

# Measuring the (Local) Food System

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A diagram consisting of five nested ellipses, all filled with a light blue color. The ellipses are centered and nested, with the largest at the top and the smallest at the bottom. The labels are placed within the ellipses: 'global' in the largest, 'national' in the second, 'regional' in the third, 'local' in the fourth (dashed border), 'household' in the fifth, and 'individual' in the smallest. The labels 'regional' and 'local' are in red, while the others are in black.

global

national

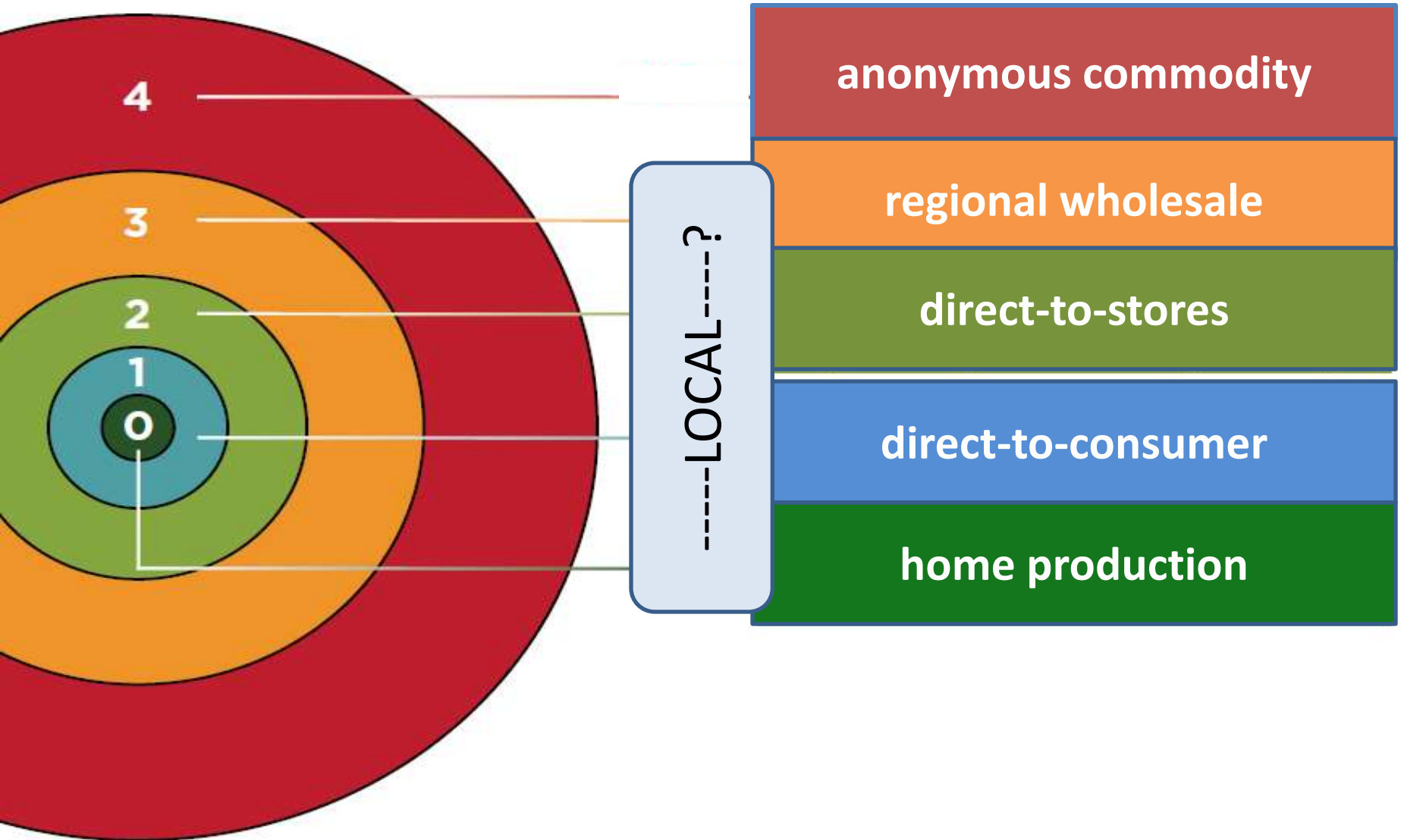
regional

local

household

individual

# market levels of the food system



**\$4.8 billion in sales**

**Farms using  
direct-to-consumer  
outlets only**

**\$877 million in sales**

71,200 farms

- Farmers' markets
- Roadside stands
- Farm stores
- CSA arrangements

**Farms using  
intermediated marketing  
channels only**

**\$2.7 billion in sales**

13,400 farms

- Grocers
- Restaurants
- Regional distributors

**Farms using both**

**\$1.2 billion in sales**

22,600 farms

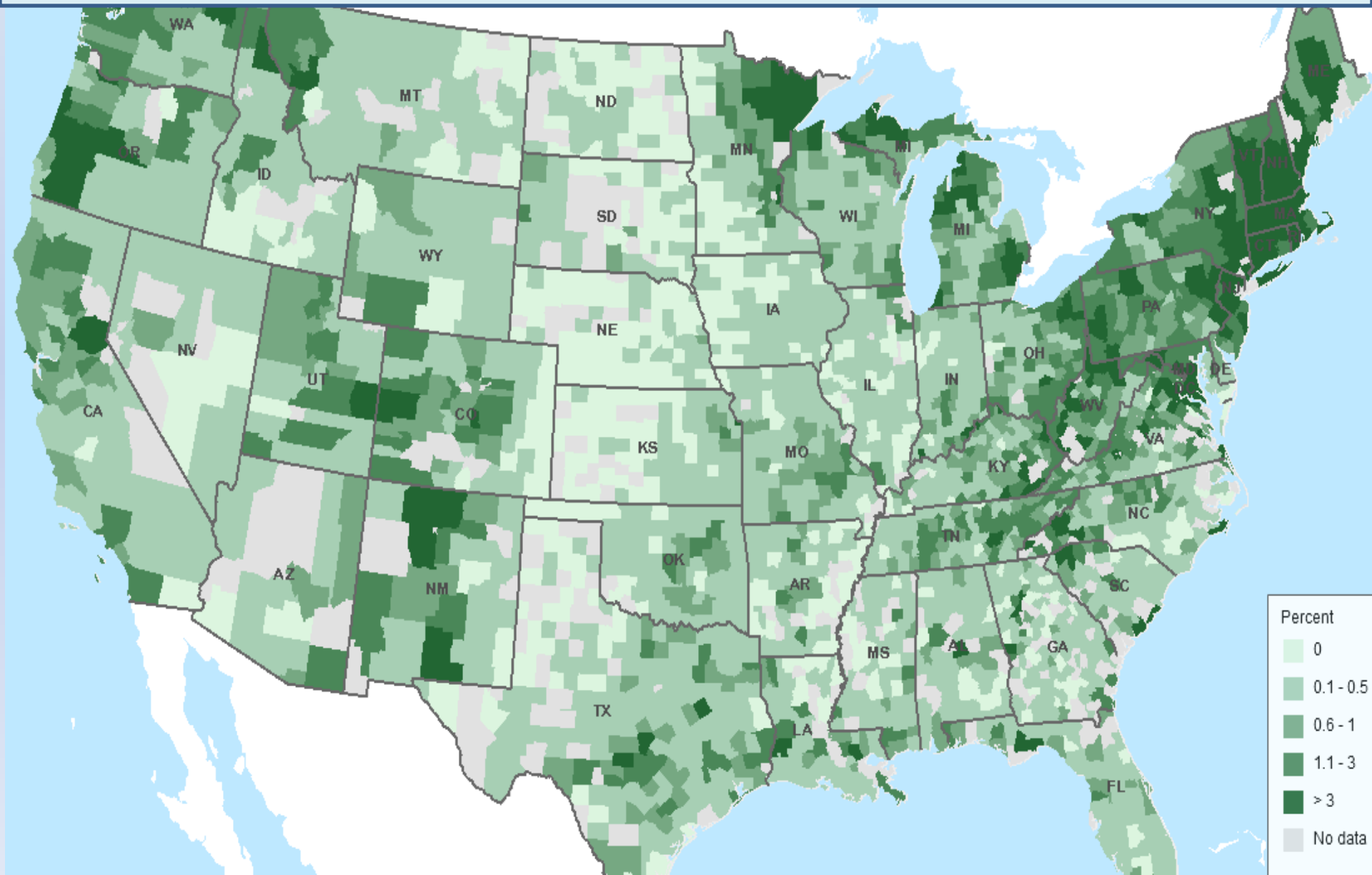
USDA measures local food using direct sales = 7% of U.S. farms  
0.3% of agricultural sales; up 30% over 10 years.

In Northeast, direct markets for 'local' food are booming: roadside stands, farmers' markets, CSAs, etc.



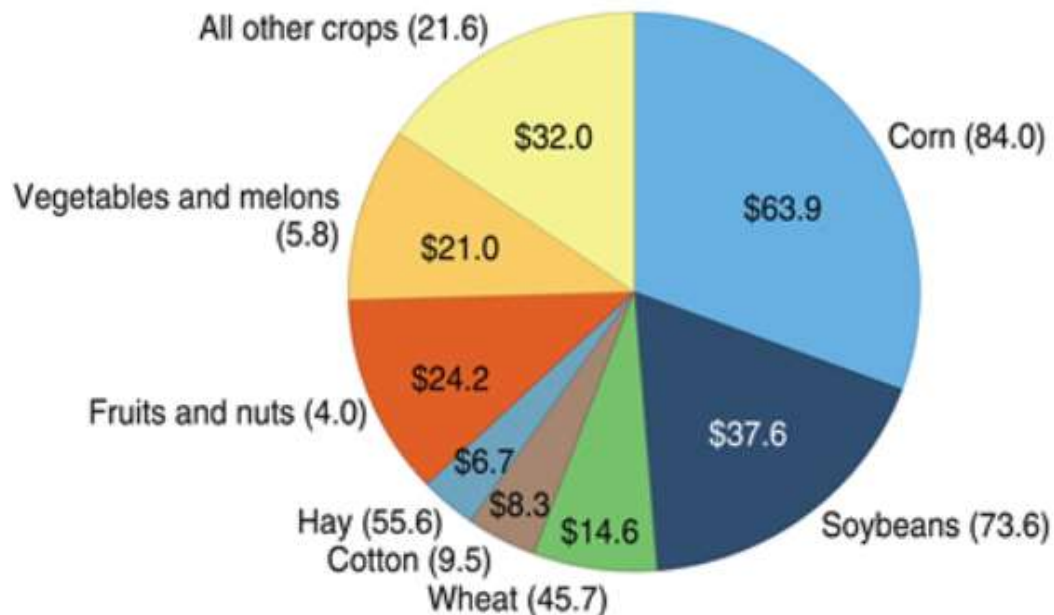
Lilac Ridge Farm,  
W. Brattleboro VT

# Direct to consumer as a % of farm sales varies by location



## 2011 crop cash receipts (\$ billion)

\$208 billion (harvested acres in parenthesis, in millions)

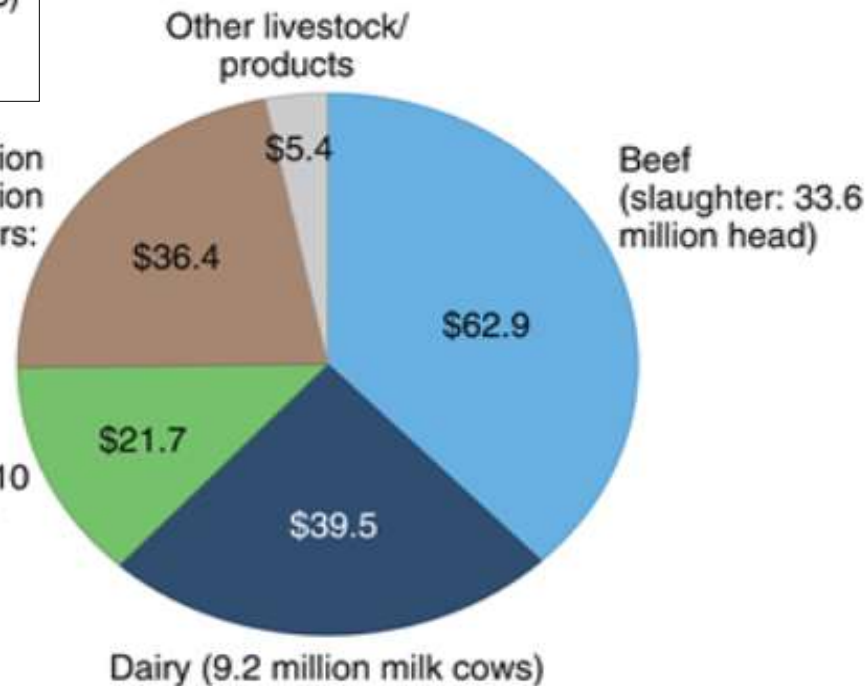


## U.S. Agricultural Production

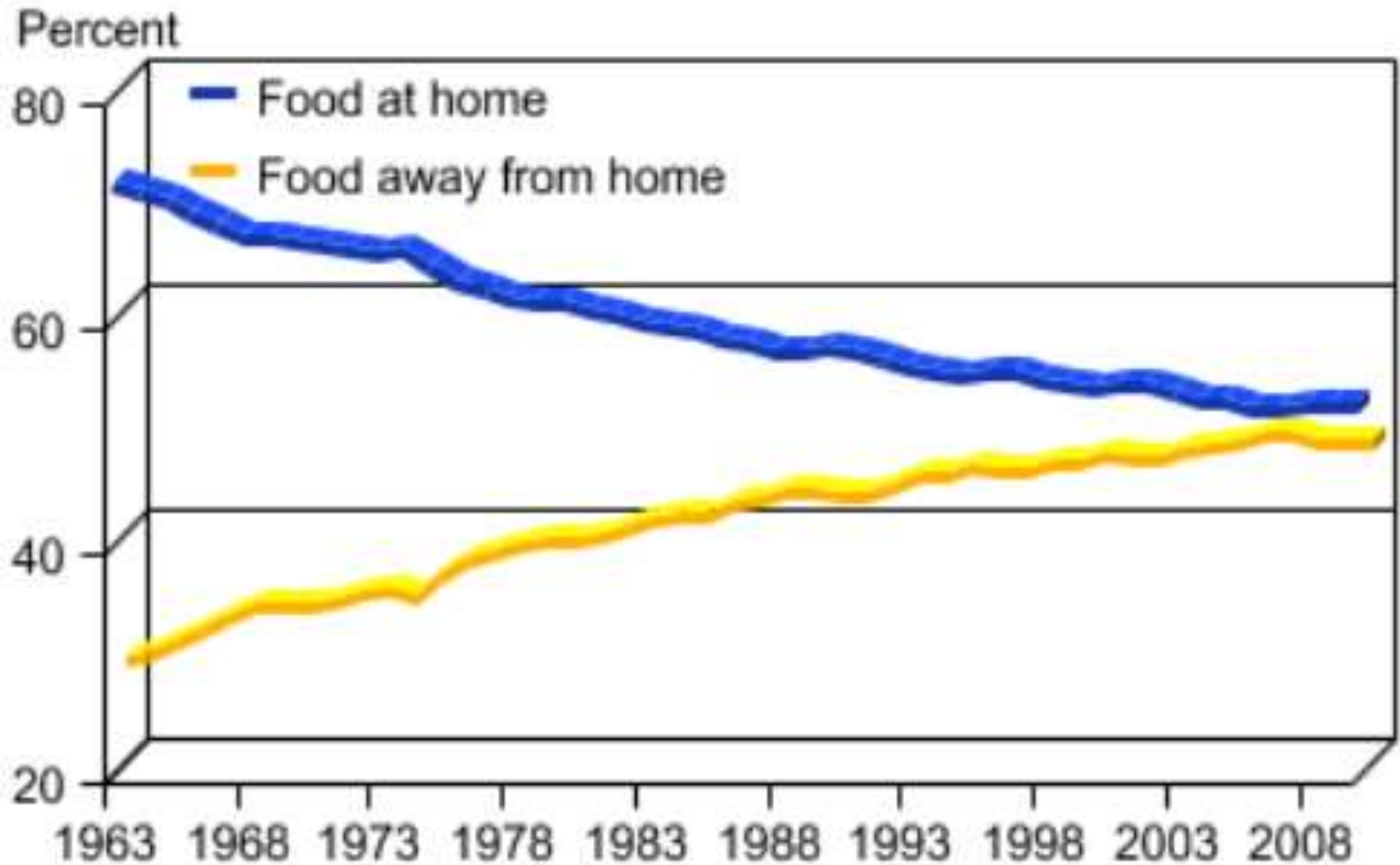
\$166 billion (animals in parenthesis)

Poultry and eggs  
(slaughter: 8.7 billion chickens, 245 million turkeys. Egg layers: 338 million birds)

Hogs  
(slaughter: 110 million head)



## U.S food consumption: 'prepared in home' vs. 'food service' food spending



‘Local food’ consumers value:  
freshness/quality, local economies, trust

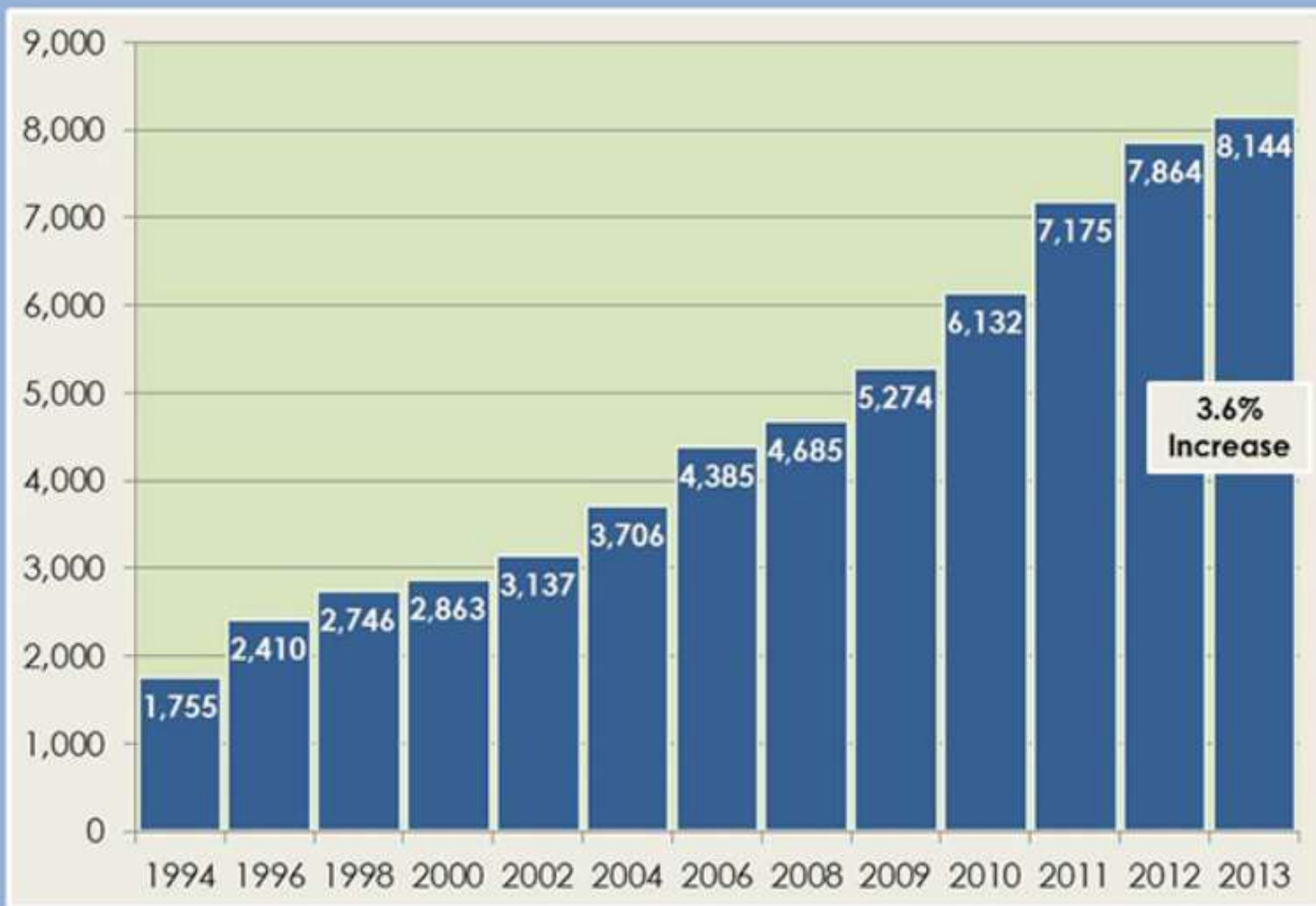


Walker Farm, roadside market, Dummerston VT



There are over 8,000 farmers' markets nationwide, ~80 in VT up from 19 in 1986; about 14% are winter markets

# National Count of Farmers Market Directory Listings



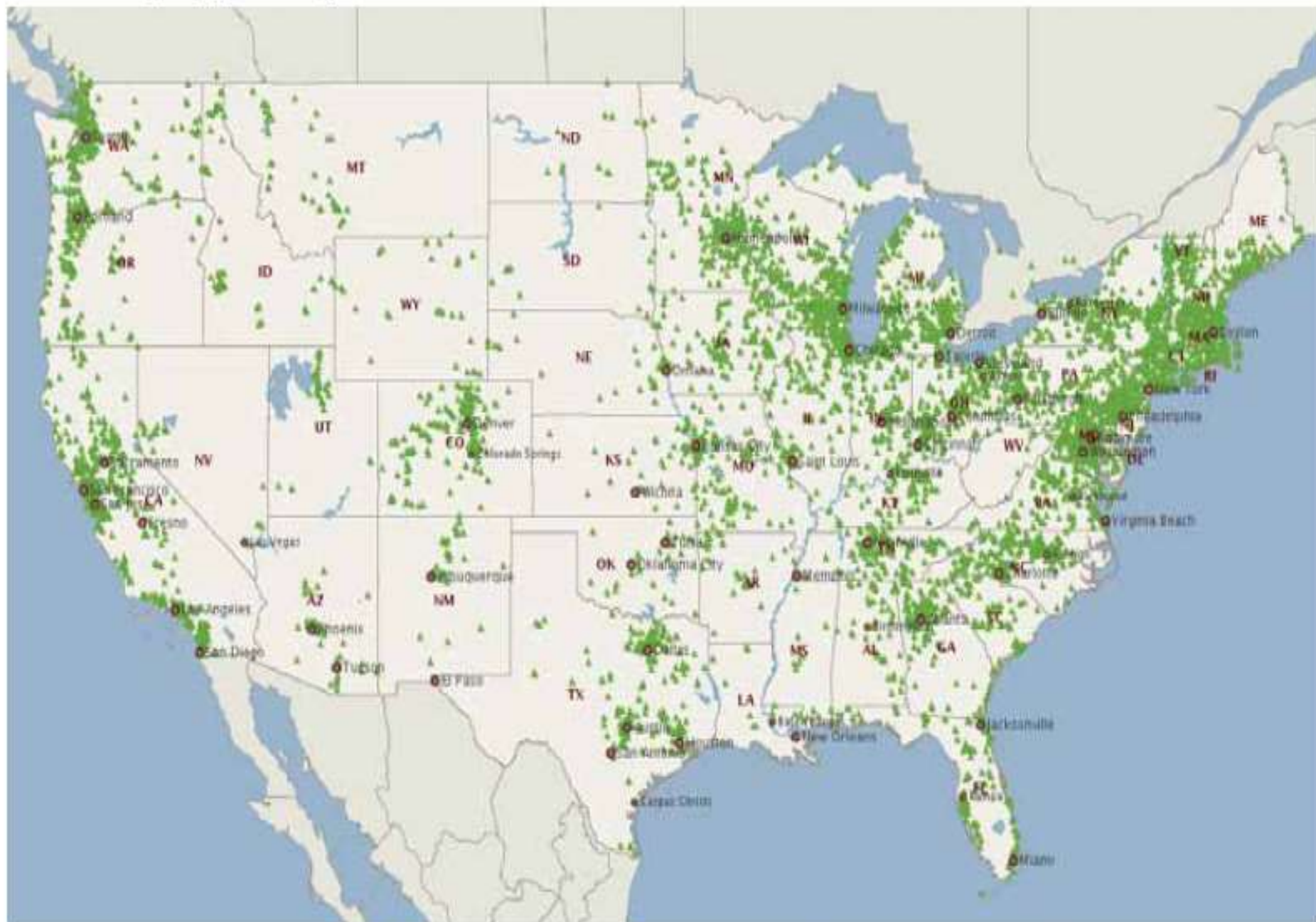
Source: USDA-AMS-Marketing Services Division

there are over 12,000 'CSA' farms nationwide, ~100 in VT



Community Supported Agriculture  
*Food Bank Farm. Hadley MA*

# Community Supported Agriculture locations, 2009



Source: Local Harvest, 2010. Available at: <http://www.Localharvest.org>. © Local Harvest. Map used with permission from Local Harvest.

vegetable farms in VT are growing,  
from 413 in 2002 to 789 in 2012  
in large part due to local demand



Tunbridge Hill Farm,  
Tunbridge VT

Berry production in Vermont is also booming:  
145 strawberry farms in 2012 up from 90 in 2002  
330 blueberry farms up from 114  
228 raspberry farms up from 80



Four Corners Farm,  
Newbury VT

# MARKETING PRACTICES: Percent of Fruit and Vegetable Farms, by Sales Outlets, 2012

State	Direct to Consumer Sales							Direct to Retail <sup>1</sup>	Wholesale Markets <sup>2</sup>
	Farm Stand	Pick Your Own	Farmers' Market	Mail Order or Internet	Community Supported Agriculture (CSA) Shares	Other	Total		
	Percent								
Connecticut	51	18	23	1	9	2	64	19	15
Maine	44	18	23	2	11	4	64	25	17
Massachusetts	53	23	22	2	5	5	68	19	19
New Hampshire	54	29	26	1	10	2	74	21	17
Rhode Island	45	15	22	—	7	3	60	16	22
Vermont	51	25	34	3	17	6	72	31	17
<b>NEW ENGLAND</b>	50	22	24	2	9	4	67	22	17

— Represents zero.

<sup>1</sup> Direct to retail includes natural food stores or cooperatives, conventional supermarkets, restaurants, institutions (i.e. hospitals and schools), and all other retail outlets.

<sup>2</sup> Wholesale markets includes supermarket chain buyers, distributors, wholesalers brokers, packers, other farm operations, processors, mills, grower cooperatives, and other wholesale outlets.

Dairy farms, and other commodity producers,  
have been consolidating due to market pressures.  
In 2012, 934 dairies in VT down from 1,393 in 2002\*



**In 2012 only 4% of all U.S. farms produced 66%  
of the \$395 billion total in agricultural products**

It's hard to direct market fluid milk (a commodity),  
which is the #1 ag product produced in Vermont

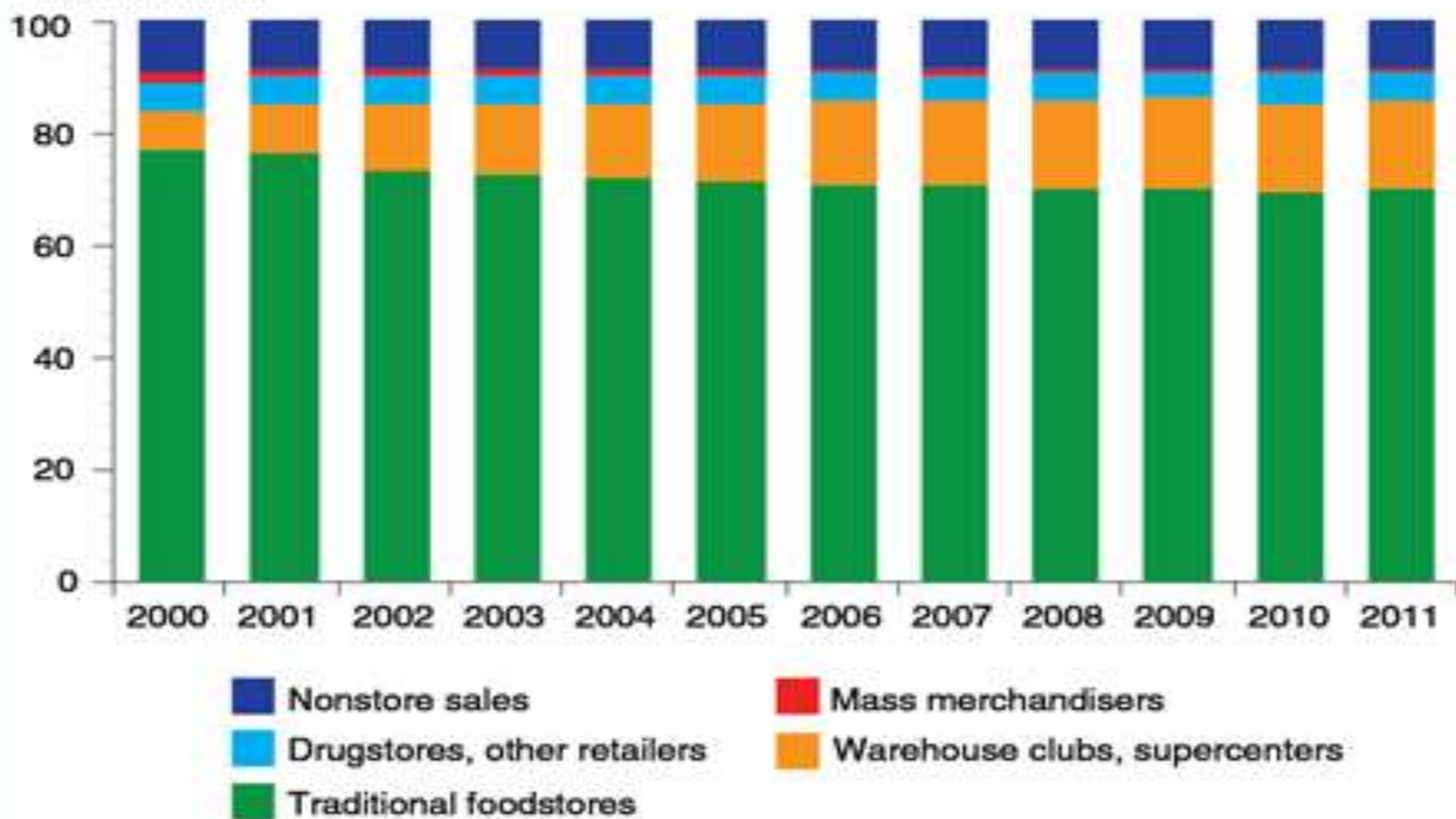


The reality is that most people  
get most of their food  
from the supermarket



## Food-at-home sales by type of outlet, 2000-11

Percent of sales

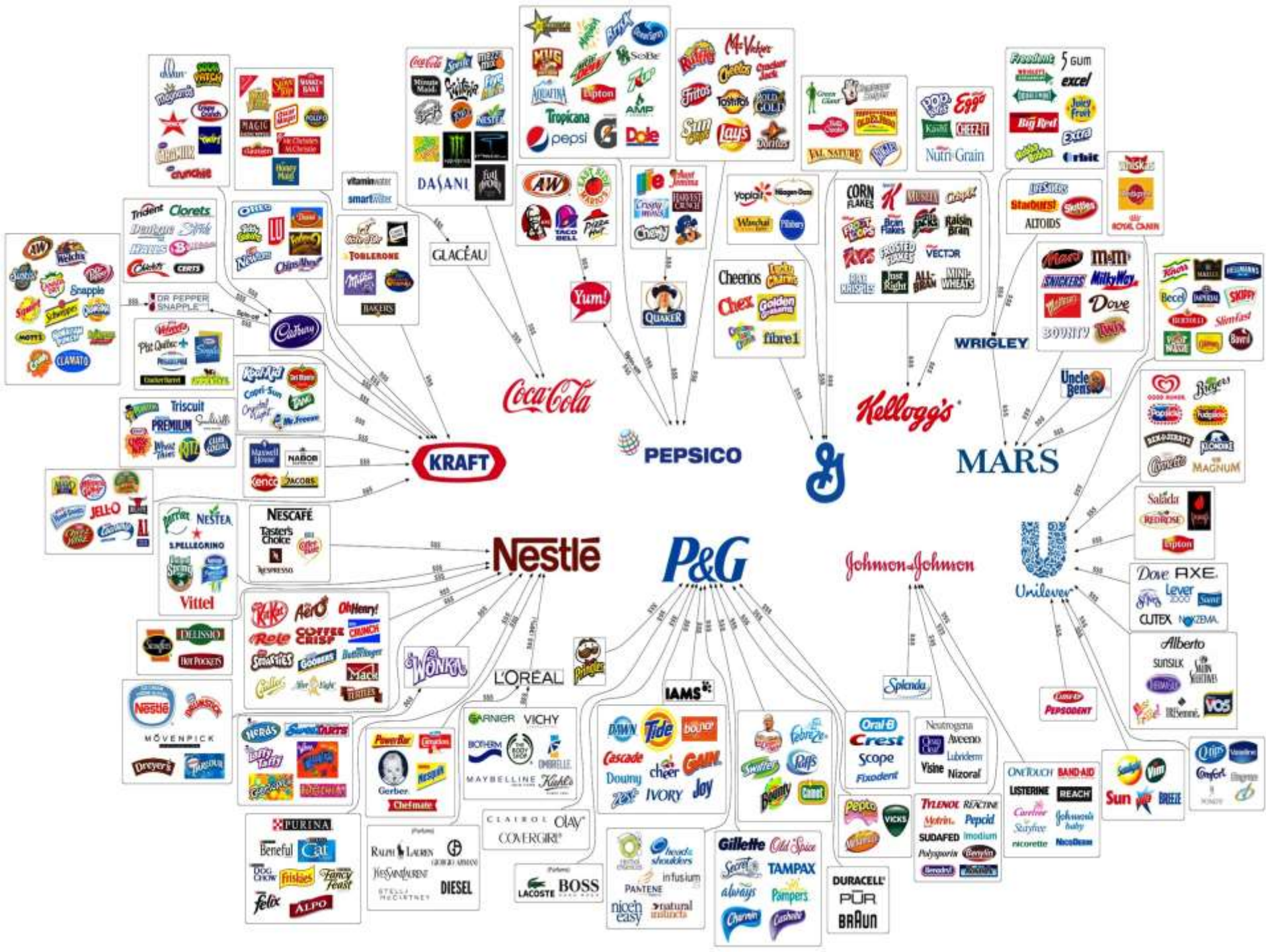


Source: USDA, Economic Research Service, Food Expenditure Tables: Table 14.

...much of that is processed food from  
an 'oligopoly' of corporations

Nestle's has ~6,000 food brands and \$110 billion annual revenues





Consolidation drives 'low-cost' production of 'commodities'



western beef feedlot

Commodities encourage 'anonymity' and externalized costs



broiler house, DE

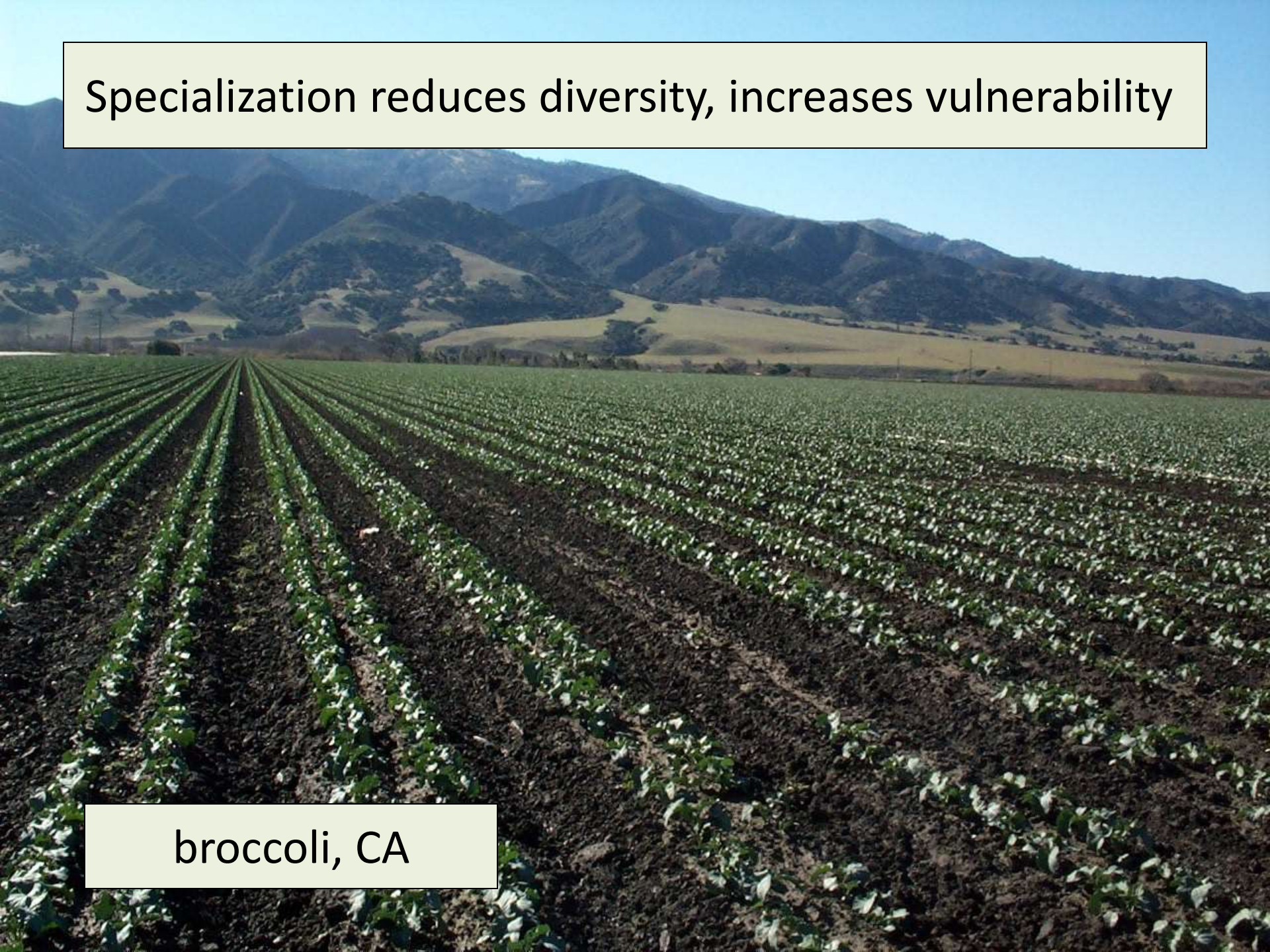
Anonymity and commodity prices encourage specialization



wheat harvest, WA

Specialization reduces diversity, increases vulnerability

broccoli, CA



# What can be done to improve the food system?

- Recognize that *'local' is a proxy for other values* (transparency, accountability, sustainability)
- Find ways to label, measure and *monetize those values*
- *Go beyond direct marketing* to deliver fresh, healthy, value-rich food

## Example: dairy in New England

Travels a rather short distance, and time, to market ('local' food security)

Well-run dairy farms offer many economic benefits and ecosystem services

Can't control the commodity market but can 'monetize' the value of dairy in creative ways

# monetizing the value of 'local' milk

- lower property tax at 'agricultural use value'
- fund land conservation, resource stewardship
- price premiums (for production attributes)
- payment for wildlife habitat (Bobolink project)

**This land has been  
conserved by the**



**VERMONT  
LAND TRUST**

Over 700 Vermont farms have conservation easements on their land; about 10% of all the best soil statewide.

Sugarmaking contributes to the 'working landscape' and all its benefits; over 1200 sugarmakers in VT



Maple syrup is one of few products with **strict labeling regulations** for point of origin labeling, purity and quality.

Don Hazelton, Dummerston VT

Niche markets like farmstead cheese are thriving, with **culinary quality** adding the **extra value** needed



Pasture-based animal production is an example of a system with much non-monetized value: low fossil fuel use, low soil loss, high resilience.



Major Farm, Westminster West VT



We need to measure 'economies of scope'  
not just economies of scale and gross output

Vermont Compost Co, Montpelier VT

Human and animal health, and environmental externalities are not well-monetized but consumer awareness is growing.



Farmers are responding to local demand for 'non-industrial' meat, but slaughter capacity and grain cost are challenges.

Harlow Farm, Westminster VT

New products to meet 'local'  
market demand:  
UVM Extension and farmers  
have developed a local wheat  
variety – 1<sup>st</sup> in over a century.



Beidler Farm,  
Randolph Center VT

Some farmers are working together to aggregate a year-round supply of local food for delivery to nearby population centers



Pete's Greens, Craftsbury VT



‘season extension’ techniques are being used to increase availability of local greenhouse crops

(Greenhouse tomatoes went from \$3 to \$5 million in Vermont from 2007-2012)

Renewable energy on farms is part of a sustainable local food system

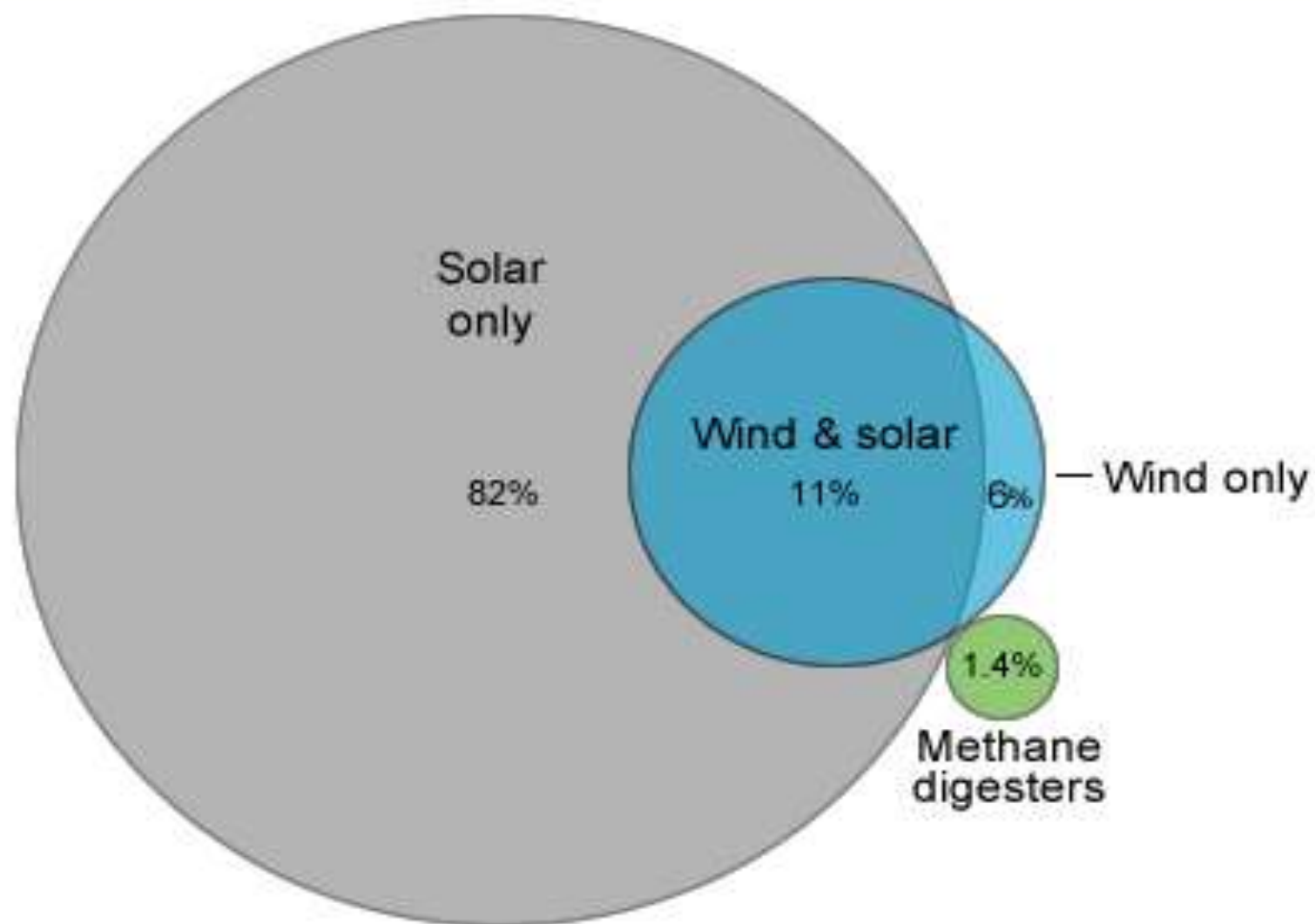


oilseeds for fuel, State Line Farm, Shaftsbury VT



...creating new products with new markets and  
increasing energy security for communities...  
(these benefits are not measured by the census)

# Farms with onfarm renewable energy production, by source, 2009\*



\*As of 2011, only 1.6 percent of U.S. farms produced renewable energy on site.

Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service.

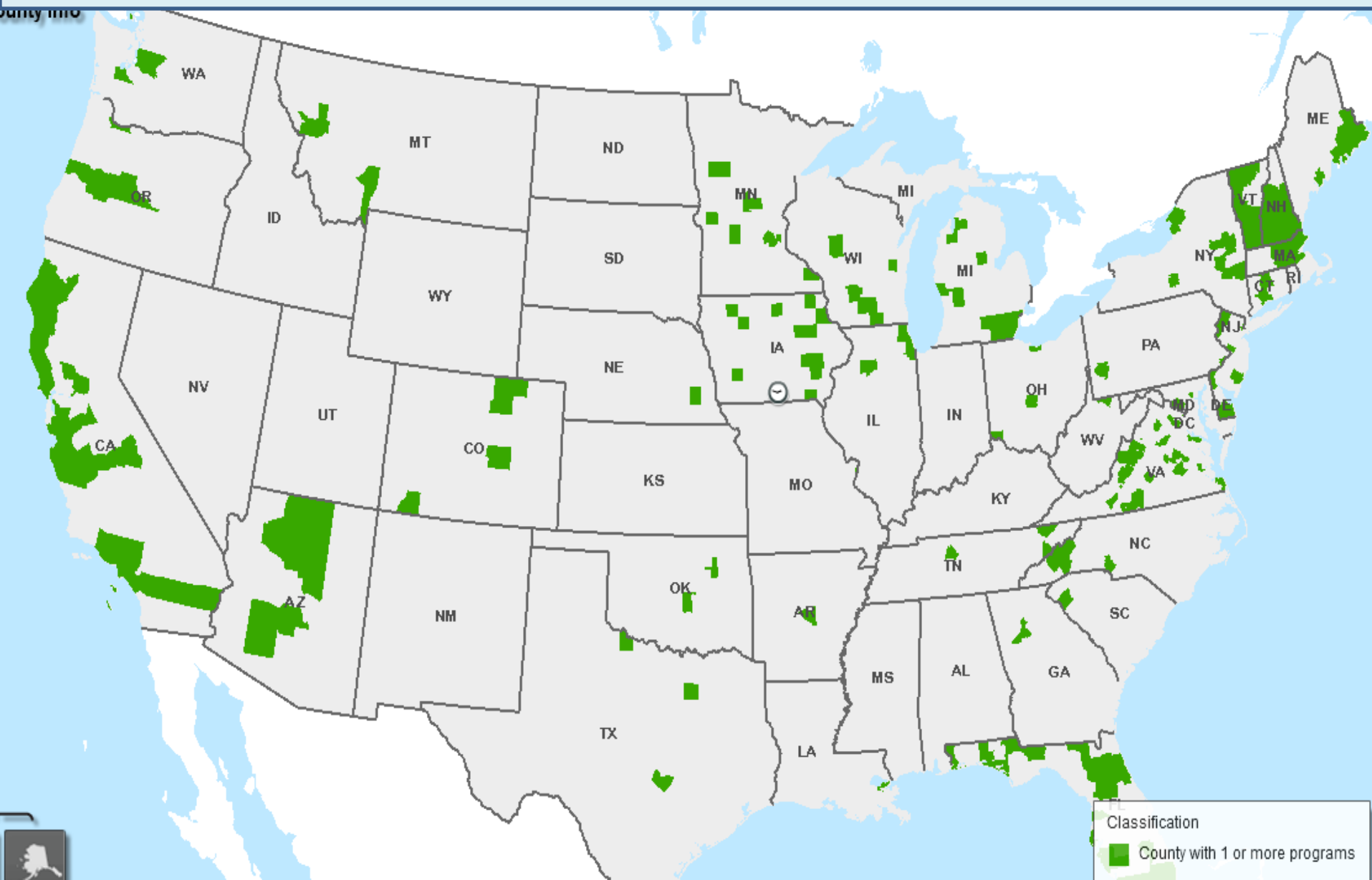
young people are learning about local food...





...changing eating behaviors. There are over 100 farm-to-school programs in Vermont

# counties with a Farm to School program



Food hubs are reaching new markets with local foods



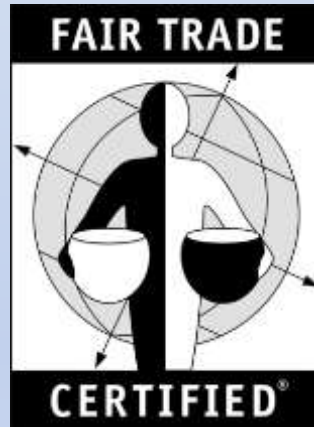
Intervale Food Hub, Burlington VT

‘Value Chains’ support healthy food  
and communities globally



Organic coffee seedling nursery, Oaxaca, Mexico

Third party verification is essential  
(unlike local, where you can 'see' for yourself)



thank you for listening

