



Handout 06.18: Food Systems Careers Cards

Name: _____ Date: _____

Lesson 6.18. Pages 1 to 3 are the thirteen career cards, cut apart, one set per pair. Page 4 is the chain mat and the education sort strip. Page 5 is the “would I like this” self-check and the Long Island jobs page. Page 6 is the Four Links review game cards for Day 2. Page 7 is the teacher key.

All pay ranges are marked [**update**] and should be filled from the U.S. Bureau of Labor Statistics Occupational Outlook Handbook ([bls.gov/ooh](https://www.bls.gov/ooh)) and New York State Department of Labor wage data for the Long Island region.

Pages 1 to 3. The Thirteen Career Cards (cut apart)

Every card has the same five lines: the link in the chain, a day in the job, the training, the pay range, and one thing most people do not know.

1. FARMER or GROWER

Link: GROW **A day:** Out before light. Check the fields or the greenhouse, the water, the weather forecast, the equipment. Decide what gets planted, what gets picked today, and what gets sold where. In season the day ends when the work ends. **Training:** No degree required to farm. Many farmers learn from family. A two- or four-year degree in agriculture, horticulture, or agricultural business helps with the business side. Apprenticeships exist on organic and small farms. **Pay:** *[update]* Highly variable; depends on the crop, the acreage, and the weather. **Most people do not know:** a farmer is running a small business with weather as a partner. The hardest part of the job is usually the math, not the lifting.

2. FOOD SCIENTIST

Link: STUDY and PROCESS **A day:** In a lab or a test kitchen. Change one thing in a formula and see what happens to the taste, the texture, or how long it lasts. Write up the result. Meet with the company about whether the new version can be made at scale. **Training:** A four-year degree in food science, chemistry, or biology. Many have a master's or a doctorate. **Pay:** *[update]* One of the higher-paying jobs in the chain. **Most people do not know:** the quick bread lab we ran, four batches with one variable changed, is exactly what this job does all day.

3. FOOD SAFETY INSPECTOR

Link: INSPECT **A day:** Walk into a restaurant, a food plant, or a school kitchen with a clipboard or a tablet. Check refrigerator temperatures, handwashing sinks, the way raw and cooked food are stored, the records. Write the report. If it is bad enough, close the kitchen. **Training:** A four-year degree, usually in environmental health, food science, or biology, plus a state or county exam and on-the-job training. Some counties hire with an associate degree plus experience. **Pay:** *[update]* A government salary with benefits and a pension. **Most people do not know:** this person has legal authority. They can shut a business down that day, and nobody argues with them.

4. FOOD PROCESSING TECHNICIAN

Link: PROCESS **A day:** Run and monitor the machines in a plant that turns raw food into a packaged product: milk into cheese, wheat into flour, tomatoes into sauce. Check temperatures, weights, and seals. Log everything. Shut the line down if something is off. **Training:** High school plus on-the-job training. A certificate or a two-year degree in food processing technology or industrial maintenance moves you up fast. **Pay:** *[update]* Often includes shift differential for nights. **Most people do not know:** there are a lot of these jobs

and most people have never heard of them. It is one of the easiest doors into the food industry.

5. SUPPLY CHAIN AND LOGISTICS COORDINATOR

Link: MOVE **A day:** At a desk with a phone and three screens. Decide which truck goes where, when, and with what on it. Fix it when a truck breaks down or a shipment is short. Talk to the plant, the warehouse, the driver, and the store all in one hour. **Training:** A two- or four-year degree in supply chain management, logistics, or business. Some people start as a warehouse worker or a dispatcher and move up. **Pay:** *[update]* Solid, with room to grow into a management salary. **Most people do not know:** this job did not exist in anything like its current form fifty years ago. Software and national distribution made it, and there are a lot of openings.

6. GROCERY BUYER

Link: SELL **A day:** Decide what the store will carry, how much, and at what price. Negotiate with suppliers. Read sales data. Build the weekly circular: which items go on sale, at what price, on which page. **Training:** A four-year degree in business, marketing, or agricultural economics. Many buyers started as store employees and moved into the office. **Pay:** *[update]* A business salary, often with a bonus tied to sales. **Most people do not know:** the prices we used in this project were set by somebody with this job. The circular is a decision, not a fact.

7. GROCERY STORE MANAGER

Link: SELL **A day:** Open the store or close it. Schedule 60 to 200 people. Handle the shipment that came in short, the cooler that failed, the customer who is upset, and the inventory count. Walk the floor constantly. **Training:** High school plus years of store experience is the most common path. A two- or four-year degree in business speeds it up. **Pay:** *[update]* Competitive, with long hours and weekends. **Most people do not know:** most supermarket managers started as a teenager bagging groceries or stocking shelves. It is a climbable ladder.

8. CHEF or LINE COOK

Link: COOK **A day:** Come in hours before service. Prep everything (mise en place). Then service: cook 80 to 300 plates in three or four hours, to the same standard every time, in the heat, standing. Clean. Do it again tomorrow. Nights, weekends, and holidays. **Training:** No degree required. Start as a dishwasher or prep cook and climb. A culinary certificate or an associate degree speeds it up. **ServSafe** food safety certification is often required of a supervisor and can be earned in high school. **Pay:** *[update]* Line cooks start low. An executive chef earns much more, after years. **Most people do not know:** television makes this job look like fame. It is mostly repetition, heat, and speed, and the people who love it love the repetition.

9. BAKER

Link: COOK **A day:** Start between 2 and 5 in the morning. Mix, shape, proof, bake, finish. Everything is measured by weight and by time, and a five-minute mistake is a ruined batch. Done by early afternoon. **Training:** On-the-job training, a registered apprenticeship, or a baking and pastry certificate. Very little of this job requires a four-year degree. **Pay:** *[update]* Production bakers start modestly; a skilled pastry position pays more. **Most people do not know:** baking is the most scientific cooking job. The leavening lab in this unit is a baker's daily problem.

10. CATERER

Link: COOK and SERVE **A day:** Half the job is food and half is planning and selling. Meet the client. Price the event. Buy for 40 or 400. Cook off-site, transport it hot or cold, set it up, serve it, break it down, and get paid. **Training:** Any of the above, because most caterers own the business. Food safety certification is usually required by the county. Business skills matter as much as cooking skills. **Pay:** *[update]* It is a business, so it depends on how the business is run. **Most people do not know:** this is the job most like the Feed the Class project. Scale a recipe, price it, build a flowchart, execute it in one shot, clean up, and answer for the cost.

11. REGISTERED DIETITIAN

Link: STUDY **A day:** In a hospital, a school district, a clinic, or a nursing home. Read charts. Meet patients or clients. Write eating plans for real medical conditions. Train kitchen staff. Write reports for insurance and for the state. **Training:** A four-year degree, then a graduate degree (required to sit for the exam since 2024), a supervised internship, and a national exam, then state licensure. **Pay:** *[update]* A professional salary with benefits. **Most people do not know:** "nutritionist" is not a protected title in many places, but "registered dietitian" is. The credential is the difference.

12. FOOD PHOTOGRAPHER or FOOD STYLIST

Link: SELL **A day:** A studio or a kitchen with lights. Make food look the way it looks on a menu or a package. Two hours on one plate. Half the job is technical (light, lens, color) and half is patience. **Training:** No degree required. A portfolio is the qualification. Photography or design coursework, and often a lot of unpaid practice, is how people start. **Pay:** *[update]* Freelance and uneven, especially early. **Most people do not know:** this job barely existed as a full-time career fifty years ago. Phones, packaging, and delivery apps made it.

13. AGRICULTURAL ENGINEER

Link: GROW and MOVE **A day:** Design the equipment and the systems a farm runs on: irrigation, greenhouse climate control, harvesting machinery, storage that keeps food from spoiling. Part office, part field. **Training:** A four-year degree in agricultural, biological, or mechanical engineering. A professional engineering license for some roles. **Pay:** *[update]* An engineering salary. **Most people do not know:** a big part of reducing food waste



worldwide is an engineering problem, not a cooking problem: better storage, better cooling, better transport.

The fourteenth card (grade 8 stretch). Write your own.

Job title: _____ **Link:** _____

A day: _____

Training: _____

Pay: _____

One thing most people do not know: _____

Does it exist within 25 miles of here? Where? _____

Page 4. The Chain Mat and the Education Sort Strip

The chain mat (place all thirteen cards)

Link	Cards that belong here
GROW (farms, ranches, orchards, fisheries)	
PROCESS (turning raw food into a product)	
INSPECT (making sure it is safe and labeled right)	
MOVE (trucks, warehouses, distribution)	
SELL (stores, buyers, marketing)	
COOK (restaurants, bakeries, caterers, schools)	
SERVE (getting it to the person who eats it)	
STUDY (science, nutrition, research)	

Some cards belong in more than one link. Write them in both and be ready to say why.

The education sort strip (re-sort the same thirteen cards)

No degree needed (on-the-job training or a short certificate)	Certificate or apprenticeship	Two-year degree	Four-year degree or more

One job in each column: 1. _____ 2. _____ 3. _____ 4. _____

The two cards that were hardest to place: _____ and _____

Why they were hard: _____

The five training paths

Path	What it is	Earliest a person could start
1. On-the-job training	You get hired and they teach you	_____

2. A short food safety certificate (ServSafe)	A course and an exam. Food Handler is short; Food Protection Manager is the one many restaurants require of a supervisor. High school CTE programs can offer it	_____
3. A registered apprenticeship	Paid work plus required classroom hours, registered with the state	_____
4. A certificate or a two-year (associate) degree	Community college, one or two years	_____
5. A four-year (bachelor's) degree or more	College, and for some jobs a master's, a doctorate, or a license	_____

Page 5. "Would I Like This?" and the Long Island Jobs Page

Would I like this? (pick two cards: one you would consider, one you would not)

	Card I would consider: _____	Card I would not: _____
The part of the day I would like		
The part of the day I would not like		
The training this needs		
Am I willing to do that training?	YES / NO / MAYBE	YES / NO / MAYBE
Does this job exist near here?	YES / NO / NOT SURE	YES / NO / NOT SURE

One sentence: "I would / would not want to be a _____ because _____."

Compare to the fall. Pull the career self-check you wrote in Lesson 1.22, back in Unit 1. Did your answer change? ____ How? _____

The closing question: Which link in the chain has the **most** jobs? _____ Which link has the jobs **nobody** applies for? _____

The Long Island jobs page

Circle every job on the career cards that exists within about 25 miles of this school. Use this page to help. [Sal: correct and localize this page for your school's actual neighborhood before printing. The items below are true of Long Island generally; the distances are yours to fill in.]

What is here	Which career cards it holds
Farms and vineyards on the North Fork and the East End , including vegetable farms, sod and nursery growers, duck farms, and wineries. Many run farm stands and sell at markets	Farmer or grower; agricultural engineer; food safety inspector
Farmers markets in most towns, spring through fall	Farmer or grower; caterer; food photographer
Shellfish and fishing on Long Island Sound, the bays, and the ocean , including oyster and clam aquaculture and commercial fishing out of Montauk	Farmer or grower (aquaculture); processing technician; food safety inspector
Supermarket chains headquartered or	Grocery buyer; grocery store manager;

heavily located on Long Island. King Kullen is a Long Island company and is widely credited as the first American supermarket, opened in Queens in 1930. The circular we priced this project from was written by somebody with the buyer's job	logistics coordinator
Food distribution warehouses and trucking, moving product from the regional markets and ports out to stores across the Island	Logistics coordinator; processing technician
Restaurants, delis, bagel shops, pizzerias, and bakeries in every town, plus heavy seasonal catering on the East End and the beaches	Chef or line cook; baker; caterer; food photographer
Hospitals, nursing homes, and school districts, each with a food service operation and, in most cases, a dietitian	Registered dietitian; chef or line cook; food safety inspector
The Suffolk County and Nassau County health departments, which inspect every food business	Food safety inspector
Cornell Cooperative Extension of Suffolk County, which runs agriculture, marine, and nutrition programs and works with schools	Food scientist; registered dietitian; farmer or grower; agricultural engineer
Food pantries and food rescue organizations across both counties	Logistics coordinator; caterer; registered dietitian

Two jobs near here I did not know existed: _____ and _____

Page 6. Four Links: the Review Game (Day 2, 15 minutes)

Four teams, the same station teams. Twenty-four cards in four piles. The teacher reads a card; every team writes an answer on its board and holds it up on the cue. **A correct answer is 1 point. A correct answer with a reason is 2 points.** The class master flowchart, the four station posters, and the two waste numbers are on the walls and are fair game.

Pile 1: Where Food Comes From (Topic 6.1)

1. Put these four in order from farm to plate: retailer, producer, distributor, processor.
2. What are food miles, and why would a shorter number matter?
3. Name two things from the state's own list that can affect the food supply.
4. What is a food desert, and name one thing a community can do about it.
5. What did our own food waste audit measure, and what was the number?
6. Name one sustainable farming or food practice and say what problem it solves.

Pile 2: Methods and Science (Topic 6.2)

7. Dry heat or moist heat: bake, simmer, broil, steam. Sort all four.
8. In the quick bread lab, what was the variable and what were the controls?
9. What does baking powder do that baking soda alone does not?
10. Name one dish we made and one cooking method it used, and say why that method fit.
11. On a place setting, where do the fork, the spoon, and the cup go?
12. Name the same dish in two different cuisines and one thing that changes between them.

Pile 3: The Feed the Class System (Topic 6.3)

13. A recipe makes 4 and you need 28. What is the scale factor, and how did you get it?
14. A recipe needs 3 cups of sauce and the store sells 24 ounce jars. How many jars, and why?
15. Why do you always round up and never down?
16. Store brand: 8 oz for \$1.99. Name brand: 12 oz for \$3.49. Which is cheaper per ounce?
17. What is a critical path? Name your own station's.
18. What is the rule about the clock when a dish is running late?
19. Why does one shopping list beat four?
20. Name three things on the twelve-item approval checklist.
21. What was our class cost per person, planned and actual?

Pile 4: Careers (Topic 6.4)

22. Name the job that can legally close a kitchen down, and the link it works at.
23. Name a food-chain job that needs no degree and one that needs a four-year degree or more.
24. What is ServSafe and why would a high school student want it?

Teacher key

Page 4: the chain mat

Link	Cards
GROW	Farmer or grower; agricultural engineer
PROCESS	Food processing technician; food scientist
INSPECT	Food safety inspector
MOVE	Supply chain and logistics coordinator; agricultural engineer
SELL	Grocery buyer; grocery store manager; food photographer or stylist
COOK	Chef or line cook; baker; caterer
SERVE	Caterer; chef or line cook; grocery store manager
STUDY	Food scientist; registered dietitian

Cards that legitimately sit in more than one link: food scientist (PROCESS and STUDY), agricultural engineer (GROW and MOVE), caterer (COOK and SERVE), chef or line cook (COOK and SERVE), grocery store manager (SELL and SERVE). A pair that puts a card in two links and can say why is right, not wrong.

Page 4: the education sort

No degree needed	Certificate or apprenticeship	Two-year degree	Four-year degree or more
Chef or line cook (start as dishwasher or prep); grocery store manager (common path); food processing technician; farmer or grower (family farm); food photographer (portfolio, not a degree)	Baker (apprenticeship or baking certificate); chef or line cook (culinary certificate, ServSafe); caterer (food safety certificate plus business skills)	Supply chain and logistics coordinator; food processing technician (to move up); food safety inspector (some counties, with experience)	Food scientist; registered dietitian (graduate degree required); agricultural engineer; grocery buyer; food safety inspector (most positions)

Any card placed in a column the pair can defend counts. **Ten out of thirteen matching this key is the check-for-understanding bar.**

The two cards that move the most are the **caterer** (any column, because most caterers own the business) and the **baker** (on the job, an apprenticeship, or a culinary certificate).

Let the pairs argue about both. The honest answer is “it depends on the business,” and that is the lesson.

Page 4: the five paths, earliest start

1. On-the-job training: as soon as a student can legally work. In New York that means working papers for anyone under 18, issued through the school. *[Sal: confirm your school's process and who signs.]*
2. ServSafe: a high school student can take it, and CTE programs offer it. *[Sal: confirm whether your school or the local BOCES can proctor, and what the exam costs.]*
3. Registered apprenticeship: generally 16 or older for most programs; some require 18 for food-industry placements. *[Sal: confirm with the NYS Department of Labor apprenticeship office.]*
4. Certificate or associate degree: right after high school, and some students start dual-enrollment in grade 11 or 12.
5. Bachelor's or more: right after high school.

Page 5: the closing question

The most jobs: SELL and COOK, by a wide margin. Retail food and food service employ far more people than any other link. **The jobs nobody applies for:** PROCESS and MOVE. The processing technician and the logistics coordinator are the two cards students have never heard of, and both links have openings. Spend a full minute on each in Step 1.

Page 6: the review game answers

1. Producer, processor, distributor, retailer.
2. The miles a food travels from where it was grown to where it is sold. Fewer miles usually means fresher, less fuel burned, and often a lower price. Reason for the second point: any one of those three.
3. Any two from the state's own list: geography, climate, economics, transportation systems, farming methods, energy, population density, political systems, natural disasters, food waste.
4. An area where people do not have reasonable access to a store selling enough affordable, fresh food. One response: a farmers market or mobile market, a community garden, a food pantry, better bus service, a store that accepts SNAP, a corner store produce program.
5. How much food was thrown away in our own room or cafeteria. *[Sal: the number is on the wall from Lesson 6.3. Fill it in here after that lesson runs.]*
6. Composting (returns nutrients to soil, keeps food out of landfills); crop rotation (keeps soil from wearing out); drip irrigation (uses less water); buying local and in season (fewer food miles); reduced packaging (less material made and thrown away); a school garden (food with almost no transport).
7. Dry heat: bake, broil. Moist heat: simmer, steam.
8. Variable: the leavening (baking powder, baking soda, both, neither). Controls: the same flour, the same liquid, the same pan, the same oven temperature, the same bake time.

9. Baking powder already has both the base and the acid in it, so it works with any liquid. Baking soda needs an acid in the recipe (buttermilk, yogurt, vinegar, lemon) to react. *[Sal: the Topic 6.2 writer's Lesson 6.7 is the authority on how this was taught; match the wording used there.]*
10. Any correct pairing from Lessons 6.7 to 6.9: quick bread and baking (dry heat, sets the structure); pasta and boiling then simmering (moist heat, needed to hydrate the starch); quesadillas and a griddle or oven (dry heat, browns the tortilla and melts the cheese).
11. Fork left, spoon right, cup above the plate and to the right.
12. Any dish from Lesson 6.10 named in two cuisines, plus one change: the spice, the starch, the fat, the wrapper, the cooking vessel, or how it is served.
13. **7. 28 divided by 4.**
14. 3 cups is 24 fluid ounces, and 24 divided by 24 is 1, so **1 jar**, exactly enough with no margin. A team that answers 2 for safety is thinking like a cook and gets the point if they say why.
15. Because running out at minute 30 is the one mistake you cannot fix, and the store does not sell part of a package.
16. Store brand: $\$1.99 \div 8 =$ about **\$0.249 per ounce**. Name brand: $\$3.49 \div 12 =$ about **\$0.291 per ounce**. **The store brand.**
17. The one step everything else waits on. Station answers: A the water boiling; B the oven reaching 400; C the beans warming; D the oven and the butter softening; E none, and saying "none, because nothing waits on anything" is a full-credit answer.
18. The clock is not negotiable, the presentation is. Plates go down at minute 29 whatever state the dish is in.
19. One list means one trip, no duplicate buying, nothing forgotten, and a total you can check against the budget. Four lists means four of each problem.
20. Any three of the twelve: one line per item; a size and a price on every line; sorted by store section; at or under budget; a swap named on every line; the yield check clears 30; nothing on the allergy list; no knife, fryer, or raw meat; paper goods counted; every station card item on the list; nothing the room already owns; signed and dated.
21. Planned about **\$2.77** per person from the class total of \$77.50, or \$2.70 at \$75.50 after the fixes. Actual is whatever the receipt said. *[Sal: fill in your real numbers.]*
22. The **food safety inspector**, at the INSPECT link.
23. No degree: chef or line cook, grocery store manager, processing technician, farmer, food photographer. Four-year or more: food scientist, registered dietitian, agricultural engineer, grocery buyer, food safety inspector.
24. A food safety certification program. The Food Handler level is short; the Food Protection Manager level is what many restaurants require of a supervisor. A high school student can earn it, and it is the difference between an application that gets a call and one that does not.



Scoring the game

Keep it fast. Read a card, give 20 seconds, cue the boards up, award 1 or 2, move on. Twenty-four cards in 15 minutes means about 35 seconds per card including scoring, so do not debate. If a team's answer is arguable, give the point and move on; the argument belongs in the debrief, and there is no debrief today because the test is next.

What this lesson does not cover, and where it goes

Resume writing, interviewing, and the pitch are Unit 7. The self-check from this lesson and the one from Lesson 1.22 are the two documents Unit 7 Lesson 7.2 builds the resume from. Keep both in the FACS folder.