

Food and Agriculture as Ingredients of Economic Development

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Why food + agriculture?

When we think of economic development, we might not first think of food and agriculture, but...

- Agriculture remains an important activity in rural Ohio communities
- Our state contains or is proximate to many urban centers of the US and the consumers living in them

The geography of food and agriculture in Ohio

Food and agriculture over time in Ohio

From 2012 to 2017...

- Number of farms in Ohio increased (to 77,805)
- Sales of agricultural products declined (to ~\$9.3 billion)

We are incredibly productive in using natural and human resources to produce food and agricultural products

Value added from food and agriculture

Value added is one way to measure the importance of food and agriculture in various parts of Ohio

What is ***value added*** for a sector?

- Sales minus input costs, or the amount of value that's *added* by a particular part of the supply chain
- Consistent with the measurement of Gross State Product (GSP)

Role of food + agriculture: state vs. county

We can look at *value added* by a county from two perspectives

- Value added as a share of total value added in the state
- Value added as a share of total value added in the county

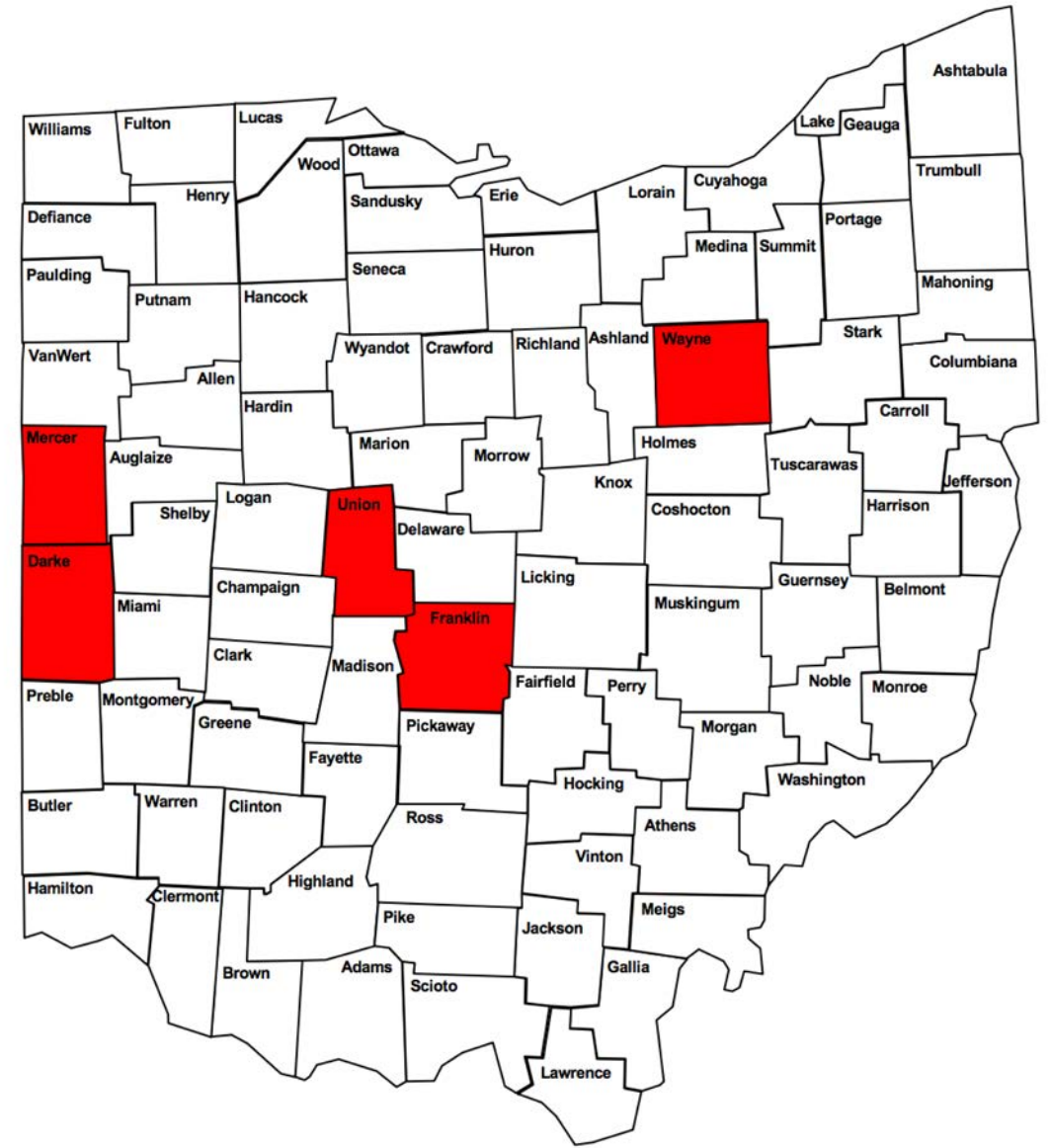
Why is it important to distinguish between these two?

- Large share of county value added may come from food and agriculture, even if a small share of state
- Tells us about role of food and agriculture at different scales of economy

Value added from agricultural production

Top 5 (% of state)

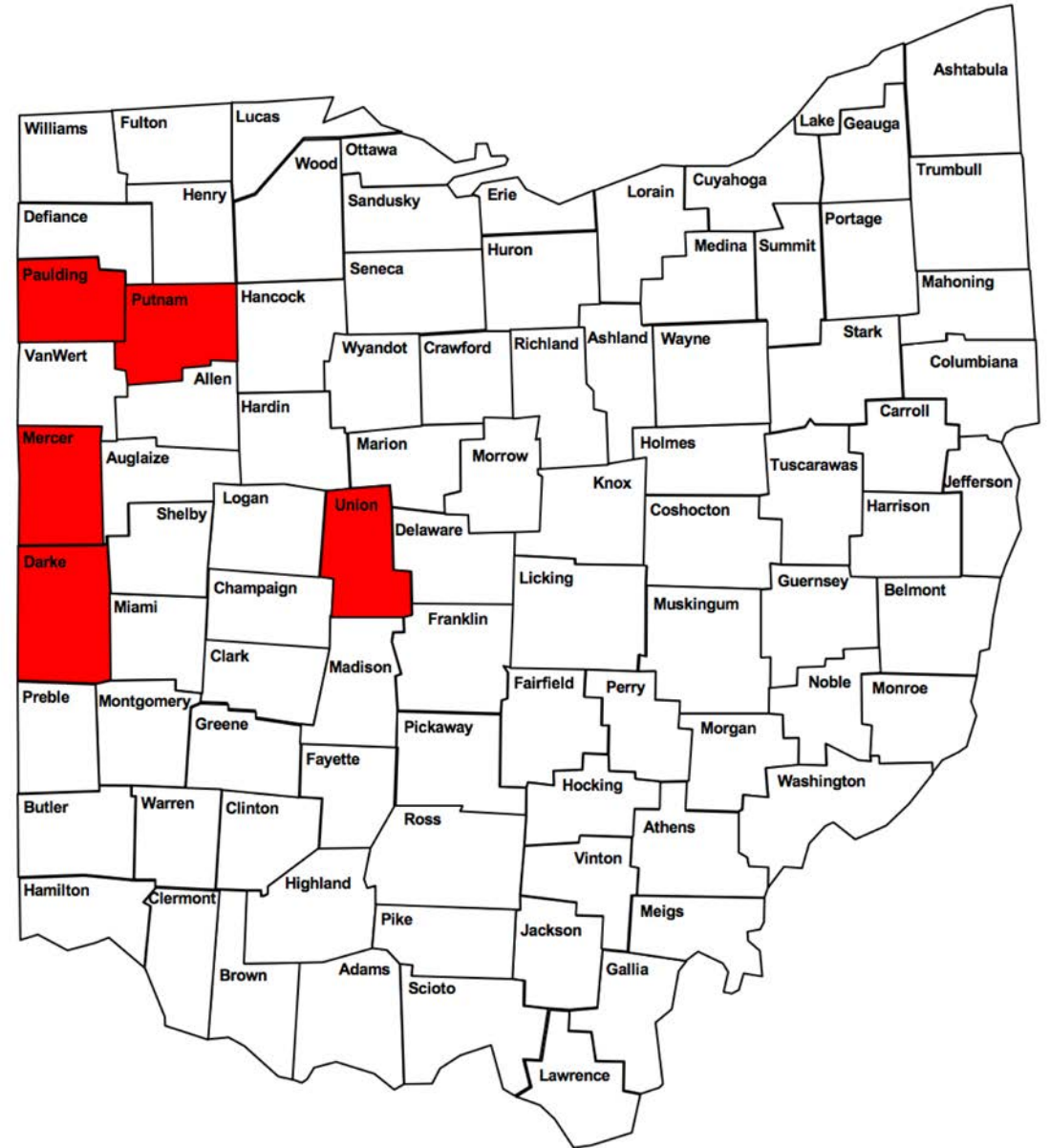
1. **Union** (farm inputs, equipment, professional services)
2. **Mercer** (poultry/egg production)
3. **Wayne** (dairy/milk production)
4. **Darke** (poultry/egg production)
5. **Franklin** (farm inputs, equipment, professional services)



Value added from agricultural production

Top 5 (% of county)

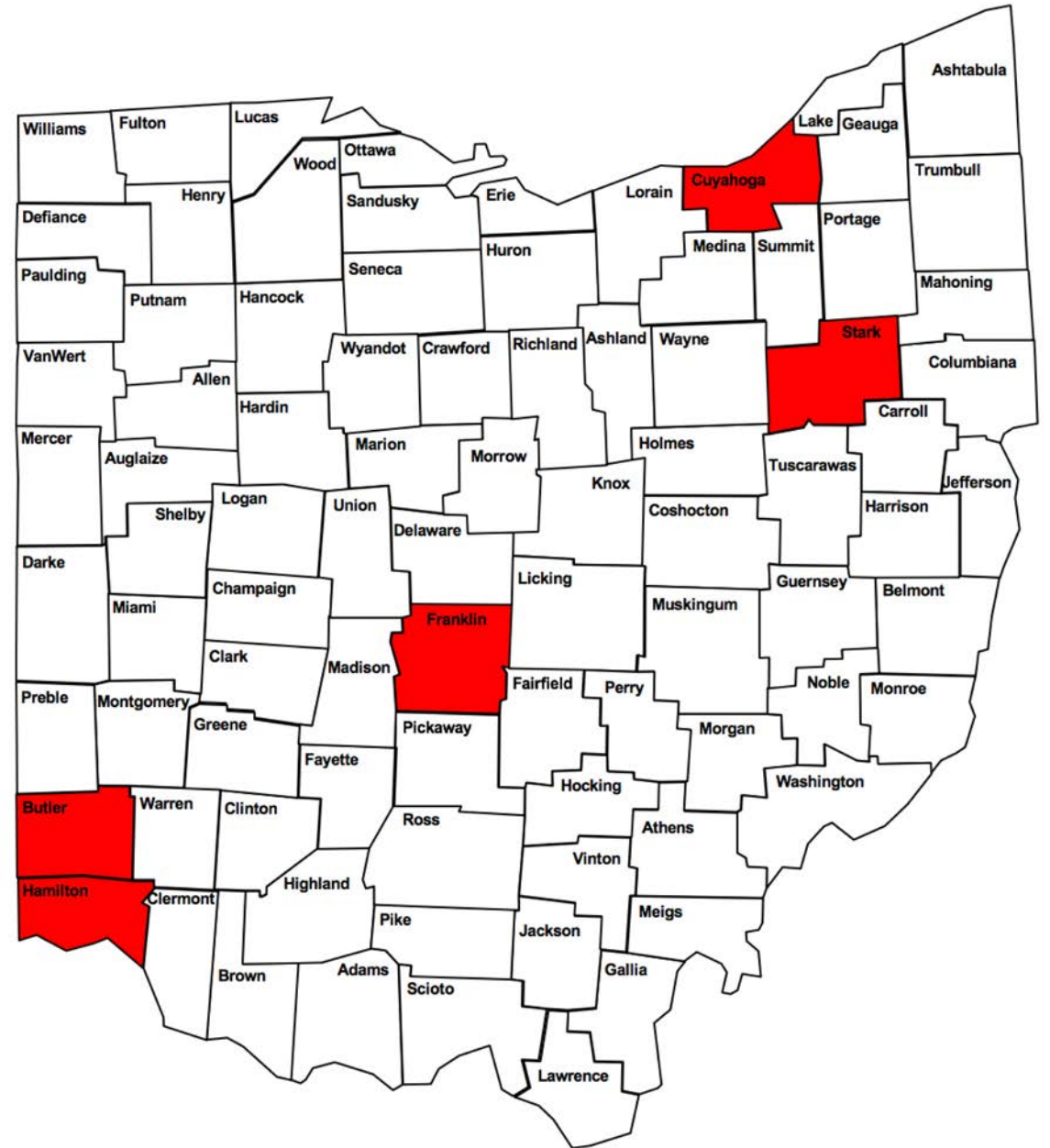
1. **Mercer** (farm inputs, equipment, professional services)
2. **Darke** (poultry/egg production)
3. **Paulding** (dairy/milk production)
4. **Putnam** (farm inputs, equipment, professional services)
5. **Union** (farm inputs, equipment, professional services)



Value added from food/ag processing

Top 5 (% of state)

1. **Franklin** (beverage processing)
2. **Hamilton** (beverage processing)
3. **Cuyahoga** (processed food)
4. **Stark** (food processing)
5. **Butler** (beverage processing)



Value added from food/ag processing

Top 5 (% of county)

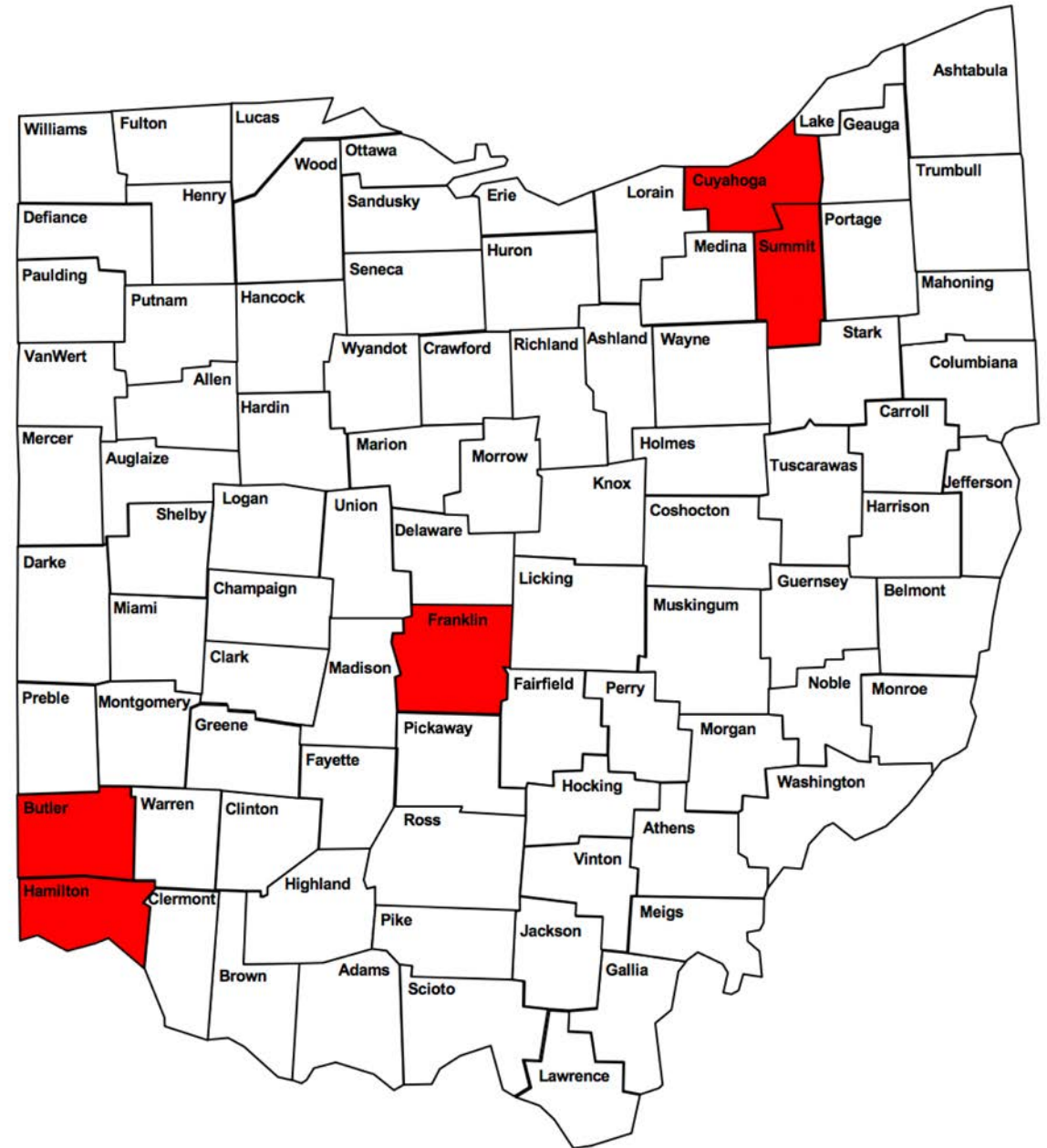
1. **Henry** (processed food)
2. **Jackson** (processed food)
3. **Wayne** (processed food)
4. **Fayette** (processed food)
5. **Holmes** (wood/paper/furniture)



Value added from food wholesale/retail

Top 5 (% of state)

1. Cuyahoga (wholesale)
2. Franklin (wholesale)
3. Hamilton (wholesale)
4. Summit (wholesale)
5. Butler (wholesale)



Food security is also an issue in Ohio

Food security is the household-level economic condition of limited or uncertain access to adequate food

Why is *food security* important to consider?

- May prevent individuals from being productive members of their local economies
- Suggests our food system is not fully serving our communities

Food Insecurity

Top 5 (% of people in food insecure HHs)

1. Athens
2. Cuyahoga
3. Lucas
4. Scioto
5. Hamilton
6. Adams (tied for fifth)



**What's the role of local and
regional food systems?**

Why local?

Consumers see local and direct purchasing as a way to:

- Get fresher, better tasting food
- Eat healthier
- Support their community
- Acquire food from a source they *trust*

Local food as an amenity

Local food markets could potentially also serve as an *amenity* and attract people to communities

- Farmers markets serve as both a source of food and a gathering place
- Sales from food away from home have increased over time

Local and direct sales in Ohio

Sales of \$198 million in 2017

- Represents ~2% of Ohio farm sales
- 40% of sales directly to consumers in Ohio

Direct-to-consumer sales

Direct-to-consumer market cooling from 2007 to 2012

- Decline in number of farmers selling directly to consumers
- Decline in revenue per farm from selling directly to consumers

But trend changed from 2012 to 2017

- Decline in number of farmers selling directly to consumers
- But, increase in average revenue per farm from selling directly to consumers (from \$7,050 to \$12,955)

Where is the other 60% going?

Increasing importance in local food systems

- Institutions (schools, hospitals, prisons, etc.)
- Retailers (grocery stores, restaurants, etc.)
- Intermediaries (food hubs, other buyers that are locally branding to sell to consumers)

Impacts of local food efforts

Using economic impact analysis (i.e., input-output models)

- Zero gains to small, positive gains for region

Why so small?

- **Role of *opportunity cost*:** It matters how the resources (people, land) were used *before* being used for local food investments
- Local food systems investments can yield more benefits to society when they employ underutilized resources

Additional impacts

Profitability

- Marketing directly and/or locally often requires farms to take on more marketing costs than marketing through traditional channels
- Marketing costs vary widely (Dumont et al. 2017)
- Profitability higher for smaller scales of production (Dumont et al. 2017)
- Evidence that there can be *too much* entry – saturation of food systems

Additional impacts

Possible less tangible impacts

- Community engagement
- Education of urban consumers
- Building entrepreneurial capacity

Relatively understudied by economists, but considered by others (e.g., sociologists, anthropologists, community development folks)

Future of local food systems

Will interest in local last?

- Local preferences based on concerns about *trust*
- As larger food and agriculture companies work to increase customer trust, role of local food as most trusted resource could decrease
- Thinking ahead, how will your investments fare as tastes and preferences of consumers change?

Future of local food systems

Do local food investments increase food security?

- Not necessarily
- Affluent consumers are willing to pay a premium for local, but many food insecure households may not be able to
- If food security is the issue your community is facing, carefully consider relationship between local food investments and those most in need

References

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USDA National Agricultural Statistics Service. 2019. "Census of Agriculture: 2017 Census by State - Ohio." Online: https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Census_by_State/Ohio/

Additional resources

AEDE agricultural contribution county fact sheets for Ohio

<https://aede.osu.edu/research/osu-farm-management/agricultural-impact/contribution-agriculture-county>

USDA Agricultural Marketing Service Economics of Local Foods toolkit

<https://www.ams.usda.gov/publications/content/economics-local-food-systems-toolkit-guide-community-discussions-assessments>

Feeding America's "Map the Meal Gap" website

<https://map.feedingamerica.org/>

Thank you!

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