

# Local Foods, Buying Locally, and Other Rural Development Initiatives: Community Education, Analysis, and Evaluation Approaches

Dave Swenson

IOWA STATE UNIVERSITY

# The Four Fs ....

**Fads**

**Fantasy**

**Facts**

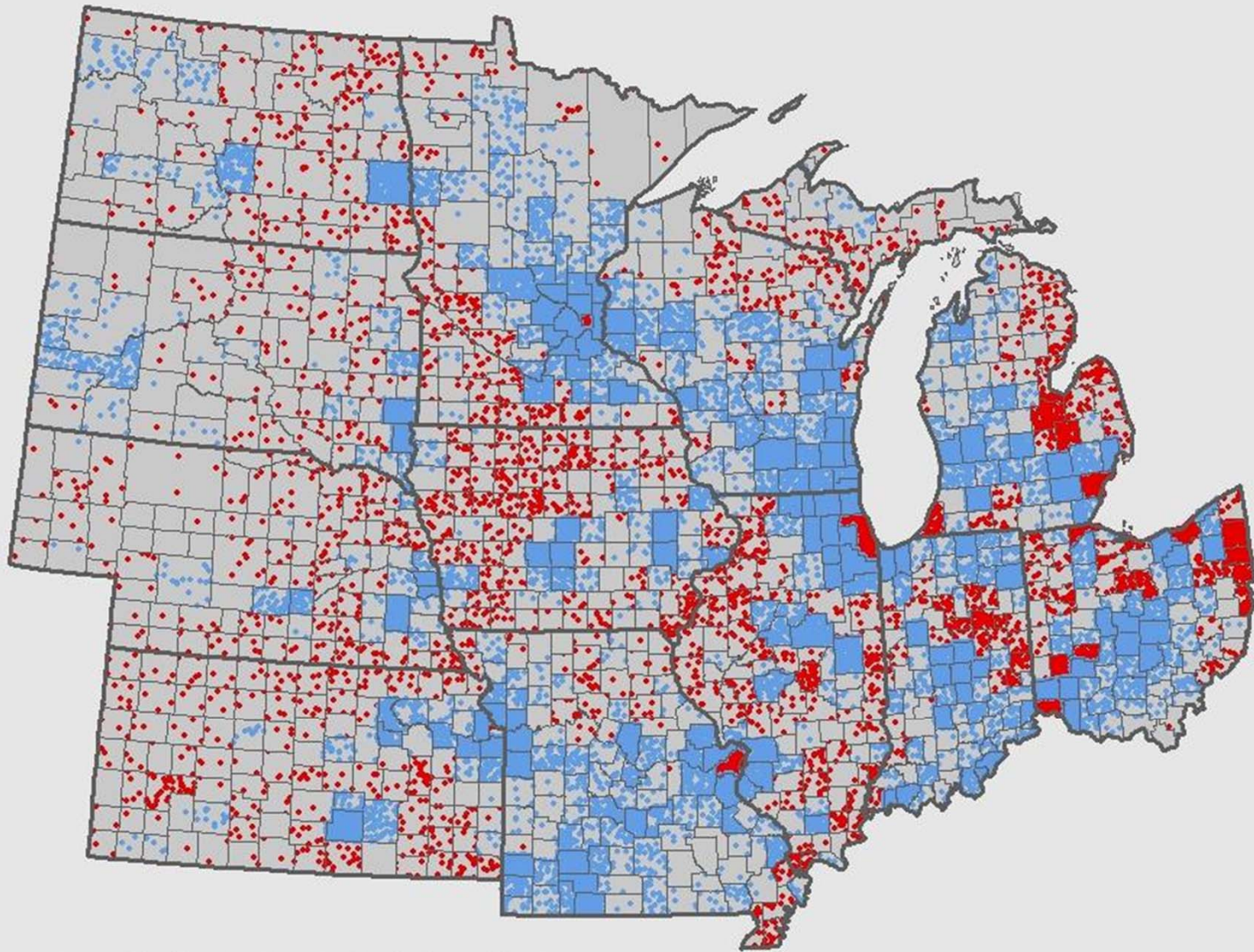
**Feasibility**

# For Instance

## Initiatives

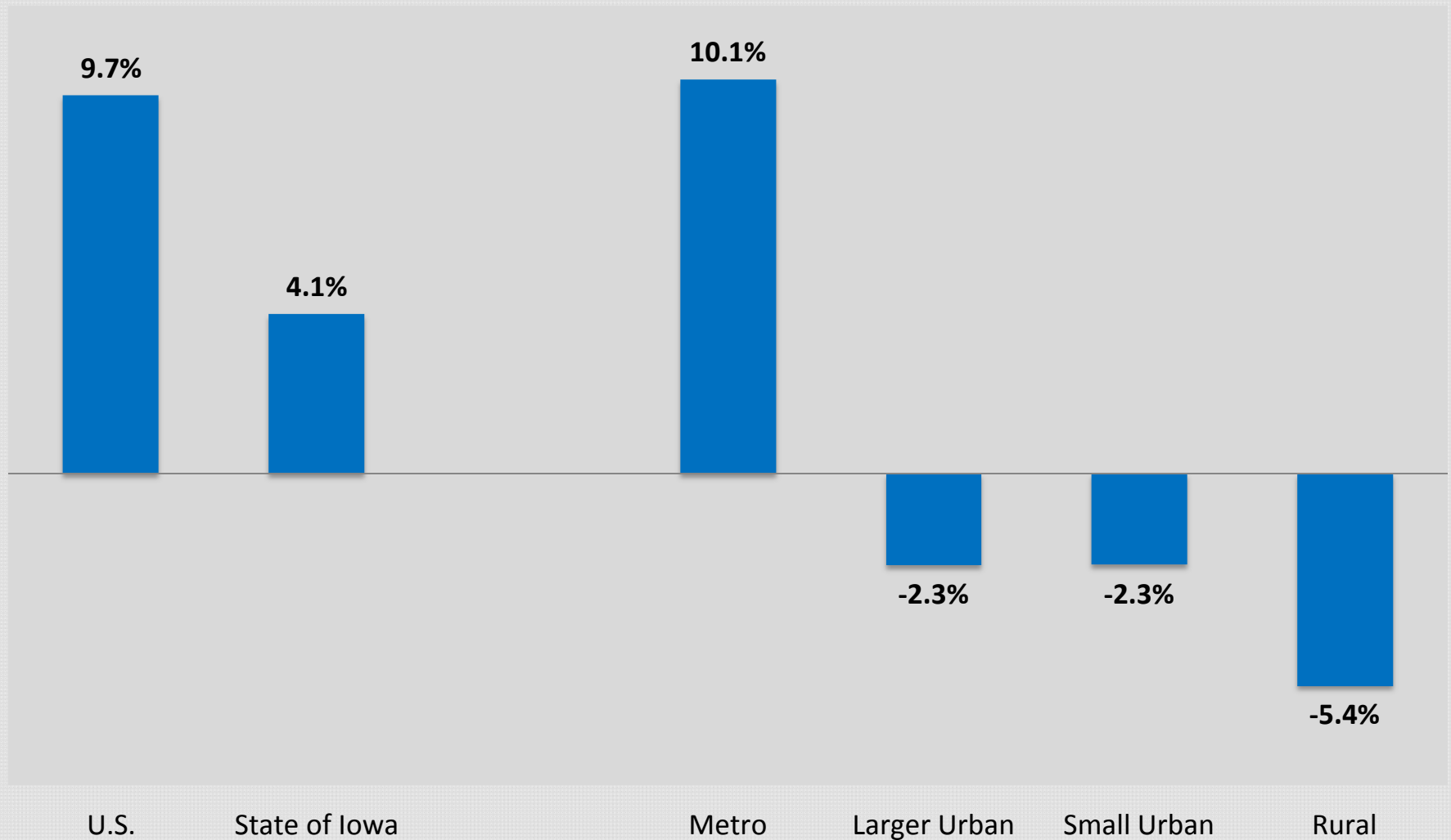
- Ethanol / biodiesel/ advanced fuels & crops
- Wind / solar
- Rural entrepreneurship
- Telecomm -- broadband
- Resort, recreation, & retirement
- Creative “rural” economies
- Viticulture was hot for a time
- Local food systems development & broader buy-local initiatives
- Dutch dairy farmers

## County Population Change from 2000-2010



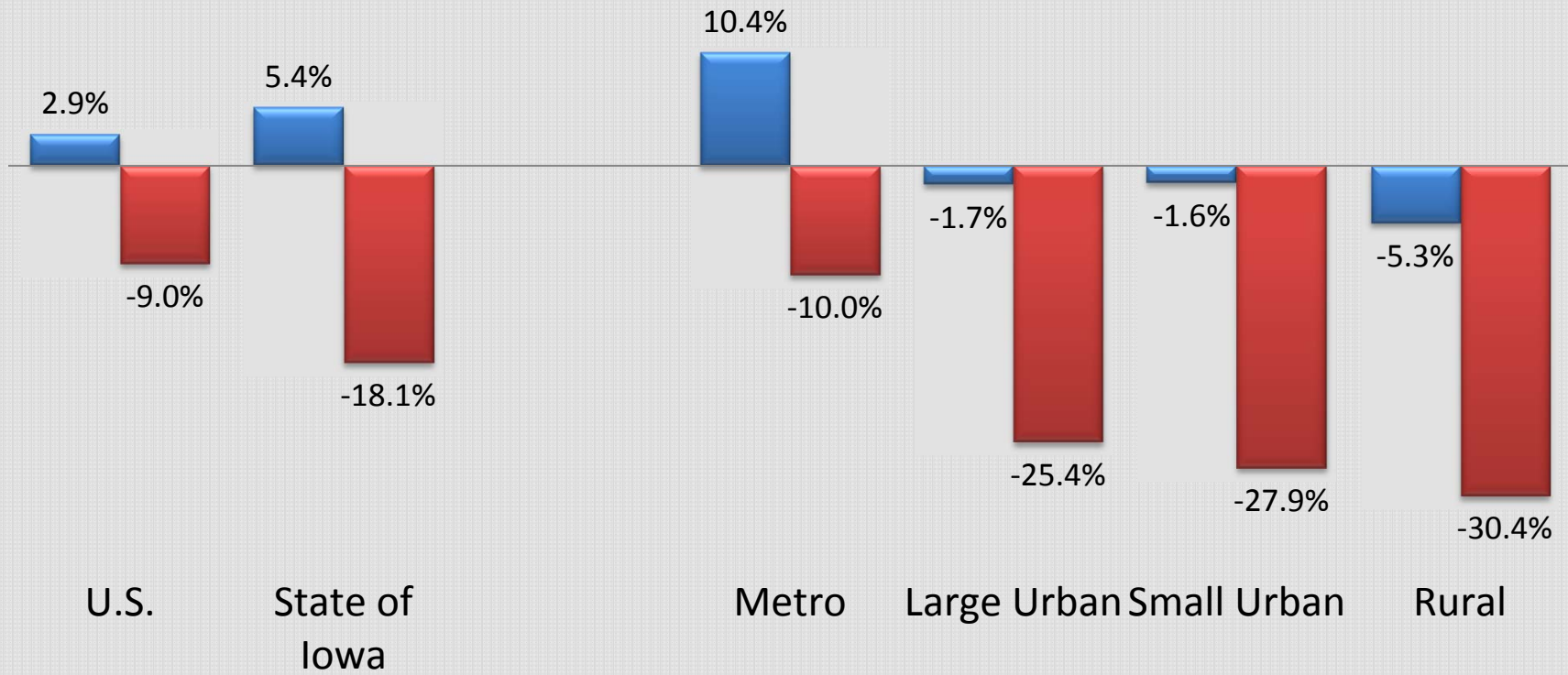
Each dot represents a gain (blue) or loss (red) of 100 residents

## Iowa Population Changes, 2000 to 2010 by Levels of Urbanization



## Percentage Change in Young Adults, 2000 to 2010, By Level of Urbanization

■ 25 to 34 ■ 35 to 44



# Iowa Rural Impacts in Recent Years

## Plusses

- Biofuels = 900 jobs ethanol & 200 biodiesel jobs
- Wind maintenance & support = 300
- Wind manufacturing = 1,000
- Wind construction & erection = 500
- Windfall farmer spending = ????

## Minuses

- Maytag = -2,500 +
- Electrolux = -1,900 +
- All others: 85 percent of micropolitan job losses and 97 percent of the balance of rural Iowa nonfarm job losses are explained by manufacturing job losses in the last decade
- Total nonmetro losses are -29,300 jobs

# Some of What I Have Learned

- Enthusiasm trumps historical experiences to the contrary
- Enthusiasm-curbing research can be met with hostility
- Basic market principles are frequently ignored
- Nonetheless, local leaders are sincere and deserve our best efforts



# Addressing This

Work to develop an understanding of how basic market principals are working in their enterprises and in their region

- Maybe the basics of Hustedde, Shaffer & Pulver for understanding regional markets
- Maybe Flora's "Community Capitals "
- Regional economics and comparative advantages
- A discussion of occupational content

# What Data Do I Use?

- Lots of IO models both for modeling and for regional data
- BEA, BLS, ERS, Industrial and Ag Censuses
- O\*NET
- I LOVE “ON THE MAP”
- Proprietary, government, and own crosswalks and matrices
- Vital statistics
- State administrative data (revenue, local budgets)
- Enterprise data to the extent that they exist or clearly apply
- Few opportunities to use reliable primary data

# Generic Buy-Local Initiatives

- Small markets are very sensitive to trade leakages
- Want to promote “buy-local” behaviors
- Often narrowly characterize it as mere shopping
- Is further confounded because there is a pervasive assumption out there that retail sales have a multiplier of 7.0.

# Severe Information Limits

We mostly do not have a clue about local spending  
– all indications are indirectly determined.

- Area pull factors
- Retail trade trends
- Business thresholds
- Household surveys occasionally
- Testimonials and complaints

Alternative is to rely on model data that are  
also suspect

# Approach

- Make sure folks understand where buy-local fits in the regional development toolbox
- Show how much of their regional economy is a function of production and how much is a function of household consumption
- Explain that this is a modeling, not an auditing exercise: there is no reliable baseline; hence, the present leakage situation is a guess and gains or successes are difficult if not impossible to measure.

# Mechanics & Outcomes

## Area-specific IO model

- Isolate industrial and household imports
  - Match those categories with evidence of existing production (can't substitute what you don't produce)
  - I specifically exclude agriculture as all land is fully utilized
  - I boost the top 20 categories in the industry-to-industry and separately in the household imports by some factor, say 5 percent – prorate to the remaining industries
  - Report and explain the findings
- Explain that this requires a lot of assumptions and behavior changes
  - Explain, too, that the multipliers work in reverse – they reflect the multiplied through consequences of trade leakages
  - Separately may use portions of this approach to isolate potential industry development based on commodity imports that are above national average per-firm thresholds.
  - Lastly, exhort sponsors to use this as an opportunity for business and consumer leadership and education

# Local Foods

- Local foods have caught hold, as have other buy-local initiatives
- In Iowa
  - Early studies – we were learning and adjusting our methods
  - Several regional studies – a variety of plausible and implausible scenarios
  - In time, the development of basic evaluation methods to help advocates and producers understand the potential for and the limits to regional sales

# Local Foods Example: Upper Midwest Study (2010)

Coordinated through the Leopold Center for Sustainable Development

Was based on insights developed from the SW Iowa regional research project

- Iowa, Illinois, Indiana, Minnesota, Michigan, Wisconsin
- Two scenarios involving 28 fresh fruits and vegetables.
- What if ...

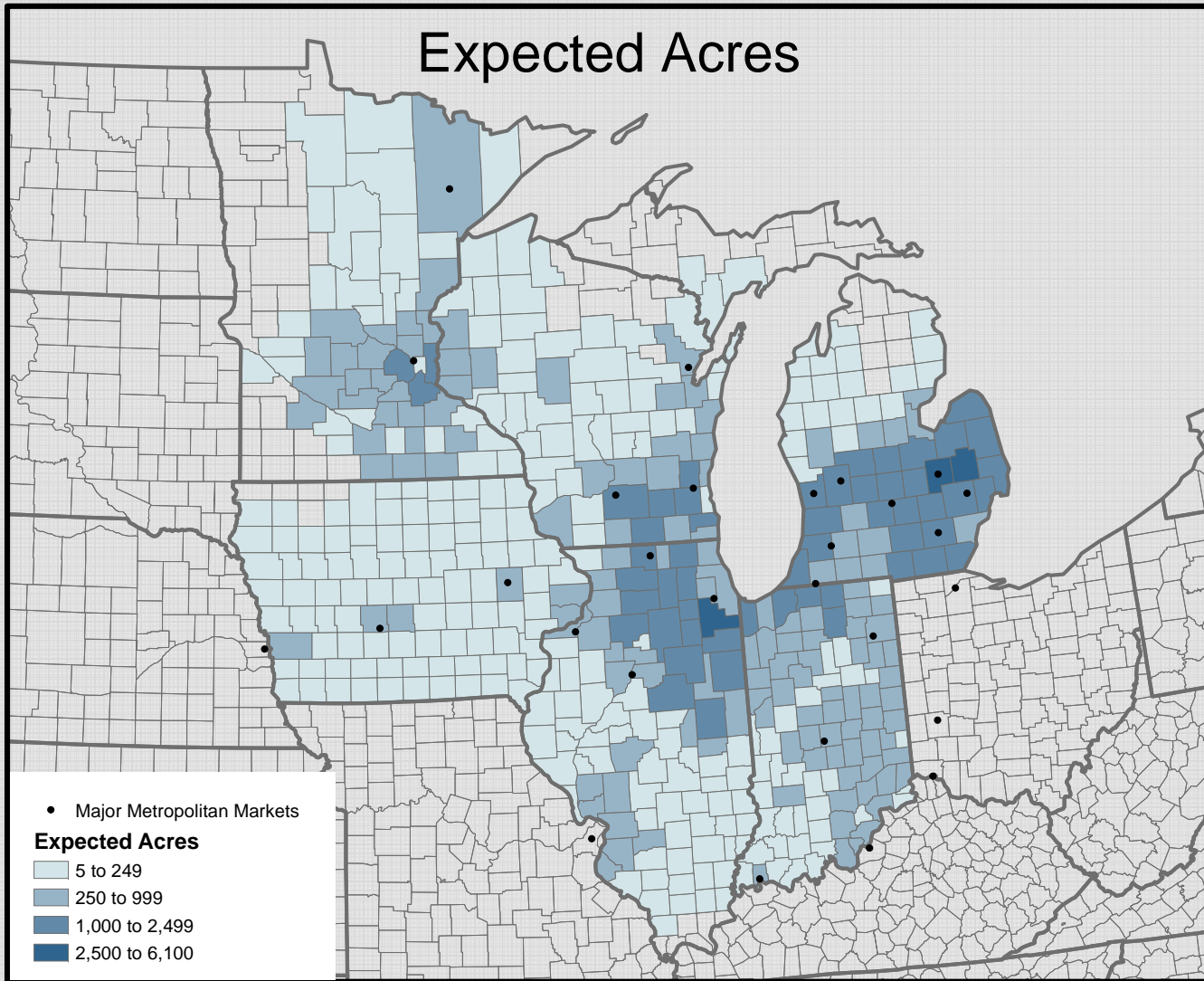


## **Scenario: Given metropolitan markets of 250,000 or more, nearby producers work to satisfy major regional metropolitan demand**

Allocates production relative to dense populations

- Begins with metros of 250,000 or more as significant demand centers
- Determine potential personal consumption of items chosen for assessment
- Determine the capacity to produce
- Disregards state boundaries
- Allows demand from nearby or bordering metros
- Weighting considering both a propensity to produce (small farms) and the capacity to produce (crop land)
- Explicitly accounts for the disincentives of distance – simple gravity calculations are included
- Allocates production in space
- Provides county level estimates (that can then be summed back to the state level)
- Impacts and offsets were then estimated using modified IO models for the states

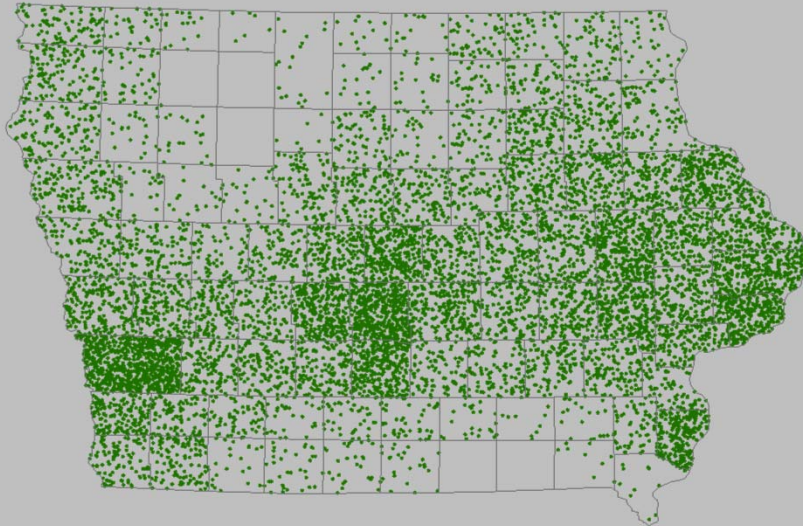
# Expected Acres



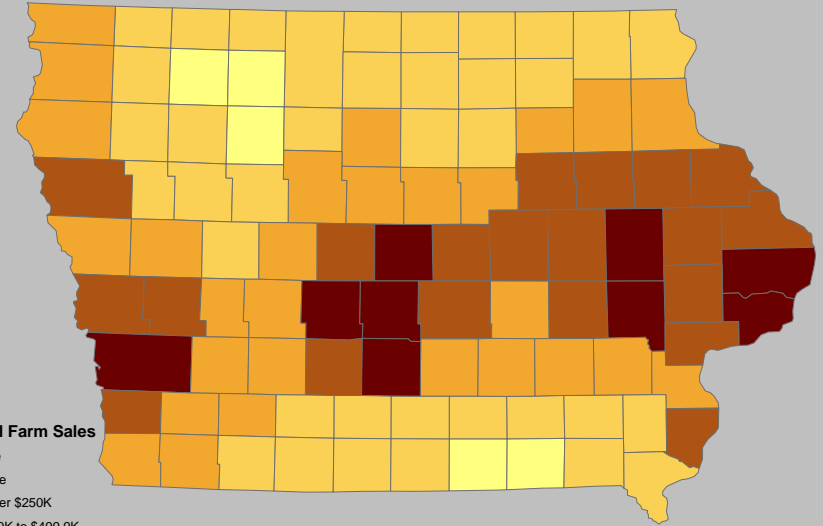
0 60 120 240 Miles

# Repeated the process for Iowa considering all nearby metros using a 100 mile maximum threshold

Distribution of Probable Vegetable and Fruit Production Acres  
(1 Dot = 1 Acre)



Potential Farm Level Vegetable and Fruit Sales



Potential Farm Sales  
Farmsale  
None  
Under \$250K  
\$250K to \$499.9K  
\$500K to \$999.9K  
\$1 million or more

# Outcomes

- Slowly reviving basic methods for evaluating these initiatives
- Great opportunity to provide regional economics education
- Assist in declaring “impact” boundaries and in producing content to inform policy development
- Intersection of program development and utility principles

# Broadly, What We Are Not Doing

- Determining feasibility let alone desirability
- Compiling benefits within the traditional meaning of the term
- Estimating “Returns on Investments” especially regarding state or local subsidies
- Proving that one form of production is superior to another
- Picking winners or losers
- Telling them what to do

# Thank you

**Please write**

*[dswenson@iastate.edu](mailto:dswenson@iastate.edu)*

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**IOWA STATE UNIVERSITY**