

REGIONAL FOOD SYSTEM ECONOMICS

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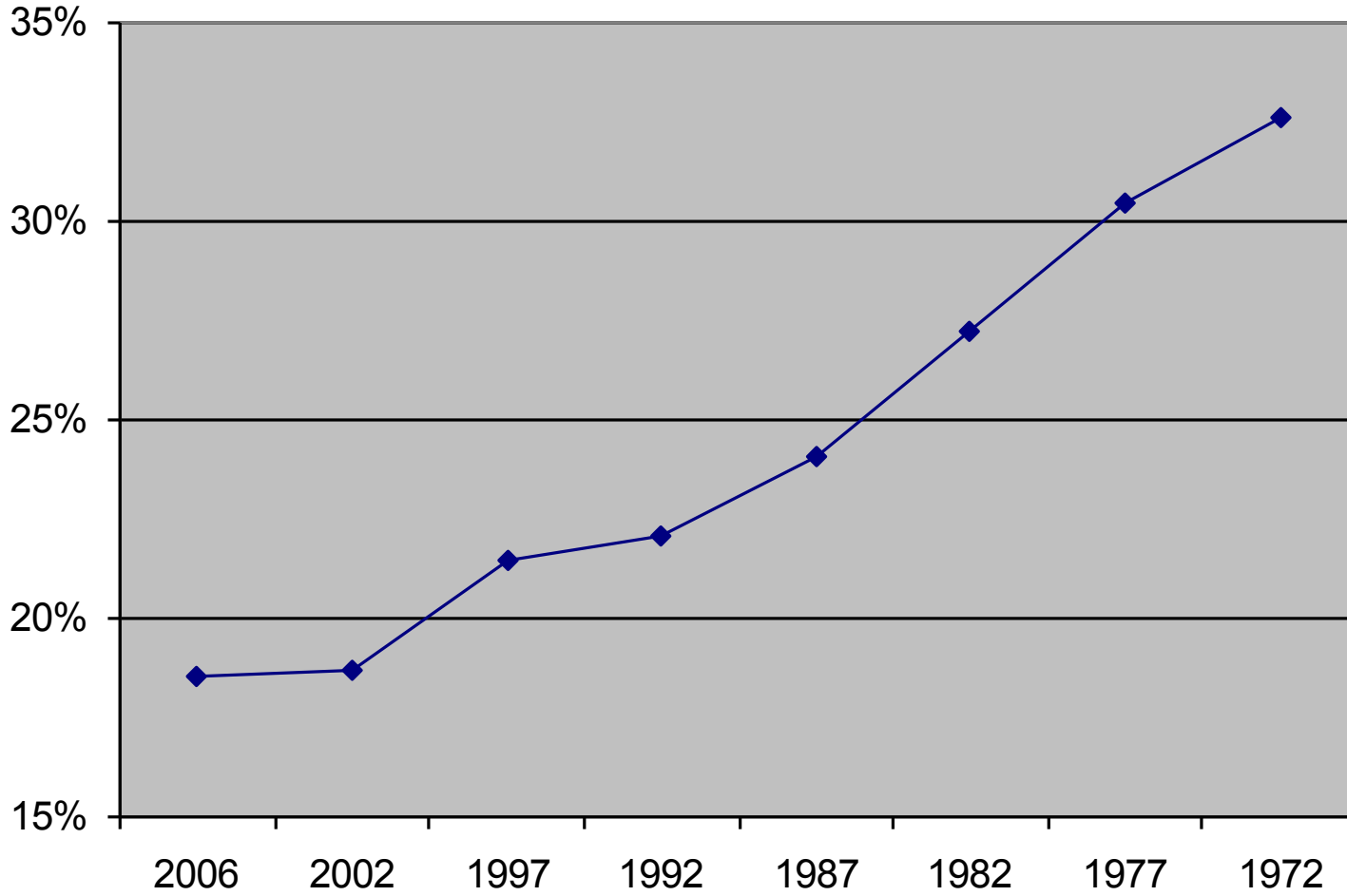
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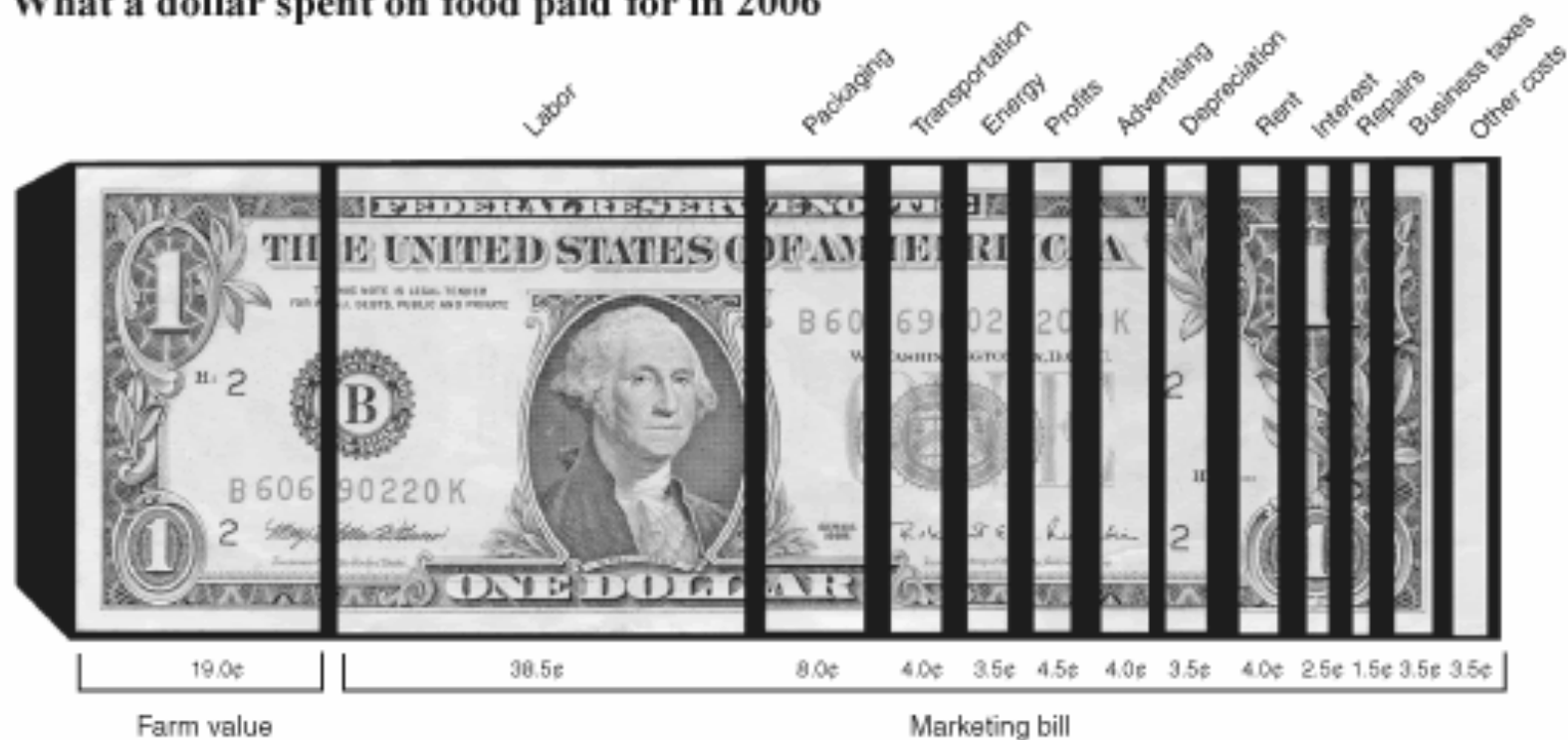
Overview

- Background on ag production and food manufacturing trends in Yolo County
- Structural changes in agribusiness
- Elements of regional food systems
- Values-based supply chains

Farm share of US consumer food expenditures



What a dollar spent on food paid for in 2006

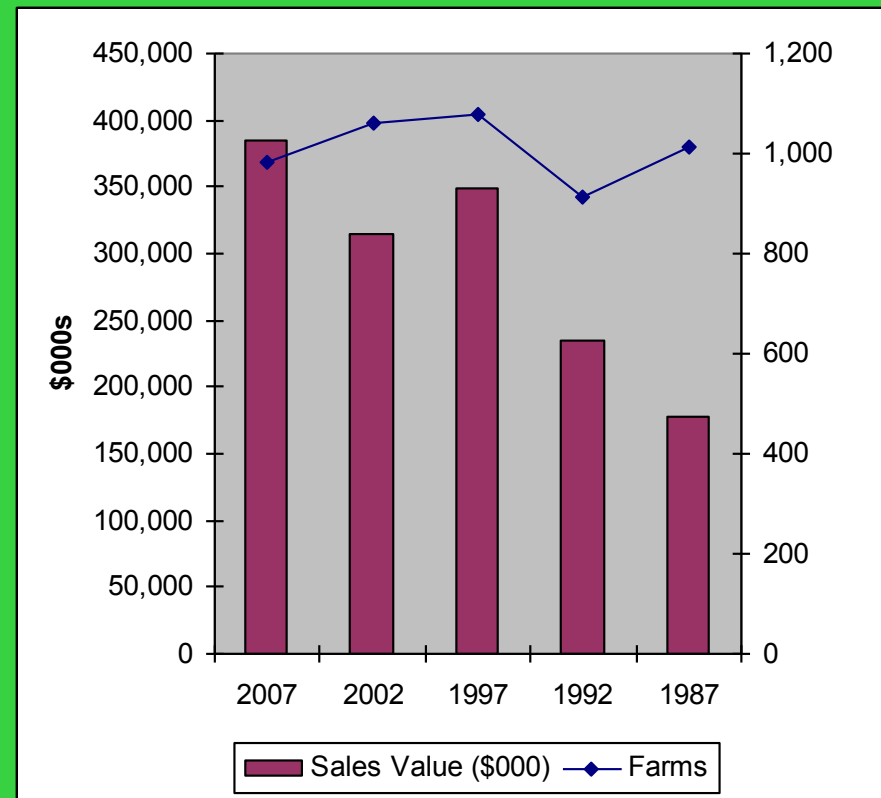


Source: USDA's Economic Research Service.

Yolo County Agriculture

source: USDA Census of Ag

Year	Farms	Market Value of Sales (\$000)
2007	983	384,219
2002	1,060	315,462
1997	1,077	349,212
1992	912	234,173
1987	1,011	177,911

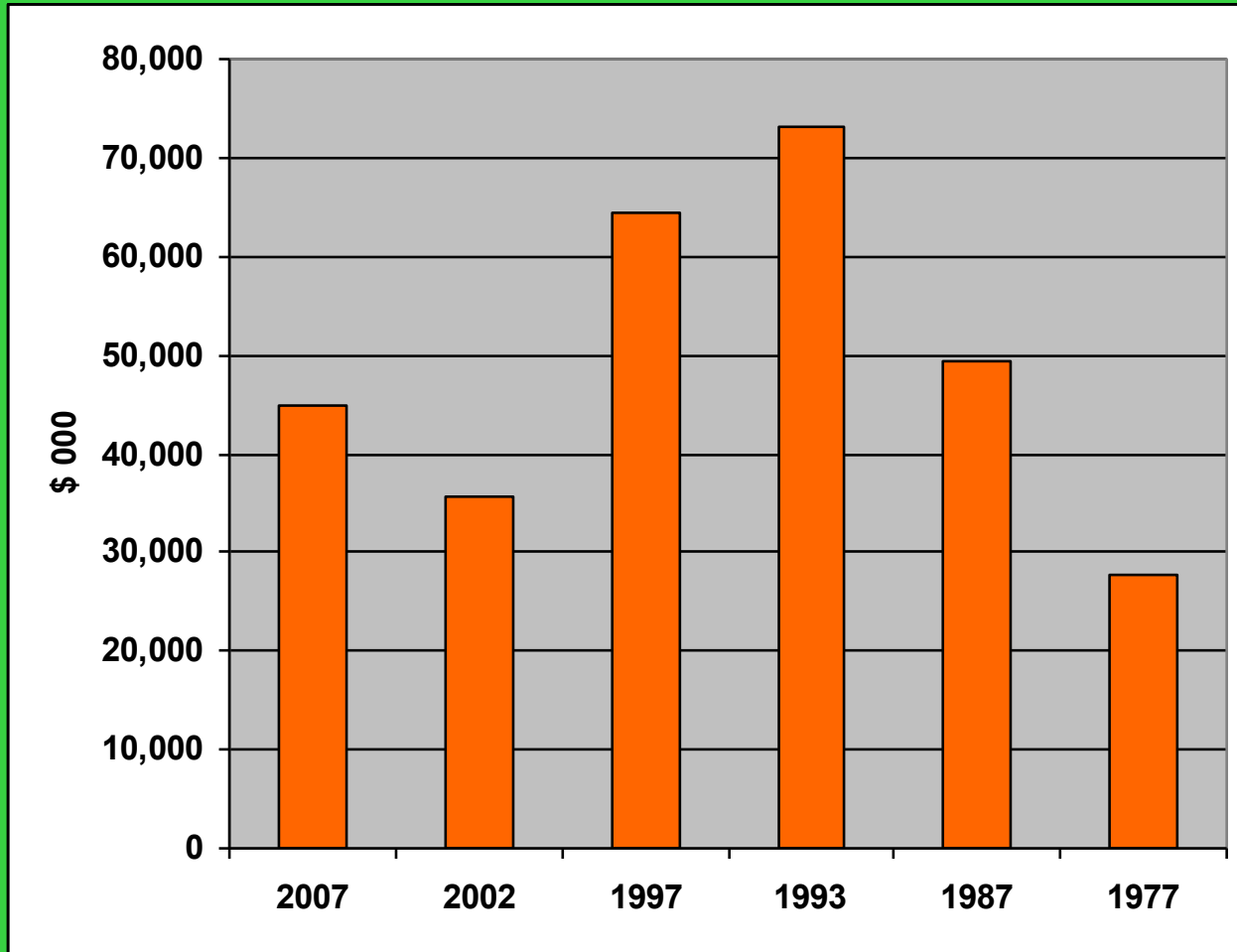


Food Processing In Yolo County

Year	1st Qtr Employees	1st Qtr Payroll (\$000)	Annual Payroll (\$000)	# firms
2007	1,299	8,603	44,905	17
2002	965	7,899	35,512	20
1997	1,766	14,524	64,432	21
1993	2,505	15,660	73,111	25
1987	1,995	9,205	49,481	22
1977	1,418	4,119	27,717	17

source: US Census Bureau, County Business Patterns

Annual Payroll of Yolo County Food Processors



Comparative Changes in Food Manufacturing Industry by Location

	1st quarter payroll (\$000)			Annual payroll (\$000)			Firms		
	1997	2007	% change	1997	2007	% change	1997	2007	% change
Yolo County	14,524	8,603	-40.8%	64,432	44,905	-30.3%	21	17	-19.0%
California	1,169,778	1,392,621	19.1%	5,140,545	6,008,983	16.9%	2,906	3,487	20.0%
United States	10,124,033	12,191,767	20.4%	43,053,715	51,002,471	18.5%	21,223	25,796	21.5%
source: US Census Bureau, County Business Patterns									

Causes of Declines in Food Processing Industry

- Global competition
- Aging facilities
- Transportation costs
- Urbanization pressures
- Regulatory costs

Structural Changes in Agribusiness between 1970-2000

- Production changed from an industry dominated by family-based, small-scale, relatively independent firms to one of larger firms that are more tightly aligned across the production and distribution value chain
- Farm input supply and product processing sectors became more consolidated, more concentrated, and more integrated

Supply Chains

- Retailers and processors established supply chains by vertically integrating and/or contracting with growers
- Supply chains are intended to:
 - improve efficiency through better flow scheduling and resource utilization
 - increase the ability to manage and control quality throughout the chain
 - reduce risks and especially the risk associated with food safety and contamination through traceback, and
 - increase the ability of the agricultural industries to respond quickly to **changes** in consumer demand for food attributes

Infrastructure Needed for Regional Food Systems

- Processing facilities
 - Livestock & poultry slaughter & processing
 - Dairy products
 - Grain & Oilseed milling
 - Fruit & Vegetable Preserving (Canned, pickled, dried, freeze-dried)
 - Bakery & other bakery product manufacturing
 - Sugar and confectionery products
 - Snack food manufacturing (e.g. roasted nuts and peanut butter manufacturing)
 - Other food manufacturing (e.g., vinegar)
 - Juice and soft drink manufacturing
 - Wineries, breweries, spirits and distilleries
 - Animal food manufacturing

Infrastructure Needed for Regional Food Systems

- Produce and processed food storage and warehousing
- Transportation
- Water and wastewater treatment
- Energy
- Communications (phone, email, internet, social networking, wireless)

Key elements of a Regional Food System

- Food needs and supply
- Labor and capital
- Sustainability of land, energy, water & other resources
- Economic development
- Diversity of products and scale
 - Provides flexibility and resiliency

Marketing in a Regional Food System

- Paradigm shift--from commodity marketing to food marketing
- Producers are no longer contract growers
- Usually involves aggregation of product among numerous producers through strategic alliances, partnerships, cooperatives

Values-Based Supply Chains & Regional Food Systems

- Values-based supply chains are committed to producing and marketing high quality food
- Involve **business partnerships** where growers, distributors, retailers or foodservice operations, and consumers agree to share the **economic, environmental and social benefits** in the supply chain

Values-based supply chains

- Growers treated as strategic partners vs. input suppliers
- Increased volumes through aggregation
- Differentiated products – regional branding
- Rewards and responsibilities distributed equitably across the supply chain

Differences Between a Supply Chain and a Values-Based Supply Chain

Characteristic	Supply Chain	Values-Based Supply Chain
<i>Communication & information sharing</i>	Little or none	Extensive
<i>Value focus</i>	Cost/price	Product/supplier attributes
<i>Product</i>	Commodity	Differentiated product
<i>Relationship</i>	Supply-push	Demand-pull
<i>Organizational structure</i>	Independent	Interdependent
<i>Operating philosophy</i>	Self optimization	Chain optimization

2 Cooperatives operating as part of Values-based supply chains

Country Natural Beef

- HQ in Oregon
- Rancher marketing co-op started in mid-1980s
- Creating and marketing differentiated, higher value food products
- Had 14 families; now 100
- Annual sales over \$38 million
- Largest customer identifies individual ranches, not co-op
- Graze-well principles-Land management decisions based on long-term health and productivity of land

Organic Valley

- HQ in Wisconsin
- Dairy & produce marketing co-op started in 1988
- Promotes regional farm diversity & economic stability through organic methods & sale of organic products
- Over 1,600 members in 30+ states and Ontario, Canada
- 7 regional labels
- \$520 million in sales in 2009
- Profit-sharing model: 45% to farmers, 45% to employees, 10% profits to community

Conclusions

- Although value of ag production is growing in Yolo County, payrolls of food processing firms and the number of such firms have decreased significantly since 1993.
- Agribusiness has restructured into supply chains to improve efficiency and quality control, reduce risks and enhance ability to respond quickly to changes

Conclusions

- A regional food system requires considerable infrastructure
- Key elements of regional food systems are: sustainability of resources, economic development and diversity
- Based on production and marketing of differentiated foods, not commodities
- Values-based supply chains are key element of regional food systems

For more information:

- Regional Food Systems
 - <http://www.choicesmagazine.org/magazine/article.php?article=114>
- Values-based supply chains
 - Country Natural Beef case study:
<http://www.agofthemiddle.org/pubs/cnbcasestudyfinalrev.pdf>
 - Organic Valley case study:
<http://www.agofthemiddle.org/pubs/ovcasestudyfinalrev.pdf>