Food System Career Pathways in Michigan

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Racial equity statement of MSU Center for Regional Food Systems

CRFS recognizes that racism in the food system is historic, ongoing, and systemic. As we collaborate with partners to advance food systems rooted in local regions and centered on food that is healthy, green, fair, and affordable, we emphasize racial equity as a foundation of our work. Read the full statement at: foodsystems.msu.edu/racial-equity-statement

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Introduction to Career Pathway Development

In partnership with Michigan State University Center for Regional Food Systems and as a continuation of the 2019 Michigan Local and Regional Food System Workforce Assessment, Corporation for a Skilled Workforce (CSW) created a framework to guide the development of career pathway maps that provide jobseekers and workers with necessary information about career options and the potential for advancement within and across different subsectors of the Michigan food system. These were also developed in response to interest from Michigan workforce development agencies that will be able to use this information to help support relevant program development.

Funding for this work was provided in part by the W.K. Kellogg Foundation and MSU Extension.

Pathway maps were developed for the following food system subsectors that exist within local and regional food systems:

- Food inputs and services
- Food processing and manufacturing
- Food production
- Food retail
- Food preparation and service
- Wholesale food distribution or storage

To develop the pathways included in this report, CSW conducted labor market information data collection in addition to research on types of occupations typically included in local food system organizations and businesses. From there, CSW developed draft pathway maps, which were then validated with Michigan employers in the specific subsector. For more information about the data included in the pathways, please see the Pathway Map Key (p. 19) as well as the methodology starting on page 5.

This information includes the typical wages and requirements for specific job titles and might not exactly match the positions identified by jobseekers and employers. This information is also constantly updating and meant to provide a current snapshot of the landscape. Projections are developed from historical data, and this snapshot does not account for future changes in employment trends that may occur as a result of COVID-19 or other factors. While labor market information is a good indicator of demand and employment for a given sector in a region, it does not always provide the complete picture. Each employer has their own process for defining work and titling positions, as well as advancing workers through specific career pathways, which might not be reflected in these maps. Workers in the occupations represented in these pathways are employed in a variety of organizations across the food system as well. Therefore, it is likely that for certain employers or organization types, these occupations, their requirements, the work involved, or the opportunities for advancement will be different than those listed here. For example, at smaller employers, the work associated with several occupations on these maps might be included within one worker's role rather than separated into multiple workers' roles.

It is also important to note that the maps were derived from job posting requirements data and employer validation interviews which may differ from available educational programs identified as part of this work, therefore the credentials included might not match the requirements listed on the pathways (e.g. there is a Food Technology certificate, but the pathways show a B.S. is required). We emphasize that the pathways shown represent typical requirements in Michigan, not the requirements that every employer will have. Additionally, work experience and education required are not always provided in job postings, and therefore, the data is not always fully comprehensive and representative.

Methodology

These maps were developed using secondary labor market information (LMI), research on the types of occupations usually included in local food system organizations and businesses, an inventory of education and training programs, and primary data collection from employers to validate LMI included in the pathway maps and confirm typical occupation trajectories.

Data are presented for the state of Michigan and divided into the food system subsector associated with the map except when noted otherwise. Table 1 shows the industries included in each food system by North American Industry Classification System (NAICS) code.

Table 1

Industries identified in the food system subsectors by NAICS code that were included in the data analysis.

Subsector	NAICS code	Industry
Food production	111	Crop production
	112	Animal production and aquaculture
	114	Fishing, hunting, and trapping
Food inputs and services	1151	Support activities for crop production
	1152	Support activities for animal production
	54194	Veterinary services
Food manufacturing and processing	311	Food manufacturing
	3121	Beverage manufacturing
Wholesale food distribution or storage	4244	Grocery and related product merchant wholesalers
	4245	Farm product raw material merchant wholesalers
	42382	Farm and garden machinery and equipment merchant wholesalers
	424810	Beer and ale merchant wholesalers
	424820	Wine and distilled alcoholic beverage merchant wholesalers
	42491	Farm supplies merchant wholesalers
	49312	Refrigerated warehousing and storage
	49313	Farm product warehousing and storage
Retail food distribution	4451	Grocery stores
	4452	Specialty food stores
	4453	Beer, wine, and liquor stores
Food preparation and service	7223	Special food services (e.g. catering and mobile food trucks/carts)
	7225	Restaurants and other eating places

Data in this report and the career pathway maps define occupations using the Standard Occupational Classification (SOC) system from the Bureau of Labor Statistics (BLS). In some cases, the most common title or job posting title is provided in place of the SOC title.

The LMI included in this report offers a snapshot of the mix of food system pathways, occupations, and their demand in November 2020.

Detailed Data Sources

Employment, projections, wages, typical education, on-the-job training, and work experience data come from:

- **Economic Modeling Specialist, Inc.'s (Emsi)** 2020.4 – Quarterly Census of Employment and Wages (QCEW) Employees, Non-QCEW Employees, and Self-Employed dataset[1]
- **Burning Glass Technologies (Burning Glass)**[2]
- **O*NET Online**
- **Multiple sources of education and training inventories**
- **Stakeholder interviews**

Economic Modeling Specialist, Inc.'s (Emsi) 2020.4 – QCEW Employees, Non-QCEW Employees, and Self-Employed dataset. Emsi's proprietary dataset compiles data from numerous sources, including the Quarterly Census of Employment and Wages, Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. Emsi provided data on:

- Occupation titles using the SOC. In some cases, the most common title is used for clarity and the SOC title is in parentheses in the supplemental tables.
- 10th and 90th Percentile Occupational Wages (for all occupations in Michigan, not just those in the subsectors)
- Typical on-the-job training (for all occupations, not just those in the subsectors or in Michigan)
- 2019 employment in the subsector
- 2020 employment in the subsector
- Average earnings per job in the subsector
- Projected 5-year growth the subsector

Burning Glass Technologies (Burning Glass) aggregates information from job postings, which deliver insight into regional demand. Burning Glass collects millions of online job postings from close to 40,000 online sources (e.g. job boards, employer sites, newspapers, public agencies, etc.). Burning Glass provided data on:

- Top skills requested in Michigan job postings. In some cases, where the number of job postings was low, data were collected at the national level.
- Common job posting titles in Michigan for BLS SOC title. In some cases, where the number of job postings was low, data were collected at the national level.
- 2019 – 2020 (current) demand level for occupation (across all industries). These data are presented for all occupations in Michigan and not only those in the subsector. The key for demand level is as follows:
    - Very high: postings are within the top 40% of all job postings
    - High: postings are greater than 35% bult less than 60% of total postings
    - Medium: postings are greater than 5% but less than 35% of total postings
    - Low: postings are less than 5% of total postings.
- Minimum educational requirements
- Work experience

[1] Emsi. (2019). *Emsi 2020.4 – QCEW employees, non-QCEW employees, and self-employed dataset* [Data set]. https://kb.economicmodeling.com/whats-the-complete-list-of-sources-emsi-uses2/?hilite=%27data%27%2C%27sources%27

[2] Burning Glass Technologies. (2020). *Burning Glass Technologies proprietary dataset*. https://www.burning-glass.com/products/research-projects/

O*NET Online from the U.S. Department of Labor provides detailed descriptions of occupations.

- O*NET description
- Common job titles (also used to supplement Michigan job posting titles when numbers of job postings associated with occupations were low)

Education and training inventory: Data on education and training programs were pulled from multiple sources. The national Integrated Postsecondary Education Data System (IPEDS) was used to collect information on accredited post-secondary programs at the certificate, associate's, bachelor's, master's, and doctorate level. The Michigan Training Connect (MiTC) database was used to cross-reference IPEDS data and to add additional industry certificate programs offered at non-academic institutions (e.g. nonprofit workforce providers). Further programs were found using keywords from the identified career pathways. Employers were asked in surveys and interviews which training programs they use for their workforce needs, and those providers were added to the inventory.

Stakeholder interviews: As part of the process of validating the pathway maps, semi-structured interviews were conducted with employers in Michigan's food system to understand if the career pathway maps developed in this work reflected the top occupations in the subsector as well as their pathways, wages, and requirements. Twenty-five interviews were conducted in total. Table 2 shows the number of interviews conducted by food system subsector.

Table 2
Stakeholder Interviews by Food System Subsector

Subsector	Number of employer interviews
Food production	4
Food inputs and services	3
Food manufacturing and processing	5
Wholesale food distribution or storage	5
Retail food distribution	5
Food preparation and service	3
Total	**25**

Food Production

The food production pathway encompasses occupations involved in the growing and raising of Michigan foods. It encompasses crop production and animal production, as well as fishing, hunting, and trapping. Most jobs in Michigan within this subsector are in crop production. Table 3 shows the industries within the food production subsector as well as employment numbers, projected 5-year growth, and average earnings.

Table 3
Employment in the food production industries

Food production industries	2020 employment	Projected 5-year growth	Average earnings
Crop production	23,243	-2%	$40,521
Animal production and aquaculture	13,053	2%	$46,748
Fishing, hunting, and trapping	328	5%	$38,370
Subsector overall	**36,625**	**0%**	**$42,721**

In each of these different organizations, the jobs and titles, pathways, salaries, and work will be different. However, many workers in this field find themselves working for one of these specific types of organizations or with these products.

- Beef, lamb, goat, pork, poultry
- Corn, soy, sugar beets
- Dairy, eggs
- Fish / Seafood
- Fruits, berries
- Grains, hops, culinary herbs
- Honey / Apiary, maple syrup
- Mushrooms, nuts, oilseeds
- Medicinal herbs
- Vegetables
- Vineyard (grapes)

Occupations and demand in the food production subsector

Below are the top occupations in the food production subsector, their common job titles, the work involved, skills required, how much demand there is currently, and how much demand is expected in the future. Farmers or their family members represent approximately two-thirds of U.S. farm labor, though the proportion of hired farm labor is steadily rising.[3] It is important to note that farming, fishing, and forestry job postings are under-represented as often these jobs are filled by word of mouth.[4] Because of this, job postings data were pulled for the nation rather than only Michigan for certain farming, fishing, and forestry occupations, and in some cases data for the entire agriculture sector were used, not only food production data.

Tables 4 and 5 provide food production sector employment data for two pathways: "farming and other agriculture" and "administrative and sales." The occupations are color coded by skill level for entry into the occupation. The color code is as follows:

Entry Level occupation (requires low skill level and limited experience)

Middle-Skill occupation (requires some skills and experience)

High-Skill occupation (requires considerable training and experience)

[3] Martin, P. and Jackson-Smith, D. (2013). An overview of farm labor in the United States. *Rural Connections (8)*1, 21-24. https://www.usu.edu/wrdc/files/news-publications/RC-Nov-2013.pdf

[4] Burning Glass Technologies. (2020, June). *Proprietary data set*. https://www.burning-glass.com/product-page/

Table 4
Farming and Other Agriculture Pathway Employment Data

Occupation and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Farmworkers and laborers, crops	Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.	Cleaning, fertilizer application, repair, lifting, scheduling	8,245	8,185	-1%	Medium	Entry level

Occupation and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Farmworkers, farm, ranch, and aquaculture animals	Attend to live farm, ranch, open range, or aquaculture animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, rabbits, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, milking, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Includes workers who shear wool from sheep and collect eggs in hatcheries.	Cleaning, biosecurity, farm equipment, repair, animal husbandry	4,187	4,197	2%	Low	Entry level

Occupation and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Agricultural workers, all other Crop scout Trailer inspector Crane inspector	All agricultural workers not listed separately.	Occupational health and safety, agronomy, technical training, global positioning system, retail operations	2,046	2,047	2%	Low	Entry level
Agricultural equipment operators Farm equipment operator Custom crop applicator	Drive and control equipment to support agricultural activities such as tilling soil; planting, cultivating, and harvesting crops; feeding and herding livestock; or removing animal waste. May perform tasks such as crop baling or hay bucking. May operate stationary equipment to perform post-harvest tasks such as husking, shelling, threshing, and ginning.	Farm equipment, repair, equipment operation, crop production, agribusiness	1,158	1,161	3%	Low	Entry level
Food safety specialists (graders and sorters, agricultural products)	Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition.	Food safety, food safety and quality, project management, quality assurance and control, chemistry	323	321	-2%	Low	Entry level

Occupation and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Fishers and hunting workers Wildlife trapper Predator specialist	Hunt, trap, catch, or gather wild animals or aquatic animals and plants. May use nets, traps, or other equipment. May haul catch onto ship or another vessel.	Repair, fish hatchery, customer service, vessel maintenance, vessel equipment	284	282	6%	Low	Entry level
Landscaping and grounds-keeping workers	Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units.	Power tools, repair, forklift operation, hoisting equipment, scheduling	273	274	0%	High	Entry level
Light truck drivers Feed truck driver Tractor driver Breeder driver	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle.	Lifting, forklift operation, food safety, equipment inspection, repair	236	238	2%	High	Entry level

Occupation and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Packers and packagers, hand Warehouse shipping clerk Inventory/ pick pack Produce packer	Pack or package by hand a wide variety of products and materials.	Lifting, forklift operation, machinery, food safety, packaging	208	209	3%	Medium	Entry level
Animal breeders	Select and breed animals according to their genealogy, characteristics, and offspring. May require knowledge of artificial insemination techniques and equipment use. May involve keeping records on heats, birth intervals, or pedigree.	Genetics, insemination, budgeting, germplasm development, physiology		41	-1%	Low	Entry level
First-Line supervisors of farming, fishing, and forestry workers Head grower Master grower Breeder specialist	Directly supervise and coordinate the activities of agricultural, forestry, aquaculture, and related workers.	Scheduling, fertilizers, repair, food safety, botany	895	894	1%	Low	Middle-skill
Heavy and tractor-trailer truck drivers Soil farmer Class A or B Feed truck driver	Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license. Includes tow truck drivers.	Forklift operation, lifting, basic math, product sales, commercial driving	510	509	1%	Very High	Middle-skill

Occupation and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Precision agriculture technicians (agricultural science technician)	Apply geospatial technologies, including geographic information systems (GIS) and Global Positioning System (GPS), to agricultural production or management activities, such as pest scouting, site-specific pesticide application, yield mapping, or variable-rate irrigation. May use computers to develop or analyze maps or remote sensing images to compare physical topography with data on soils, fertilizer, pests, or weather.	Agronomy, agribusiness, crop production, sales, global positioning system	91	90	4%	Low	Middle-skill
Farmers, ranchers, and other agricultural managers	Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquaculture operations, nurseries, timber tracts, or other agricultural establishments. May hire, train, and supervise farm workers or contract for services to carry out the day-to-day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting, and financial and marketing activities.	Farm management, repair, scheduling, budgeting, fish hatchery	14,410	14,298	-2%	Low	High-skill

Table 5

Administrative and Sales Pathway Employment Data

Occupation and common titles in job postings	O* NET Description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Office clerks, general	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.	Data entry, administrative support, scheduling, office management, office supply ordering	96	96	-1%	High	Entry level
Bookkeeping, accounting, and auditing clerks	Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.	Accounting, accounts payable/receivable, account reconciliation, invoice processing, bookkeeping	284	281	-4%	High	Middle-skill

Occupation and common titles in job postings	O* NET Description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Secretaries and administrative assistants	Perform routine administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers.	Administrative support, scheduling, administrative functions customer service, travel arrangements	252	248	-6%	Very High	Middle-skill
Sales representatives, wholesale and manufacturing ▪ Agronomy sales ▪ Sales agronomist ▪ Wholesale fertilizer sales	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics. Normally obtained from at least 2 years of postsecondary education.	Sales, customer service, agronomy, crop production, fertilizers	182	181	0%	Very High	High-skill
Accountants and auditors	Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data.	Accounting, account reconciliation, balance sheet, financial reporting, budgeting	141	142	1%	High	High-skill

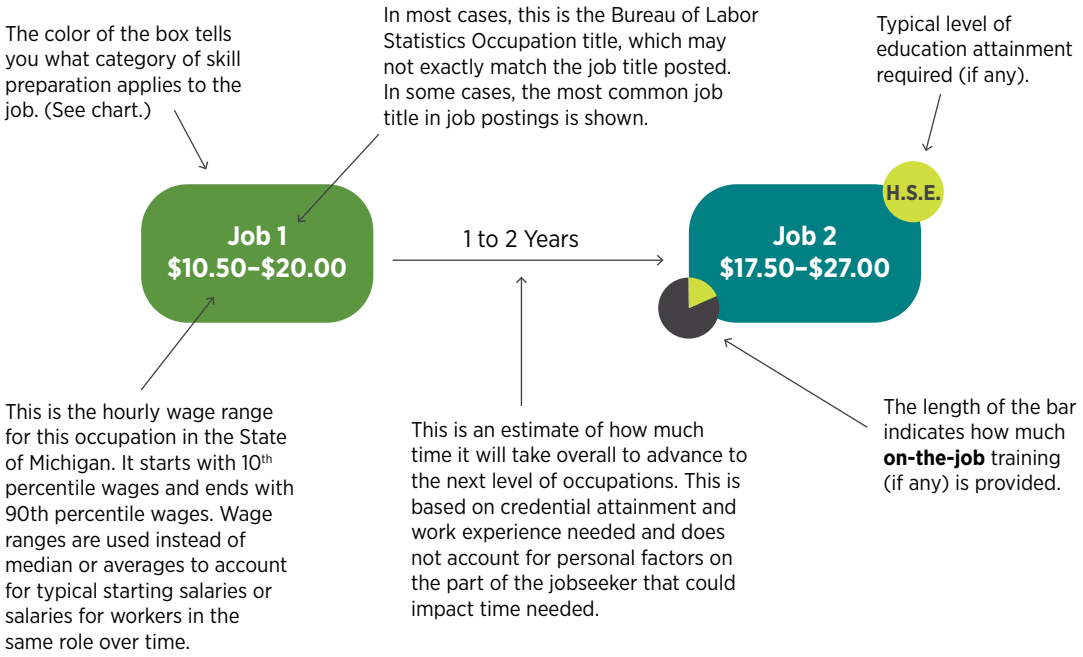
Occupation and common titles in job postings	O* NET Description	Top skills requested in job postings	2019 Michigan employment in food production	2020 Michigan employment in food production	Michigan projected 5-year growth in food production	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
First-line supervisors or office and administrative workers ▪ Customer success manager ▪ Office manager ▪ Client success manager	Directly supervise and coordinate the activities of clerical and administrative support workers.	Customer service, onboarding, customer contact, account management, project management	42	41	-1%	High	High-skill

What are the career pathways for food production?

The maps below indicate the most common occupations in this field as well as wages, opportunities for advancement, typical time to advance, education required and on-the-job training.

Figure 1

Michigan's Food System Career Pathway Map Key



Skill Levels

Color	Preparation Level	Definition
	Entry-Level	• High School Diploma or No High School Diploma
	Middle-Skill	• Basic Postsecondary Certificate • Advanced Postsecondary Certificate • Associate Degree • High School Diploma with Experience
	High-Skill	• Bachelor's Degree • Associate Degree with 5 Years Experience • Advanced Postsecondary Degree with 5 Years or More Experience

Education Levels

Initials	Credential
H.S.E.	High School Diploma or Equivalency
P.A.	Postsecondary Nondegree Award
A.S. or A.A.	Associate Degree
B.S.	Bachelor's Degree
B.A.	Bachelor of Arts
B.B.A	Bachelor of Business Administration

On-the-Job Training

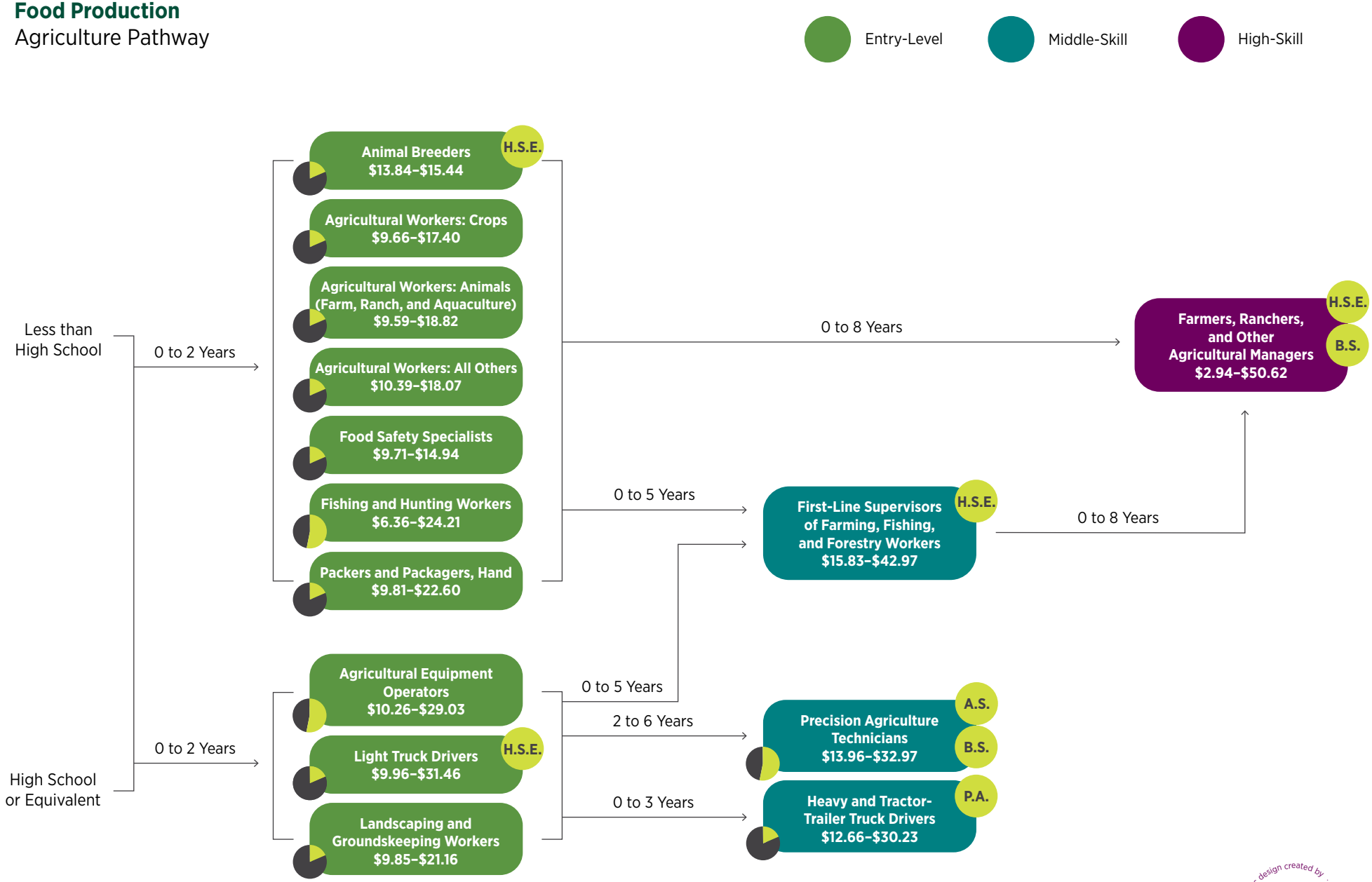
Short term on-the-job training | Moderate on-the-job training | Long term on-the-job training

Notes:
This map is grounded in data collected on the State of Michigan. Other cities or regions may pay different wages or require different skills, credentials, or work experience depending on their local employers.

This map was derived using labor market information data sources, Emsi and Burning Glass from Labor Insight, in November 2020. This information includes the *typical* wages and requirements for jobs and might not exactly match the positions identified by jobseekers. The data included in these maps are constantly updated.

Figure 2

Food Production
Agriculture Pathway

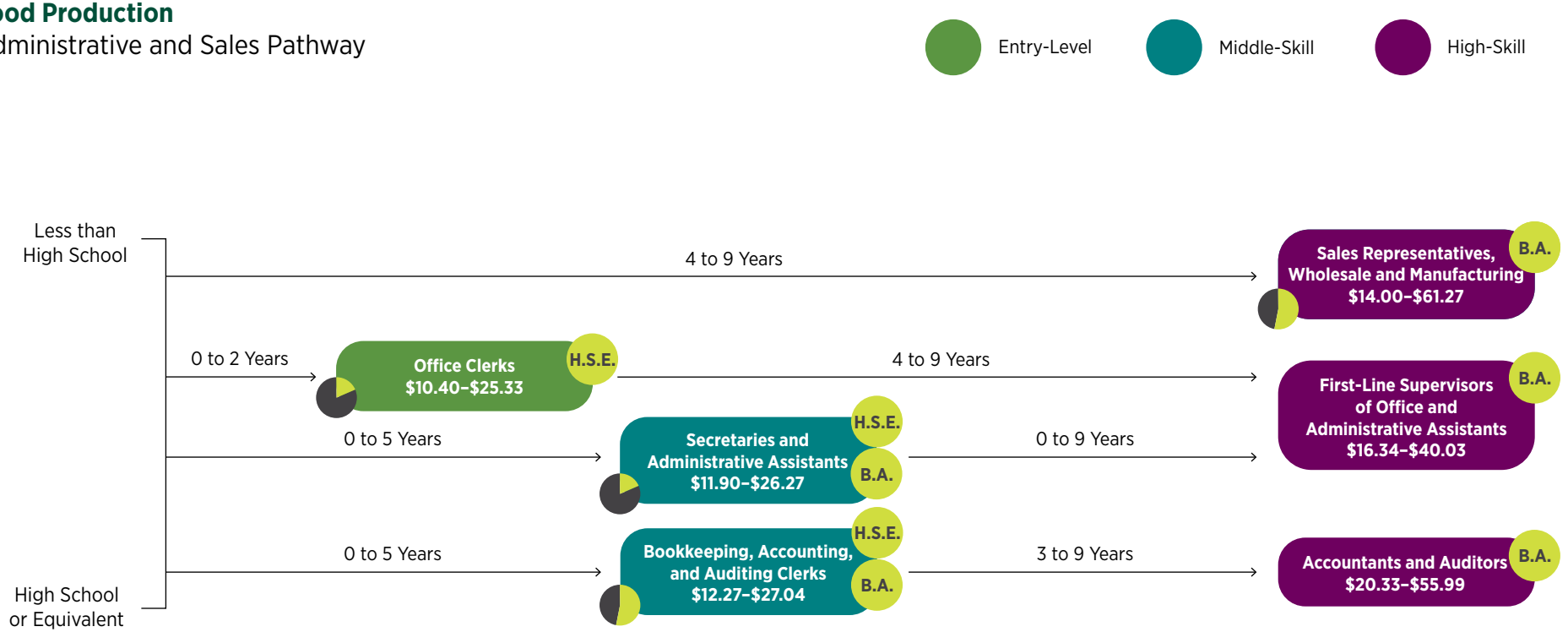


graphic design created by charli renae design.

Figure 3

Food Production

Administrative and Sales Pathway



Education programs to pursue food production careers

Examples of educational programs in Michigan where workers and jobseekers can obtain the skills needed for these roles are outlined below. This list is not exhaustive and focuses more on agriculture-specific roles–administrative and sales occupational programs are not included.

Table 6

Food Production Educational Programs

Program area	Credential	Institutions
Agriculture, general	Young Farmer Job Training Program	Michigan Farm Bureau
	Youth Conservation Corps Job Training Program	SEEDS Ecology and Education Centers
	Agriculture, Food Production Job Training Program	West Michigan Shoreline Food Processing Initiative
	Agriculture, Culinary Arts K-12	10 Cents a Meal for School Kids and Farms
	Agriscience K-12	Calhoun Area Career Center
	Agriculture, Food & Natural Resources K-12	Coleman Community Schools AgriScience Program Detroit Public Schools Community District (DPSCD) Farm-to-School
	West Michigan Youth Programs K-12	Gerber Foundation
	Agriscience/Horticulture K-12	Lapeer County Intermediate School District
	Project RED (Rural Education Days) K-12	Michigan State University (MSU) Extension
	Youth Sugarbeet Project K-12	Michigan Sugar
	Agriculture, Food, and Natural Resources K-12	Monroe County Intermediate School District (MCISD) and Wayne Regional Educational Service Agencies (RESA) Wayne Intermediate School District Career Technical Education (Wayne ISD CTE) Program
	Youth 4-H Program K-12	Pingree Farms
	Agriculture K-12	The Agrarian Adventure Traverse Bay Area Intermediate School District (TBAISD)
	Agriculture, Food and Natural Resources K-12	Traverse Bay Area Intermediate School District (TBAISD) Farm to School
	Sustainable/Eco Friendly Agriculture K-12	Tuscola Intermediate School District

Program area	Credential	Institutions
Agriculture technology	Agriscience and Environmental Technologies K-12	Oakland Schools Technical Campuses
	Agricultural Technology Associate Degree	Jackson College
Animal production and aquaculture	Aquatic Biology/Limnology Bachelor's Degree or Post Baccalaureate Certificate	Eastern Michigan University Western Michigan University
	Dairy Science Certificate	Michigan State University
	Animal Sciences, General Bachelor's Degree	Andrews University Michigan State University
	Animal/Livestock Husbandry and Production Certificate	Michigan State University
	Animal Science, Agriculture, Entrepreneurship Certificate	MSU Extension/4-H
Fishing, hunting, and trapping	Freshwater Science and Sustainability Bachelor's Degree	Western Michigan University
	Fishing and Fisheries Sciences and Management Bachelor's Degree	Lake Superior State University Northern Michigan University
Crop production	Crop Production Certificate or Associate Degree	Michigan State University Northwestern Michigan College
	Fruit and Vegetable Crop Management Certificate or Associate Degree	Michigan State University Montcalm Community College Southwestern Michigan College Wayne County Community College District West Shore Community College
	Agricultural and Horticultural Plant Breeding Associate Degree	North Central Michigan College
	Applied Horticulture/Horticulture Operations, General Associate or Bachelor's Degree	Andrews University Lake Michigan College
	Horticultural Science Certificate or Bachelor's Degree	Andrews University Michigan State University
	Viticulture and Enology Certificate or Associates degree	Lake Michigan College North Central Michigan College Michigan State University
	Summer Youth Apprenticeship Program	Keep Growing Detroit
	Apprenticeship Program	Lansing Urban Farm Project

Program area	Credential	Institutions
Agriculture operations and management	Organic Farmer Training Program Certificate	Michigan State University Student Organic Farm
	Good Agricultural Practices (GAP) Certification Program	Michigan Group GAP Network (coordinated by Michigan Food and Farming Systems)
	Agriculture, General Associate or Bachelor's Degree	Andrews University Bay College
	Agriculture, Food and Natural Resources Education Bachelor's Degree	Michigan State University
	Agricultural Industries Certificate	Michigan State University
	Agriculture Operations Certificate or Associate Degree	Michigan State University Montcalm Community College Northwestern Michigan College Southwestern Michigan College West Shore Community College
	Agricultural Business and Management, General Certificate, Associate, or Bachelor's Degree	Lansing Community College Michigan State University Wayne County Community College District

Food Inputs and Services

The food inputs and services pathway encompasses occupations that support services or resources used as inputs in the food system. This includes administrative support roles as well as veterinary care. Farmworkers also appear in the food inputs industry, as they can span the production and input industry classifications (though they represent a smaller proportion of the input industry compared to food production). In this category, a worker classified to the farmworker occupational group may perform support activities such as field preparation or pesticide spraying as a contractor to a farm or production operation. This contrasts to a farmworker employed directly by a farm who may perform other farming roles (in addition to "support activities"). Most jobs in Michigan in this subsector are in veterinary services. It should be noted, however, that not all jobs in veterinary services are tied to the food system.

Table 7 shows the industries within the food inputs and services subsector as well as employment numbers, projected 5-year growth and average earnings.

Table 7
Employment in the Food Inputs and Services Industries

Food inputs and services industries	2020 employment	Projected 5-year growth	Average earnings
Support activities for crop production	6,263	2%	$35,486
Support activities for animal production	986	9%	$35,989
Veterinary services	11,918	8%	$48,201
Subsector overall	**19,167**	**6%**	**$43,418**

In each of these different organizations, the jobs and titles, pathways, pay, and work will be different. However, many workers in this field find themselves working for one of these types of organizations or with these products:

- Agricultural equipment
- Animal feed producer or supplier
- Beekeeper supplier
- Compost producer or supplier
- Custom cropping
- Feed store
- Fertilizer supplier
- Land access / conservation
- Livestock breeder
- Maple sugaring supplies and equipment
- Nursery / Greenhouse and season extension
- Pest and disease control
- Regulatory authority
- Seed producer or supplier
- Soil / Mulch producer or supplier

Occupations and demand in the food inputs and services subsector

Below are the top occupations in the food inputs and services subsector, their common job titles, the work involved, skills required, how much demand there is currently, and how much demand is expected in the future. Farming, fishing, and forestry job postings are under-represented as often these jobs are filled by word of mouth.[5] Because of this, job postings data were pulled for the nation rather than only Michigan for certain farming, fishing, and forestry occupations, and in some cases data for the entire agriculture sector was used not only food inputs and services data.

Tables 8-10 provide food inputs and services sector employment data for the "crop and animal production supports" pathway, "veterinary services" pathway, and "administrative and sales" pathway, respectively. The occupations are color coded by skill level for entry to the occupation. The color code is as follows:

Entry Level occupation (requires low skill level and limited experience)

Middle-Skill occupation (requires some skills and experience)

High-Skill occupation (requires considerable training and experience)

[5] Benchmarking June 2020 Brief from Burning Glass

Table 8
Crop and Animal Production Supports Pathway Employment Data

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Farmworkers and laborers, crops	Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.	Repair, fertilizers, machinery, hand tools, cleaning	3,349	3,388	1%	Low	Entry level
Packers and packagers, hand Warehousing shipping clerk Inventory/ pick pack Produce packer	Pack or package by hand a wide variety of products and materials.	Lifting ability, forklift operation, machinery, food safety, packaging	316	321	4%	Medium	Entry level

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Food safety specialists (graders and sorters, agricultural products)	Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition.	Food safety, food safety and quality, project management, quality assurance and control, chemistry	255	254	0%	Low	Entry level

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Farmworkers, farm, ranch, and aquacultural animals	Attend to live farm, ranch, open range, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, rabbits, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, milking, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Includes workers who shear wool from sheep and collect eggs in hatcheries.	Cleaning, biosecurity, farm equipment, repair, animal husbandry	226	231	2%	Low	Entry level

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Sanitation technicians (janitors and cleaners)	Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs, and cleaning snow or debris from sidewalk.	Cleaning, food safety, forklift operation, repair, machinery	106	107	10%	Very High	Entry level
Maintenance and repair workers Maintenance technician Service technician Breeder service technician	Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of a building in repair. Duties may involve pipe fitting, VAC maintenance, insulating, welding, machining, carpentry, repairing electrical or mechanical equipment, installing, aligning, and balancing new equipment, and repairing buildings, floors, or stairs.	Repair, plumbing, HVAC, preventative maintenance, welding	103	104	9%	Very High	Entry level

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Quality technician (inspectors, testers, sorters, samplers, and weighers)	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.	Quality assurance and control, food safety, packaging, lifting, forklift operation, Hazard Analysis Critical Control Point	73	73	2%	High	Entry level
Farm equipment mechanics and service technicians	Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.	Repair, farm equipment, welding, power tools, machinery	45	45	5%	Low	Entry level
Pesticide handlers, sprayers, and applicators	Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Usually requires specific training and state or federal certification.	Fertilizers, crop production, product delivery and sales, herbicides, calibration	39	38	5%	Medium	Entry level

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
First-line supervisors of farming, fishing, and forestry workers Head grower Master grower	Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers.	Scheduling, fertilizers, repair, food safety, botany	197	198	6%	Low	Middle-skill
Agricultural inspectors Agriculture commodity grader Brand inspector Consumer compliance examiner	Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.	Economics, quality assurance and control, performance appraisals, scheduling, contract preparation	11	11	4%	Low	Middle-skill

Table 9
Veterinary Services Pathway Employment Data

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Veterinary assistants and laboratory animal caretakers	Feed, water, and examine pets and other nonfarm animals for signs of illness, disease, or injury in laboratories and animal hospitals and clinics. Clean and disinfect cages and work areas, and sterilize laboratory and surgical equipment. May provide routine postoperative care, administer medication orally or topically, or prepare samples for laboratory examination under the supervision of veterinary or laboratory animal technologists or technicians, veterinarians, or scientists.	Preventative care, natural resources, biotechnology, veterinary medicine, patient bathing	3,116	3,137	8%	Medium	Entry level

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Veterinary technologists and technicians Wildlife technician Animal technician Animal research technician	Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. Prepare vaccines and serums for prevention of diseases. Prepare tissue samples, take blood samples, and execute laboratory tests, such as urinalysis and blood counts. Clean and sterilize instruments and materials and maintain equipment and machines. May assist a veterinarian during surgery.	Customer service, health care industry knowledge, patient flow, medical records maintenance, medical coding	2,301	2,322	9%	Medium	Middle-skill
Veterinarians Livestock inspection Beef cattle veterinarian	Diagnose, treat, or research diseases and injuries of animals. Includes veterinarians who conduct research and development, inspect livestock, or care for pets and companion animals.	Veterinary medicine, medical records maintenance, preventative care, patient care, medical coding	2,286	2,314	9%	Medium	High-skill

Table 10

Administrative and Sales Pathway Employment Data

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Office clerks	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.	Scheduling, administrative support, customer service, general office duties, data entry	481	481	4%	High	Entry level
Receptionists and information clerks	Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization.	Administrative support, customer service, scheduling, appointment setting, data entry	1,680	1,675	4%	High	Entry level

Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Customer service representatives Tasting room associate Customer support	Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.	Customer service, customer contact, order management, order entry, supply chain management	171	171	5%	Very High	Entry level
Secretaries and administrative assistants	Perform routine administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers.	Administrative support, scheduling, customer service, appointment setting, data entry	188	186	1%	Very High	Middle-skill
First-line supervisors of office and administrative assistants	Directly supervise and coordinate the activities of clerical and administrative support workers.	Staff management, conflict management, budgeting, scheduling, order entry	202	203	6%	High	High-skill

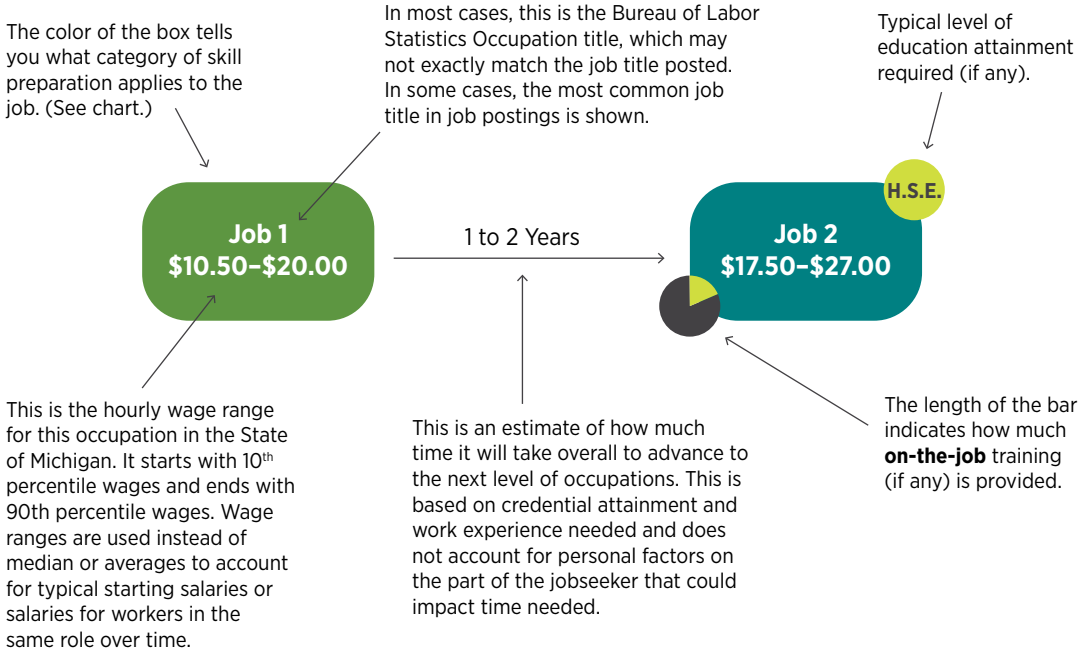
Occupations and common titles in job postings	O*NET description	Top skills requested in job postings	2019 Michigan employment in food inputs and services	2020 Michigan employment in food inputs and services	Michigan projected 5-year growth in food inputs and services	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Sales representatives, wholesale and manufacturing Agronomy sales Account manager Wholesale fertilizer sales	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of postsecondary education.	Sales, customer service, agronomy, crop production, fertilizers	34	34	7%	Very High	High-skill

What are the career pathways for food inputs and services?

The maps below indicate the most common occupations in this field as well as wages, opportunities for advancement, typical time to advance, education required and on-the-job training.

Figure 4

Michigan's Food System Career Pathway Map Key



Skill Levels

Color	Preparation Level	Definition
	Entry-Level	• High School Diploma or No High School Diploma
	Middle-Skill	• Basic Postsecondary Certificate • Advanced Postsecondary Certificate • Associate Degree • High School Diploma with Experience
	High-Skill	• Bachelor's Degree • Associate Degree with 5 Years Experience • Advanced Postsecondary Degree with 5 Years or More Experience

Education Levels

Initials	Credential
H.S.E.	High School Diploma or Equivalency
P.A.	Postsecondary Nondegree Award
A.S. or A.A.	Associate Degree
B.S.	Bachelor's Degree
B.A.	Bachelor of Arts
B.B.A	Bachelor of Business Administration

On-the-Job Training

Short term on-the-job training | Moderate on-the-job training | Long term on-the-job training

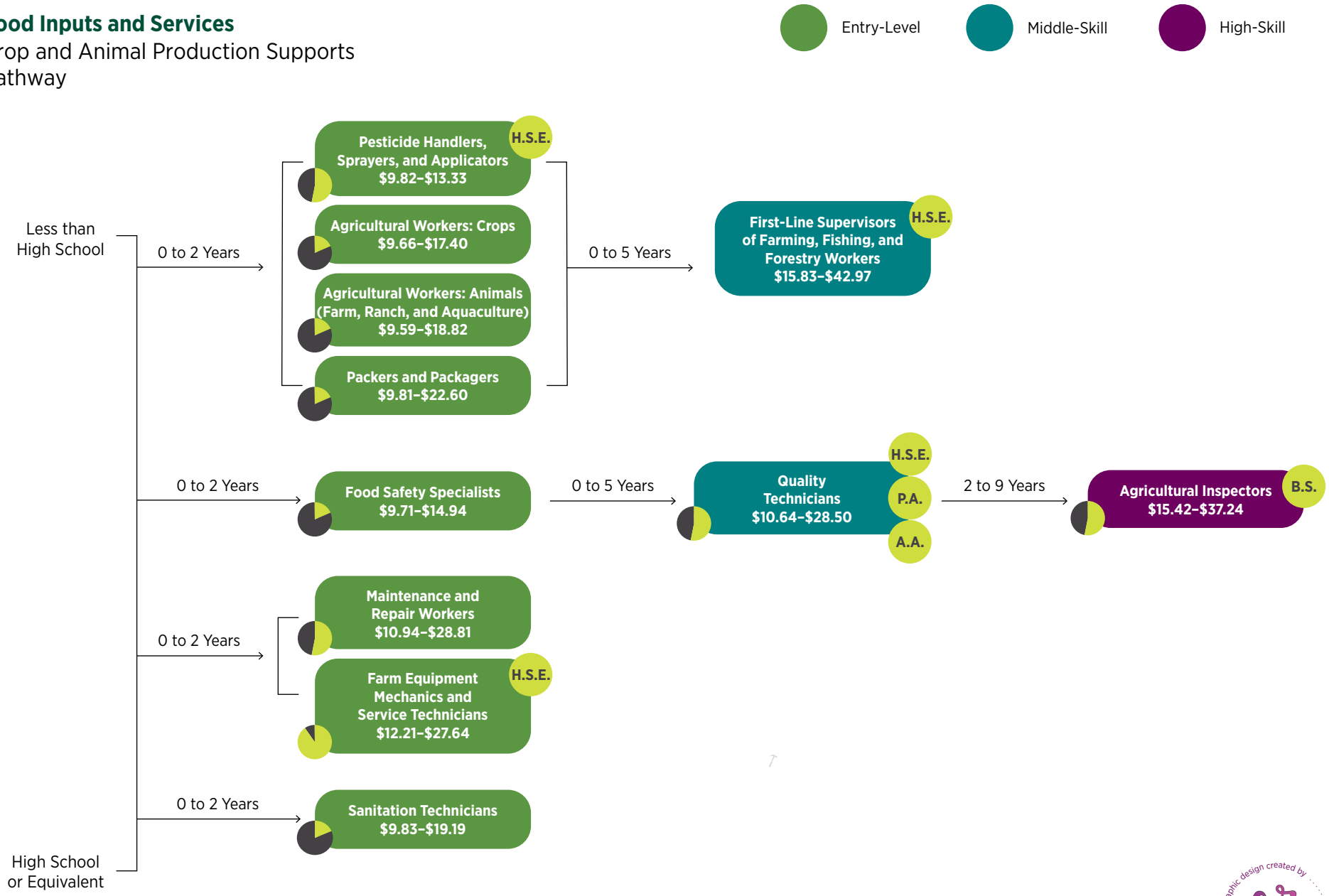
Notes:
This map is grounded in data collected on the State of Michigan. Other cities or regions may pay different wages or require different skills, credentials, or work experience depending on their local employers.

This map was derived using labor market information data sources, Emsi and Burning Glass from Labor Insight, in November 2020. This information includes the *typical* wages and requirements for jobs and might not exactly match the positions identified by jobseekers. The data included in these maps are constantly updated.

Figure 5

Food Inputs and Services

Crop and Animal Production Supports Pathway



graphic design created by charli renae design.

Figure 6

Food Inputs and Services

Veterinary Services Pathway

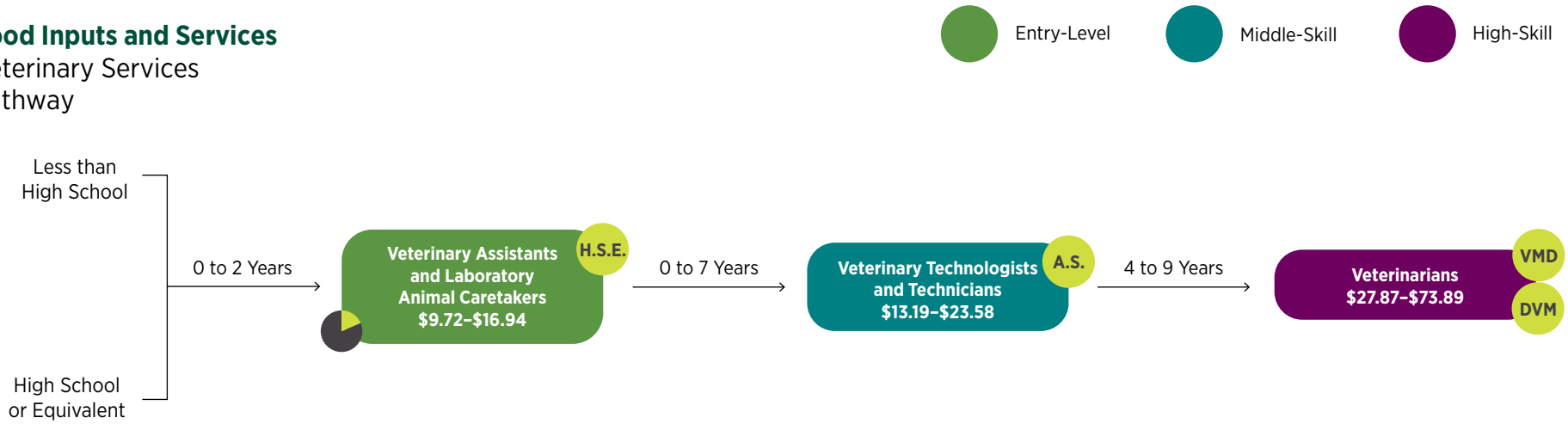
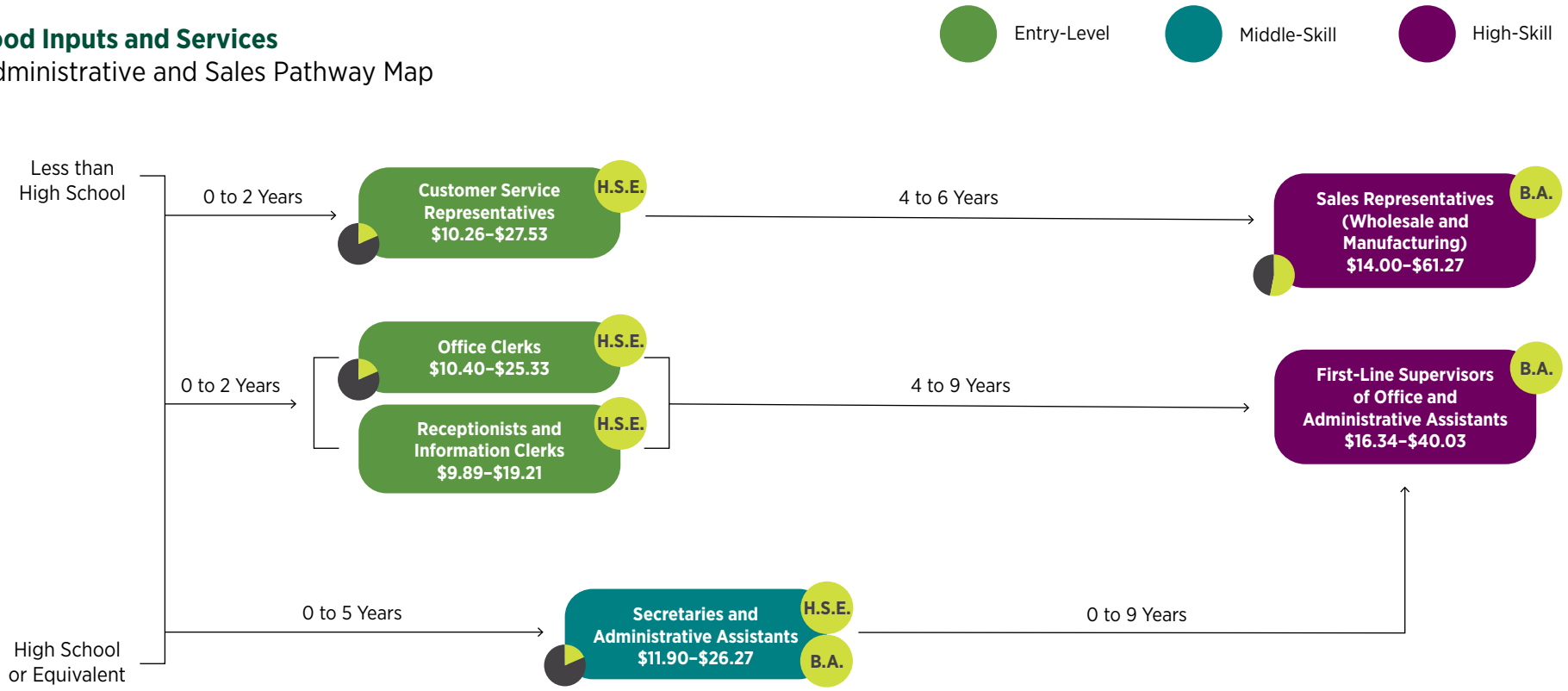


Figure 7

Food Inputs and Services

Administrative and Sales Pathway Map



Education programs to pursue food input and services careers

Examples of educational programs in Michigan where workers and jobseekers can obtain the skills needed for these roles are outlined in Table 11. This list is not exhaustive and focuses more on agriculture-specific roles—administrative and sales occupational programs are not included.

Table 11

Food Inputs and Services Educational Programs

Program area	Credential	Institutions
Crop and animal production supports	Quality Control and Safety Technologies/Technician's Certificate or Associate Degree	Siena Heights University Monroe County Community College Macomb Community College Mott Community College Muskegon Community College Ferris State University Grand Rapids Community College Delta College Madonna University
	Quality Control and Safety Technologies/Technician's, Bachelor's, Master's, or Postbaccalaureate Certificate	Eastern Michigan University Madonna University Siena Heights University
	Agricultural Mechanization, General Associate Degree	Baker College
	Agriculture Mechanics and Equipment/ Machine Technology Certificate	Glen Oaks Community College
	Building/Property Maintenance Certificate or Associate Degree	Michigan Career and Technical Institute Washtenaw Community College Northern Michigan University
	Mechanics and Repairers, General Associate Degree or Certificate	Henry Ford College Kellogg Community College Grand Rapids Community College Kellogg Community College
Veterinary services	Pre-Animal Health Technology Certificate	Montcalm Community College
	Pre-Animal Health Technology Job Training Program	Montcalm Community College
	Pre-Veterinary Studies Associate or Bachelor's Degree	Grand Rapids Community College Alpena Community College Michigan State University Madonna University
	Veterinary/Animal Health Technology/Technician and Veterinary Assistant Certificate	Ross Medical Education Center-Canton Ross Medical Education Center-Madison Heights Ross Medical Education Center-New Baltimore Ross Medical Education Center-Portage Michigan State University
	Veterinary/Animal Health Technology/Technician and Veterinary Assistant Associate Degree	Baker College Macomb Community College Oakland Community College Wayne County Community College District
	Veterinary/Animal Health Technology/Technician and Veterinary Assistant Bachelor's Degree	Siena Heights University Michigan State University
	Veterinary Medicine Doctorate	Michigan State University
	Large Animal/Food Animal and Equine Surgery and Medicine Doctorate or Master's Degree	Michigan State University
	Zoology/Animal Biology Bachelor's, Master's or Doctorate Degree	Andrews University Northern Michigan University Michigan State University

Food Manufacturing and Processing

The food manufacturing and processing pathway looks at roles involved in the processing of raw food and the manufacturing of food and beverage products. Most jobs in Michigan within this subsector are in food manufacturing.

Table 12 shows the industries within the food manufacturing and processing subsector as well as employment numbers, projected 5-year growth and average earnings.

Table 12

Employment in the Food Manufacturing and Processing Industries

Food manufacturing and processing industries	2020 employment	Projected 5-year growth	Average earnings
Food manufacturing	39,035	1%	$63,085
Beverage manufacturing	8,945	11%	$56,232
Subsector overall	**47, 980**	**3%**	**$61,807**

In each of these different organizations, the jobs and titles, pathways, pay, and work will be different. However, many workers in this field find themselves working for one of these types of organizations or with these products:

- Bakery
- Brewery, winery
- Cheese, other dairy processing, fluid milk, ice cream, yogurt
- Cider mill, cidery / hard cider
- Chocolatier
- Coffee roasters, tea
- Co-packer / contract manufacturer
- Distillery / Spirits
- Food incubator
- Food processing facility
- Maple candy / sugar
- Meat processing
- Non-alcoholic beverages
- Grain mill, maltery
- Shared-use commercial kitchen
- Slaughterhouse
- Specialty foods / snacks

Occupations and demand in the food manufacturing and processing subsector

Below are the top occupations in this subsector, their common job titles, the work involved, skills required, how much demand there is currently, and how much demand is expected in the future.

Tables 13-15 provide food manufacturing and processing sector employment data for the following pathways: “production,” “maintenance and engineering," and “regulation, quality assurance, and research and development” respectively. The occupations are color coded by skill level for entry to the occupation. The color code is as follows:

Entry Level occupation (requires low skill level and limited experience)

Middle-Skill occupation (requires some skills and experience)

High-Skill occupation (requires considerable training and experience)

Table 13

Production Pathway Employment Data

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Packaging and filling machine operators and tenders ▪ Packaging line operator ▪ Brewery packaging operator ▪ Filler operator	Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.	Packaging, machinery, Good Manufacturing Practices (GMP), food safety, forklift operation	5,754	5,786	3%	Medium	Entry level
Food batchmakers ▪ Head brewer ▪ Production brewer ▪ Cheesemaker	Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Includes candy makers and cheese makers.	Packaging, cleaning, quality assurance and control, Good Manufacturing Practices (GMP), machinery	3,486	3,501	3%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Packers and packagers, hand ▪ Picker/packer ▪ Line attendant ▪ Warehouse packer	Pack or package by hand a wide variety of products and materials.	Packaging, food safety, preventative maintenance, machinery, Good Manufacturing Practice (GMP)	1,876	1,883	4%	Medium	Entry level
Laborers and freight, stock, and material movers, hand ▪ General labor ▪ Loader ▪ Material handler driver	Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified.	Forklift operation, cleaning, product sales, packaging, Good Manufacturing Practice (GMP)	1,649	1,666	5%	Very High	Entry level
Helpers--production workers ▪ Production operator ▪ General production operator ▪ Line operator	Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools and cleaning work area and equipment.	Food safety, machinery, Good Manufacturing Practice (GMP), packaging, hand tools	1,180	1,184	3%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Slaughterers and meat packers ▪ Debone supervisor ▪ Meat processor ▪ Kill floor trainer	Work in slaughtering, meat packing, or wholesale establishments performing precision functions involving the preparation of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats.	Machinery, food safety, operations management, packaging, cleaning	1,388	1,396	7%	Low	Entry level
Meat, poultry, and fish cutters and trimmers ▪ General production ▪ Poultry care person	Use hand or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.	Cleaning, machinery, personal protective equipment, hand tools, food safety	1,095	1,104	12%	Low	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders ▪ Pub brewer ▪ Processing technician ▪ Distiller	Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Includes dairy processing equipment operators.	Packaging, food safety, forklift operation, repair, industrial equipment industry knowledge	1,002	1,017	8%	Medium	Entry level
Mixing and blending machine setters, operators, and tenders ▪ Blender operator ▪ Processing line attendant ▪ Dry mixer	Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients.	Machinery, basic math, product knowledge, machine operation, cleaning	543	544	2%	Low	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Food cooking machine operators and tenders ▪ Cooker operator ▪ Food manufacturing ▪ Sauce operator	Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products.	Packaging, cleaning, Good Manufacturing Practices (GMP), cooking, machinery	350	354	3%	Low	Entry level
First-line supervisors of production and operating workers ▪ Production supervisor ▪ Line lead ▪ Plant manager	Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.	Scheduling, food safety, supervisory skills, Good Manufacturing Practices (GMP), budgeting	1,924	1,931	1%	High	Middle-skill
Lead bakers ▪ Pastry chef ▪ Artisan baker	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.	Food safety, customer service, supply ordering, recipe development, quality assurance	NA	NA	NA	NA	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Industrial production managers ▪ Manufacturing reliability manager ▪ Production manager ▪ Production superintendent	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.	Food safety, quality management, quality assurance and control, Hazard Analysis Critical Control Point (HACCP), food science	633	635	0%	Medium	High-skill

Table 14

Maintenance and Engineering Pathway Employment Data

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Industrial machinery mechanics ▪ Maintenance mechanic ▪ Fleet maintenance mechanic	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.	Repair, preventative maintenance, welding, machinery, facility maintenance	1,827	1,847	4%	Medium	Entry level
Industrial truck and tractor operators ▪ Forklift driver ▪ Forklift operator	Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location.	Forklift operation, plant safety, occupational health and safety, basic math, lift trucks	1,406	1,411	3%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Maintenance and repair workers ▪ Maintenance technician ▪ Fleet maintenance	Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs.	Repair, plumbing, HVAC, machinery, preventative maintenance	914	920	3%	Very High	Entry level
Heavy and tractor-trailer truck drivers ▪ Driver CDL ▪ Truck driver	Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license.	Hand trucks, beverage industry knowledge, product delivery, post trip inspections, food safety	575	581	5%	Very High	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
First-line supervisors of transportation and material moving workers ▪ Fleet manager ▪ Distribution supervisor ▪ Road supervisor	Directly supervise and coordinate activities of transportation and material-moving machine and vehicle operators and helpers.	Scheduling, inventory management, inventory control, warehouse operations, employee training	235	237	1%	Medium	Middle-skill
First-line supervisors of mechanics, installers, and repairers ▪ Maintenance supervisor ▪ Maintenance foreman ▪ Maintenance manager	Directly supervise and coordinate the activities of mechanics, installers, and repairers.	Repair, budgeting, preventative maintenance, machinery, supervisory skills	236	236	4%	High	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Industrial engineering technologists and technicians ▪ Maintenance technician ▪ Plant maintenance mechanic	Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency. Assist industrial engineers in such activities as quality control, inventory control, or material flow methods. May conduct statistical studies or analyze production costs.	Repair, preventative maintenance, power tools, electrical diagrams, packaging	44	44	-5%	Medium	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Industrial production managers ▪ Manufacturing reliability manager ▪ Production manager ▪ Production superintendent	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.	Food safety, quality management, quality assurance and control, Hazard Analysis Critical Control Point (HACCP), food science	633	635	0%	Medium	High-level
Mechanical engineers ▪ Reliability engineer ▪ Project engineer ▪ Design engineer ▪ Capital project engineer	Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.	Mechanical engineering, packaging, project management, preventative maintenance, repair	115	114	-8%	High	High-level

Table 15

Regulation, Quality Assurance, and Research and Development Pathway Employment Data

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Quality technicians (inspectors, testers, sorters, samplers, and weighers)	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.	Quality assurance and control, quality management, food safety, Good Manufacturing Practices (GMP), SAP	1,416	1,393	-7%	High	Entry level
Food safety specialists/ technicians (food science technicians)	Perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products.	Quality assurance and control, Hazard Analysis Critical Control Point (HACCP), food safety, food safety and quality, legal compliance	67	68	19%	Low	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Food scientists and technologists ▪ Senior food technologist ▪ Assistant food technologist ▪ Product development scientist	Use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar, and protein; discover new food sources; research ways to make processed foods safe, palatable, and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store, and distribute food.	Food science, product development, food safety, chemistry, quality assurance and control	243	243	2%	Low	High-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Industrial production managers ▪ Manufacturing reliability manager ▪ Production manager ▪ Production superintendent	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.	Food safety, quality management, quality assurance and control, Hazard Analysis Critical Control Point (HACCP), food science	633	635	0%	Medium	High-skill
Industrial engineers ▪ Packaging engineer ▪ Research and development (R and D) engineer ▪ Process engineer	Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.	Packaging, project management, industrial engineering industry expertise, scheduling, food safety	461	451	-5%	Medium	High-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Occupational health and safety specialists ▪ Safety manager ▪ Occupational health manager ▪ Safety, health, and environmental manager	Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector. Includes environmental protection officers.	Occupational health and safety, safety training, workers' compensation, plant safety, environmental health and safety	42	42	-5%	Medium	High-skill

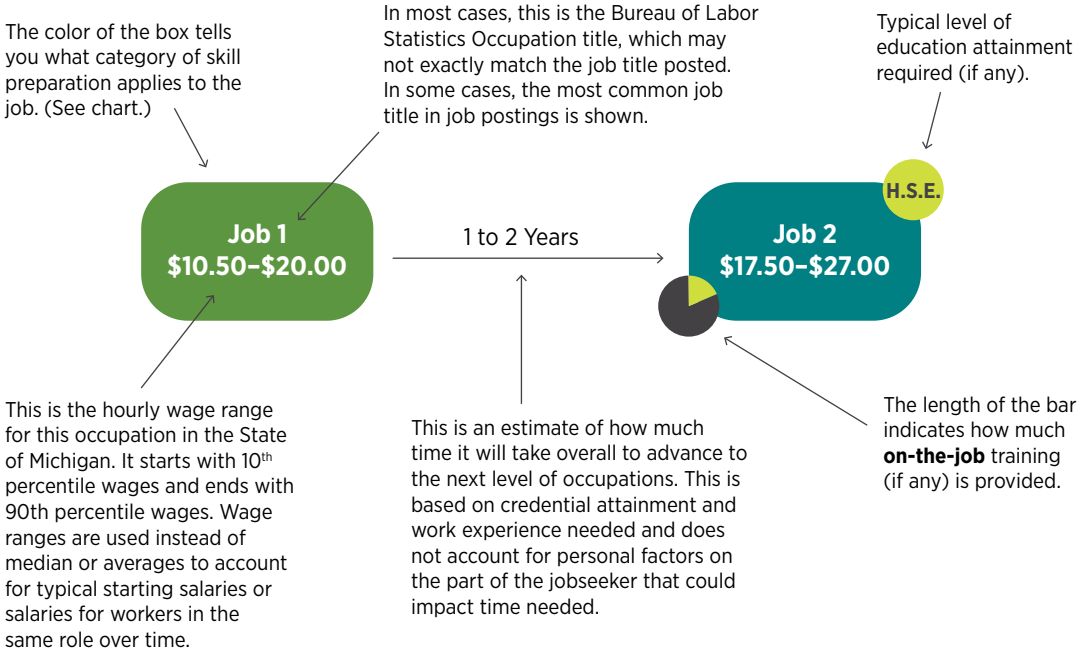
Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food manufacturing and processing	2020 Michigan employment in food manufacturing and processing	Michigan projected 5-year growth in food manufacturing and processing	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Compliance officers ▪ Compliance and reporting administrative assistant ▪ Payroll compliance specialist ▪ Senior regulatory specialist	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere.	Legal compliance, food science, regulatory affairs, SAP, food safety	19	20	-10%	Medium	High-skill

What are the career pathways for food manufacturing and processing?

The maps below indicate the most common occupations in this field as well as wages, opportunities for advancement, typical time to advance, education required and on-the-job training.

Figure 8

Michigan's Food System Career Pathway Map Key



Skill Levels

Color	Preparation Level	Definition
	Entry-Level	• High School Diploma or No High School Diploma
	Middle-Skill	• Basic Postsecondary Certificate • Advanced Postsecondary Certificate • Associate Degree • High School Diploma with Experience
	High-Skill	• Bachelor's Degree • Associate Degree with 5 Years Experience • Advanced Postsecondary Degree with 5 Years or More Experience

Education Levels

Initials	Credential
H.S.E.	High School Diploma or Equivalency
P.A.	Postsecondary Nondegree Award
A.S. or A.A.	Associate Degree
B.S.	Bachelor's Degree
B.A.	Bachelor of Arts
B.B.A	Bachelor of Business Administration

On-the-Job Training

Short term on-the-job training | Moderate on-the-job training | Long term on-the-job training

Notes:
This map is grounded in data collected on the State of Michigan. Other cities or regions may pay different wages or require different skills, credentials, or work experience depending on their local employers.

This map was derived using labor market information data sources, Emsi and Burning Glass from Labor Insight, in November 2020. This information includes the *typical* wages and requirements for jobs and might not exactly match the positions identified by jobseekers. The data included in these maps are constantly updated.

Figure 9

Food Manufacturing and Processing
Production Pathway

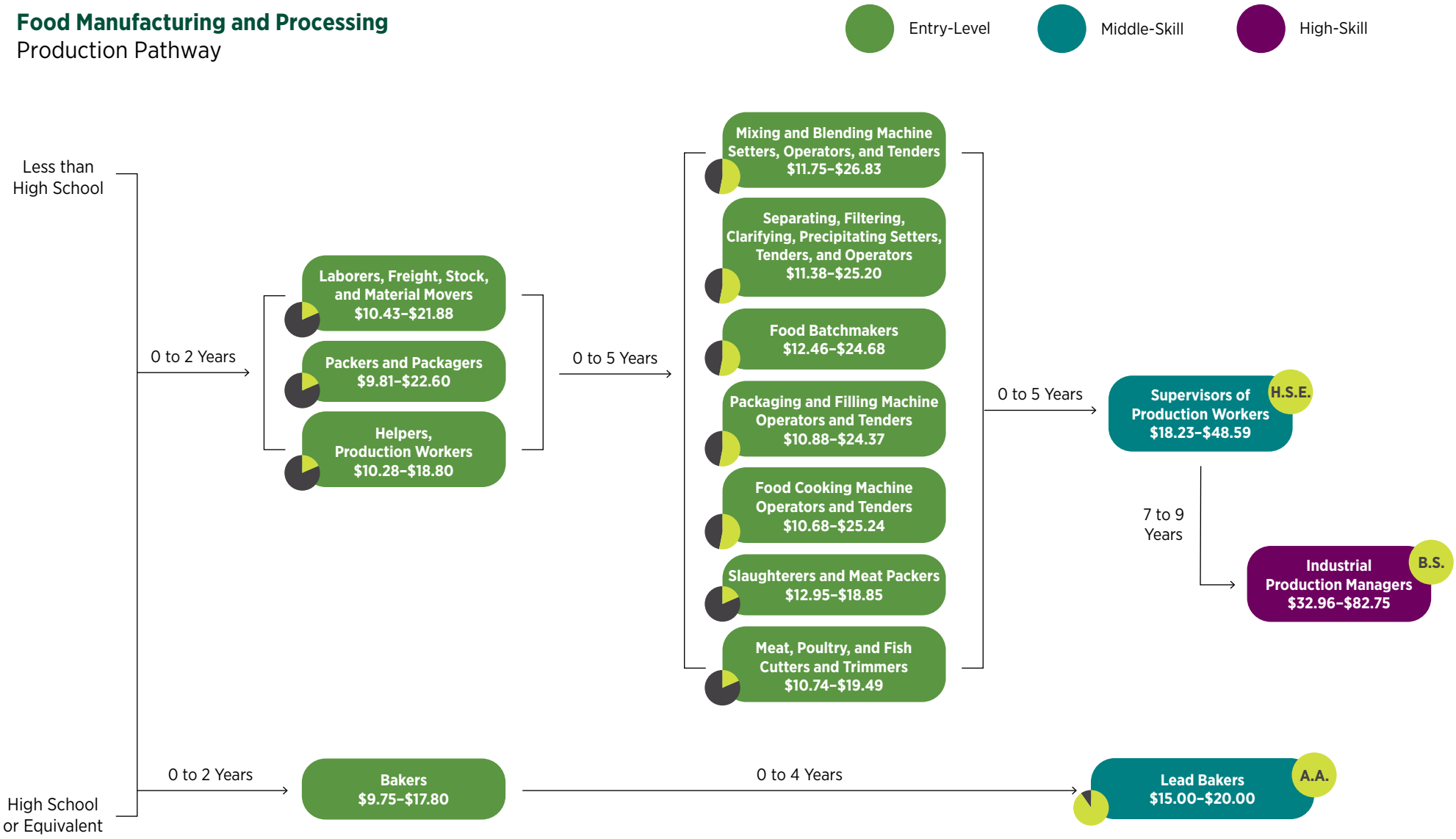


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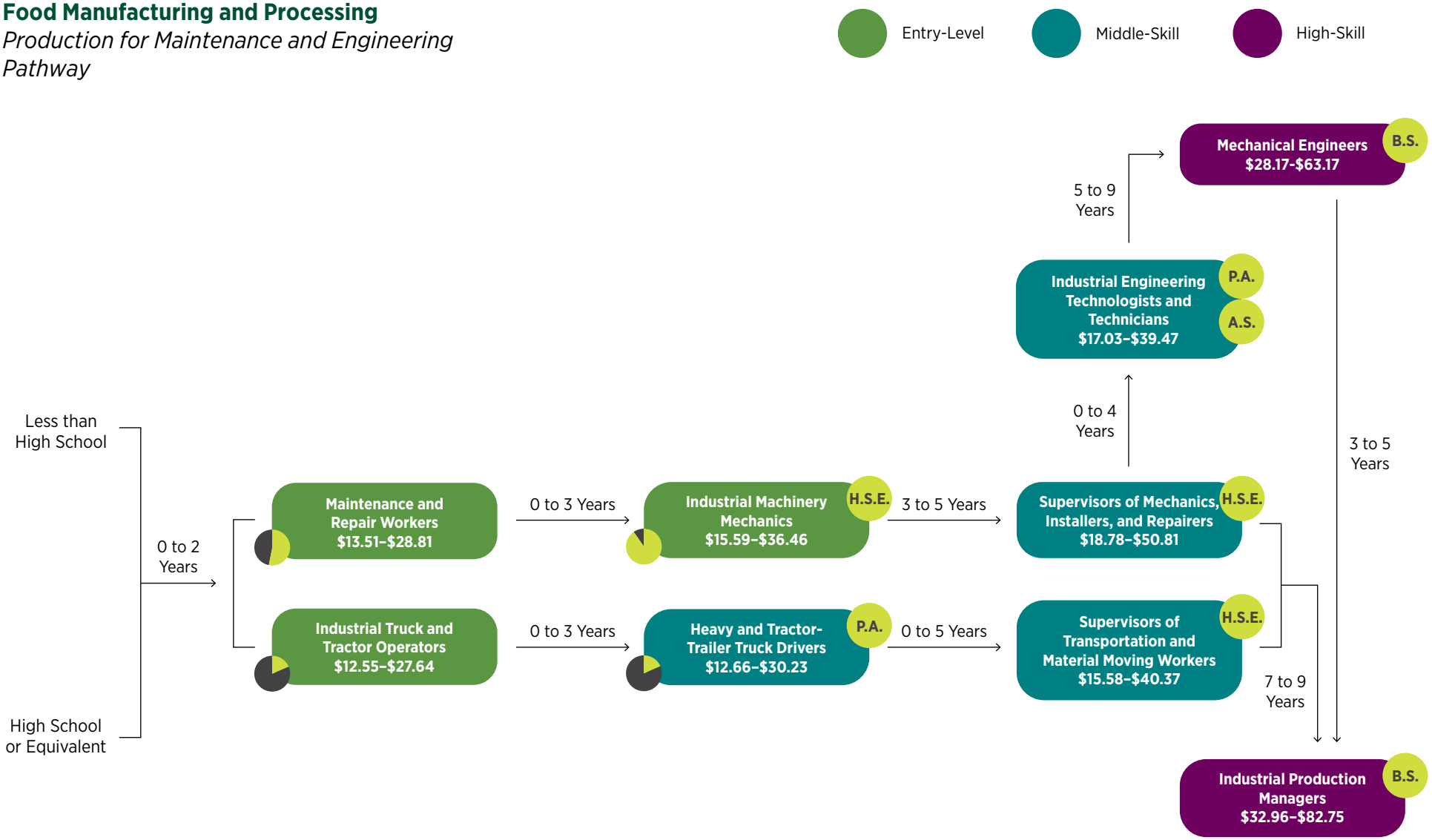
Figure 10

Food Manufacturing and Processing

Production for Maintenance and Engineering Pathway

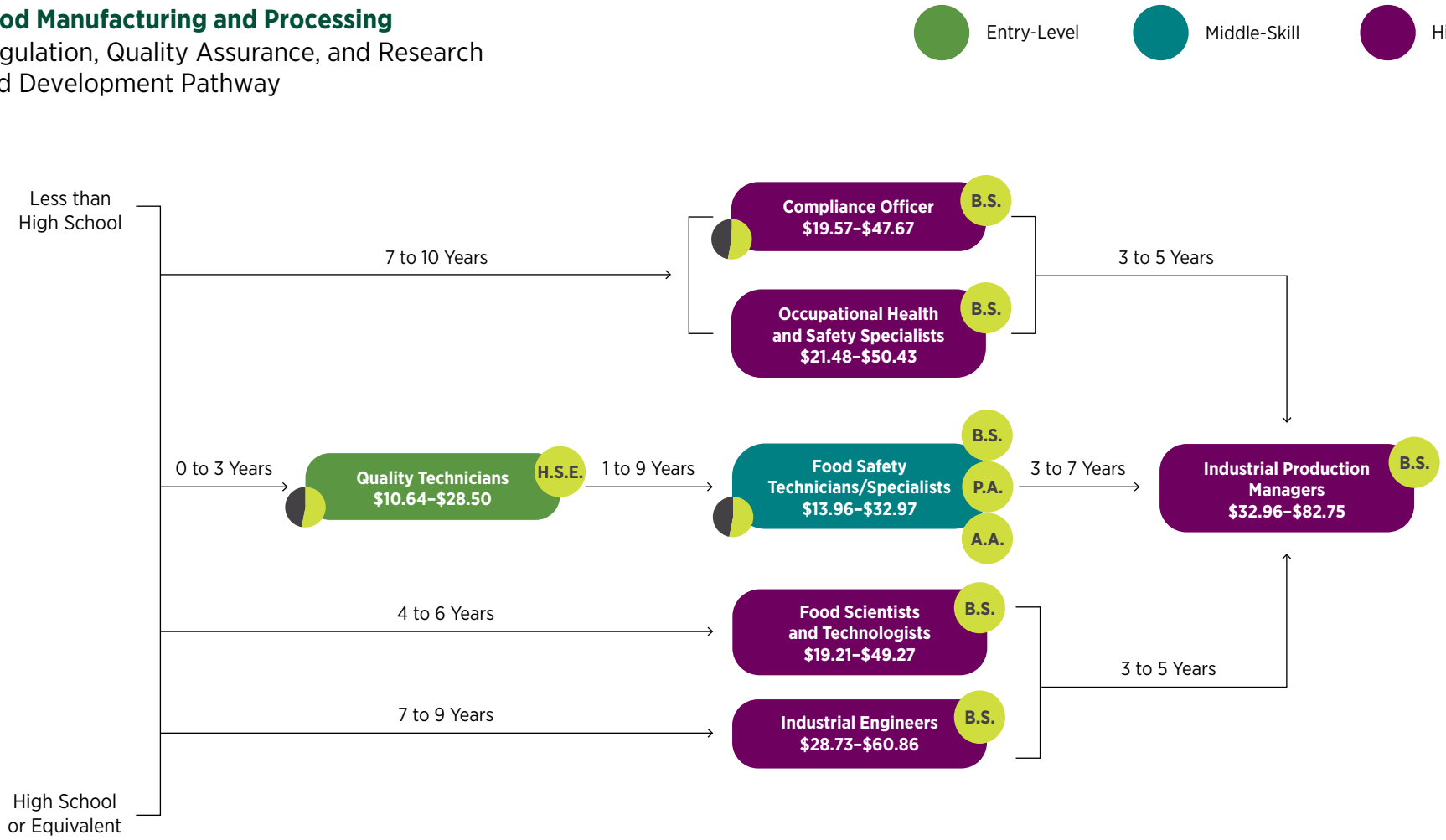


graphic design created by charli renae design.

Figure 11

Food Manufacturing and Processing

Regulation, Quality Assurance, and Research and Development Pathway



Education programs to pursue food manufacturing and processing careers

Examples of educational programs in Michigan where workers and jobseekers can obtain the skills needed for these roles are outlined in Table 16. This list is not exhaustive.

Table 16

Food Manufacturing and Processing Educational Programs

Program area	Credential	Institutions
Production	Baking and Pastry Arts/Baker/Pastry Chef Certificate, Associate of Arts degree and Associate Degree	Bakers College Dorsey School of Business - Roseville Grand Rapids Community College Henry Ford College Macomb Community College Mott Community College Northwestern Michigan College Oakland Community College Schoolcraft College The Culinary Institute of Michigan Kalamazoo Valley Community College Washtenaw Community College
	Brewing and Distillation Technology Certificate and Associates in General Studies	Schoolcraft College
	Craft Brewing Certificate	Wayne County Community College District
	Craft Brewing, Packaging, and Service Operations Certificate	Grand Rapids Community College
	Food Processing Technician Registered Apprentice Program	Michigan Career and Technical Institute
	Food Processing, Technology and Safety Certificate and Associate Degree	Michigan State University's Institute of Agriculture Technology (IAT) Delta College, University Center Kellogg Community College, Battle Creek Lansing Community College Muskegon Community College, Muskegon Wayne Community College District -- Downriver, Taylor
	Food Science, Bachelor's Degree	Michigan State University
	Fundamentals of Food Processing Certificate	Michigan Manufacturing Technology Center
	Sustainable Brewing Certificate and Associate of Science degree	Kalamazoo Community College
	Sustainable Brewing, Bachelor's Degree	Western Michigan University
Maintenance and engineering	Manufacturing Engineering Technology/Technician Certificate and Associate Degree	Glen Oaks Community College Grand Rapids Community College Henry Ford College Jackson College Kellogg Community College Macomb Community College Monroe County Community College Northern Michigan University Schoolcraft College Washtenaw Community College

Program area	Credential	Institutions
	Manufacturing Engineering Technology Associate Degree	Alpena Community College Delta College Lake Superior State University Lawrence Technological University Montcalm Community College Mott Community College Northwestern Michigan College St Clair County Community College Wayne County Community College District
	Manufacturing Engineering Technology Bachelor's Degree	Central Michigan University Eastern Michigan University Jackson College Lake Superior State University Wayne State University Western Michigan University
Regulation, quality assurance, research and development	Food Processing, Technology and Safety Certificate and Associate Degree	Michigan State University's Institute of Agriculture Technology (IAT) Delta College, University Center Kellogg Community College, Battle Creek Lansing Community College Muskegon Community College, Muskegon Wayne Community College District -- Downriver, Taylor
	Global Food Safety Certification (GFSI)	NSF International
	Food Science, Bachelor's Degree	Michigan State University

Retail Food Distribution

The retail food distribution pathway encompasses occupations involved in selling and distribution of food directly to individual consumers in a retail setting. Most jobs in this subsector are in grocery stores. Table 17 shows the industries within the retail food production subsector as well as employment numbers, projected 5-year growth and average earnings.

Table 17

Employment in the Retail Food Distribution Industries

Retail food distribution industries	2020 employment	Projected 5-year growth	Average earnings
Grocery stores	58,790	-8%	$31,208
Specialty grocery stores	11,331	11%	$28,347
Beer, wine, and liquor stores	7,616	1%	$31,859
Subsector overall	**77,737**	**-4%**	**$30,855**

In each of these different organizations, the jobs and titles, pathways, pay, and work will be different. However, many workers in this field find themselves working for one of these types of organizations.

- Butcher shop
- Co-op
- Convenience, country, grocery, or natural / health food store
- Online market
- Specialty foods store
- Community Supported Agriculture (CSA)
- Farm stand / farm store
- Farmers market
- Food hub
- Beer, wine, liquor store

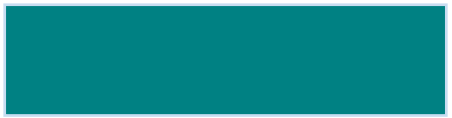
Occupations and demand in the retail food distribution subsector

Below are the top occupations in this subsector, their common job titles, the work involved, skills required, how much demand there is currently, and how much demand is expected in the future.

Tables 18 and 19 provide retail food distribution sector employment data for the "food sales and management" pathway and the "operations, business management, and administration" pathway, respectively. The occupations are color coded by skill level for entry to the occupation. The color code is as follows:

Entry Level occupation (requires low skill level and limited experience)

Middle-Skill occupation (requires some skills and experience)



High-Skill occupation (requires considerable training and experience)

Table 18

Food Sales and Management Pathway Employment Data

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Cashiers ▪ Food clerk ▪ Greeter	Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks.	Retail industry knowledge, lifting, product knowledge, merchandising, customer contact	21,954	21,760	-6%	Very High	Entry level
Retail salespersons ▪ Store associate ▪ Retail clerk ▪ Sales associate	Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers.	Retail industry knowledge, sales, merchandising, customer service, customer contact	5,177	5,181	0%	Very High	Entry level
Counter workers ▪ Barista ▪ Sandwich artist	Perform duties such as taking orders and serving food and beverages. Serve customers at counter or from a steam table. May take payment. May prepare food and beverages.	Lifting, food preparation, cleaning, food safety, customer service	4,139	4,132	-4%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Food preparation workers ▪ Prepared foods team member	Perform a variety of food preparation duties other than cooking, such as preparing cold foods and shellfish, slicing meat, and brewing coffee or tea.	Customer service, cleaning, customer contact, sales, merchandising	3,739	3,764	0%	Medium	Entry level
Packers and packagers, hand ▪ Bakery wrapper	Pack or package by hand a wide variety of products and materials.	Packaging, customer service, cleaning, inventory control, customer contact	3,547	3,455	-15%	Medium	Entry level
Butchers and meat cutters	Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.	Merchandising, product knowledge, lifting, packaging, sales	3,164	3,158	-3%	Medium	Entry level
Bakers ▪ Cake decorator ▪ Bakery clerk ▪ Store baker ▪ Overnight baker	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.	Customer service, customer contact, cleaning, merchandising, packaging	1,625	1,624	-4%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
First-line supervisors of retail sales workers/ farmers market/food hub managers ▪ Assistant store manager ▪ Assistant manager ▪ Store manager ▪ Produce manager ▪ Grocery manager ▪ Bakery manager ▪ Assistant deli manager	Directly supervise and coordinate activities of retail sales workers in an establishment or department. Duties may include management functions, such as purchasing, budgeting, accounting, and personnel work, in addition to supervisory duties.	Retail industry knowledge, sales, succession planning, financial analysis, sales goals	4,850	4,840	-3%	Very High	Middle-skill
Pastry chefs/ lead bakers (bakers)	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.	Customer service, cleaning, storage of products/ inventory, customer contact, lifting	NA	NA	NA	NA	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
First-line supervisors of food preparation and serving workers ▪ Prepared foods supervisor ▪ Prepared foods team leader ▪ Starbucks shift leader	Directly supervise and coordinate activities of workers engaged in preparing and serving food.	Retail industry knowledge, merchandising, lifting, sales, product knowledge	917	915	-3%	High	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
General and operations managers ▪ District manager ▪ Farmers market operations manager ▪ Food hub manager ▪ Assistant general manager	Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes first-line supervisors.	Operations management, inventory management, inventory control, retail industry knowledge, budgeting	1,138	1,138	-2%	Very High	High-level

Table 19

Operations, Business Management, and Administration Pathway Employment Data

Occupation and common titles in Michigan job postings	O* NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-Year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Stockers and order fillers ▪ Produce clerk ▪ Merchandise clerk ▪ Grocery clerk	Receive, store, and issue merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May operate power equipment to fill orders. May mark prices on merchandise and set up sales displays.	Merchandising, lifting, product knowledge, retail industry knowledge, customer service	13,850	13,860	-3%	Very High	Entry level
Customer service representatives ▪ Customer service clerk	Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.	Customer service, retail industry knowledge, sales, cleaning, retail sales	2,645	2,621	-7%	Very High	Entry level
Laborers and freight, stock, and material movers, hand ▪ Courtesy clerk ▪ Warehouse associate	Manually move freight, stock, luggage, or other materials, or perform other general labor. Includes all manual laborers not elsewhere classified.	Cleaning, snow removal, retail industry knowledge, customer service, sales	734	734	-2%	Very High	Entry level

Occupation and common titles in Michigan job postings	O* NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-Year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Office clerks ▪ Office assistant ▪ Office administrator ▪ Service desk clerk	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.	Customer service, bookkeeping, administrative support, accounting, scheduling	552	547	-6%	High	Entry level
Shipping, receiving, and traffic clerks ▪ Store receiver ▪ Warehouse receiver	Verify and maintain records on incoming and outgoing shipments involving inventory. Duties include verifying and recording incoming merchandise or material and arranging for the transportation of products. May prepare items for shipment.	Receiving, lifting, merchandising, product knowledge, retail industry knowledge	627	624	-4%	High	Entry level

Occupation and common titles in Michigan job postings	O* NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-Year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Bookkeeping, accounting, and auditing clerks ▪ Accounts payable	Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.	Accounting, bookkeeping, accounts payable and receivable, accounting software, Quickbooks	409	406	-6%	High	Entry level
First-line supervisors of office and administrative support workers ▪ Customer service leader/ manager ▪ Guest services manager ▪ Office manager	Directly supervise and coordinate the activities of clerical and administrative support workers.	Customer service, sales, financial analysis, conflict management, succession planning	916	922	-1%	High	Middle-skill

Occupation and common titles in Michigan job postings	O* NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-Year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
First-line supervisors of transportation and material moving workers ▪ Distribution center supervisor	Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand. Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers. All first-line supervisors of transportation workers not listed separately.	Scheduling, supervisory skills, customer service, collective bargaining, food safety	358	359	-2%	Medium	Middle-skill
Buyers and purchasing agents ▪ Sourcing specialist ▪ Dairy specialist ▪ Procurement buyer ▪ Grocery procurement buyer	Purchase products either for further processing or resale. Buy merchandise or commodities for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. May negotiate contracts.	Procurement, retail industry knowledge, purchasing, merchandising, logistics	211	208	-7%	Low	High-skill

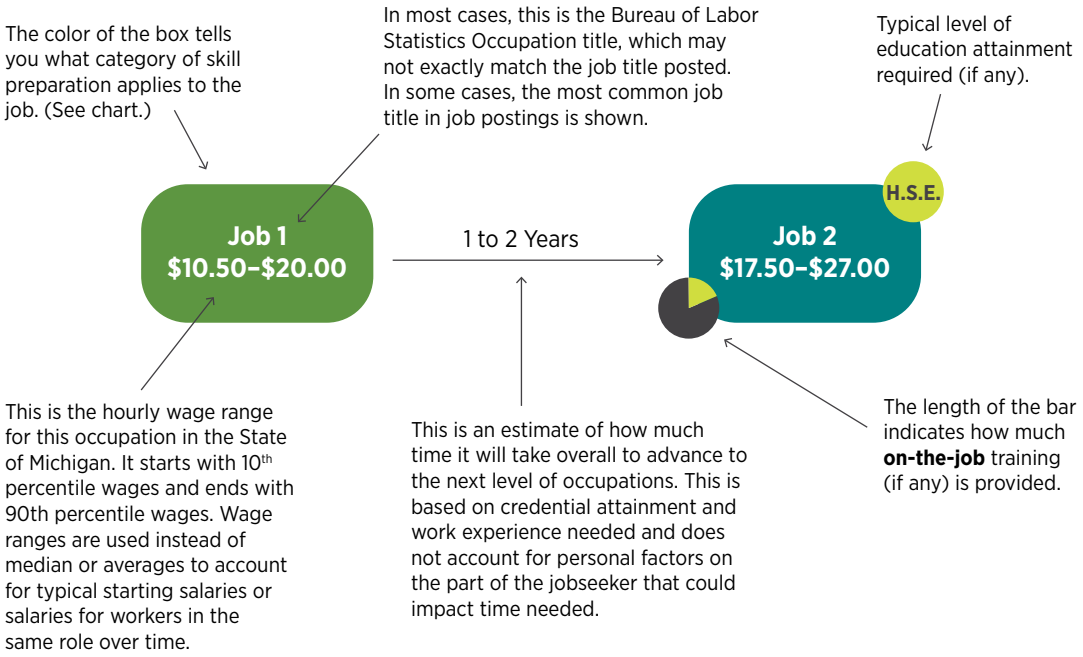
Occupation and common titles in Michigan job postings	O* NET description	Top skills requested in Michigan job postings	2019 Michigan employment in retail food distribution	2020 Michigan employment in retail food distribution	Michigan projected 5-Year growth in retail food distribution	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
General and operations managers ▪ District manager ▪ Farmers market operations manager ▪ Food hub manager ▪ Assistant general manager	Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes first-line supervisors.	Operations management, inventory management, inventory control, retail industry knowledge, budgeting	1,138	1,138	-2%	Very High	High-skill

What are the career pathways for retail food distribution?

The maps below indicate the most common occupations in this field as well as wages, opportunities for advancement, typical time to advance, education required and on-the-job training.

Figure 12

Michigan's Food System Career Pathway Map Key



Skill Levels

Color	Preparation Level	Definition
	Entry-Level	• High School Diploma or No High School Diploma
	Middle-Skill	• Basic Postsecondary Certificate • Advanced Postsecondary Certificate • Associate Degree • High School Diploma with Experience
	High-Skill	• Bachelor's Degree • Associate Degree with 5 Years Experience • Advanced Postsecondary Degree with 5 Years or More Experience

Education Levels

Initials	Credential
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A.S. or A.A.	Associate Degree
B.S.	Bachelor's Degree
B.A.	Bachelor of Arts
B.B.A	Bachelor of Business Administration

On-the-Job Training

Short term on-the-job training | Moderate on-the-job training | Long term on-the-job training

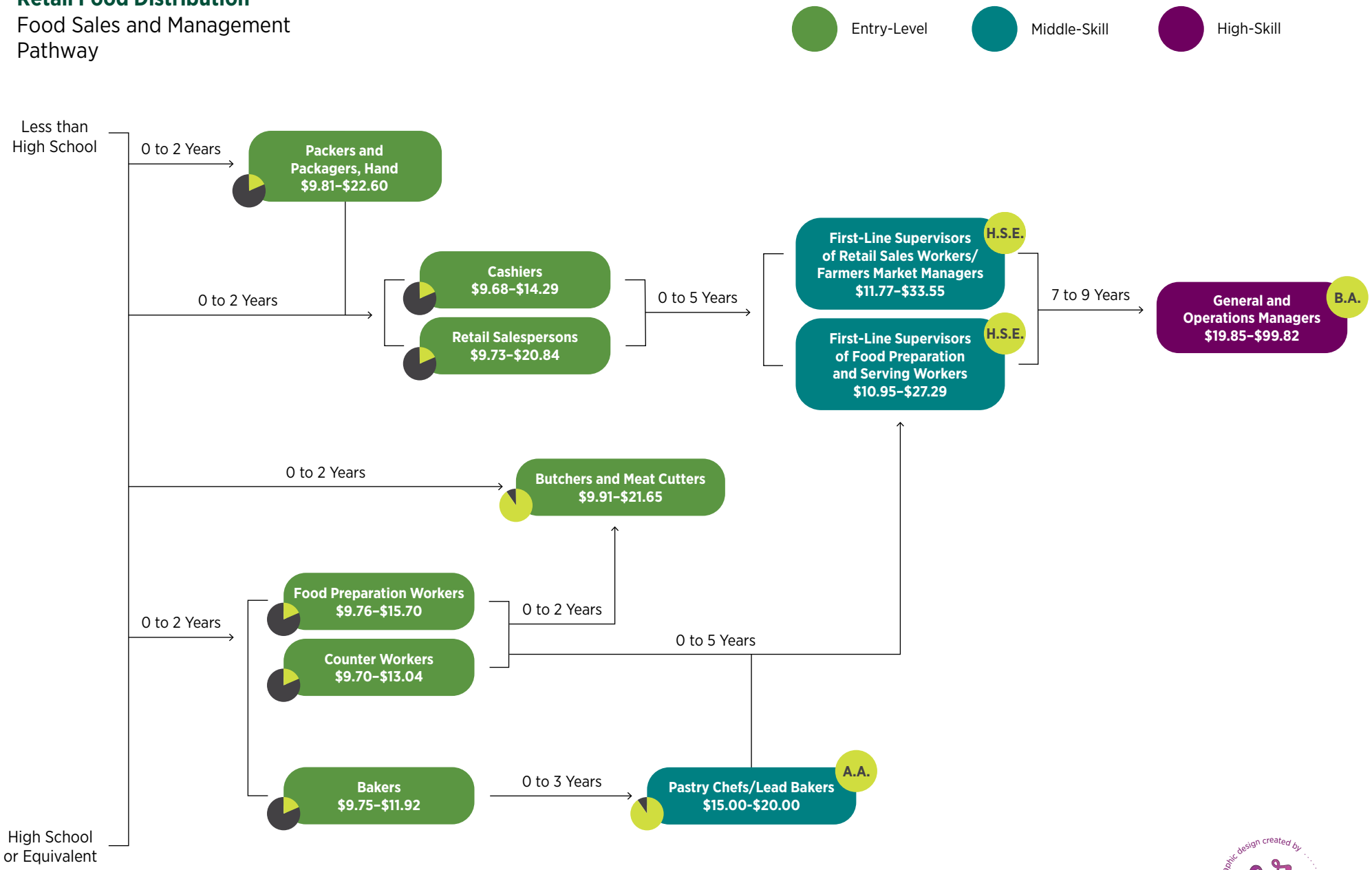
Notes:
This map is grounded in data collected on the State of Michigan. Other cities or regions may pay different wages or require different skills, credentials, or work experience depending on their local employers.

This map was derived using labor market information data sources, Emsi and Burning Glass from Labor Insight, in November 2020. This information includes the *typical* wages and requirements for jobs and might not exactly match the positions identified by jobseekers. The data included in these maps are constantly updated.

Figure 13

Retail Food Distribution

Food Sales and Management Pathway

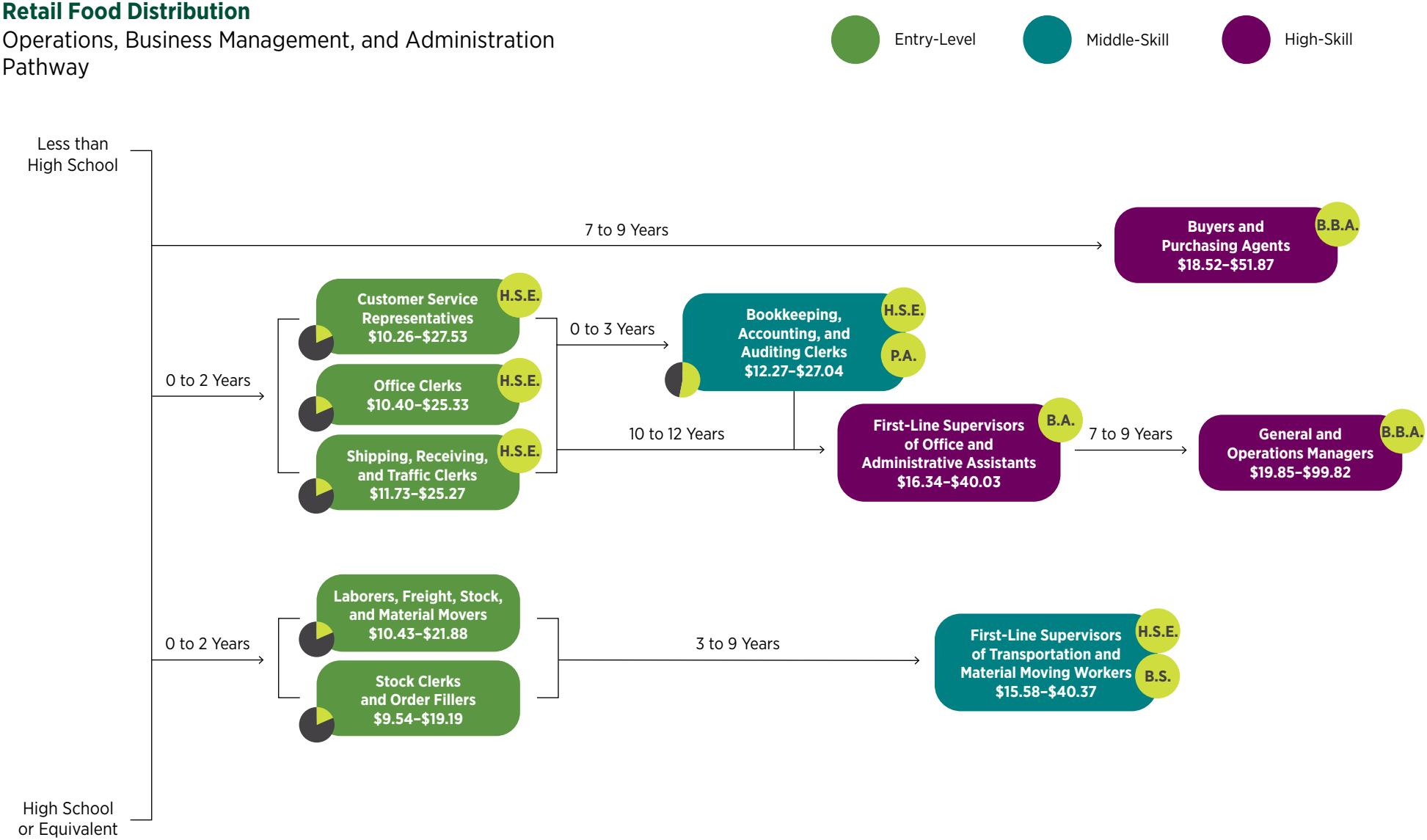


graphic design created by charli renae design.

Figure 14

Retail Food Distribution

Operations, Business Management, and Administration Pathway



Education programs to pursue retail food distribution careers

Examples of educational programs in Michigan where workers and jobseekers can obtain the skills needed for these roles are outlined in Table 20. This list is not exhaustive.

Table 20

Retail Food Distribution Educational Programs

Program area	Credential	Institutions
Food sales and management	Selling Skills and Sales Operations Certificate and/or Associate Degree	Alpena Community College Ferris State University Jackson College Lansing Community College Washtenaw Community College
	Retailing and Retail Operations Certificate and Associate Degree	Delta College
	Baking and Pastry Arts Certificate	Dorsey School of Business - Roseville Grand Rapids Community College
	Baking and Pastry Arts/Baker/Pastry Chef Certificate and/or Associate Degree	Bakers College Henry Ford College Macomb Community College Mott Community College Northwestern Michigan College Oakland Community College Schoolcraft College The Art Institute of Michigan Washtenaw Community College
Operations, business management, and administration	Sales, Distribution, and Marketing Operations, General Certificate and Associate Degree	Baker College Grand Rapids Community College Lansing Community College North Central Michigan College West Shore Community College
	Market Manager Certificate Program Certificate	Michigan Farmers Market Association (MIFMA)

Wholesale Food Distribution or Storage

The wholesale food distribution or storage pathway looks at roles involved in the large-scale sales of regional food, as well as the storage, transportation, and supply chain within the food system. Most jobs in Michigan in this subsector are in grocery merchant wholesalers.

Table 21 shows the industries within the wholesale food distribution or storage subsector as well as employment numbers, projected 5-year growth, and average earnings.

Table 21

Employment in the Wholesale Food Distribution or Storage Industries

Wholesale food distribution or storage industries	2020 employment	Projected 5-year growth	Average earnings
General line grocery merchant wholesalers	6,610	3%	$72,376
Other grocery and related products merchant wholesalers	4,870	1%	$66,378
Refrigerated warehousing and storage	2,675	9%	$57,628
Beer and ale merchant wholesalers	2,484	-2%	$63,160
Fresh fruit and vegetable merchant wholesalers	2,402	0%	$66,006
Farm and garden machinery and equipment merchant wholesalers	2,119	-4%	$69,966
Farm supplies merchant wholesalers	1,954	-2%	$65,432
Confectionery merchant wholesalers	1,902	9%	$75,795
Wine and distilled alcoholic beverage merchant wholesalers	1,441	8%	$81,978
Meat and meat product merchant wholesalers	1,261	8%	$75,440
Dairy product (except dried or canned) merchant wholesalers	1,215	3%	$70,031
Grain and field bean merchant wholesalers	835	-2%	$73,799
Fish and seafood merchant wholesalers	411	0%	$50,151
Packaged frozen food merchant wholesalers	287	10%	$111,203
Farm product warehousing and storage	275	7%	$58,377
Livestock merchant wholesalers	267	4%	$41,080
Other farm product raw material merchant wholesalers	240	14%	$61,576
Poultry and poultry product merchant wholesalers	44	1%	$85,708
Subsector overall	**31,291**	**2%**	**$68,695**

In each of these different organizations, the jobs and titles, pathways, pay, and work will be different. However, many workers in this field find themselves working for one of these types of organizations:

- Aggregation facility / food hub
- Broker / Sourcer
- Cold / Refrigerated storage facility
- Distributor
- Dry storage facility

Occupations and demand in the wholesale food distribution or storage subsector

Below are the top occupations in this subsector, their common job titles, the work involved, skills required, how much demand there is currently, and how much demand is expected in the future.

Table 22 and 23 provide wholesale food distribution or storage sector employment data for the "sales, purchasing and administration" pathway and the "operations" pathway, respectively. The occupations are color coded by skill level for entry to the occupation. The color code is as follows:

Entry Level occupation (requires low skill level and limited experience)

Middle-Skill occupation (requires some skills and experience)

High-Skill occupation (requires considerable training and experience)

Table 22

Sales, Purchasing, and Administration Pathway Employment Data

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Driver/sales workers ▪ Delivery driver ▪ CDL delivery driver	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products (including restaurant take-out items), or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery.	Commercial driving, customer service, injury prevention, hand trucks, post trip inspections	1,811	1,813	5%	Very High	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Office clerks	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.	Data entry, accounting software, accounting, invoice processing, customer service	859	848	-3%	High	Entry level
Merchandisers (merchandise displayers and window trimmers)	Plan and erect commercial displays, such as those in windows and interiors of retail stores and at trade exhibitions.	Merchandising, retail industry knowledge, scheduling, sales, store merchandising	750	746	3%	Very High	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Shipping, receiving, and traffic clerks ▪ Transportation clerk ▪ Warehouse receiver	Verify and maintain records on incoming and outgoing shipments involving inventory. Duties include verifying and recording incoming merchandise or material and arranging for the transportation of products. May prepare items for shipment.	Scheduling, shipping, forklift operation, receiving, data entry	705	699	2%	High	Entry level
Customer service representatives ▪ Sales service representative	Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.	Customer service, customer contact, invoicing, data entry, scheduling	512	506	-1%	Very High	Entry level
Sales representatives, wholesale and manufacturing ▪ Outside sales representative ▪ Direct sales representative ▪ Agricultural sales representative	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.	Sales, customer service, sales planning, retail industry knowledge, merchandising	4,476	4,469	2%	Very High	High-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
First-line supervisors of non-retail sales workers ▪ Location manager ▪ Inside sales manager	Directly supervise and coordinate activities of sales workers other than retail sales workers. May perform duties such as budgeting, accounting, and personnel work, in addition to supervisory duties.	Sales, supervisory skills, customer service, budgeting, sales management	543	545	3%	Medium	High-skill
Buyers and purchasing agents ▪ Category planner ▪ Procurement buyer	Purchase products either for further processing or resale. Buy merchandise or commodities for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. May negotiate contracts.	Retail industry, knowledge, purchasing, merchandising, logistics, negotiation skills	405	399	-2%	Low	High-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Sales managers ▪ Territory manager ▪ Business development manager	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	Sales, customer service, sales management, negotiation skills, prospective clients	297	297	4%	Very High	High-skill
First-line supervisor of office and administrative workers ▪ Regional customer service manager ▪ Customer service supervisor ▪ Office manager	Directly supervise and coordinate the activities of clerical and administrative support workers.	Customer service, scheduling, accounting, budgeting, staff management	261	261	0%	High	High-skill

Table 23
Operations Pathway Employment Data

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Driver/sales workers Delivery driver CDL delivery driver	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery.	Commercial driving, customer service, injury prevention, hand trucks, post trip inspections	1,811	1,813	5%	Very High	Entry level
Laborers and freight, stock, and material movers, hand Warehouse associate Warehouse clerk	Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified.	Forklift operation, occupational health and safety, customer service, cleaning, sorting	2,896	2,903	6%	Very High	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Stockers and order fillers Retail/reset merchandiser Warehouse order selector	Receive, store, and issue merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May operate power equipment to fill orders. May mark prices on merchandise and set up sales displays.	Customer service, store management, sales strategy, merchandising, forklift operation	2,119	2,093	0%	Very High	Entry level
Industrial truck and tractor operators Forklift operator Warehouse forklift driver	Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location.	Forklift operation, sorting, occupational health and safety, lift trucks, inventory control	1,371	1,359	3%	Medium	Entry level
Light truck drivers Delivery truck driver Driver helper Yard driver	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle.	Commercial driving, customer service, product sales, lifting ability, repair, product delivery	1,123	1,121	4%	High	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Packers and packagers, hand Meat packer Repacker Bakery wrapper	Pack or package by hand a wide variety of products and materials.	Packaging, cleaning, customer service, equipment cleaning, merchandising	872	861	1%	Medium	Entry level
Order checkers and inspectors (graders and sorters, agricultural products)	Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition.	Food safety, quality assurance and control, food preparation, lifting, food service experience	76	75	4%	Low	Entry level
Heavy and tractor-trailer truck drivers CDL delivery truck driver	Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license.	Commercial driving, product sales, customer service, hand trucks, basic math	2,856	2,851	3%	Very High	Middle-skill
First-line supervisors of transportation and material moving workers Night warehouse supervisor Warehouse supervisor	Directly supervise and coordinate activities of transportation and material-moving machine and vehicle operators and helpers.	Scheduling, repair, occupational health and safety, spreadsheets, warehouse operations, record keeping	637	638	5%	Medium	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Transportation, storage, and distribution managers Warehouse supervisor Warehouse manager Food hub manager Outbound warehouse supervisor	Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers.	Scheduling, occupational health and safety, forklift operation, warehouse operations, inventory management	154	154	5%	Medium	High-level

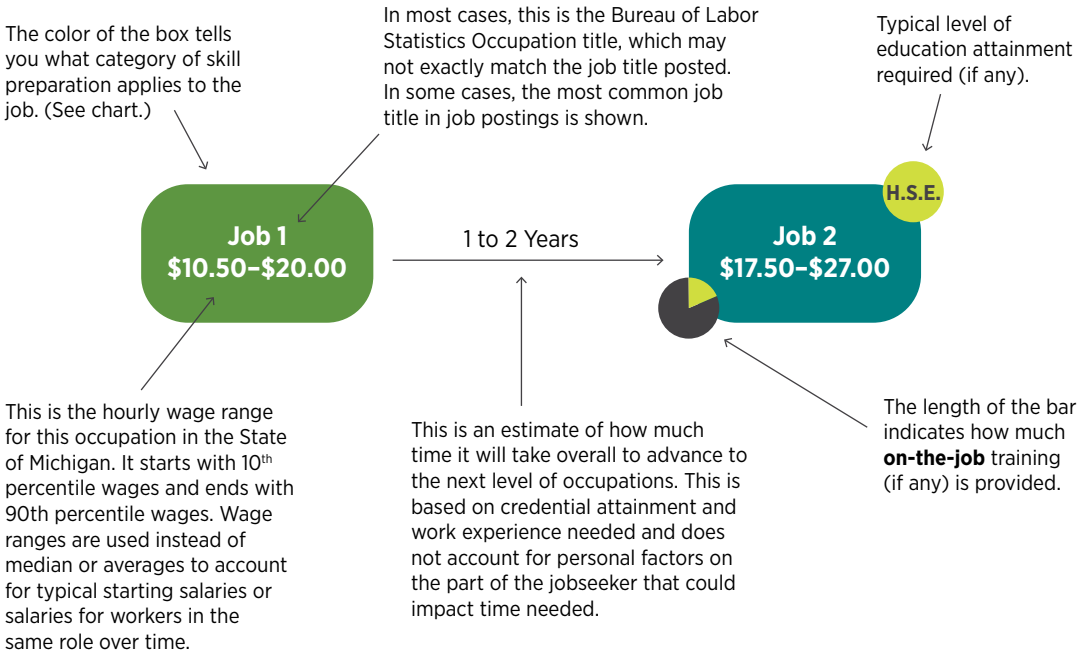
Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in wholesale food distribution or storage	2020 Michigan employment in wholesale food distribution or storage	Michigan projected 5-year growth in wholesale food distribution or storage	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
General and operations managers Area manager Business manager Food hub manager	Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes first-line supervisors.	Budgeting, operations management, business planning, prospective clients, profit targets	718	719	3%	Very High	High-level

What are the career pathways for wholesale food distribution or storage?

The maps below indicate the most common occupations in this field as well as wages, opportunities for advancement, typical time to advance, education required and on-the-job training.

Figure 15

Michigan's Food System Career Pathway Map Key



Skill Levels

Color	Preparation Level	Definition
	Entry-Level	• High School Diploma or No High School Diploma
	Middle-Skill	• Basic Postsecondary Certificate • Advanced Postsecondary Certificate • Associate Degree • High School Diploma with Experience
	High-Skill	• Bachelor's Degree • Associate Degree with 5 Years Experience • Advanced Postsecondary Degree with 5 Years or More Experience

Education Levels

Initials	Credential
H.S.E.	High School Diploma or Equivalency
P.A.	Postsecondary Nondegree Award
A.S. or A.A.	Associate Degree
B.S.	Bachelor's Degree
B.A.	Bachelor of Arts
B.B.A	Bachelor of Business Administration

On-the-Job Training

Short term on-the-job training | Moderate on-the-job training | Long term on-the-job training

Notes:
This map is grounded in data collected on the State of Michigan. Other cities or regions may pay different wages or require different skills, credentials, or work experience depending on their local employers.

This map was derived using labor market information data sources, Emsi and Burning Glass from Labor Insight, in November 2020. This information includes the *typical* wages and requirements for jobs and might not exactly match the positions identified by jobseekers. The data included in these maps are constantly updated.

Figure 16

Wholesale Food Distribution or Storage

Sales, Purchasing, and Administration Pathway

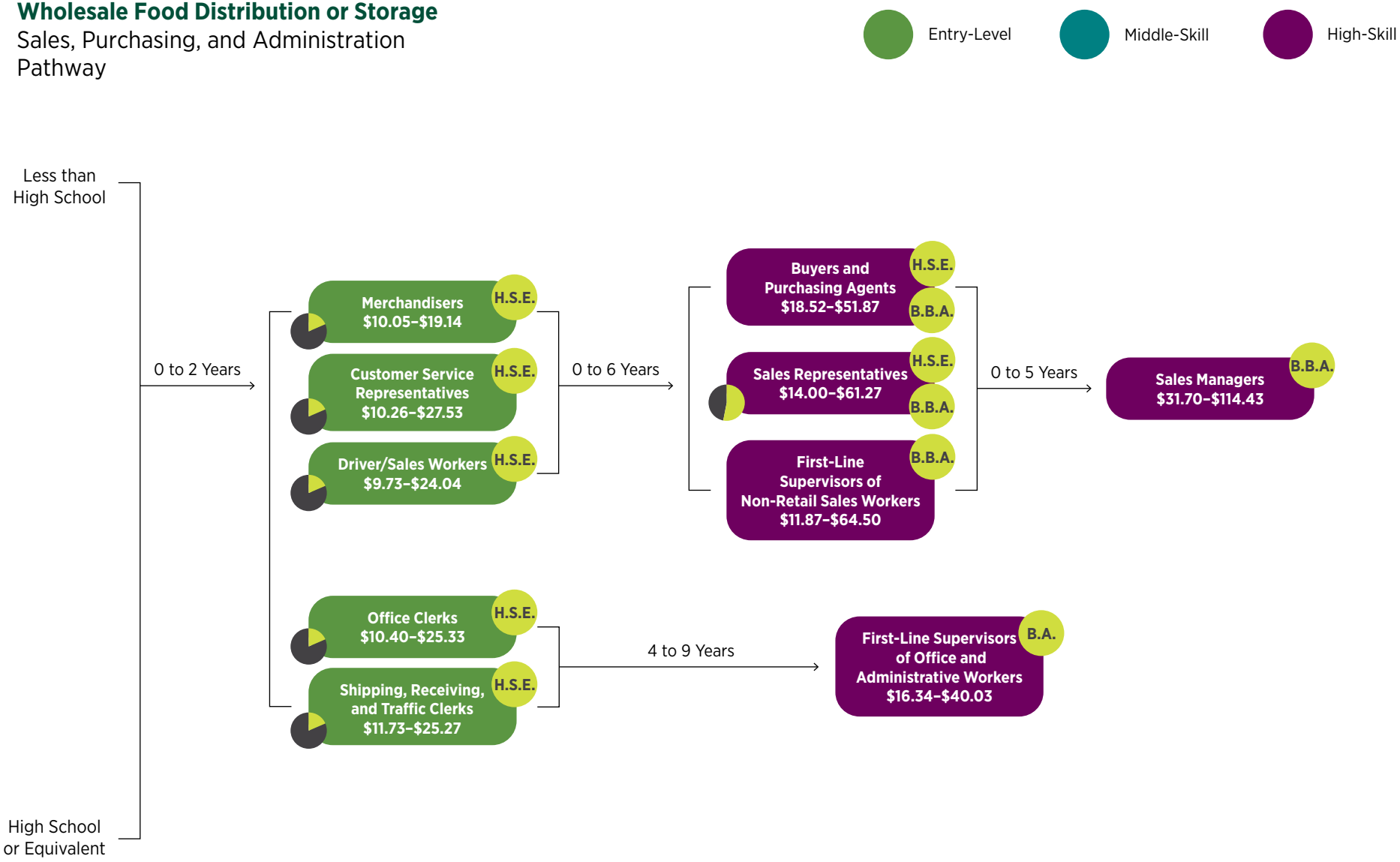


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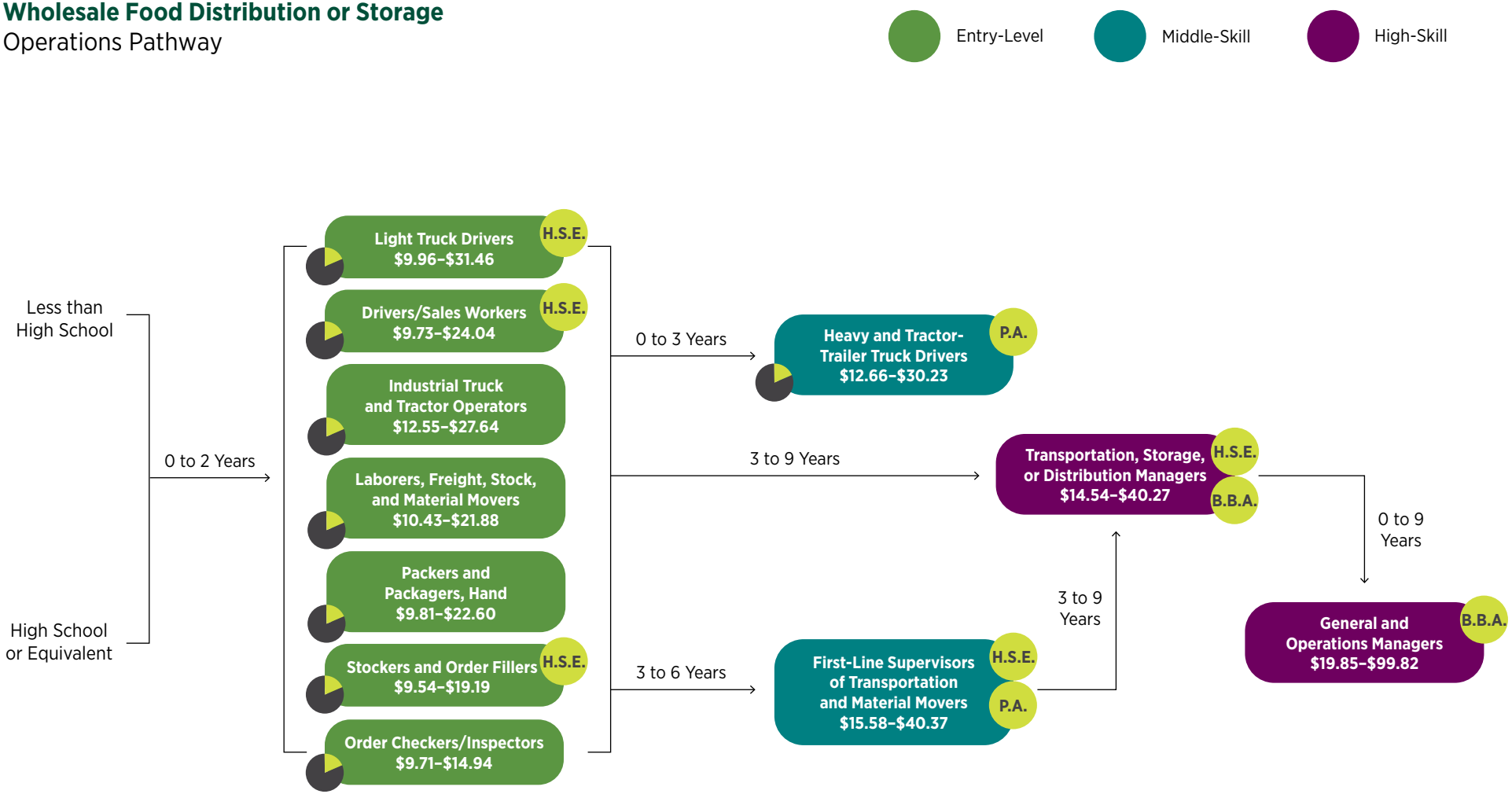
Figure 17

Wholesale Food Distribution or Storage
Operations Pathway



Education programs to pursue wholesale food distribution or storage careers

Examples of educational programs in Michigan where workers and jobseekers can obtain the skills needed for these roles are outlined in Table 24. This list is not exhaustive.

Table 24

Wholesale Food Distribution or Storage Educational Programs

Program Areas	Credential	Institutions
Operations	Medium/Heavy Vehicle and Truck Technology/Technician Certificate or Associate Degree	Baker College
	Truck and Bus Driver/Commercial Vehicle Operator and Instructor Certificate	Baker College Henry Ford College Gogebic Community College North Central Michigan College U.S. Truck Driver Training School Wayne County Community College District
	Truck Driver Entrepreneur Certificate	Montcalm Community College
	Global/Supply Chain Management Associate Degree	Macomb Community College Washtenaw Community College
	Certified Supply Chain Professional (CSCP) Exam Prep Certificate	Davenport University
	Purchasing and Supply Chain Management Purchasing and Supply Chain Management + Freight Broker/Agent Training Certificates	Central Michigan University
	Risk Management and Total Cost of Ownership for Supply Chain Certificate	Michigan Manufacturing Technology Center
	Supply Chain Operations Certificate	Washtenaw Community College
	Packaging Associate Degree and Packaging Science	Michigan State University
Sales, purchasing, and administration	Consumer Merchandising/Retailing Management Certificate, Associate, and Bachelor's Degree	Madonna University
	General Merchandising, Sales, and Related Marketing Operations, Other Associate or Bachelor's Degree	Baker College Eastern Michigan University
	Merchandising and Buying Operations Certificate and Associate Degree	Delta College Washtenaw Community College
	Selling Skills and Sales Operations Certificate and Associate Degree	Alpena Community College Ferris State University Jackson College Lansing Community College Washtenaw Community College
	Marketing Associate Degree	Lansing Community College
	Food and Consumer Package Goods Marketing—Bachelor Business Administration	Western Michigan University
	Sales, Distribution, and Marketing Operations, General Certificate and Associate Degree	Baker College Grand Rapids Community College Lansing Community College North Central Michigan College West Shore Community College

Food Preparation and Service

The food preparation and service pathway encompass occupations involved in the preparation, cooking, and serving of food. Most jobs in this subsector are in restaurants and other eating places.

Table 25 shows the industries within the food preparation and service subsector as well as employment numbers, projected 5-year growth, and average earnings.

Table 25

Employment in the Food Preparation and Service Industries

Food preparation and service industries	2020 employment	Projected 5-year growth	Average earnings
Special food services	24,383	-1%	$27,998
Restaurant and other eating places	294,507	0%	$20,544
Subsector overall	**318,890**	**0%**	**$21,113**

In each of these different organizations, the jobs and titles, pathways, pay, and work will be different. However, many workers in this field find themselves working for one of these types of organizations or with these products:

- Restaurant / Café, including fine dining, farm-to-table, and organically certified restaurants
- Fast food, deli
- Food trucks
- Dining service / cafeteria
- Grocery store to-go meals and other prepared foods

Occupations and demand in the food preparation and service subsector

Below are the top occupations in this subsector, their common job titles, the work involved, skills required, how much demand there is currently, and how much demand is expected in the future.

Table 26 provides food preparation and service sector employment data for the corresponding career pathway. The occupations are color coded by skill level for entry to the occupation. The color code is as follows:

Entry Level occupation (requires low skill level and limited experience)

Middle-Skill occupation (requires some skills and experience)

High-Skill occupation (requires considerable training and experience)

Table 26

Food Preparation and Service Pathway Employment Data

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food preparation and service	2020 Michigan employment in food preparation and service	Michigan projected 5-year growth in food preparation and service	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Fast food and counter workers	Perform duties such as taking orders and serving food and beverages. Serve customers at counter or from a steam table. May take payment. May prepare food and beverages.	Customer service, food preparation, food safety, food service experience, retail industry knowledge	103,910	104,193	4%	Very High	Entry level
Waiters and waitresses	Take orders and serve food and beverages to patrons at tables in dining establishment.	Customer service, food delivery, food preparation, customer checkout, cleaning	65,605	64,881	-1%	High	Entry level
Cooks, restaurant ▪ Line cook ▪ Prep cook	Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.	Cooking, food preparation, customer service, food safety, cleaning	34,814	35,017	6%	High	Entry level
Hosts and hostesses, restaurant, lounge, and coffee shop	Welcome patrons, seat them at tables or in lounge, and help ensure quality of facilities and service.	Guest services, cash handling, cleaning, restaurant experience, store operations	11,790	11,708	2%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food preparation and service	2020 Michigan employment in food preparation and service	Michigan projected 5-year growth in food preparation and service	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Dishwashers	Clean dishes, kitchen, food preparation equipment, or utensils.	Food preparation, cleaning, cooking, guest services, restaurant experience	11,402	11,235	-3%	High	Entry level
Cooks, fast food	Prepare and cook food in a fast food restaurant with a limited menu. Duties of these cooks are limited to preparation of a few basic items and normally involve operating large-volume, single-purpose cooking equipment.	Customer service, food preparation, product sales, teaching, restaurant experience	9,892	9,691	-5%	Low	Entry level
Food preparation workers ▪ Kitchen prep ▪ Kitchen staff	Perform a variety of food preparation duties other than cooking, such as preparing cold foods and shellfish, slicing meat, and brewing coffee or tea.	Food preparation, cooking, cleaning, food safety, food service experience	8,747	8,718	2%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food preparation and service	2020 Michigan employment in food preparation and service	Michigan projected 5-year growth in food preparation and service	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Dining room and cafeteria attendants and bartender helpers ▪ Busser ▪ Server assistant ▪ Barback	Facilitate food service. Clean tables; remove dirty dishes; replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, and dishes; supply service bar with food; and serve items such as water, condiments, and coffee to patrons.	Cleaning, food preparation, bartending, restaurant experience, customer service	7,620	7,578	1%	Medium	Entry level
Cashiers	Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks.	Customer service, cash handling, basic math, customer checkout, guest services	7,515	7,443	-1%	Very High	Entry level
Bartenders	Mix and serve drinks to patrons, directly or through waitstaff.	Bartending, guest services, sales, cash handling, upselling products and services	6,783	6,752	2%	Medium	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food preparation and service	2020 Michigan employment in food preparation and service	Michigan projected 5-year growth in food preparation and service	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Driver/sales workers ▪ Delivery driver ▪ Catering driver	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery.	Order correction, cash handling, pizza delivery, customer service, repair	5,195	5,089	-5%	Very High	Entry level
Cooks, short order	Prepare and cook to order a variety of foods that require only a short preparation time. May take orders from customers and serve patrons at counters or tables.	Food preparation, food service experience, scheduling, customer service, cleaning	2,085	2,048	-4%	Medium	Entry level
Cooks, institution and cafeteria	Prepare and cook large quantities of food for institutions, such as schools, hospitals, or cafeterias.	Customer service, food service experience, cooking, training programs, safety training	1,469	1,460	-6%	Low	Entry level

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food preparation and service	2020 Michigan employment in food preparation and service	Michigan projected 5-year growth in food preparation and service	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Bakers	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.	Customer service, retail industry knowledge, cash handling, sales, food preparation	1,282	1,280	2%	Medium	Entry level
Light truck drivers	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle.	Customer service, vehicle inspection, hand trucks, repair, basic math	927	924	2%	High	Entry level
Pastry chef (bakers)	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.	Cooking, food preparation, scheduling, food safety, event catering	NA	NA	NA	NA	Middle-skill
First-line supervisors of food preparation and serving workers ▪ Shift leader ▪ Shift supervisor ▪ Team leader	Directly supervise and coordinate activities of workers engaged in preparing and serving food.	Retail industry knowledge, customer service, cash handling, restaurant management, food safety	23,073	23,010	2%	High	Middle-skill

Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food preparation and service	2020 Michigan employment in food preparation and service	Michigan projected 5-year growth in food preparation and service	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
Food service managers ▪ Shift manager ▪ Assistant manager ▪ Restaurant manager	Plan, direct, or coordinate activities of an organization or department that serves food and beverages.	Restaurant management, food safety, scheduling, cost control, guest services	5,683	5,690	2%	Very High	Middle-skill
Sous chefs (chefs and head cooks)	Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.	Cooking, cost control, staff management, food preparation, budgeting	1,945	1,945	2%	Medium	Middle-skill
Executive chefs (chefs and head cooks)	Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.	Cooking, cost control, food preparation, scheduling, staff management	1,945	1,945	2%	Medium	High-skill

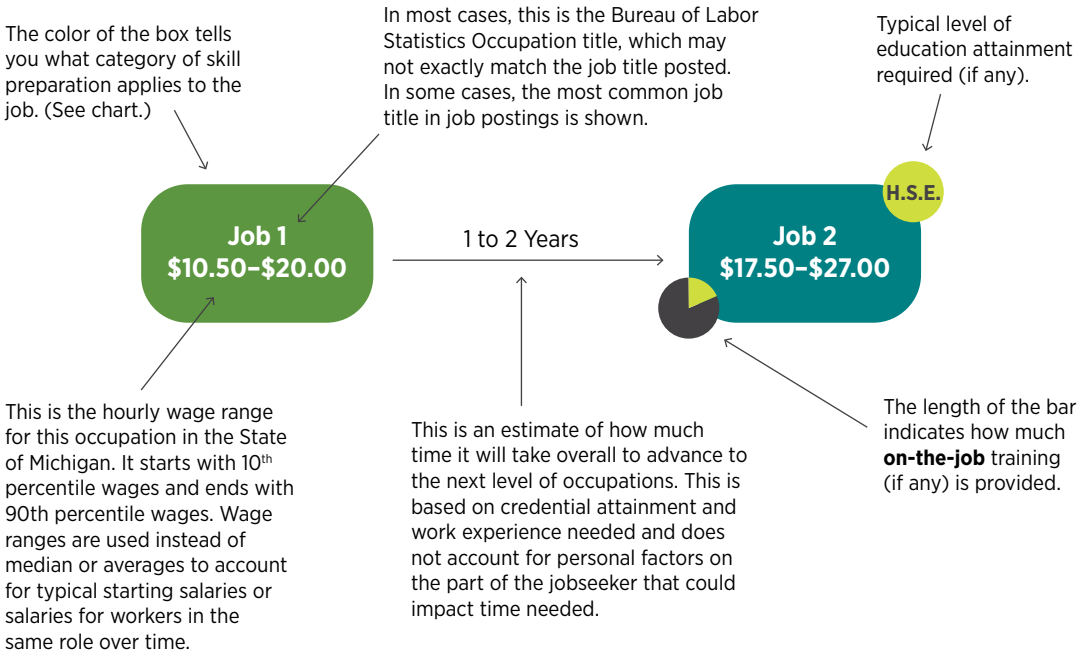
Occupation and common titles in Michigan job postings	O*NET description	Top skills requested in Michigan job postings	2019 Michigan employment in food preparation and service	2020 Michigan employment in food preparation and service	Michigan projected 5-year growth in food preparation and service	Michigan current demand level for occupation (across all industries)	Skill level for entry into the occupation
General and operations managers ▪ District manager ▪ Area manager ▪ Food and beverage operations manager	Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes first-line supervisors.	Budgeting, operations management, scheduling, cost control, staff management	1,747	1,744	2%	Very High	High-skill

What are the career pathways for food preparation and service?

The maps below indicate the most common occupations in this field as well as wages, opportunities for advancement, typical time to advance, education required and on-the-job training.

Figure 18

Michigan's Food System Career Pathway Map Key



Skill Levels

Color	Preparation Level	Definition
	Entry-Level	• High School Diploma or No High School Diploma
	Middle-Skill	• Basic Postsecondary Certificate • Advanced Postsecondary Certificate • Associate Degree • High School Diploma with Experience
	High-Skill	• Bachelor's Degree • Associate Degree with 5 Years Experience • Advanced Postsecondary Degree with 5 Years or More Experience

Education Levels

Initials	Credential
H.S.E.	High School Diploma or Equivalency
P.A.	Postsecondary Nondegree Award
A.S. or A.A.	Associate Degree
B.S.	Bachelor's Degree
B.A.	Bachelor of Arts
B.B.A	Bachelor of Business Administration

On-the-Job Training

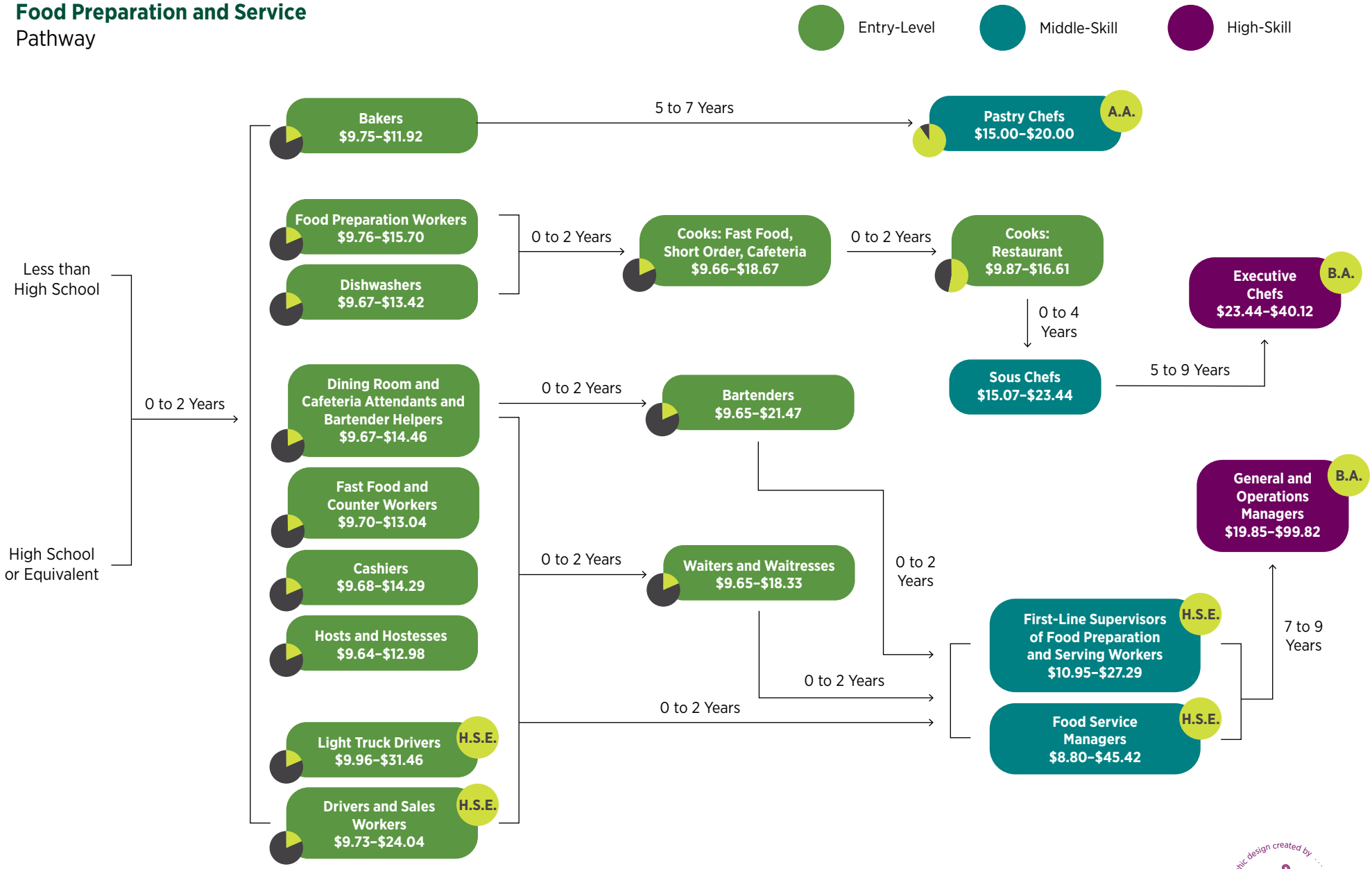
Short term on-the-job training | Moderate on-the-job training | Long term on-the-job training

Notes:
This map is grounded in data collected on the State of Michigan. Other cities or regions may pay different wages or require different skills, credentials, or work experience depending on their local employers.

This map was derived using labor market information data sources, Emsi and Burning Glass from Labor Insight, in November 2020. This information includes the *typical* wages and requirements for jobs and might not exactly match the positions identified by jobseekers. The data included in these maps are constantly updated.

Figure 19

Food Preparation and Service
Pathway



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Education programs to pursue food preparation and service careers

Examples of educational programs in Michigan where workers and jobseekers can obtain the skills needed for these roles are outlined in Table 27. This list is not exhaustive.

Table 27

Food Preparation and Service Educational Programs

Program area	Credential	Institutions
Culinary arts	Culinary and Dietary Operations Management Bachelor's Degree	Schoolcraft College
	Culinary Arts Job Training Programs	Food Gatherers Kalamazoo Valley Community College/Bronson Healthcare partnership Restaurant Opportunities Centers United Zaman International
	Culinary Arts K-12	Huron Intermediate School District Jackson Area Career Center L'Anse Creuse Intermediate School District Career and Technical Education Program Traverse Bay Area Intermediate School District (TBAISD)
	Culinary Arts and Hospitality Bachelor's Degree	Jackson College
	Culinary Arts and Hospitality K-12 education	Oakland Schools Technical Campuses Calhoun Area Career Center
	Culinary Arts/ Culinary Arts and Related Services/ Culinary Arts Chef Training Associate Degrees	Bakers College Grand Rapids Community College Henry Ford College Kalamazoo Valley Community College Macomb Community College Monroe County Community College Mott Community College Oakland Community College Northwestern Michigan College Schoolcraft College The Art Institute of Michigan
	Culinary Arts/ Culinary Arts and Related Services/ Chefs Training Certificates	Alpena Community College Dorsey Business Schools-Waterford Pontiac Dorsey Business Schools-Roseville Culinary Academy Emerging Industries Training Institute Ferris State University Grand Rapids Community College Henry Ford College Jackson College Kalamazoo Valley Community College Kitchen Sage Macomb Community College Michigan Career and Technical Institute Mott Community College Monroe County Community College Northwestern Michigan College Operation ABLE of Michigan – Detroit PIC Food Safety

Program area	Credential	Institutions
		Schoolcraft College The Art Institute of Michigan The Galley Washtenaw Community College
	Culinary Arts/ Culinary Arts/ Culinary Arts and Related Services Bachelor's Degree	Henry Ford College Siena Heights University
	Culinary Baking and Pastry Arts	Schoolcraft College
Food service	Food Service Operations and Sustainability Bachelor's Degree	Western Michigan University
	Food Service, Waiter/Waitress, and Dining Room Management/Manager Certificate	Henry Ford College
	Foodservice Systems Administration/Management Associate Degree	Mott Community College Northern Michigan University Wayne County Community College District
	Foodservice Systems Administration/Management Bachelor's Degree	Central Michigan University
	Foodservice Systems Administration/Management Certificate	Wayne County Community College District
	Institutional Food Workers Associate Degree	Washtenaw Community College
	ServSafe Food Handler Certificate	Michigan Restaurant Association
	ServSafe Food Manager Certificate	Michigan Restaurant Association
	Allergens Training Certificate	Michigan Restaurant Association
	Line Cook Certificate	Greenhorn Training
	Personal Chef Certificate	Grand Rapids Community College
	Mobile Community Kitchen Job Training Program	Kalamazoo Valley Community College/Bronson Healthcare partnership
Management	Restaurant, Culinary, and Catering Management/Manager Associate Degree	Bakers College Ferris State University Grand Rapids Community College Jackson College Lake Michigan College Macomb Community College
	Restaurant, Culinary, and Catering Management/Manager Bachelor's Degree	Baker College The Art Institute of Michigan
	Restaurant, Culinary, and Catering Management/Manager Certificate	Ferris State University Grand Rapids Community College Henry Ford College Jackson College
	Restaurant/Food Services Management Associate Degree	Cleary University Oakland Community College
	Restaurant/Food Services Management Master's Degree	Michigan State University
	Restaurant/Food Services Management Certificate	Dorsey Business Schools-Roseville Lansing Community College Washtenaw Community College
	Hotel Restaurant Management Associate Degree	Henry Ford College
Bartending	ServSafe Alcohol Certificate	Michigan Restaurant Association
	Bartender Certificate	Greenhorn Training
Baking	Baking and Pastry Arts Certificate	Dorsey School of Business - Roseville Grand Rapids Community College

Program area	Credential	Institutions
	Baking and Pastry Arts/Baker/Pastry Chef Associate Degree	Bakers College Macomb Community College Mott Community College Washtenaw Community College
	Baking and Pastry Arts/Baker/Pastry Chef Certificate	Bakers College Henry Ford College Macomb Community College Mott Community College Northwestern Michigan College Oakland Community College Schoolcraft College The Art Institute of Michigan Washtenaw Community College

CSW catalyzes change in educational and labor market systems, policies and practices to increase economic mobility, particularly for people of color and others historically excluded from success. We focus on achieving scalable improvements in worker skills, lifelong learning, and job quality. CSW collaborates with change makers to develop strategies, identify evidence to inform strategies, build the capacity of organizations, manage initiatives, and evaluate lessons learned.

The Michigan State University Center for Regional Food Systems advances regionally rooted food systems through applied research, education, and outreach by uniting the knowledge and experience of diverse stakeholders with that of MSU faculty and staff. Our work fosters a thriving economy, equity, and sustainability for Michigan, the nation, and the planet by advancing systems that produce food that is healthy, green, fair, and affordable. Learn more at foodsystems.msu.edu.