,659	$0	$0	$0
TOPI: Other Taxes	$61,065,453	$3,518,719	$2,143,040	$44,153,755
TOPI: Special Assessments	$0	$21,814	$1,825,946	$29,736,098
Personal Tax: Motor Vehicle License	$66,211,768	$5,701,655	$0	$390,625
Personal Tax: Property Taxes	$0	$5,306,741	$17,272,207	$4,535,097
Personal Tax: Other Tax (Fish/Hunt)	$22,669,401	$0	$0	$0
	$3,743,981,727	**$796,629,584**	**$2,512,492,797**	**$1,131,379,849**

Figure E.2: Chicago Projected Tax Revenue

	Federal Tax Impact
Social Insurance Tax- Employee Contribution	$8,703,213,076
Social Insurance Tax- Employer Contribution	$6,927,126,275
TOPI: Excise Taxes	-$1,652,915,410
TOPI: Custom Duty	-$1,722,914,050
OPI: Corporate Profits Tax	$2,730,288,228
Personal Tax: Income Tax	$13,237,565,046
Personal Tax: Estate and Gift Tax	$0
	$28,222,363,165

	State Tax Impact	County Tax Impact	Sub County (Special Districts) Tax Impacts	Sub County (General) Tax Impacts
Social Insurance Tax- Employee Contribution	$15,941,020	$0	$0	$0
Social Insurance Tax- Employer Contribution	$18,636,705	$0	$0	$0
TOPI: Sales Tax	$7,086,503,519	$261,481,379	$146,619,931	$480,562,202
TOPI: Property Tax	$227,661,314	$907,829,500	$4,413,371,035	$1,662,895,215
TOPI: Motor Vehicle License	$203,906,240	$3,156,923	$0	$3,257,533
TOPI: Severance Tax	$4,491,520	$0	$0	$0
TOPI: Other Taxes	$334,074,431	$25,447,632	$11,343,165	$146,535,326
TOPI: Special Assessments	$0	$11,669,618	$6,326,717	$96,533,896
OPI: Corporate Profits Tax	$1,015,251,340	$0	$0	$7,261,216
Personal Tax: Income Tax	$3,301,738,231	$29,628,258	$20,593,107	$147,881,977
Personal Tax: Motor Vehicle License	$192,835,020	$2,436,071	$0	$2,629,859
Personal Tax: Property Taxes	$2,399,776	$5,710,914	$13,888,593	$8,736,447
Personal Tax: Other Tax (Fish/Hunt)	$50,455,012	$0	$0	$0
	$12,453,894,127	**$1,247,360,295**	**$4,612,142,548**	**$2,556,293,672**

Figure E.3: Denver Projected Tax Revenue

	Federal Tax Impact
Social Insurance Tax- Employee Contribution	$1,652,802,680
Social Insurance Tax- Employer Contribution	$1,347,413,800
TOPI: Excise Taxes	-$247,459,566
TOPI: Custom Duty	-$257,939,130
OPI: Corporate Profits Tax	$542,177,236
Personal Tax: Income Tax	$2,811,804,883
Personal Tax: Estate and Gift Tax	$0
	$5,848,799,903

	State Tax Impact	County Tax Impact	Sub County (Special Districts) Tax Impacts	Sub County (General) Tax Impacts
Social Insurance Tax- Employee Contribution	$29,396,968	$0	$0	$0
Social Insurance Tax- Employer Contribution	$34,368,103	$0	$0	$0
TOPI: Sales Tax	$646,509,067	$75,942,432	$84,428,570	$385,884,596
TOPI: Property Tax	$6,177,614	$184,276,038	$768,748,163	$102,347,513
TOPI: Motor Vehicle License	$16,743,008	$1,529,322	$0	$1,293,391
TOPI: Severance Tax	$11,691,652	$0	$0	$0
TOPI: Other Taxes	$11,061,960	$9,033,947	$6,367,234	$36,196,522
TOPI: Special Assessments	-$3,903,804	$574,074	$17,132,149	$22,484,952
OPI: Corporate Profits Tax	$134,672,138	$0	$0	$0
Personal Tax: Income Tax	$608,405,347	$3,790	$0	$3,046
Personal Tax: Motor Vehicle License	$18,919,368	$1,384,913	$0	$1,240,322
Personal Tax: Property Taxes	$173,018	$3,599,321	$14,895,131	$1,958,872
Personal Tax: Other Tax (Fish/Hunt)	$30,385,756	$0	$0	$0
	$1,544,600,194	**$276,343,836**	**$891,571,246**	**$551,409,212**

Figure E.4: Denver Projected Tax Revenue

	Federal Tax Impact
Social Insurance Tax- Employee Contribution	$2,946,825,702
Social Insurance Tax- Employer Contribution	$2,519,939,690
TOPI: Excise Taxes	-$464,452,327
TOPI: Custom Duty	-$484,121,229
OPI: Corporate Profits Tax	$838,432,792
Personal Tax: Income Tax	$5,111,761,675
Personal Tax: Estate and Gift Tax	$0
	$10,468,386,302

	State Tax Impact	County Tax Impact	Sub County (Special Districts) Tax Impacts	Sub County (General) Tax Impacts
Social Insurance Tax- Employee Contribution	$3,631,015	$0	$0	$0
Social Insurance Tax- Employer Contribution	$4,245,033	$0	$0	$0
TOPI: Sales Tax	$2,019,939,778	$209,985,639	$91,364,742	$149,910,420
TOPI: Property Tax	$4,124,364	$594,531,246	$767,859,839	$255,197,754
TOPI: Motor Vehicle License	$30,144,647	$36,320	$0	$34,369
TOPI: Severance Tax	$1,763,414	$0	$0	$0
TOPI: Other Taxes	$271,592,774	$37,039,457	$2,551,170	$68,849,572
TOPI: Special Assessments	-$292,298	$92,098,008	$61,925,460	$33,435,771
OPI: Corporate Profits Tax	$185,709,960	$0	$0	$0
Personal Tax: Income Tax	$36,494,165	$0	$0	$0
Personal Tax: Motor Vehicle License	$28,768,235	$23,092	$0	$18,204
Personal Tax: Property Taxes	$72,311	$3,431,881	$4,718,411	$1,513,283
Personal Tax: Other Tax (Fish/Hunt)	$2,385,640	$0	$0	$0
	$2,588,579,038	**$937,145,643**	**$928,419,621**	**$508,959,372**

Figure E.5: New York Projected Tax Revenue

	Federal Tax Impact
Social Insurance Tax- Employee Contribution	$13,224,528,153
Social Insurance Tax- Employer Contribution	$10,847,545,460
TOPI: Excise Taxes	-$2,742,749,611
TOPI: Custom Duty	-$2,858,901,196
OPI: Corporate Profits Tax	$4,177,825,734
Personal Tax: Income Tax	$25,165,329,858
Personal Tax: Estate and Gift Tax	$0
	$47,813,578,397

	State Tax Impact	County Tax Impact	Sub County (Special Districts) Tax Impacts	Sub County (General) Tax Impacts
Social Insurance Tax- Employee Contribution	$143,972,347	$0	$0	$0
Social Insurance Tax- Employer Contribution	$168,318,601	$0	$0	$0
TOPI: Sales Tax	$7,912,255,723	$738,990,390	$38,622,546	$989,455,047
TOPI: Property Tax	$152,528,983	$2,370,629,555	$4,284,520,208	$7,181,900,697
TOPI: Motor Vehicle License	$140,228,207	$2,103,919	$0	$3,519,440
TOPI: Severance Tax	$3,173,417	$0	$0	$1,192
TOPI: Other Taxes	$1,020,926,696	$120,709,652	$31,969,699	$510,577,458
TOPI: Special Assessments	$11,394	$14,177,008	$4,931,669	$12,624,829
OPI: Corporate Profits Tax	$1,637,377,248	$0	$0	$548,813,938
Personal Tax: Income Tax	$5,886,110,218	$281,205,428	$59,332,097	$1,069,713,153
Personal Tax: Motor Vehicle License	$133,373,614	$2,126,610	$0	$3,757,292
Personal Tax: Property Taxes	$449,099	$18,871,179	$5,213,560	$52,658,255
Personal Tax: Other Tax (Fish/Hunt)	$34,881,797	$0	$0	$0
	$17,233,607,342	**$3,548,813,741**	**$4,424,589,778**	**$10,373,021,300**

Figure E.6: San Francisco Projected Tax Revenue

	Federal Tax Impact
Social Insurance Tax- Employee Contribution	$3,608,265,684
Social Insurance Tax- Employer Contribution	$2,857,706,058
TOPI: Excise Taxes	-$658,657,199
TOPI: Custom Duty	-$686,550,404
OPI: Corporate Profits Tax	$1,111,671,248
Personal Tax: Income Tax	$7,293,298,884
Personal Tax: Estate and Gift Tax	$0
	$13,525,734,271

	State Tax Impact	County Tax Impact	Sub County (Special Districts) Tax Impacts	Sub County (General) Tax Impacts
Social Insurance Tax- Employee Contribution	$153,200,549	$0	$0	$0
Social Insurance Tax- Employer Contribution	$179,107,327	$0	$0	$0
TOPI: Sales Tax	$2,309,430,088	$92,509,905	$68,688,113	$523,402,953
TOPI: Property Tax	$138,897,691	$824,066,388	$1,539,235,679	$605,237,727
TOPI: Motor Vehicle License	$81,687,492	$0	$325,667	$74,018
TOPI: Severance Tax	$6,289,979	$0	$0	$0
TOPI: Other Taxes	$243,636,864	$87,203,298	$60,972,710	$280,338,028
TOPI: Special Assessments	$0	$28,000,306	$84,739,970	$38,451,397
OPI: Corporate Profits Tax	$708,875,578	$0	$0	$0
Personal Tax: Income Tax	$2,902,819,033	$0	$0	$0
Personal Tax: Motor Vehicle License	$66,209,374	$0	$190,899	$85,631
Personal Tax: Property Taxes	$2,053,532	$11,577,462	$22,188,461	$10,779,213
Personal Tax: Other Tax (Fish/Hunt)	$10,517,187	$0	$0	$0
	$6,802,724,694	**$1,043,357,359**	**$1,776,341,499**	**$1,458,368,967**

Appendix F: Current Employment and Salaries

To support further advocacy efforts for "good jobs" in these regions, the following labor information has been collected by region, by race/ethnicity, and by food system category. This information represents useful reference information from which advocates can understand the type and pay level of various food system jobs by region, as well as how many of those jobs exist by region and what the racial and ethnic distribution is of those holding these jobs.

Figure F.1: Employment and Salaries per Category

		Illustrative Jobs Titles	Austin	Chicago	Denver	Gainesville	New York City	San Francisco
Agriculture	**Number of Jobs**		**60,064**	**160,204**	**43,734**	**96,609**	**137,887**	**236,733**
	Avg Salary		**$49,216**	**$52,328**	**$51,139**	**$44,720**	**$59,618**	**$58,721**
	Entry Level Job Avg Salary:	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	$25,313	$27,010	$28,334	$24,416	$28,216	$29,663
	Mid-Level Job Avg Salary:	First-Line Supervisors of Farming, Fishing, and Forestry Workers	$43,814	$46,470	$45,393	$42,308	$44,486	$42,909
Manufacturing	**Number of Jobs**		**103,245**	**302,447**	**43,734**	**59,019**	**276,028**	**128,512**
	Avg Salary		**$66,057**	**$72,117**	**$68,121**	**$65,373**	**$71,594**	**$72,529**
	Entry Level Job Avg Salary:	Food Processing Workers, All Other	$34,790	$35,063	$33,714	$27,746	$31,857	$35,306
	Mid-Level Job Avg Salary:	Food Scientists and Technologists	$79,624	$78,643	$80,224	$60,868	$83,444	$78,219
Transportation	**Number of Jobs**		**303,577**	**450,743**	**51,959**	**163,027**	**554,901**	**134,473**
	Avg Salary		**$68,708**	**$68,808**	**$70,916**	**$60,541**	**$69,277**	**$71,682**
	Entry Level Job Avg Salary:	Transportation Workers, All Other	$48,245	$36,684	$38,471	$31,363	$39,372	$45,157
	Mid-Level Job Avg Salary:	Transportation, Storage, and Distribution Managers	$97,253	$95,711	$99,569	$86,788	$109,610	$108,474
Wholesale	**Number of Jobs**		**60,966**	**98,805**	**18,179**	**35,809**	**151,633**	**39,916**
	Avg Salary		**$30,563**	**$39,445**	**$37,654**	**$36,050**	**$40,222**	**$39,185**
	Entry Level Job Avg Salary:	Stockers and Order Fillers	$32,740	$30,172	$31,375	$29,276	$32,373	$35,809
	Mid-Level Job Avg Salary:	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$59,970	$62,071	$63,279	$54,138	$68,177	$70,794
Retail	**Number of Jobs**		**482,290**	**581,231**	**109,947**	**352,362**	**1,416,905**	**293,010**
	Avg Salary		**$39,471**	**$35,038**	**$38,495**	**$34,851**	**$40,129**	**$45,872**
	Entry Level Job Avg Salary:	Sales and Related Workers, All Other	$29,864	$29,026	$32,847	$28,157	$37,544	$47,475
	Mid-Level Job Avg Salary:	Sales Managers	$122,026	$125,358	$155,977	$103,972	$149,553	$148,412
Food Service	**Number of Jobs**		**1,990,238**	**2,353,280**	**493,529**	**1,259,475**	**3,871,707**	**1,009,112**
	Avg Salary		**$30,675**	**$28,045**	**$34,423**	**$30,649**	**$35,248**	**$38,505**
	Entry Level Job Avg Salary:	Food Preparation and Serving Related Workers, All Other	$26,422	$26,501	$28,675	$22,979	$29,457	$34,327
	Mid-Level Job Avg Salary:	Food Service Managers	$49,875	$52,795	$56,933	$57,137	$60,277	$61,625

Figure F.2: Employment in New York City by Race per Category

New York City	Total	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino
Production	137,887	105,438	5,979	506	3,105	121	2,403	20,332
		76%	4%	0%	2%	0%	2%	15%
Manufacturing	276,028	161,724	35,272	477	15,573	295	3,312	59,344
		59%	13%	0%	6%	0%	1%	21%
Wholesale	151,633	86,387	19,363	223	10,856	116	1,778	32,910
		57%	13%	0%	7%	0%	1%	22%
Transportation	554,901	290,890	112,206	1,429	29,004	578	9,061	111,733
		52%	20%	0%	5%	0%	2%	20%
Retail	1,416,905	874,979	173,445	3,568	125,388	1,638	24,609	213,277
		62%	12%	0%	9%	0%	2%	15%
Food Service	3,871,707	2,209,171	466,237	12,052	406,587	6,790	77,191	693,679
		57%	12%	0%	11%	0%	2%	18%

Figure F.3: Employment in Chicago by Race per Category

Chicago	Total	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino
Production	160,204	134,448	3,494	270	2,180	98	1,681	18,025
		84%	2%	0%	1%	0%	1%	11%
Manufacturing	302,447	199,178	29,431	729	11,978	323	3,515	57,254
		66%	10%	0%	4%	0%	1%	19%
Wholesale	98,805	68,264	9,560	158	3,428	74	1,071	16,243
		69%	10%	0%	3%	0%	1%	16%
Transportation	450,743	306,235	69,360	1,250	14,561	341	7,187	51,811
		68%	15%	0%	3%	0%	2%	11%
Retail	581,231	422,783	53,854	1,675	27,162	452	10,362	64,943
		73%	9%	0%	5%	0%	2%	11%
Food Service	2,353,280	1,586,912	258,002	9,094	112,173	2,714	57,807	326,578
		67%	11%	0%	5%	0%	2%	14%

Figure F.4: Employment in Austin by Race per Category

Austin	Total	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino
Production	60,064	35,160	1,917	128	1,672	34	1,184	19,965
		59%	3%	0%	3%	0%	2%	33%
Manufacturing	103,245	36,151	16,732	226	6,255	132	1,308	42,397
		35%	16%	0%	6%	0%	1%	41%
Wholesale	60,966	23,423	10,737	122	2,837	61	560	23,222
		38%	18%	0%	5%	0%	1%	38%
Transportation	303,577	105,464	67,350	921	11,254	527	3,349	114,712
		35%	22%	0%	4%	0%	1%	38%
Retail	482,290	193,563	56,396	1,596	36,238	807	6,890	186,800
		40%	12%	0%	8%	0%	1%	39%
Food Service	1,990,238	840,155	245,040	8,118	132,713	4,354	32,826	727,031
		42%	12%	0%	7%	0%	2%	37%

Figure F.5: Employment in Gainesville by Race per Category

Gainesville	Total	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino
Production	96,609	53,679	11,071	255	2,119	119	1,239	28,120
		56%	11%	0%	2%	0%	1%	29%
Manufacturing	59,019	26,056	20,049	80	1,512	11	630	10,613
		44%	34%	0%	3%	0%	1%	18%
Wholesale	35,809	19,002	8,128	47	720	32	374	7,505
		53%	23%	0%	2%	0%	1%	21%
Transportation	163,027	76,866	44,947	388	3,308	199	2,218	35,101
		47%	28%	0%	2%	0%	1%	22%
Retail	352,362	216,701	55,942	927	17,492	376	6,226	54,682
		61%	16%	0%	5%	0%	2%	16%
Food Service	1,259,475	718,454	239,449	4,209	56,169	1,822	27,803	211,569
		57%	19%	0%	4%	0%	2%	17%

Figure F.6: Employment in Denver by Race per Category

Denver	Total	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino
Production	43,734	30,064	1,093	412	649	34	636	10,842
		69%	2%	1%	1%	0%	1%	25%
Manufacturing	37,479	1,115	2,304	155	1,886	84	536	11,320
		56%	6%	0%	5%	0%	1%	30%
Wholesale	18,179	1,560	1,027	78	579	35	264	4,635
		64%	6%	0%	3%	0%	1%	25%
Transportation	51,959	30,326	4,434	319	1,713	111	978	14,077
		58%	9%	1%	3%	0%	2%	27%
Retail	109,947	73,020	5,184	724	5,504	157	2,421	22,917
		66%	5%	1%	5%	0%	2%	21%
Food Service	493,529	305,762	22,898	3,040	30,239	1,022	12,250	118,318
		62%	5%	1%	6%	0%	2%	24%

Figure F.7: Employment in San Francisco by Race per Category

San Francisco	Total	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino
Production	236,733	84,674	8,434	974	16,078	756	3,098	122,708
		36%	4%	0%	7%	0%	1%	52%
Manufacturing	128,512	48,429	4,623	367	14,662	493	2,200	57,697
		38%	4%	0%	11%	0%	2%	45%
Wholesale	39,916	14,731	1,767	124	6,537	199	782	15,774
		37%	4%	0%	16%	0%	2%	40%
Transportation	134,473	42,818	9,947	677	23,830	1,109	3,061	53,031
		32%	7%	1%	18%	1%	2%	39%
Retail	293,010	124,367	14,636	1,525	47,538	1,413	8,133	95,399
		42%	5%	1%	16%	0%	3%	33%
Food Service	1,009,112	389,877	49,027	4,562	183,552	5,112	28,042	348,939
		39%	5%	0%	18%	1%	3%	35%

Appendix G: Input-Output Modeling

In an inter-connected economy, every dollar spent generates two spillover impacts:

- First, some amount of the proportion of that expenditure that goes to the purchase of goods and services gets circulated back into an economy when those goods and services are purchased from local vendors. This represents what is called the "**indirect effect**," and reflects the fact that local purchases of goods and services support local vendors, who in turn require additional purchasing with their own set of vendors.
- Second, some amount of the proportion of that expenditure that goes to labor income gets circulated back into an economy when those employees spend some of their earnings on various goods and services. This represents what is called the **"induced effect**," and reflects the fact that some of those goods and services will be purchased from local vendors, further stimulating a local economy.

To model the impacts resulting from the direct expenditures ESI developed a customized economic impact model using the IMPLAN input/output modeling system. IMPLAN represents an industry standard approach to assess the economic and job creation impacts of economic development projects, the creation of new businesses, and public policy changes within a county or its surrounding area.

IMPLAN has developed a social accounting matrix (SAM) that accounts for the flow of commodities through economics. From this matrix, IMPLAN also determines the regional purchase coefficient (RPC), the proportion of local supply that satisfies local demand. These values not only establish the types of goods and services supported by an industry or institution, but also the level in which they are acquired locally. This assessment determines the multiplier basis for the local and regional models created in the IMPLAN modeling system. IMPLAN takes the multipliers and divides them into 546 industry categories in accordance with the North American Industrial Classification System (NAICS) codes.

Appendix H: Report Team

Project Lead: About the Center for Good Food Purchasing

The Center for Good Food Purchasing uses the power of procurement to create a transparent and equitable food system that prioritizes the health and well-being of people, animals, and the environment. They do this through the nationally networked adoption and implementation of the Good Food Purchasing Program by major institutions. The Center manages the Good Food Purchasing Program, working with institutions to establish supply chain transparency from farm to fork and shift towards a values-based purchasing model. The Good Food Purchasing Program provides a metric based, flexible framework that encourages large institutions to direct their buying power toward five core values: local and community-based economies, environmental sustainability, valued workforce, animal welfare, and community health and nutrition, centered around the principles of equity, accountability, and transparency. The Good Food Purchasing Program is the first procurement model to support these food system values in equal measure. The Center works with national partners and local grassroots coalitions in cities across the United States to build a cohesive movement in support of Good Food purchasing.

Advisory Team

David Beck, Self-Help Enterprises

David Beck is Director of Policy at Self-Help, a national CDFI headquartered in Durham, NC with a mission to create and protect ownership opportunities for all. He coordinates Self-Help's policy work on a range of community development policy issues, such as mortgage lending, small business lending and lending to non-profits. Most recently he has heavily engaged in equitable food system policies, building off learnings from Self-Help's Healthy Foods Financing Initiative and other food systems lending work. He also coordinates with Self-Help's affiliate the Center for Responsible Lending. David currently serves on the Opportunity Finance Network board and is a founding member of the New Markets Tax Credit Coalition. Before joining Self-Help in 1998, David worked for Rep. David Price in Washington. He is a graduate of the University of North Carolina at Chapel Hill.

John Fisk, Bluestem Food Systems Consulting

John Fisk has over 25 years of experience in food systems development and regenerative agriculture with training and application in research, program design, project management, philanthropy, and evaluation. As founder of Bluestem Food Systems Consulting, he is advancing efforts in food access and health, regional food value chain development, and agriculture's resilience in the face of climate change. John draws from his leadership of the Wallace Center at Winrock where he reestablished the Center as an

innovative and national force in regional food systems development and his food systems work with the W.K. Kellogg Foundation.

Mara Fleishman, Chef Ann Foundation

Mara Fleishman is the CEO of the Chef Ann Foundation, an organization dedicated to promoting whole-ingredient, scratch cooking in schools. As CEO, she has spent the last ten years fighting for healthier food for the nation's kids, looking at system-based change. Mara has over 20 years of experience in leading systems change initiatives in the for-profit and non-profit sectors including over a decade at Whole Foods Market where she served as Global Director of Partnerships. Mara also serves on regional and national boards, has spoken at conferences and academic institutions across the country, and has been recognized in publications as a champion and national advocate for change.

Scott Chang-Fleeman, Berkeley Food Institute

Scott Chang-Fleeman is the Administrative and Finance Director for the Berkeley Food Institute. He is also a vegetable farmer; his farm, Shao Shan Farm, specializes in growing certified organic Asian vegetables for Bay Area AAPI chefs, grocers, and farmers markets. He is a member of the farmer collaborative Second Generation Seeds and has prior experience at the Claremont Colleges managing operations, finances, education, and undergraduate employment at their educational farm and food waste recovery program. Outside of work, he volunteers time lobbying for increased resources for farmers of color and leads educational and cultural events around food, farming, and seed sovereignty for various community groups.

Haile Johnston, The Common Market

Haile Johnston is a Philadelphia-based father of four young children who works to improve the vitality of rural and urban communities through food systems reform and policy change. Along with his wife Tatiana, he is the Co-Director and a founder of The Common Market, a nonprofit distribution enterprise that connects communities to sustainable, locally grown farm food. Haile is a graduate of University of Pennsylvania's Wharton School of Business where he concentrated in entrepreneurial management. He is proud to have recently served as a Food and Community Fellow with the Institute for Agriculture and Trade Policy and to be a current Draper Richards Kaplan Foundation Entrepreneur. Haile serves as a trustee of the Jessie Smith Noyes Foundation and as an Advisory Board Member of the National Farm to School Network.

Trish Kelly, Valley Vision

Trish Kelly is a Managing Director at Valley Vision, a nonprofit civic leadership organization serving the Sacramento Capital Region. Trish oversees the Greater Sacramento Region Prosperity Strategy focus on the region's food and agriculture industry cluster initiatives. She led the development of the 2021 Greater Sacramento Region Food System Action Plan which provides a roadmap to improve the resiliency

of the regional food system, and the 2023 Food System Financing Strategy. She is also leading Valley Vision's project to develop the Yolo Food Hub Network, to increase supply chain resiliency and institutional procurement opportunities, and is serving as project director for the new Southwest USDA Regional Food Business Center, led by the University of California Agriculture and Natural Resources. Trish serves on several regional advisory bodies, including the AgStart incubator – an agtech accelerator and the Greater Sacramento Food and Ag Innovation Council, and is Co-Chair the Sacramento Metro Chamber's Food and Agriculture Committee, working with state and federal agencies and the congressional delegation on food system priorities. She received the Golden Bear Award for Lifetime Achievement from the California Association for Local Economic Development (CALED), and a Women Who Means Business award from the Sacramento Business Journal. Trish graduated Cum Laude with a BSL in Spanish from Georgetown University, and has a Master's Degree in City Planning from the University of Pennsylvania.

Sibella Kraus, SAGE Center

Sibella Kraus is an advocate and thought leader who has helped drive the Bay Area food and farming movement for more than thirty years. Over her diverse career, Sibella has worked to link farmers, chefs, and communities, protect, and revitalize urban-edge agriculture, support beginning farmers, and make Bay Area food systems more vital, interconnected, sustainable and resilient. With an entrepreneurial and collaborative approach, Sibella combines her big-picture vision with on-the-ground know-how to develop innovative projects from ideas to reality. Sibella has produced numerous influential publications and is an acclaimed, in-demand public speaker. Her work has received national recognition from agricultural, food, planning and public market organizations. In addition to directing non-profit SAGE, she assists a wide range of clients in developing place-based agriculture and local food projects.

Robert Martin, Johns Hopkins Center for a Livable Future

Robert Martin is the director of the Food System Policy at the Center for a Livable Future. Although he does not consider himself an academic or scientist, his extensive expertise in public policy, agriculture, and environmental and health issues led him to this role. Previously, he worked on Capitol Hill, in a state legislature, and for a family farm advocacy group. He also served as a senior officer at the Pew Environment Group and was the Executive Director of the Pew Commission on Industrial Farm Animal Production. Bob's current role involves enhancing policy efforts based on research and fostering collaborations with other organizations to address the crisis in the food system.

Peter O'Driscoll, Equitable Food Initiative

Peter O'Driscoll is Executive Director of Equitable Food Initiative (EFI), a non-profit skill-building and certification organization that improves working conditions, pest management and food safety in the fresh produce industry. Before helping to launch EFI in 2011, Peter served as Executive Director of ActionAid USA, an international development organization that works to address hunger, poverty, and human rights around the world. He was Director of the Private Sector in Development Project at the Center of Concern, leading research and advocacy on hunger, sustainability, and market access in developing country agriculture. Peter was also Latin America Director for Ashoka, an organization promoting social entrepreneurship, and worked for seven years on refugee resettlement and rural development in El Salvador, ultimately as director of the Jesuit Refugee Service in that country.

Jane Schmitz, From Now On Fund

Jane Schmitz is currently an advisor to the From Now On Fund and an experienced public health instructor and researcher. The From Now On Fund seeks to eliminate systemic inequities in health and well-being outcomes in the United States. Dr. Schmitz served as Adjunct Professor at Occidental College, Clinical Assistant Professor, and curriculum advisor at the University of Southern California's Keck School of Medicine. She was an Emerson National Hunger Fellow at the Congressional Hunger Center, a Program Officer at USDA's Food and Nutrition Services in the Western Region and a US Peace Corps volunteer in Niger, West Africa. She holds a PhD in International Health from Johns Hopkins Bloomberg School of Public Health.

Lon Hatamiya, Hatamiya Group

Lon S. Hatamiya is the President and CEO of the Hatamiya Group, based in Davis, California. He specializes in a wide range of areas including economic analysis, litigation support, political economy, international business transactions, and public infrastructure finance. Hatamiya has extensive experience testifying before various governmental bodies and courts and is a renowned public speaker. He has held positions at consulting firms, served as Secretary of the California Technology, Trade and Commerce Agency, and held key roles in the United States Department of Agriculture. Hatamiya is also involved in academia and serves on advisory boards and boards of directors for several organizations. He holds degrees from Harvard University, UCLA Anderson Graduate School of Management, and UCLA School of Law.

Anna Prizzia, Alachua County

Anna Prizzia is Commissioner for District 3 in Alachua County. She founded and currently oversees the UF/IFAS Field & Fork Program and works as the campus food systems coordinator for the University of Florida. She has two decades experience in sustainability efforts, including working as statewide coordinator for the Florida Farm to School Program and founding and managing the Office of Sustainability at UF. Anna co-founded Working Food, a non-profit working on local food and food justice

issues in Alachua County and has also served on boards and committees with several non-profits and community organizations to address education, food access, housing, and economic opportunity.

Appendix I: Report Author

This report was produced by Econsult Solutions, Inc. ("ESI"). ESI is a Philadelphia-based economic consulting firm that provides businesses and public policy makers with economic consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Its principals are nationally recognized experts in urban development, real estate, government and public policy, planning, transportation, non-profit management, business strategy and administration, as well as litigation and commercial damages. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process and extensive consulting experience.

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