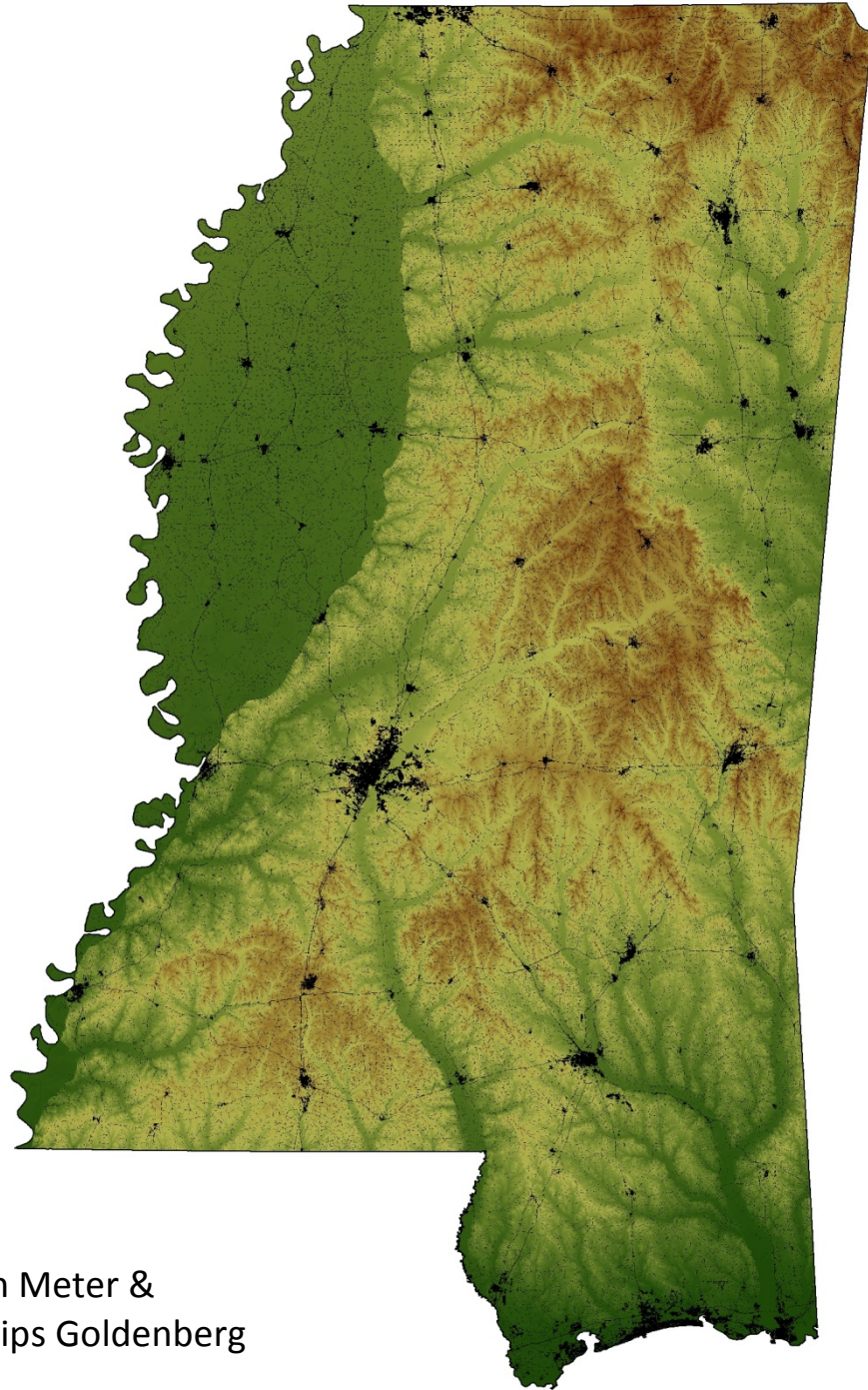
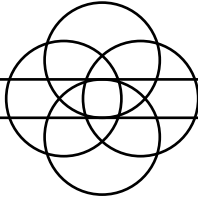


# An Overview of the Mississippi Farm and Food Economy

Produced for the Mississippi Food Policy Council with funds from Winrock International



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### **Tools for Community Self-determination**

### **About this study**

The following study was performed over a six-week period in November and December, 2013. Because of prior research covering the Mississippi Delta, Crossroads Resource Center was invited to perform this rapid overview of the farm and food economy of Mississippi.

The project timetable represented a significant time constraint. This report can only indicate in the most basic terms the realities faced by farmers, food workers, and consumers in Mississippi. There are several issues specific to particular regions or industries that could not be addressed for lack of time and resources. In particular, treatment of the Gulf Coast region, including the seafood industry, was minimal.

Despite its limitations, the authors hope this makes a positive contribution to the discussion of the future of food in Mississippi. We see this as the first of many steps we hope to take with Mississippi residents as they address these complex and rapidly changing conditions in the state's food system.

Comments are welcome, so that future research and implementation steps may be carried out with more thoroughness and efficacy in the future.

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#### **Credits for cover map:**

Elevation data from National Elevation Dataset, US Geological Survey, 1999.

Land Cover data from the National Land Cover Database, a product of the Multi-Resolution Land

Characteristics (MRLC) Consortium, 2001.

All data obtained through the Mississippi Geospatial Clearinghouse, Nov. 2013.

Urban/man-made areas are shown in black.



*Native Son Farm — Tupelo. Photo © Ken Meter, 2013*

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## Executive Summary

Commodity-focused agriculture in Mississippi is holding steady, but several key sectors have eroded in recent decades, due to competitive pressures in the industry. The main rising force is poultry — ranked fourth in the U.S. — yet this sector believes new growth will come primarily from sales to India and China.

With farmers focused on producing raw commodities for further processing, and often for export, Mississippi residents have become increasingly distant from their food supply. An estimated 90% (or more) of the food consumed in the state is sourced outside of Mississippi. Moreover, much of the value that is added to farm commodities is added outside state lines. Farm input purchases and imported food create a net flow of \$8.5 billion *per year* away from the state economy.

At the consumer level, basic recognition of common foods is lacking; many youth are growing up without cooking skills. More than half of the population is overweight. 12.4% of the population has diabetes — the largest rate in the U.S. Medical costs for treating this one food-related illness requires \$2.7 billion per year. This is nearly half the value of all the food commodities sold by Mississippi farms. Billions more are spent on food-related diseases that are less easily attributed to specific foods.

In response to these trends, many small but potent collaborations are beginning to form, largely below the radar, as Mississippians attempt to create a stronger future for themselves. Striking new farming models are being created at the grassroots. Amidst a climate that is relatively dismissive, these innovators have built strong businesses by constructing solid networks around themselves. Some have signed up hundreds of individual Mississippi neighbors as members or committed consumers, while others have primarily built networks involving other businesses. Both approaches can be effective, as long as a public interest is served.

Participants in these emerging collaborations maintain a fierce tone of independence, hold a high ethical ground, and often are deeply skeptical of the potential for the public sector to play a positive role. Yet despite this skepticism, their work must be embraced and supported by the state of Mississippi, with the creation of supportive infrastructure, and proper incentives.

As one farmer put it, “Creation of local food systems is the only obvious option for economic development in most parts of the state. It is a way to prosperity by simply feeding ourselves.”

Indeed, if each Mississippi resident purchased \$5 of food each week directly from a farm in the state, Mississippi farms would earn \$774 million of new revenue.

The Mississippi Food Policy Council is well positioned to take the lead in creating a statewide commitment to support these emergent food-business clusters. MFPC should begin by creating a broad awareness of the importance of these clusters, and by publicizing the work of various clusters today.

As this awareness is built, MFPC will ask the state of Mississippi to formalize a comprehensive program of support that ensures that: (a) adequate infrastructure is built to create efficiencies in local food trade; (b) Mississippi grows new farmers reliably every year, and has rewarding positions they can fill once trained; (c) consumer loyalty is built so strongly that local farms can count on stable local markets; and (d) further food-business clusters, that also engage civic leaders and nonprofits, are fostered.

## List of Mississippi food leaders interviewed

*Note: due to the brief time span available for compiling this research, and limited budget, this is necessarily not a representative sample of the state's food leaders.*

Ron Aldridge — Mississippi State Director, National Federation of Independent Business (Jackson)  
Josephine Alexander — Tubby Creek Farm (Ashland)  
Randy Alexander — Tubby Creek Farm (Ashland)  
Judy Belue — Delta Fresh Foods Initiative (Hernando)  
Keith Benson — Alliance for Sustainable Agricultural Production (Goodman)  
Ron Brandon — Zion Farm (Pontotoc)  
Charles Cantrell — Valley House Farm (Oxford)  
Diane Cloughton — Real Food Gulf Coast, South Mississippi Farmers Market Association (Gulfport)  
Rickey Cole — Produce farmer (Ovett)  
Doug Davis — Ole Miss; Yokna Bottom Farm (Oxford)  
Steve Depew — National Resource and Conservation Service (Tupelo)  
Daniel Doyle — Mississippi Sustainable Agriculture Network (Oxford)  
Jim Ewing — National Center for Appropriate Technology: Gulf State Offices (Jackson)  
Patrick Jerome — Rainbow Whole Foods Co-op (Jackson)  
Shelly Johnstone — Retired, City of Hernando (Hernando)  
Dr. William Kingery — Professor of Plant and Soil Science; co-leader of MSU Student Farm  
Mark Leggett — Mississippi Poultry Association (Jackson)  
Jamie Mauthe — Progress Dairy (Progress)  
Roy Mitchell — Mississippi Health Advocacy Program (Jackson)  
Dustin Pinion — Beaver Dam Farms (Cedarbluff)  
Andy Prosser — Deputy Commissioner, MS Department of Agriculture and Commerce (Jackson)  
Will Reed — Native Son Farm (Tupelo)  
Dr. Becky Smith — Assistant Extension Professor of agricultural economics, MSU (Starkville)  
Dr. Cade Smith — Agronomist and Dean of Students (Starkville)  
David Watkins, Jr. — Watkins Development Corporation (Jackson)  
Allen Williams — BeefPro (Starkville)  
Nancy Woodruff — food entrepreneur (Starkville)  
Darlene Wolnik — Helping Public Markets Grow (New Orleans)  
Sunny Young — EduFood; Good Foods for Oxford Schools (Oxford)

## Current Conditions in Mississippi

*Drawn from interviews and economic research*

### **Mississippi is rich with assets:**

**Available land:** Only 76% of the state's cropland — 4,223,708 of 5,530,825 acres, was harvested in 2007. This means that 1,307,117 acres of cropland went unharvested in that year. Since the state has a total of 11,456,241 acres of land in farms, there appears to be substantial room for expanding small-farm production of livestock, and many possible sites for building greenhouses, hoophouses, packing houses, and other infrastructure, in rural areas.

**Land is relatively low-cost:** At this time, farmers report that land rental rates are quite low in many parts of Mississippi. This promotes the possibility of experimentation with new production techniques, and allows emerging farmers more latitude in developing markets for their produce. Indeed, some farmers are being invited by landowners to restore the fertility of the land.

**Long growing season:** Mississippi has a long growing season, especially in the Gulf region.

**Strong sense of local culture:** Residents reported that state residents hold strong loyalties to family, church, and tradition. Many emphasized that to produce shifts in behavior, these loyalties and social networks must be tapped. Strong senses of hometown pride may incite friendly competition among locales, leading to widespread cultural shifts.

**Mississippi has a strong sense of food culture:** Locally produced foods are cherished as strong connection points to tradition.

**Demand for local food is growing across the state, primarily in urban areas.**

**Strong regional activity (below the level of state government) is flourishing in many parts of Mississippi.**

**Farmers' markets are opening all over the state.** Mississippi counts 80 farmers' markets today, up from 25 just a few years ago.

**Dozens of young people are getting involved in farming.** Many are diving in without having a strong background in agriculture, but are learning quickly by studying written sources, grazing the internet, and teaching each other. For some farming is a small, but essential source of extra income; for others it is a full-time livelihood.

**Mississippi has begun to relax food handling and food safety laws in favor of smaller-scale and local production.** A new cottage food industry law offers protection to home processors and bakers, and farmers are exempt from paying sales tax on sales at Mississippi certified farmers' markets. State leaders are realizing that small-scale production requires different safety protocols than large-scale or industrial operations.

**Three universities have interest in supporting local foods initiatives:** Mississippi State, Alcorn, and Jackson State.

**Mississippi also faces severe challenges:**

**Several farmers and food buyers noted that, although demand for local food is rising, it is still not strong in many parts of the state.** In many parts of Mississippi, income is low enough that people do not feel they can always pay enough to insist on high-quality food; in many areas, traditions discourage people from buying foods they view as unusual.

**Mississippi lacks essential infrastructure that would support local food trade.** This includes washing, packing, storage, coolers, freezers, aggregation, and distribution facilities, as well as access to investment capital, product liability insurance, policies supporting local food production, organization of farmer cooperatives, and the marketing support that is granted other food industries and other small businesses. Until this infrastructure is built, it will be difficult for small farms to establish a lasting financial foothold.

**Agriculture’s focus on export commodities appears to have led state officials, and educational institutions, to overlook the potential for creating new economic activity** — and farm and food business ownership — through local foods. This situation has great urgency. As one seasoned farmer put it, “We have a generation holding the skills already. If we wait eight to ten years, my generation will be too old to help this happen.”

**Lack of skilled labor in agriculture:** Due to the decline in the number of farms, and the focus on commodity exports, few youth are growing up with skills in farming, knowing about basic food items, or in working as hard as needed to support a farm operation.

**Food culture does not always promote health:** Sadly, many of the foods treasured by Mississippians are not as healthy as would be desired.

**Mississippi ranks first in the U.S. in diabetes:** 12.4% of the population has been diagnosed as having diabetes, and two of every three state residents are either overweight (34%) or obese (34%). Medical costs for treating these and related conditions in Mississippi total \$2.7 billion *per year*.

**Even in this agricultural state, youth are growing up lacking knowledge** of nature, of the land, of food, and of farming.

**Despite long growing seasons, many farmers are not accustomed to making use of the full seasonal opportunity.**

**People with experience in the Delta say that exposure to farm chemicals is a critical public health concern.** Several advocated for a “safe zone” where no chemicals would be allowed.

**Low land prices may encourage outside investors to purchase farm land.** This could threaten the state’s ability to make choices to use its land for its own purposes.

**State policy initiatives will be stronger if taken with a systems view.** Several respondents echoed the comments of one close observer in Jackson: “People don’t tend to look at things systematically here.” One result of this is that decisions are often considering short-term results, not taking longer-term trends or consequences into account.

### **Commodity markets are holding steady:**

Poultry production is one of the few rising forces in commodity agriculture, reliably reaching \$2.5 billion in sales each year. Poultry leaders now say the primary hope they have for expansion of the industry is to sell to China and India.

Aquaculture has created a significant, though still relatively small, increase in livestock production. The industry is now larger than either the cattle, hog, or dairy sectors in Mississippi. Yet sales have declined in recent years.

Overall commodity production is at best holding steady, once dollars are adjusted for inflation. Total commodity sales have been level since 1950 (adjusted for inflation by using 2011 dollars), despite the fact that farmers have more than doubled productivity [See Chart 5, page 36, and Chart 13, page 40].

Crop sales by Mississippi farmers are currently at levels similar to 1924 if dollars are adjusted for inflation. Cotton sales, in particular, are far lower than 90 years ago. Soybean sales are the primary factor offsetting lost sales from scaling back the cotton industry [See Chart 6, page 36; Chart 7, page 37; and Chart 10, page 38].

### **Farmers are managing well; reducing costs as much as possible:**

Farmers have been managing very effectively, reducing costs where possible, so that overall costs have remained steady over the past forty years [See Charts 14 & 15, page 41].

However, this also reflects a decline in the number of farmers [See chart 17, page 42].

Costs for feed, seed, and livestock have risen in recent years. These costs are rising faster than sales [See Charts 18 & 19, page 43].

### **Still, net cash income is below earlier levels:**

Mississippi farmers earned a net cash income of \$2.4 billion (in 2011 dollars) from sales of farm products in 1973 – when farmgate prices were high due to a sudden rise of grain exports to the Soviet Union. State farmers have not had as good a year ever since. This 1973 high resulted in an average net cash income of \$29,000 per farm [See Chart 15, page 41].



Currently, 41,959 Mississippi farmers sell \$4.7 billion of food commodities per year (1989-2011 average), spending \$4.4 billion to raise them, for an average gain of \$258 million each year (in 2011 dollars). This is an average net cash income of \$6,141 per farm [See Chart 15, page 41].

Overall, farm producers earned a surplus of \$5.9 billion by selling crops and livestock over the years 1989 to 2011. Yet farm production costs exceeded cash receipts for eight years of that 23-year period, and net income was relatively flat the entire time. Moreover, 42% of the state's farms reported that they lost money in 2007 (Ag Census), and Mississippi farmers and ranchers earned \$828 million less by selling commodities in 2011 than they earned in 1969 (in 2011 dollars) [See Chart 15, page 41].

### **Federal payments are a larger source of net income than farm production itself:**

Farmers and ranchers earn another \$378 million per year of farm-related income — primarily custom work, and rental income (23-year average for 1989-2011; 2011 dollars). Federal farm support payments are a more important source of net income than commodity production, averaging \$508 million per year (in 2011 dollars) for the state for the same years [See page 32]. Yet only about 40% of state farmers receive subsidies.

### **Farmers also purchase \$2.3 billion of essential farm inputs from outside the state:**

Mississippi farmers spend an estimated \$2.3 billion buying inputs sourced outside of the state each year. Even when farmers make money, these input purchases result in substantial losses to the state as a whole.

Many farmers report that they are using manure from industrialized poultry farms to build organic matter and soil fertility. Assuming these materials are free from contaminants or pathogens, this could be an excellent fertilizer source in some settings. Studies estimate that more than 1.5 million tons of manure are generated annually by broiler farms; this may generate (as only a rough estimate) nearly 200 million pounds of nitrogen, phosphorus, and potassium worth \$45 million annually. This would be about one-seventh of the current fertilizer expenditures made by Mississippi farmers.

### **Consumers purchase most of their food from outside Mississippi:**

Meanwhile, Mississippi consumers spend \$7.1 billion buying food each year, including \$4.1 billion for home use. Most of this food is produced outside the state, so the state consumers spend at least \$6.5 billion per year buying food sourced outside of Mississippi.

Only \$9.7 million of food products (0.2% of farm cash receipts and 0.1% of the state's consumer market) are sold by farmers directly to consumers. Yet these sales are significant, outranking Mississippi's 18<sup>th</sup>-most important product, pecans.

**Overall, Mississippi loses \$8.5 billion each year through its food system:**

Taking into account the money consumers spend buying food from external sources, total loss to the state is \$8.5 billion of potential wealth *each year*. This loss amounts to nearly double the value of all food commodities raised in the state.

Mississippi also spends \$2.4 billion each year to treat medical conditions related to overweightness and obesity.

Estimated change in net assets (that is, assets minus liabilities) for all state households combined was a loss of \$1.9 billion in 2011 alone (BLS). This places additional pressure on Mississippi consumers trying to buy food.

**In response to long-term financial trends, small farms are emerging:**

During the Great Depression, the state added 45,000 new farmers, primarily because farming represented one of the few opportunities for creating a livelihood for oneself [See Chart 17, page 42]. This is more farms than the state currently holds.

Similarly, new farmers are emerging across Mississippi, as a response to multiple concerns: a recognition that the commodity system is not effectively responding to an emergent market for local foods; a desire to live with greater liberty; a determination to reduce one's exposure to farm chemicals; a dedication to obtaining higher quality food; an interest in learning new skills; or a desire to connect with neighbors.

**So far, the main source of technical expertise has been other farmers — not institutions:**

This emerging sector of farmers is largely turning to farmers in other states as the source of their technical information, since the three main universities in the state have not been solidly focused on addressing the needs of this emergent sector. At the same time, however, key individuals at each university have been responsive — often with minimal formal support from university officials.

**Emerging farms and food businesses rely upon building strong networks of support around themselves:**

Lacking supportive economic infrastructure, lacking supportive public policy, and lacking capital, these emergent food businesses have effectively built networks of support around themselves. These networks operate in both specific locales, and across the state, and across the Southeast. By leveraging the limited resources available, these networks have created lasting impact. The following examples are not typical of Mississippi farms, but do represent promising approaches that are emerging in diverse regions across the state, and are valued by Mississippi food leaders.

### **1. Alliance for Sustainable Agricultural Production**

The ASAP farm near Goodman trains a small number of farmers each year, mostly from Holmes and Carroll Counties. Neatly apportioned into working farm plots, the farm attracts youth and neighbors who come to help out as volunteers. Yet it also has built considerable economic presence.

Founder and director Keith Benson says that he started his training center by approaching food retailers to find out what they needed in shipments they accepted from local farms. He learned how they market their produce, what margins they needed, and their expectations for sorting, grading, and quality. He learned that many of the bell peppers coming into the Jackson market were being flown in from Holland — and began to explore ways to produce peppers of equal quality. Benson uses poultry manure as an organic fertilizer.

This fall, ASAP sold peppers (and other vegetables) to the Rainbow Whole Foods Co-op in Jackson, as well as to their in-house restaurant, the High Noon Café. The farm also delivers produce to seven nearby schools. It shipped 10,000 pounds of watermelons and Crenshaws in 2013.

“We price at the top of the list,” Benson adds. “People want to buy, and are willing to pay for, organic produce.” Yet he is quick to point out that these buyers are in Jackson. “Our market is *not* Holmes County,” he says.

One farmer using land at ASAP does, however, sell to the Lexington farmers’ market, about 15 minutes away.

With 96 acres of land, the site has ample opportunity to expand as conditions allow. Yet Benson adds that he is very measured about expanding. “We’re growing slower than we’d like,” he continues, “because we want this to last. We are not going into debt doing this.”

His main strategy for creating a solid foundation around the training center is, “We want to collaborate with everybody.” Benson brings in people he considers “top experts” from several state universities, and also sponsors monthly field days — training and information sessions on the farm — to bring his neighbors together to learn.

As a nonprofit, the organization has the capacity to solicit donations in order to perform outreach to the broader community, both to increase the farm’s presence in local networks, and to engage new people in farming. When asked what he would like to see the state of Mississippi do to assist initiatives like ASAP, Benson said, “The state needs to listen more to farmers, and to work more with organizations like ours. The state should free up its staff at the Ag Department to help, and pay me part time to do outreach” — so others will not fail once they get started.

Benson would also like to see a small loan program geared for the needs of small farmers, and an information exchange that would provide emerging farmers an easy way to locate and purchase used equipment.

Overall, however, Benson says the critical need is for stronger collaboration. “We gotta have a coordination point.”

## **2. Native Son Farm**

Native Son Farm, an urban farm inside the city of Tupelo, is an elegantly apportioned property on low-lying ground. It was formerly a corn and soybean field. Wide expanses of neatly tacked-down plastic now cover emerging crops of greens, garlic, onions, and kale, in mid-November.

All the same, owner Will Reed apologizes to his visitor for the state of his farm. “We’re just getting started here.” This is only their second season of planting, he adds, and “We have a lot to learn.” When Will returned to his home town of Tupelo with his wife Amanda, and they bought the land they are now farming, several neighbors suggested they were making a mistake. They would not be able to make a living farming, they were told. Now, on a 10-acre farm, Will estimates they are capable of selling about \$15,000 of produce per acre. Their main source of fertility is poultry manure.

Will and Amanda express their hopes in a simple mission statement, posted on their web site. “Healthy soil grows healthy crops; Healthy crops grow healthy people, families and communities.” Their intention, they add, is to “build a community around an organic farm.”

So far, the Reeds have signed up 150 neighbors who have invested in the farm as Community Supported Agriculture (CSA) shareholders. In exchange for a payment at the start of the growing season, each member receives weekly boxes of produce as the Reeds harvest from their fields. The couple hopes to sign up 50 more people for 2014, but Will quickly adds, “We could supply 500 with the land we have here.” The couple also sells through farmers’ markets in Tupelo and Oxford. “At this point, we can’t grow enough product” to suit the demand, he says.

Reed cautions, however, that buying food from his farm is likely to appeal to only about “one or two percent” of his neighbors. Others are used to the easy choices of shopping at a supermarket, though Reed adds that he thinks this sense of choice is an “illusion.” He would rather that people get more active in creating new choices for themselves.

Reed also acknowledges that, as a son of a doctor, and as someone known in his community, he had some financial advantages in starting his farm that not everyone could access.

One of the stories that motivates him as he works diligently in the fields is a recent encounter he had with students when he spoke to their school. “This was a class of 12 kids. I asked them what their favorite vegetable was. Nine of them gave answers that surprised me: hot dogs, macaroni and cheese, and pizza. They did not even know what vegetables were.” Yet the kids bit eagerly into Reed’s samples once he explained that he had raised them on his farm.

“There is not a big solution to this question,” Reed concludes. “I believe this will only happen in small steps.” It grows by building relationships, which take time.

### **3. Beaver Dam Farms**

For Dustin Pinion, co-owner (with Ali Fratesi) of Beaver Dam Farms near Cedarbluff, the challenge as a farmer is to “try to get beyond the farmers’ market.” Pinion’s experience is that farmers’ markets do not always guarantee sales. The couple sells at farmers’ markets, but prefers to sell membership shares.

To market their products at full value, the couple has formed a network of 800 people, who joined a buying club to buy food from the farm. With members in Columbus, Jackson, Madison, Meridian, and Starkville, they hope to expand into Tupelo, Oxford, and South Haven soon.

They view their primary clientele as “young families with children — people who want the best possible food for their families. They earn all levels of income.”

By selling directly to customers, Beaver Dam Farm gains full value for each item it sells, but also gives consumers leverage. By selling shares of livestock raised on their farm, the couple gives customers more options for obtaining meat — one of which is to take the animal they own a share of to a custom processing shop, where it can be processed for their own personal use.

In his farming practices, Pinion places a strong focus on building healthy soil, often reclaiming abandoned farm fields and using poultry and hogs to build fertility. He uses mobile chicken barns to house his chickens and turkeys, moving the unit around the farm to spread out their manure and build fertility evenly across the farm. He also pastures hogs in fenced-in wooded areas, reclaiming the soil into cleared forests with lush grazing pasture. Established grass pastures are turned over to cattle, which often intermingle with the poultry to produce a rich, fertile field.

Indeed, he is now being hired by his neighbors to pasture his livestock on their fields to reclaim soil that was burned out by previous farming practices. Getting access to land is not difficult, he says, at this stage. There are thousands of acres of underutilized land nearby, going for relatively low

rents. Many landowners cannot see a reason to work their own fields, but are happy to allow the land to be grazed by a farmer they trust.

He is trying to scale up production “without taking on debt.” He has been helped in this quest by his partnership with his father, an established tomato grower in Indianola, who can grow as many as 4,000 pounds of tomatoes per week during peak season. By helping his father with the tomato business, Dustin has gained valuable technical skill as a farmer, and has earned income that helps him get his own farm underway.

When asked what he views as the main policies the state could implement to assist his farming efforts, Pinion does not hesitate to suggest that food safety regulations need to be simplified and scalable. “If the state will work with us to change regulations,” he adds, farms will grow on their own.

### **Growers are rightfully cautious about taking on debt:**

Given the inherent uncertainty that farmers endure, being at the mercy of wholly unpredictable weather, climate, and market conditions, emerging farmers expressed a strong disinterest in taking on debt. Most of the farms we visited are expanding slowly, recognizing that debt has been used in the past as an instrument to separate farmers from their land — and also recognizing that economic conditions are likely to remain unpredictable for years to come. In many cases, grants, forgivable loans, or equity investments will be more valuable to farmers than debt instruments. Once infrastructure is in place that supports small farms and farms producing for local markets adequately, loans will be a more viable option.

### **Mississippi must embrace and support emergent farm clusters:**

The State of Mississippi must embrace these emerging farm clusters with financial investment, creation of supportive infrastructure (washing, cooling, storage, freezing, packing, distribution, and other physical infrastructure as well as information, training, and coordination).

Given the prevailing lack of public commitment to public investment at the state level, it is likely that the creation of such supportive infrastructure is more likely to happen more readily at a local level for years to come.

There also appears to be more interest among certain circles in the state in supporting the growth of institutions, including support services and technical service providers, rather than directly assisting actual farmers with limited resources.

If public money is spent to subsidize those who have not taken leadership in the past, simply because they are politically well positioned, only those who already have resources will be the beneficiaries. This is likely to lead to greater inequality. Farming will cease to be a livelihood available to the average person, more likely to be dominated by external interests.

## **Specific Food Sectors in Mississippi**

### **Mixed Fruits and Vegetables**

Farmers sell more than \$100 million of fruits and vegetables each year in Mississippi. The state ranks seventh for vegetable production, and tenth for fruit production, in the U.S. Yet state consumers spend an estimated \$729 million each year buying these items, so considerable growth is possible in this industry if it addressed local markets.

Moreover, most of the vegetable production (\$66 million out of \$83 million) is sweet potatoes. Many of these are shipped outside of the state.

The main county producing vegetables and potatoes is Calhoun County, with \$29 million in sales from 14,241 acres. Pearl River County, with \$2.3 million in sales of fruit, devotes the most acreage to fruit production.

Growers report that there are no locally owned vegetable processors in the state; most products are sold fresh and exported out of state. The South Carolina firm, W.P. Rawl, owns a sweet corn and vegetable processing plant in Indianola, but again, much of this production is dedicated to out-of-state demand.

Mississippi farmers have established a culture and tradition of growing only two crops per year — one in the Spring, and one in the Fall; often with a break during the hottest summer weather. Yet many parts of the state could grow year round; hoophouses or greenhouses are proving highly useful for extending the season.

Organic farmers report that to get certified, they must bring in certifiers from outside states, namely Florida. They also report that the state offers little supportive infrastructure to organic growers. This obviously poses deep obstacles to the growth of the organic produce industry in the state.

One long-term vegetable grower, Rickey Cole, whose family has been in business near Overt for over 60 years, outlined the history of the industry as his family experienced it. In the 1950s, Mississippi produce growers sent semi-loads of fresh produce to major urban centers like Chicago, Memphis, and New Orleans. “We would have 40-50 laborers in the field every day before 1990,” he says. The family would also sell locally to independent grocers, based on forming close connections to produce managers. The farm also ran its own roadside stand. What was left over might be sold to roadside peddlers for resale.

When Hurricane Katrina hit the Gulf coast, however, this stable business was severely disrupted. “We were selling to a dozen stores in New Orleans at the time,” Cole says, “and we lost all of them due to the disruption.” Now the family focuses primarily on sales to the Hattiesburg region. Their primary crops include kale, mustard, collard greens, okra, sweet peas, sweet corn, peppers, squash, and watermelon. The family has also taken the lead in creating three new farmers’ markets in Hattiesburg and Laurel.

Despite having such an established business, sales to larger grocery chains have been elusive. One significant barrier, Cole noted, is product liability insurance. Second is the long waiting period many encounter for getting paid. Third, larger buyers maintain the right to refuse the product, which can leave a farmer stranded. Finally, labor is not available as it once was. “Local people of a certain generation look down on working in the fields,” Cole adds. Immigrant workers are often attracted to poultry, timber, and retail industries more than field work. Also troubling, hiring labor requires “massive paperwork,” which also discourages growers from entering the arena in the first place.

### **Fresh Produce Packing and Distribution**

Several experienced produce growers have the capacity to grow in large quantities, and to wash and pack their own products for wholesale shipment. Crystal Springs, south of Jackson, once served as a tomato center for the nation, shipping by rail to Chicago.

Yet infrastructure for packing and distributing fresh produce has declined from former levels. A packing shed near Bassfield went under, we were told.

One large distribution warehouse near Jackson, once run by the Adams Co., was purchased by Sunrise Fresh Produce, a \$30 million Florida firm. We were not able to obtain information about whether this facility is available for local produce trade.

Some view this as a potential site for a food hub, yet no evidence was found that (even if Sunrise does not use it for its own ends) sufficient produce production exists in the state to allow such a warehouse to sustain itself financially if it were to focus on local produce for local markets.

### **Value-Added Processing**

Alcorn State runs a processing center in Marks, in northern Mississippi, which is said to be operating at about a small fraction of its capacity. This facility was formerly the site of a commercial processing firm. Several small value-added ventures rely upon this facility for establishing their product lines.

Ocean Springs Farmers’ Market has incubated a number of value-added products including salad dressing, salsa, pickles, and jam businesses. These businesses have launched their products at the farmers’ market and have outgrown that demand.

One group of investors hopes to renovate the Eastland Courthouse, across the street from the Governor’s mansion in Jackson, to create a destination food center for the capitol city. It will feature a farm-to-table restaurant, small processing businesses, a training center and incubator space for food-related businesses, and culinary training. Investors hope to take advantage of New Market Tax Credits in financing the development.

### **Poultry**

Poultry and eggs is currently the most valuable farm commodity produced in the state, with \$2.5 billion in sales, and also the only sector to experience sustained growth over the past



several years. Mississippi households buy an estimated \$183 million of poultry and about \$57 million in eggs (not counting commercial consumers), so farms in the state are capable of supplying resident needs quite handily. While most of these products are exported, some observers state that most of the eggs consumed in Mississippi are likely to be produced in the state. Future growth is identified primarily as emerging interest in India and China for purchasing poultry from the U.S.

There are six major “integrators” operating in the state; only one of these, Sanderson, is a Mississippi firm. The concept of integration means that broilers are raised close to the processing plant, with freezers and warehouses nearby. This creates efficiencies for the industry since trucks can deliver large quantities of feed to one cluster of farms efficiently, and the birds do not have to travel far from the farm to processing. The industry prefers to keep these clusters within a 60-mile radius.

Cal-Maine near Jackson is the largest shell-egg producer in the U.S.

The strength of the industrial farming sector is not matched by strength in the household sector. There are no commercial poultry processing plants available to noncontract growers. This means the local poultry industry in Mississippi is growing due to on-farm processing. Some determined poultry producers have built licensed and inspected facilities on their farms. Since 2009, Mississippi accepts the federal exemptions (1,000/20,000 bird/year limits), however, birds processed under these exemptions must be sold to the final consumer directly from the farm.

Farmers express strong concern that they are required by state regulation to convey their processed birds in a mechanically refrigerated truck; this expense can run as high as \$80,000 and cannot be absorbed by small producers.

Some producers transport their birds across state lines for processing under inspection, which allows them to sell these birds in the receiving states.

Small growers report that they have decreased the role that poultry plays in their business plan due to the lack of processing infrastructure available to them, or due to shipping regulations, while others have decided not to engage in on-farm processing at all. Yet they face rising demand for small-farm raised poultry.

Although eggs can be sold on the farm, producers wishing to sell at farmers market must do so under mechanical refrigeration. This is an expensive barrier for producers to broach, not required in other states, which limits market access and penetration. Interestingly, the state does allow for the transport of eggs on ice, unlike other proteins except seafood, which must be under mechanical refrigeration all the time.

## **Livestock**

Mississippi farms sell about \$500 million of non-poultry livestock and related products, which in theory could be enough to feed household consumer demand (\$463 million) for beef and pork; however, much of this heads to a national commodity stream. Moreover, sales of livestock are well below half of the value they held in their peak, in the late 1970s.

A lack of processing facilities could also be limiting the niche meat industry in Mississippi. Producers that are able to transport a truck load of cattle at a time (40 head) send their animals to processing facilities in Louisiana, Tennessee, Georgia, and Alabama — and some then sell their meat products into those markets. Producers with small herds are able to sell live animals (or shares in a live animal) to the end consumer; that consumer has the animal processed at a custom-exempt butcher shop.

Although, reportedly, a large-animal USDA-inspected facility exists in Northern Mississippi, only one interviewee reports using it, and only then, just sometimes. He prefers to sell live animals. One interviewee reported that the difference between selling live animals on the farm and selling cuts of meat at the farmers market is “a living.” Livestock producers report they can sell most of what they produce.

The state invested in a processing plant several years ago; this appears to have gone out of business due to financial mismanagement. It is also unclear whether there is sufficient demand to sustain such an operation until more consumers are asking for locally produced red meats.

Some would like to see the opening of a mobile processing unit that could travel directly to livestock farms to carry out slaughter and primary processing. Some view this as a step toward a larger permanent facility. While mobile slaughtering units have been successful in rural areas, particularly where transportation is expensive or prohibitively distant, it is not clear that the density of livestock producers in Mississippi is sufficient to warrant such a unit at the present time.

### **Wild Livestock**

Rural residents report that wild deer and wild hogs are prevalent in some parts of the state; many of these may be harvested by hunters for their own use. It would appear that these constitute an important potential source of food for residents.

### **Dairy**

Farm sales of milk dairy products in Mississippi peaked at just under \$400 million (in 2011 dollars) in 1967; the industry has steadily eroded ever since, with dairy sales totaling only \$45 million in 2011. Conventional milk prices at the farmgate, in particular, often fall below the cost of production. The household dairy market within the state is \$424 million.

Yet niche dairy producers we interviewed are energetic and optimistic. Once members of a fluid milk co-operative, they not only successfully transitioned their businesses to direct sales; they also tripled their income.

Dairy farming has fallen out of favor due to the chronic workload and long hours, yet these same qualities also make it an attractive venture financially if prices are high enough. Since the supply is fairly consistent, farmers can count on fairly steady regular income. Its perishability poses a challenge, but also allows competent producers to differentiate themselves.

Farmers' markets often seek to attract a dairy farmer because their weekly presence can help anchor sales at the market. It is often difficult for any given market to support more than one dairy farmer, however. Some farmers complain they would like to sell at a year-round market since their supply is not seasonal. One producer heads to Louisiana to sell products since a year-round market is available there.

Another option for an increasing number of dairy producers is the direct to restaurant wholesale market. This option, however, comes with a need for additional education and training. Cooks and chefs report an inability to work with full-fat milk given current recipes. Restaurants that are willing to commit to local dairy will have to make adjustments for this richer product.

Although dairy is considered a great market opportunity by Mississippi producers, everyone is concerned that the large start up costs will keep out new producers. Indeed, every niche dairy that was discussed over the course of this study utilizes previously purchased land and equipment at least in part.

Dairy must be sold out of a mechanical refrigeration unit, but can be transported under ice, so long as it arrives at or under 41 degrees Fahrenheit or in a frozen state for ice cream. Raw dairy from restricted herd sizes can be sold on-farm, however, dairy products sold at farmers' markets must be pasteurized.

## **Seafood**

The seafood industry has played a historically significant role in Mississippi's economy, however, due to changing environmental, political, technological challenges, this industry has been declining since roughly 1985 (Chart 1), with 2012 poundage only 60% of 1985 poundage, and sales only half, of 1985 levels. Indeed, fishermen made almost as much money (adjusted for inflation) in 1950 as they do today, despite greater harvests.

Even though Gulf fisheries are considered by The EPA to be the most productive in the world, the Gulf region's role in the United State's fishing industry is declining. Similarly, Mississippi's role in the Gulf region's fishing industry is declining. Observers attribute this to heightened competition in the industry. Gulf harbors even report significant competition with each other. Farmers' market managers also report it is difficult to attract seafood vendors away from the harbors.

Recent events have been hard on Mississippi fishing industries. Hurricane Katrina and the Deep Horizon oil spill both inflicted considerable damage to the coastline and the fish populations, however these events do not account for decades of decline. No one factor accounts for the reduction in the catch. Several sources blame overfishing, starting back in the 1970s, for declining landings.

Certainly several popular species are being actively managed with limited access programs and quotas, including red snapper, amberjack, and gray triggerfish, to name a couple. Blue

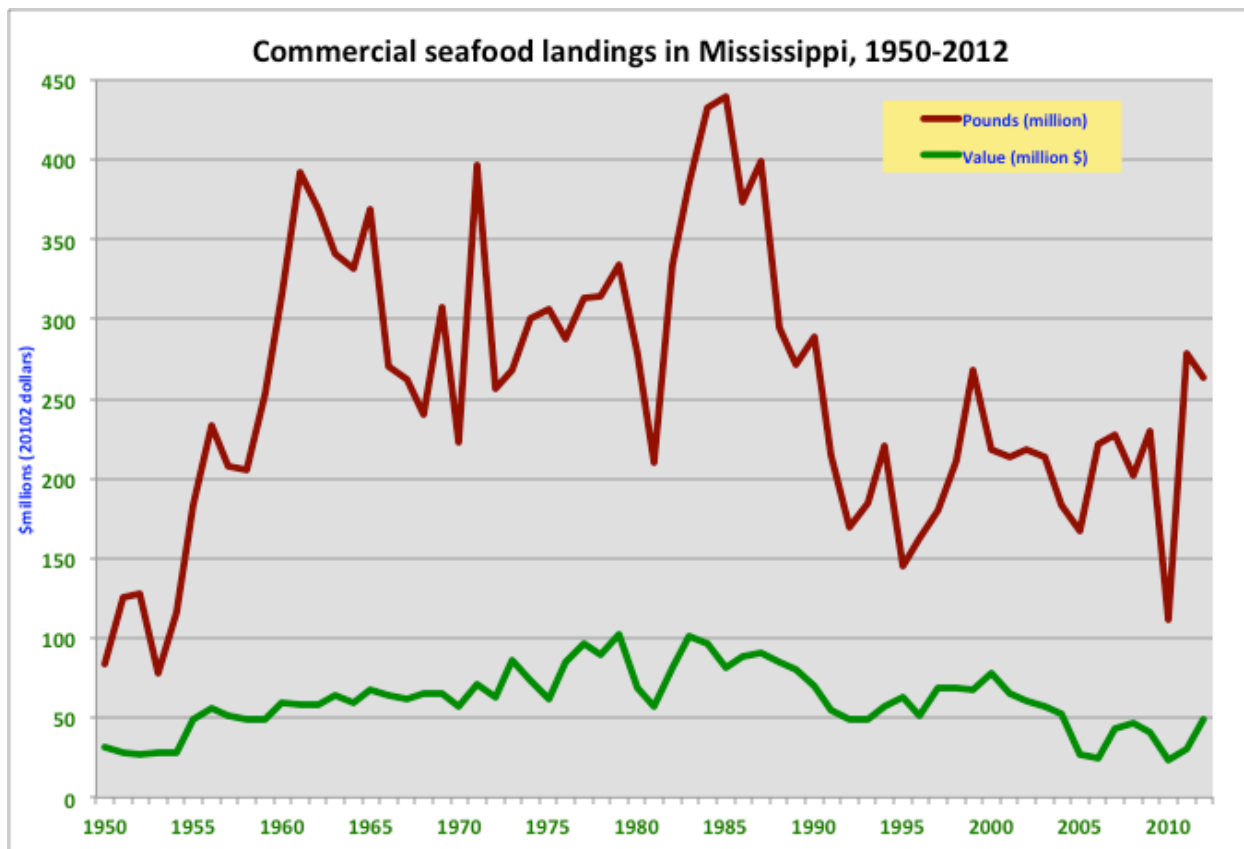


Chart 1: Value and Weight of Commercial Seafood Landings in Mississippi Over Time. (NOAA, 2014)

crab populations are also reportedly declining, however blue crab has never played a major role in Mississippi’s seafood industry.

Instead, shrimp is the heavy lifter in economic value, over time, and appears steady except for when shocked by the major disasters named above, in 2005 and 2010. Fortunately, in 2012, the value of shrimp landed in Mississippi exceeded pre-Katrina levels, and pounds landed have almost caught up (Charts 2 and 3).

Menhaden makes up over 90% of the pounds of fish landed in Mississippi, even though it is typically less important in terms of economic value than shrimp. This fish is used for downstream commercial uses, such as Omega-3 oil extraction and fishmeal for animal feed. As recently as 2008, this fish was considered overfished, however, attempts to put a moratorium on its harvest have been unsuccessful. Environmental degradation and shifting weather patterns also likely play a role in declining populations, and will continue to do so.

There are also some indications that the Gulf fishing industry is not keeping up with foreign competition. This might be technological in nature; however, it is likely mostly due to foreign fisheries not facing the same rigorous fishing regulations as U.S. fishermen. Yet this regulation also provides new niche markets for sustainably raised seafood, as long as

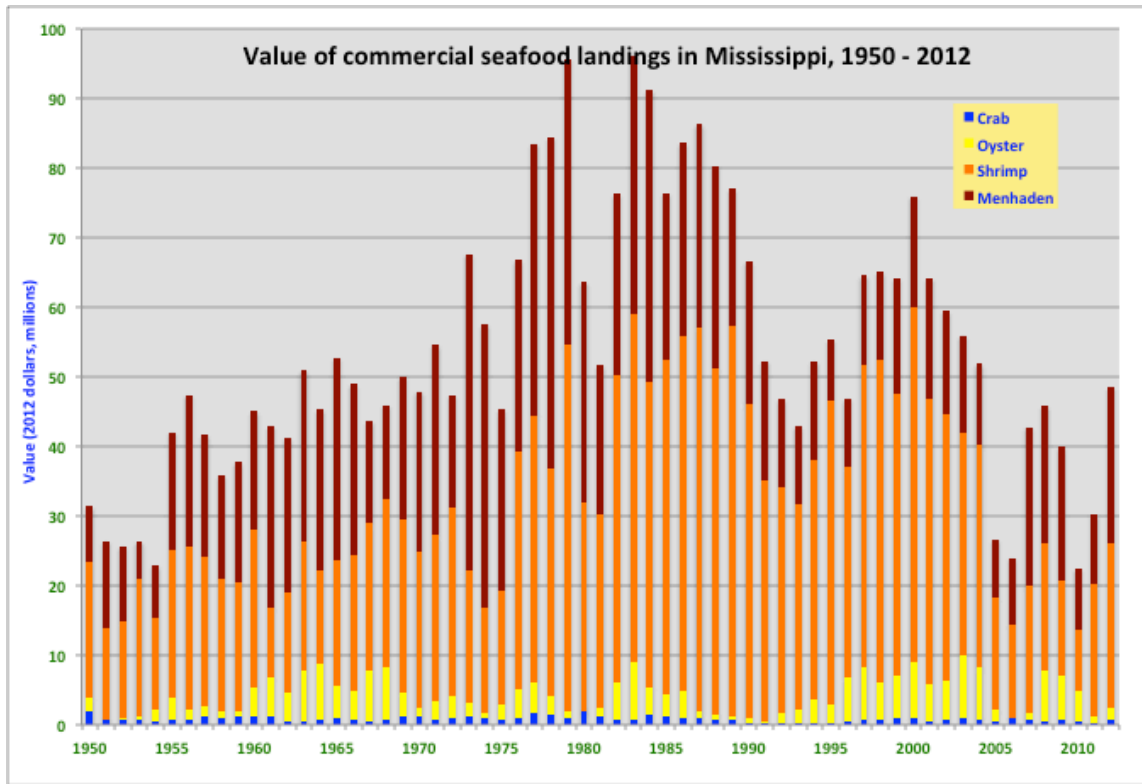


Chart 2: Value of Commercial Seafood Landings in Mississippi by Species Over Time. (NOAA, 2014)

consumers are aware of the importance of purchasing from local sources. Indeed, local seafood is being marketed directly, much in the same way that local food is marketed.

Rising costs of intermediate inputs (such as fuel, equipment, and boats) are also likely affecting output. Many industry outlook reports blame energy prices for industry volatility. NOAA reports that fuel costs account for 48% of an average shrimping vessel's operational costs.

The decline in commercial landings also has a strong spillover effect that multiplies through the economy. Given lower fish harvests, commercial processing and wholesaling services in Mississippi are also declining. Industry reports cite a reliance on buying imported seafood, in order to keep businesses running.

Although the scope and the budget associated with this report precluded extensive travel across the state including the gulf coast region, local observations were made. Individual vendors often sell direct to shoppers out of the back of a truck. A few Jackson restaurants feature locally harvested fish. Seafood can be sold on ice. Unlike other forms of protein, regulations do not require mechanical refrigeration.

### Aquaculture (Namely Catfish)

The decline in commercial harvests from the Gulf has placed renewed attention on domestic aquaculture. Although aquaculture is still a relatively small percentage of the state's

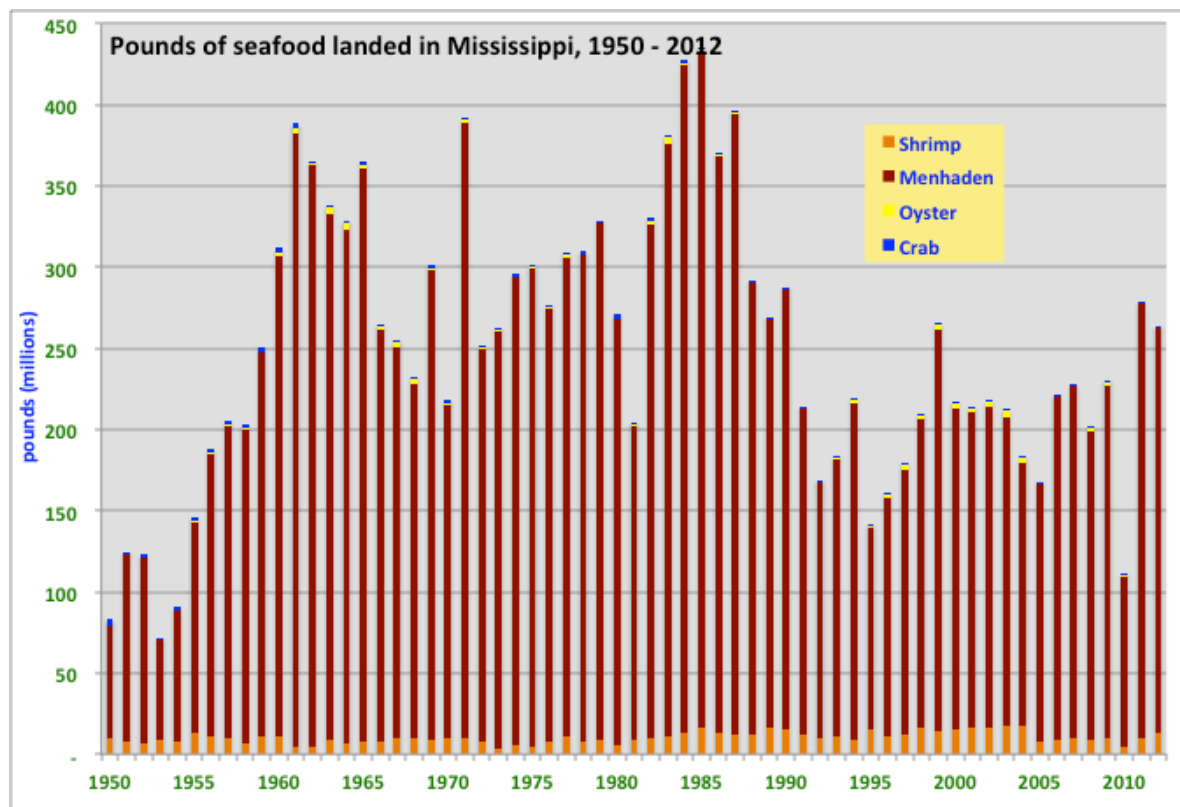


Chart 3: Pounds of Commercial Seafood Landings in Mississippi by Common Species Over Time. This is only a sample of the most common species. (NOAA, 2014)

agricultural industry (4% in 2011), at \$200 million in sales, Mississippi is the largest producer of farmed catfish in the U.S. Historical data for this industry is not as readily available as for other sectors, however, this industry has also suffered from some decline in the last decade and a half. This is also attributed to cheaper, foreign competition; however, industry outlooks are optimistic due to increases in consumer demand for domestic products.

Overall, projections for aquaculture are strong. Global demand for seafood far outstrips supply, and this gap will only increase as global fish populations decline and tighter regulations are introduced. Since domesticated fish have the highest feed conversion ratios, farm raised fish will likely be a commodity for quite some time (that is, until environmental constraints overtake this feed efficiency).

The aquaculture industry in Mississippi also grows and harvests hybrid striped bass, prawns, tilapia, crawfish, and alligator. The market for alligator is volatile and has also declined sharply for the last several decades. The crawfish sector is also minor, citing massive competition from Louisiana as the limiting factor. Although commercial prawn production has been heavily researched and appears viable, the market demand is currently weak. Domestic production of tilapia, although a popular farm-raised fish, cannot compete with foreign suppliers.

Once again, due to time constraints inherent in this project, our research did not get a good purchase on conditions in this important state industry.

## Farm and Food Economy Data

### Mississippi (Bureau of Economic Analysis, 2011)

- 2,984,926 residents receive \$95.8 billion of income annually. Personal income nearly tripled from 1969 to 2011, after dollars were adjusted for inflation. The largest source of personal income is transfer payments (from government programs such as pensions), totaling \$24.5 billion. Government jobs rank second, with \$14.4 billion. Manufacturing jobs produce \$7.7 billion of personal income. Capital income from rent, dividends or interest comes in a close third, with \$14.1 billion. Health care workers earn \$6.8 billion of personal income. Note that income from public sources makes up 40% of all personal income in the state.
- Income earned from transfer payments includes \$7.6 billion of retirement and disability insurance benefits; \$10.8 billion of medical benefits; \$3.6 billion of income maintenance benefits; \$0.5 billion of unemployment insurance; and \$0.6 billion of veterans' benefits.
- Government income includes \$2.3 billion of income earned by federal workers and \$10.4 billion earned by state and local government workers. Military personnel earn \$1.7 billion of personal income.
- Although population has increased more than 34% since 1969, there has been only limited public planning to assure a secure and stable food supply.

### Issues affecting low-income residents of Mississippi:

- 1.16 million residents (41%) earn less than 185% of federal poverty guidelines. At this level of income, children qualify for free or reduced-price lunch at school. These lower-income residents spend \$2.4 billion each year buying food, including \$428 million of SNAP benefits (formerly known as food stamps) and additional WIC coupons. The state's 41,959 farmers receive an annual combined total of \$508 million in subsidies (23-year average, 1989-2011, in 2011 dollars), mostly to raise crops such as soybeans, corn, cotton, or rice, that are sold as commodities, not to feed local residents. *Data from Federal Census of 2007-2011, Bureau of Labor Statistics, & Bureau of Economic Analysis.*
- 13% percent of the state's households (over 140,000 residents) earn less than \$10,000 per year. *Source: Federal Census of 2005-2007.*
- 26% of all adults aged 18-64 in Mississippi carried no health insurance in 2010. *Source: Centers for Disease Control.*

**Food-related health conditions:**

- 17% of state residents reported in 2009 that they eat five or more servings of fruit or vegetables each day. 83% do not. This level of adequate consumption is about the same as in 1996. This is a key indicator of health, since proper fruit and vegetable consumption has been connected to better health outcomes. *Source: Centers for Disease Control.*
- 19% of the state’s adults reported in 2000 they have at least 30 minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20 or more minutes three or more days per week. This is slightly above the level of 17% in 1996. *Source: Centers for Disease Control.*
- 12.4% of Mississippi residents have been diagnosed with diabetes in 2010, up from 9.6% in 2004. *Source: Centers for Disease Control.* Medical costs for treating diabetes and related conditions in the state are estimated at \$2.7 billion. *Source: American Diabetes Association.*
- 68% of state residents were overweight (34%) or obese (34%) in 2010, up from 55% in 1995. *Source: Centers for Disease Control.*

**The region’s farms (Agricultural Census, 2007)**

*Agricultural Census data for 2007 were released February 4, 2009*

*The Census of Agriculture defines a “farm” as “an operation that produces, or would normally produce and sell, \$1,000 or more of agricultural products per year.”*

*Land:*

- 41,959 farms.
- Mississippi had 227 less farms in 2007 than in 2002.
- 2,244 (5%) of these are 1,000 acres or more in size.
- 12,000 (29%) farms are less than 50 acres.
- Average farm size is 273 acres.
- The state has 11 million acres of land in farms.
- Mississippi holds 4 million acres of harvested cropland.
- 1.4 million of these acres are irrigated.
- Average value of land and buildings per farm was \$510,000.

*Sales:*

*With the exception of foods sold directly to consumers (see below), farmers typically sell commodities to wholesalers, brokers or manufacturers that require further processing or handling to become consumer items. The word “commodities” is used in this report to mean the crops and livestock sold by farmers through these wholesale channels. The term “products” encompasses commodity sales, direct sales, and any other sales.*



- The region's farmers sold \$4.9 billion of crops and livestock in 2007.
- Farm product sales increased by 56% from 2002 to 2007.
- \$1.7 billion of crops were sold.
- \$3.2 billion of livestock and products were sold.
- 30,000 (71%) of Mississippi's farms sold less than \$10,000 of products in 2007.
- Total sales from these small farms were \$49 million, 1% of the region's farm product sales.
- 4,546 (11%) of Mississippi's farms sold more than \$100,000 of products.
- Total sales from these larger farms were \$4.6 billion, 95% of the region's farm product sales.
- 42% of the state's farms (17,807 of 42,000) reported net losses in 2007.
- 17,000 (41%) of Mississippi's farmers collected a combined total of \$231 million of federal subsidies in 2007.

*Production Expenses:*

- Purchases of feed were the largest single expense for the state of Mississippi's farmers in 2007, totaling \$1.5 billion (34% of production expenses).
- Livestock purchases (including poultry chicks) ranked as the second most important expense, at \$470 million (11%).
- Farmers charged \$268 million to depreciation (6%).
- Fertilizer, lime, and soil conditioners cost farmers \$264 million (6%).
- Supplies, repairs, and maintenance costs totaled \$242 million (6%).
- Gasoline, fuels, and oil expenses were \$228 million (5%).
- Mississippi farmers paid \$223 million (5%) in rental costs.
- Chemical purchases were \$220 million (5%).
- Hired farm labor costs totaled \$214 million (5%).

*Cattle & Dairy:*

- 18,000 farms hold an inventory of 987,000 cattle.
- 530,000 cattle were sold by farmers in 2007 for total sales of \$324 million.
- 16,000 farms raise beef cows.
- 177 farms raise milk cows.
- 13 farms produced corn for silage.
- 1,282 farms produced 170,000 tons of forage crops (hay, etc.) on 84,000 acres.
- 4,907 farms sold \$46 million of forage.

*Other Livestock & Animal Products:*

- 683 farms hold an inventory of 337,000 hogs and pigs.
- 439 farms sold 1.3 million hogs and pigs in 2007.
- 380 farms hold an inventory of 8,414 sheep and lambs.
- 1,026 farms sold \$1.7 million worth of sheep, goats, and lambs in 2007.

- 1,925 farms hold an inventory of 6.2 million laying hens.
- 1,453 farms raise 823 million broiler chickens.
- 488 farms engage in aquaculture, with sales of \$238 million.
- 2,004 farms raise horses and ponies.

*Grains, Oil Seeds, & Edible Beans:*

- 3,918 farms produced \$1.1 billion of grains, oil seeds, and edible beans.
- 2,091 farms produced 128 million bushels of corn on 874,000 acres, worth \$431 million.
- This amounts to an average price per bushel of corn of \$3.37. *Note that this price is an approximation, and does not necessarily represent an actual price at which corn was sold.*
- 2,589 farms produced 54 million bushels of soybeans on 1.4 million acres, worth \$405 million.
- This amounts to an average price per bushel of soybeans of \$7.50. *Note that this price is an approximation, and does not necessarily represent an actual price at which soybeans was sold.*
- The total value of corn and soybeans amounted to 17% of all farm product sales in 2007.
- 1,006 farms produced 18 million bushels of wheat on 332,000 acres, worth \$86 million.
- This amounts to an average price per bushel of wheat of \$4.78. *Note that this price is an approximation, and does not necessarily represent an actual price at which wheat was sold.*
- 341 farms produced 1.3 billion pounds of rice on 185,000 acres, worth \$135 million.
- This amounts to an average price per pound of rice of \$0.10. *Note that this price is an approximation, and does not necessarily represent an actual price at which rice was sold.*

*Vegetables & Melons (some farmers state that Ag Census data does not fully represent vegetable production):*

- 1,156 farms worked 31,000 acres to produce vegetables, worth \$82.5 million.
- This represents a 28% increase in the number of farms (from 903) and a 107% increase in sales (from \$39.9 million) over 2002 levels.
- 178 farms raised potatoes.
- 122 farms raised sweet potatoes.

*Fruits (some farmers state that Ag Census data does not fully represent fruit production):*

- 937 farms in the region hold 16,000 acres of orchards.
- 962 farms sold \$33 million of fruits, nuts, and berries.
- 85 farms produced 58 million pounds of peanuts on 18,000 acres.

*Nursery & Greenhouse Plants:*

- 479 farms sold \$46 million worth of ornamentals in 2007.

- This represents an increase of 23% in the number of farms (from 390) and an increase of 18% in the number of sales over 2002.
- 147 farms sold Christmas trees.

*Direct & Organic Sales:*

- 1,229 farms sell \$9.7 million of food products directly to consumers. This is a 3% increase of number of farms (1,192 in 2002) selling direct, and a 29% increase in direct sales, over 2002 sales of \$7.5 million.
- This amounts to 0.2% of farm product sales, one half the national average of 0.4%.
- 54 farms in the region sold \$539,000 of organic products.
- 97 farms are converting 1,892 acres of land to organic production.
- 191 farms market through community supported agriculture (CSA).
- 1,163 farms produce and sell value-added products.

*Conservation Practices:*

- 4,606 farms use conservation methods such as no-till, limited tilling, filtering field runoff to remove chemicals, fencing animals to prevent them from entering streams, etc.
- 5,632 farms practice rotational or management intensive grazing.
- 243 farms generate energy or electricity on the farm.

**Limited-resource farms and others in Mississippi (Census of Agriculture, 2007)**

<b>Small family farms:</b>	<b>Farms</b>	<b>Percent</b>	<b>Acres</b>	<b>Percent</b>
Limited-resource	6,715	16%	831,323	7%
Retirement	10,357	25%	2,119,792	19%
Residential/lifestyle	15,960	38%	2,702,756	24%
Farming occupation/lower sales	3,699	9%	782,767	7%
Farming occupation/higher sales	586	1%	383,022	3%
Large family farms	782	2%	672,790	6%
Very large family farms	2,411	6%	2,894,218	25%
Nonfamily farms	1,449	3%	1,069,573	9%

*Definition of terms (Agricultural Census 2007):*

**Limited-resource farms** have market value of agricultural products sold gross sales of less than \$100,000, and total principal operator household income of less than \$20,000.

**Retirement farms** have market value of agricultural products sold of less than \$250,000, and a principal operator who reports being retired.

**Residential/lifestyle farms** have market value of agricultural products sold of less than \$250,000, and a principal operator who reports his/her primary occupation as other than farming.

**Farming occupation/lower-sales farms** have market value of agricultural products sold of less than \$100,000, and a principal operator who reports farming as his/her primary occupation.

**Farming occupation/higher-sales farms** have market value of agricultural products sold of between \$100,000 and \$249,999, and a principal operator who reports farming as his/her primary occupation.

**Large family farms** have market value of agricultural products sold between \$250,000 and \$499,999.

**Very large family farms** have market value of agricultural products sold of \$500,000 or more.

**Nonfamily farms are farms** organized as nonfamily corporations, as well as farms operated by hired manager.

**State of Mississippi highlights (Agriculture Census 2007):**

- 41,959 farms, a 1% decrease since 2002.
- Mississippi has 11 million acres of land in farms.
- Farmers sold \$4.88 billion of products in 2007.
- \$1.67 billion (34%) of these sales were crops.
- \$3.21 billion (66%) of these sales was livestock.
- The most prevalent farm size is 50 to 179 acres with 16,519 farms (39%) in this category.
- The next most prevalent is 10 to 49 acres with 10,234 (24%) farms.
- 2,244 farms (5%) are 1,000 acres or more.
- 12,290 farms (29%) are less than 50 acres.
- 29,893 farms (71%) sold less than \$10,000 in farm products.
- 4,546 farms (11%) sold more than \$100,000 in farm products.
- Mississippi ranks 1<sup>st</sup> in the U.S. for Aquaculture sales, with \$238 million.
- The state ranks 4<sup>th</sup> in the U.S. for acreage of cotton, with 656,000.
- Mississippi ranks fourth in the country for inventory of broilers, with 151 million.
- The state ranks 5<sup>th</sup> in the country for cotton and cottonseed sales, with \$363 million.
- Mississippi ranks 5<sup>th</sup> in the U.S. for sales of poultry and eggs, with \$2.4 billion
- The state ranks eighth in the U.S. for sales of Christmas trees, with \$8 million.
- 1,229 farms sold \$9.7 million of food directly to consumers. This is a slight increase in the number of farms selling direct (1,192 in 2002), and a 29% increase in direct sales over 2002 sales of \$7.5 million.
- Direct sales were 0.2% of farm product sales, one half the national average of 0.4%.
- If direct food sales made up a single commodity, the value of these sales would outrank the state's 18th most important product, pecans.
- Statewide vegetable sales totaled \$82 million.
- 83 farms farm organically, with a total of 462 acres of harvested cropland, and 1,386 acres of pastureland.
- 1,892 acres on 97 farms are undergoing organic conversion. This may increase organic acreage by 83% within the next three years.
- 54 farms in Mississippi sold \$539,000 of organic food products, \$30,000 of livestock and poultry. *Crop sales and livestock and poultry product (such as milk and eggs) sales figures were not released by the USDA in an effort to protect confidentiality.*
- 191 farms market through community supported agriculture (CSA).
- 1,163 farms produce value-added products.
- 4,606 farms use conservation methods such as no-till, limited tilling, filtering field runoff to remove chemicals, fencing animals to prevent them from entering streams, etc.
- 5,632 farms practice rotational management of intensive grazing.
- 243 farms generate energy or electricity on the farms.

**Mississippi's top farm products in 2011 (Economic Research Service)**

*See Chart 4 on next page.*

	<b>\$ millions</b>
1 Broilers	2,156
2 Soybeans	830
3 Corn	552
4 Cotton	515
5 Aquaculture	222
6 Chicken eggs	201
7 Rice	198
8 Cattle and calves	158
9 Wheat	143
10 Hogs	110
11 Sweet potatoes	66
12 Dairy products	45
13 Greenhouse/nursery	38
14 Hay	21
15 Sorghum grain	18
16 Blueberries	17
17 Peanuts	15
18 Pecans	8
19 Farm chickens	6
20 Watermelons	4
21 Honey	3

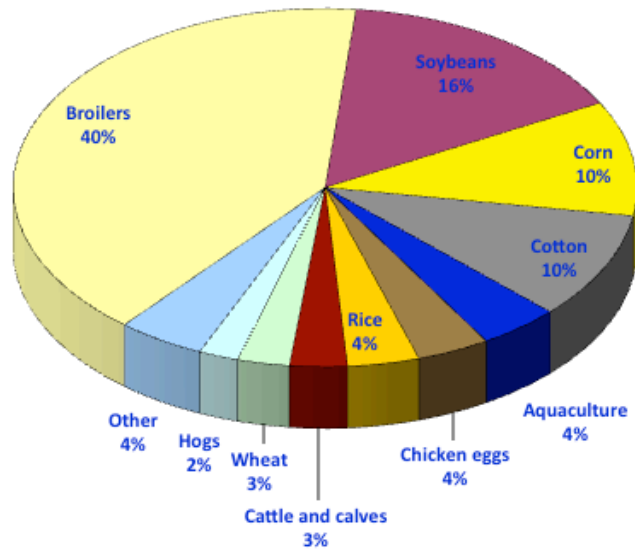
*Note: wool and turkeys were also listed among Mississippi's top 23 products, but sales figures for these products were not released by ERS, in an effort to protect confidentiality.*

Note also that at \$9.7 million, direct sales from farmers to consumers amount to more than the value of the 18<sup>th</sup>-ranking product, pecans.

**Mississippi's top farm products in 2011 (Economic Research Service)**

*See table on previous page*

**Top Farm Products in Mississippi, 2011**



*Chart 4:*

*Source: USDA Economic Research Service*

**Balance of Cash Receipts and Production Costs (BEA):**

41,959 Mississippi farmers sell \$4.7 billion of food commodities per year (1989-2011 average), spending \$4.4 billion to raise them, for an average gain of \$258 million each year (in 2011 dollars). This is an average net cash income of \$6,141 per farm. *Note that these sales figures compiled by the BEA may differ from cash receipts recorded by the USDA Agriculture Census (above).*

Overall, farm producers earned a surplus of \$5.9 billion by selling crops and livestock over the years 1989 to 2011. Yet farm production costs exceeded cash receipts for eight years of that 23-year period, and net income was relatively flat the entire time. Moreover, 42% of the state's farms reported that they lost money in 2007 (Ag Census), and Mississippi farmers and ranchers earned \$828 million less by selling commodities in 2011 than they earned in 1969 (in 2011 dollars).

Farmers and ranchers earn another \$378 million per year of farm-related income — primarily custom work, and rental income (23-year average for 1989-2011; 2011 dollars). Federal farm support payments are a more important source of net income than commodity production, averaging \$508 million per year (in 2011 dollars) for the state for the same years.

**The state's consumers:**

*See also information covering low-income food consumption and food-related health conditions, pages 23-24 above.*

State consumers spend \$7.1 billion buying food each year, including \$4.1 billion for home use. Most of this food is produced outside the state, so the state consumers spend about \$6.5 billion per year buying food sourced outside of Mississippi. Only \$9.7 million of food products (0.2% of farm cash receipts and 0.1% of the state's consumer market) are sold by farmers directly to consumers.

Estimated change in net assets (that is, assets minus liabilities) for all state households combined was a loss of \$1.9 billion in 2011 alone (BLS). This places additional pressure on Mississippi consumers trying to buy food.

**Farm and food economy summary:**

Farmers earn \$258 million each year producing food commodities, and spend \$2.3 billion buying inputs sourced outside of the state. Even when farmers make money, these input purchases result in substantial losses to the state as a whole. Overall, farm production creates a loss of \$2 billion to the state.

Meanwhile, consumers spend \$6.5 billion buying food from outside. Thus, total loss to the state is \$8.5 billion of potential wealth *each year*. This loss amounts to nearly twice the value of all food commodities raised in the state.



**Mississippi: markets for food eaten at home (2011):**

State residents purchase \$7.1 billion of food each year, including \$4.1 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$966
Fruits & vegetables	729
Cereals and bakery products	569
Dairy products	424
“Other,” incl. Sweets, fats, & oils	1,486

If Mississippi residents purchased \$5 of food directly from farmers in the state each week, this would generate \$774 million of new farm revenue for the state.

**Metro Jackson: markets for food eaten at home (2011):**

Jackson metro residents purchase \$1.4 billion of food each year, including \$804 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 186
Fruits & vegetables	140
Cereals and bakery products	110
Dairy products	82
“Other,” incl. Sweets, fats, & oils	286

**Metro Gulfport: markets for food eaten at home (2011):**

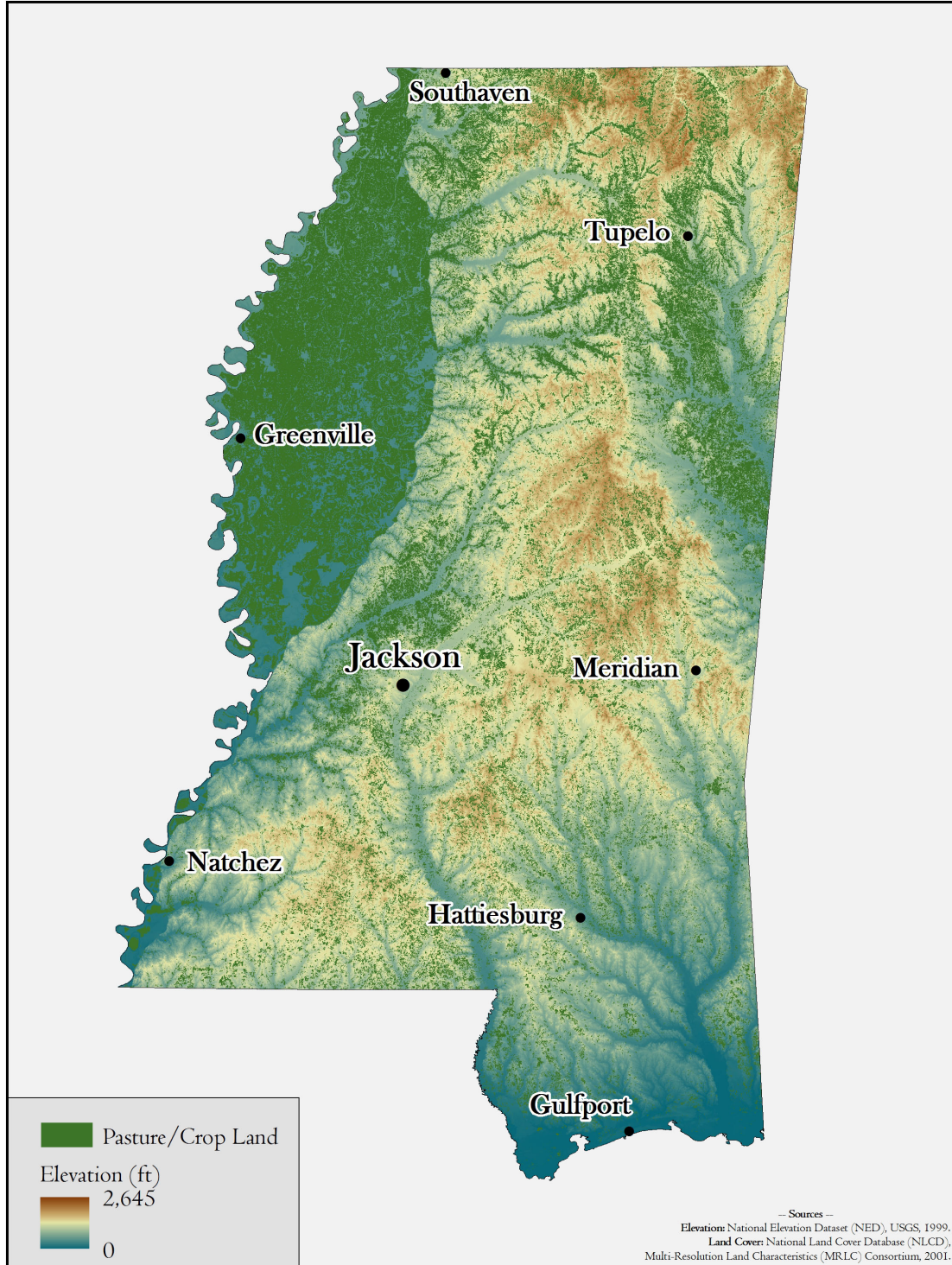
Gulfport metro residents purchase \$899 million of food each year, including \$527 million to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$122
Fruits & vegetables	92
Cereals and bakery products	72
Dairy products	54
“Other,” incl. Sweets, fats, & oils	188

**Memphis: markets for food eaten at home (2011):**

Memphis Metro residents purchase \$3.2 billion of food each year, including \$1.9 billion to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$433
Fruits & vegetables	326
Cereals and bakery products	255
Dairy products	190
“Other,” incl. Sweets, fats, & oils	666



Map by Adam Cox, Territory Heritage Resource Consulting

### Historical Trends in Farm Production for Mississippi

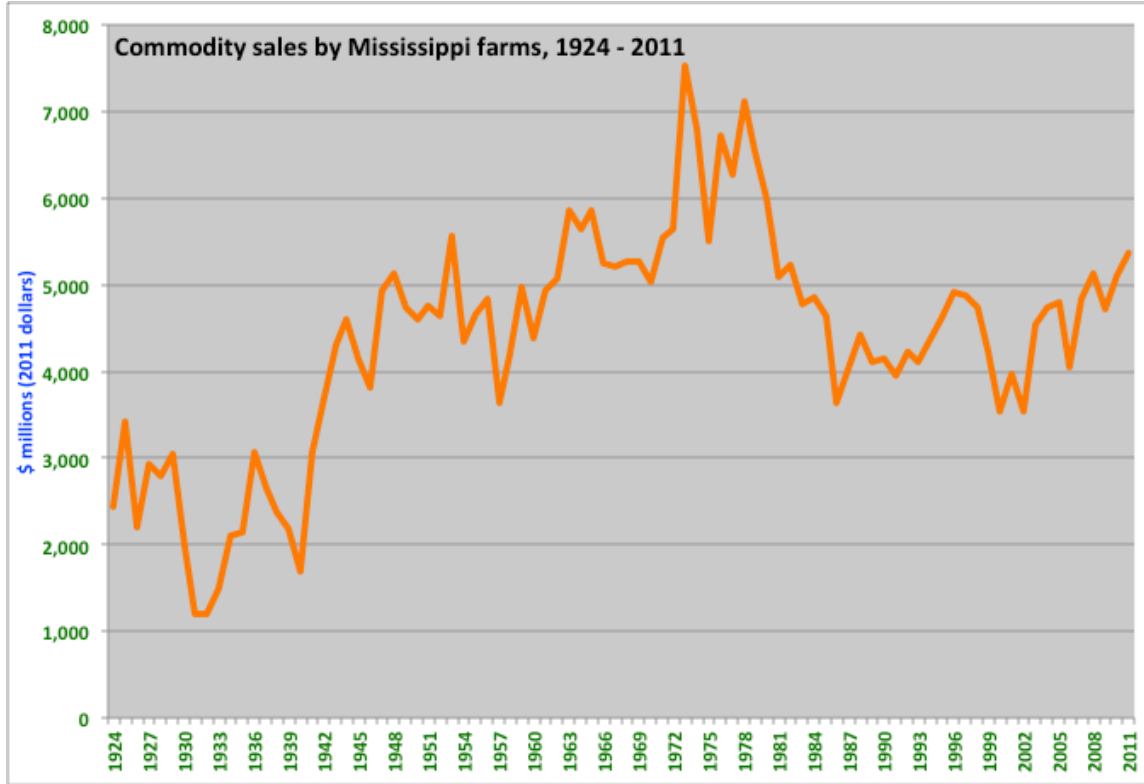


Chart 5: USDA Economic Research Service

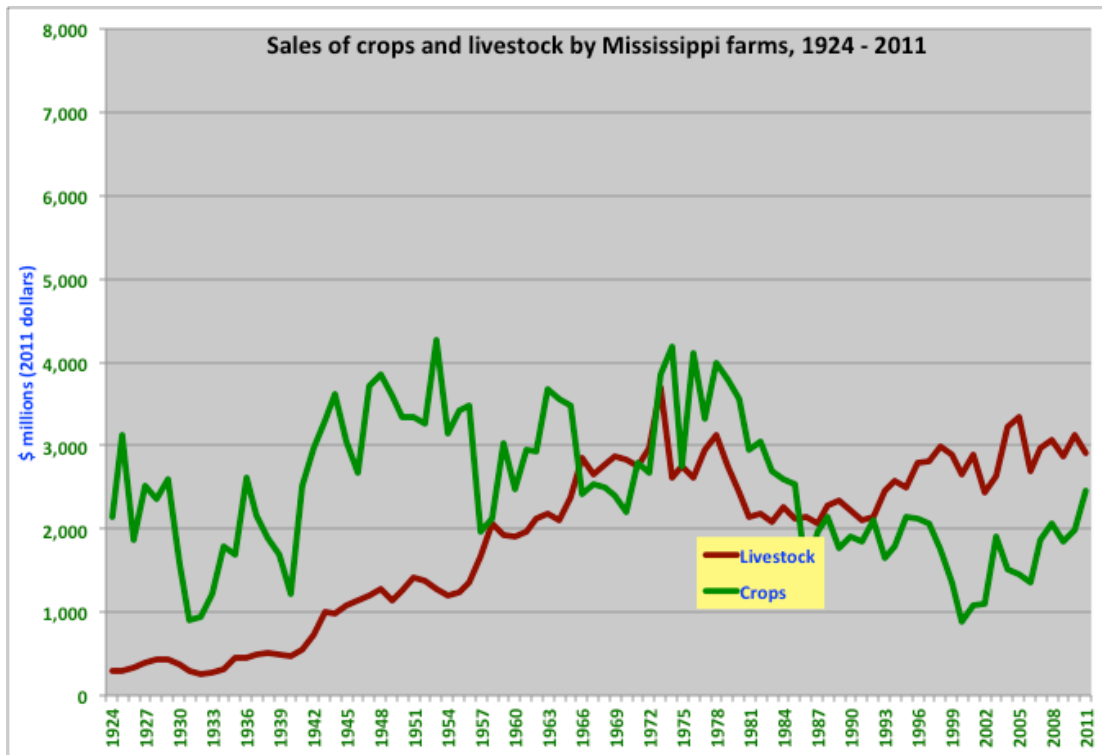


Chart 6: USDA Economic Research Service

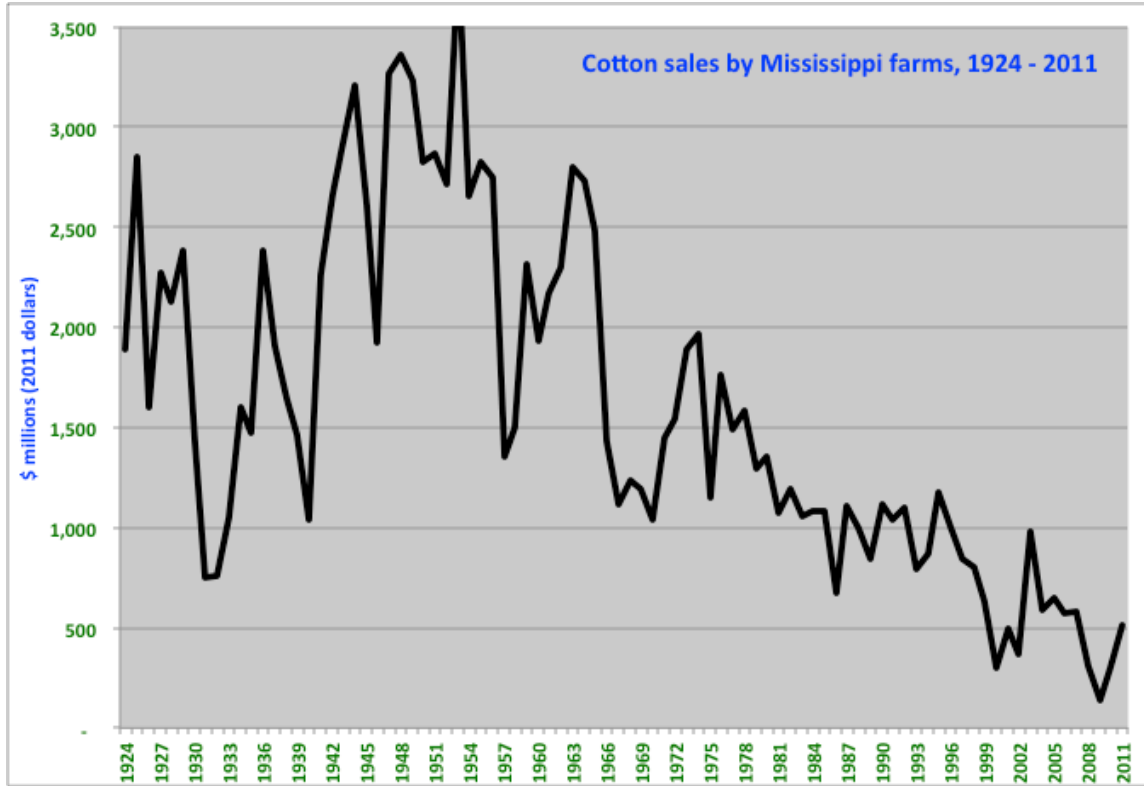


Chart 7: USDA Economic Research Service

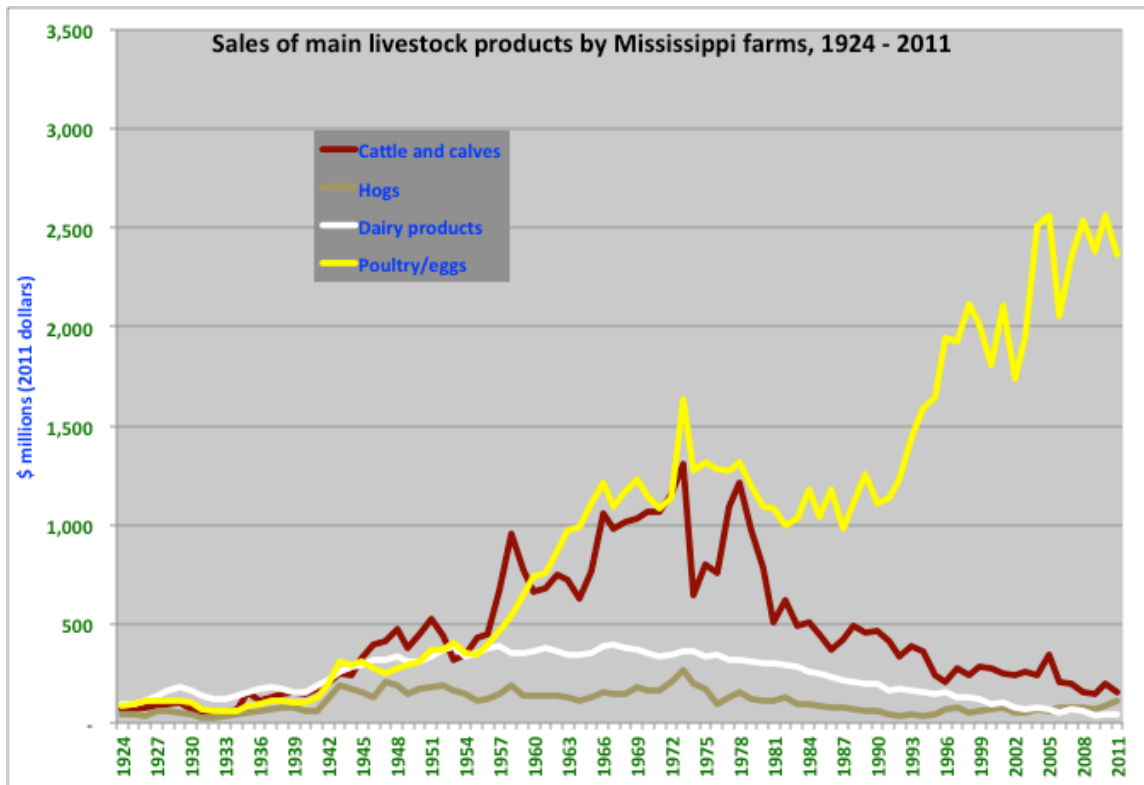


Chart 8: USDA Economic Research Service

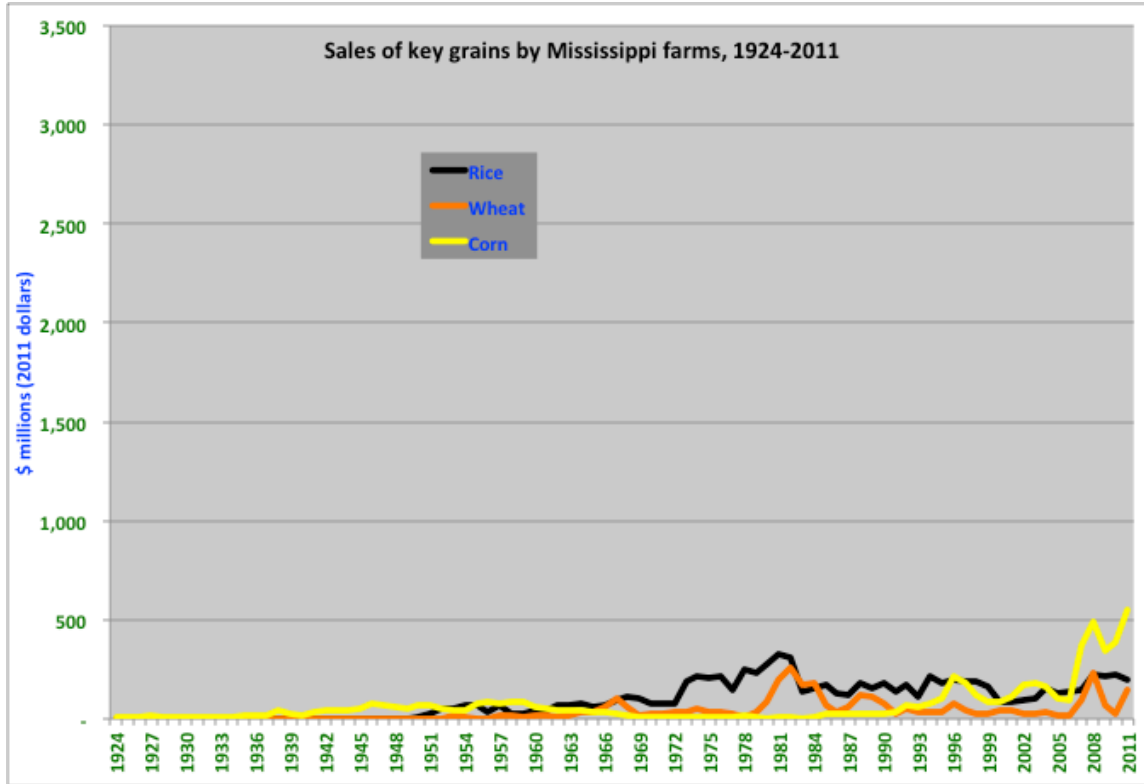


Chart 9: USDA Economic Research Service

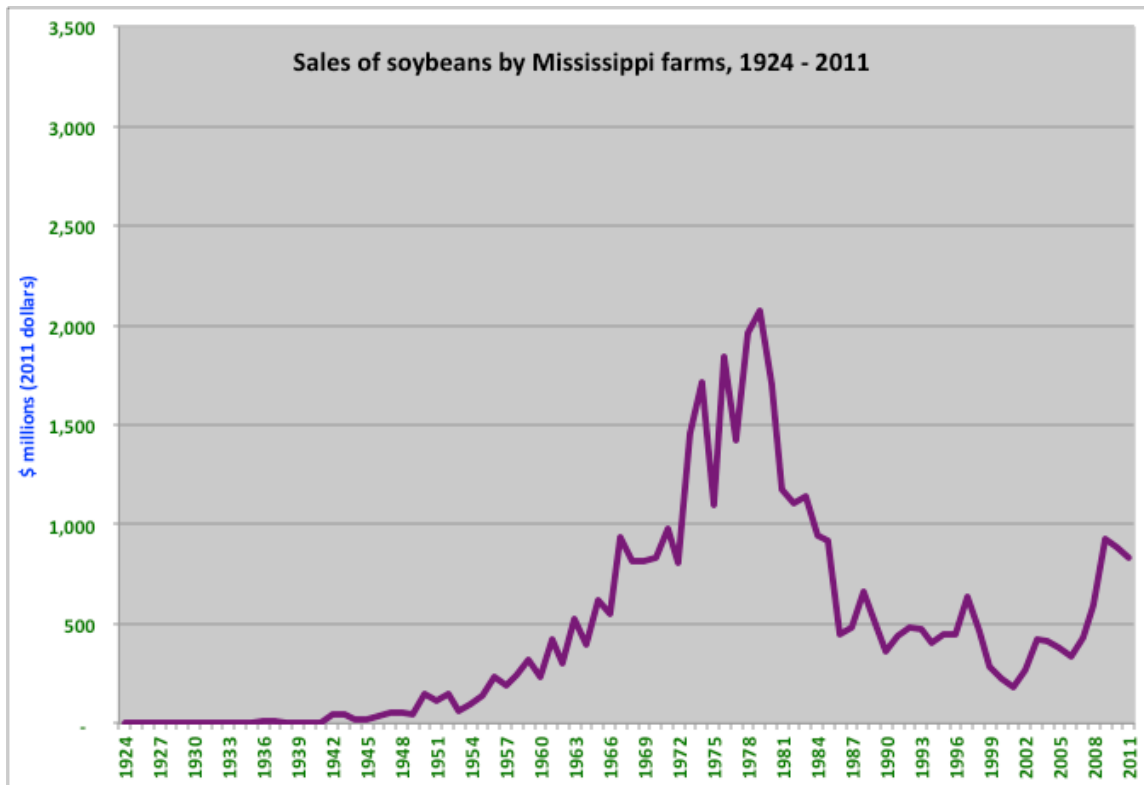


Chart 10: USDA Economic Research Service

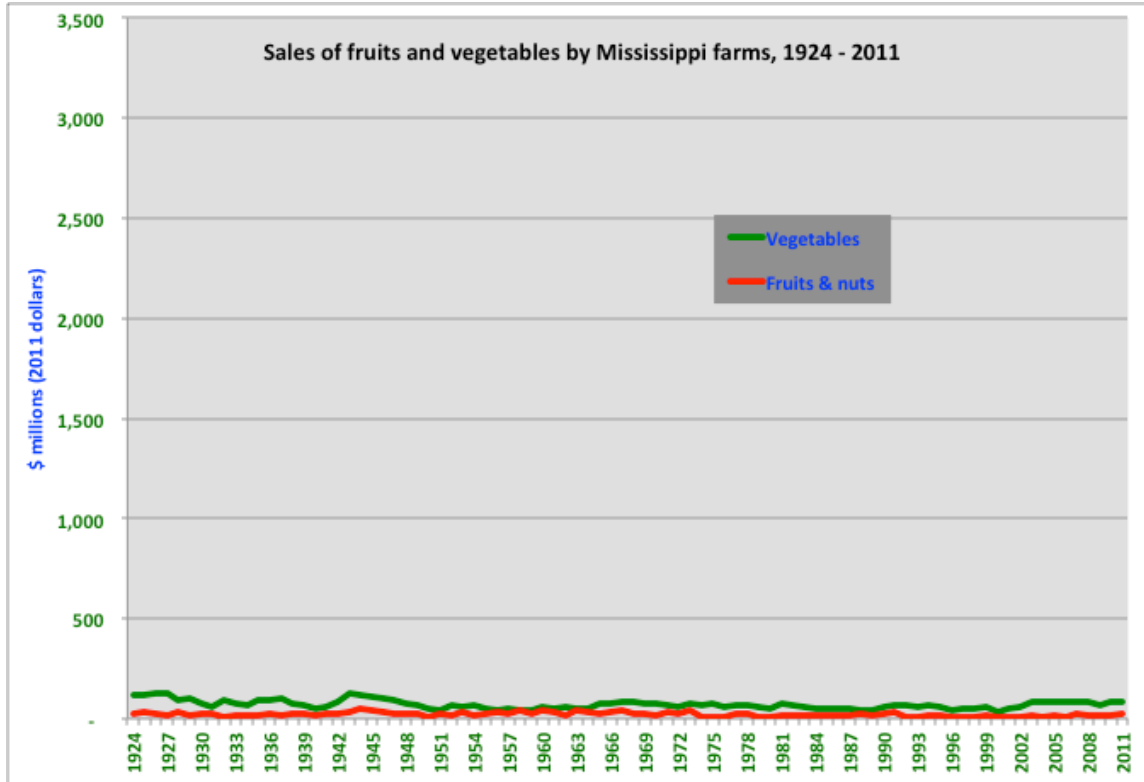


Chart 11: USDA Economic Research Service — Most vegetable sales were sweet potatoes.

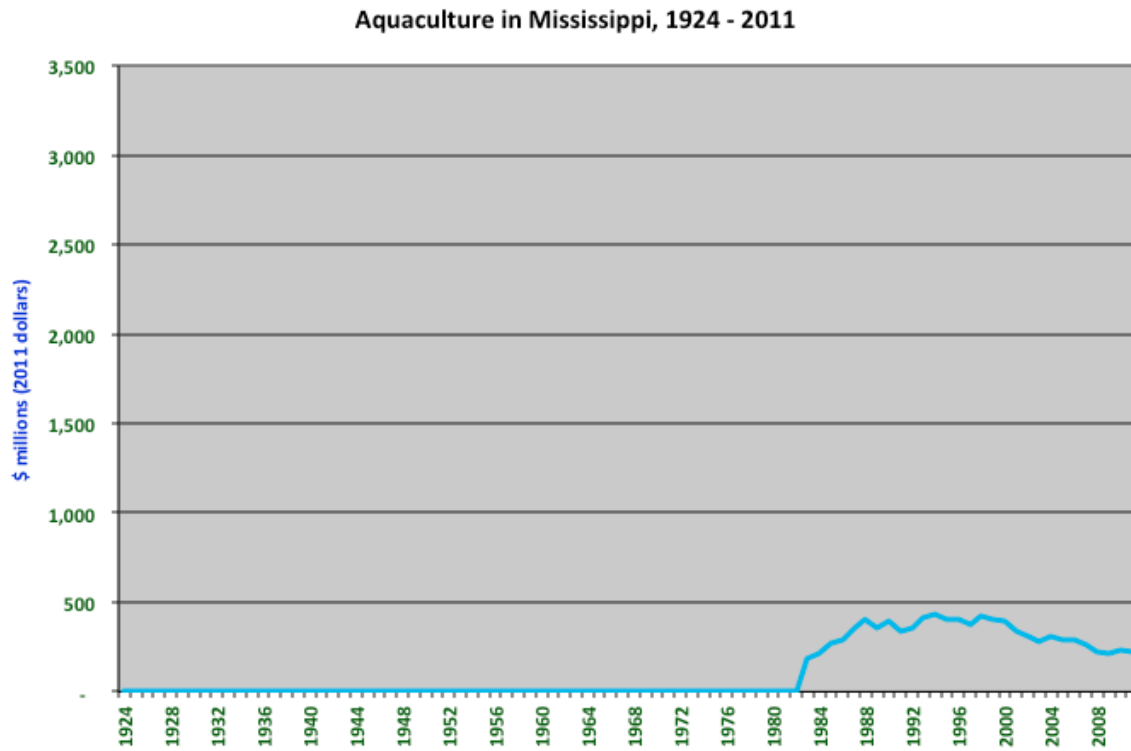


Chart 12: USDA Economic Research Service

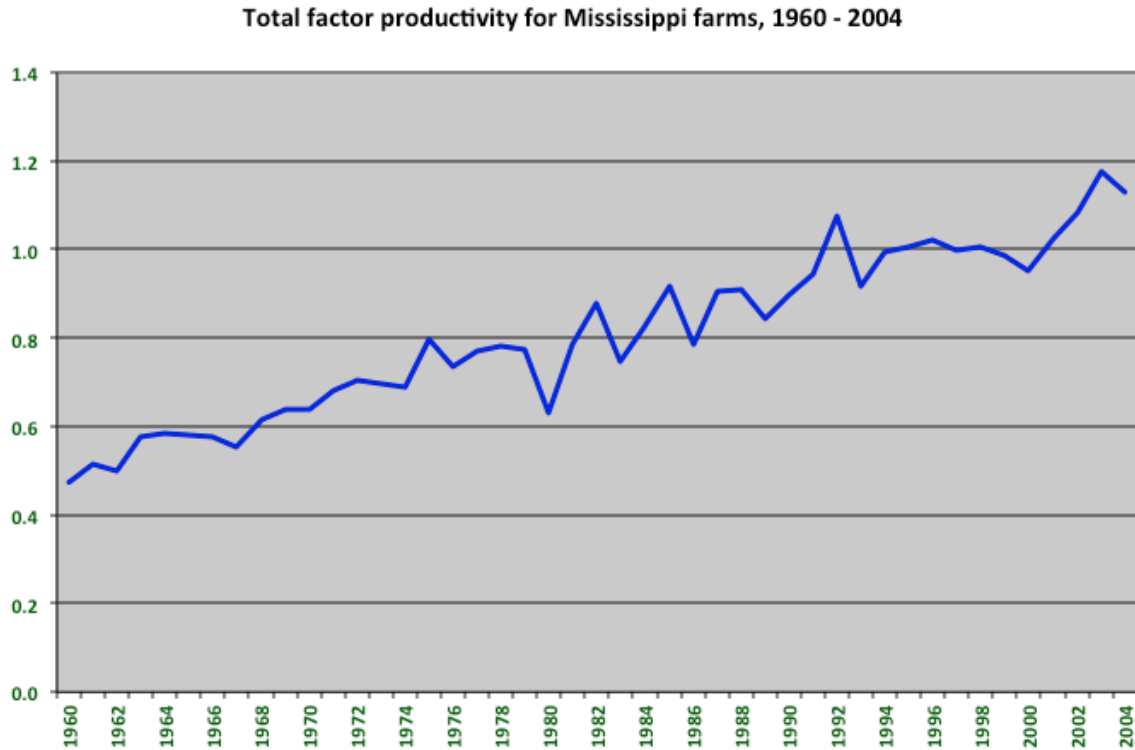


Chart 13: USDA Economic Research Service. Total factor productivity, also called *multi-factor productivity*, considers more than labor and capital inputs, and attempts to measure long-term technological change.

### Farm Production Balance for Mississippi

In the following charts, “farm production balance” (FPB) is the value of cash receipts from marketing farm products, less the production expenses involved in producing these products. When the farm production balance falls below zero, farmers are spending more to produce crops and livestock than they receive from the market. FPB is the same as the net cash income of farming.



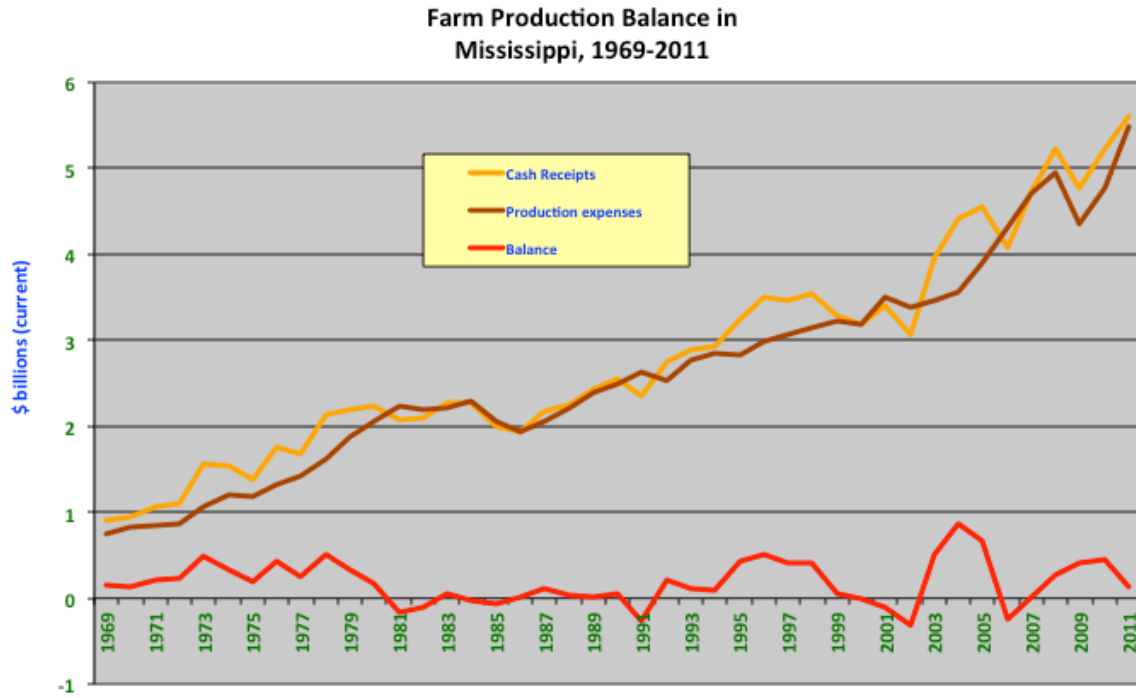


Chart 14: Bureau of Economic Analysis – dollars at current value for each year. See previous page.

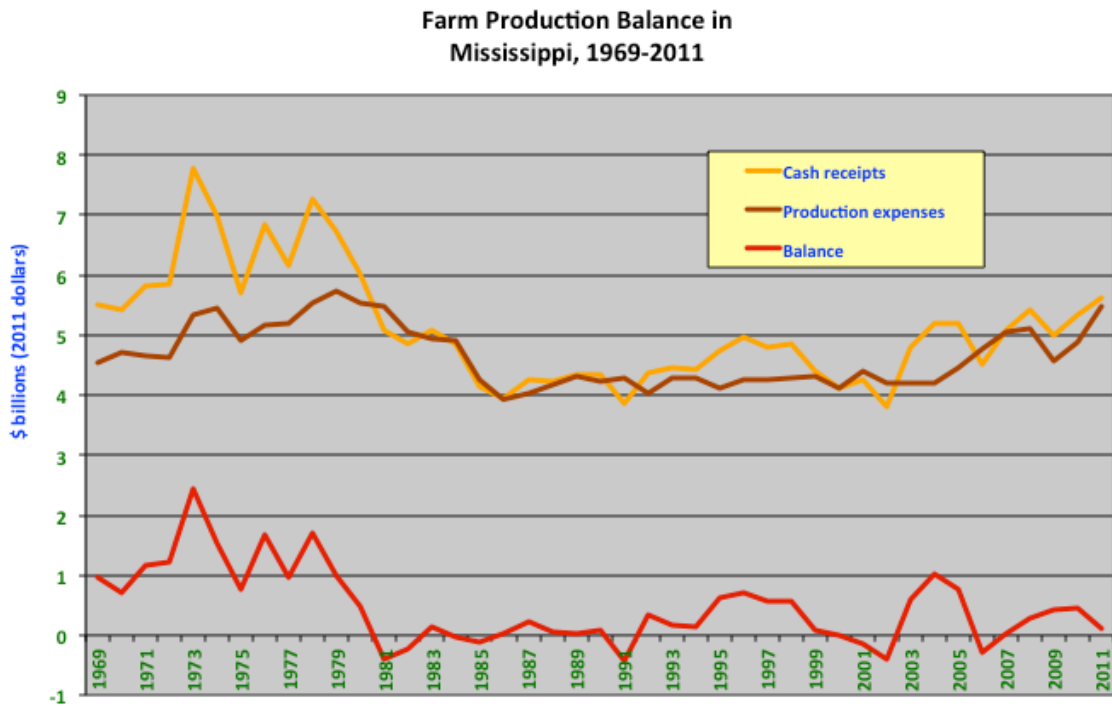


Chart 15: Bureau of Economic Analysis – dollars adjusted for inflation (2011 dollars). See previous page.

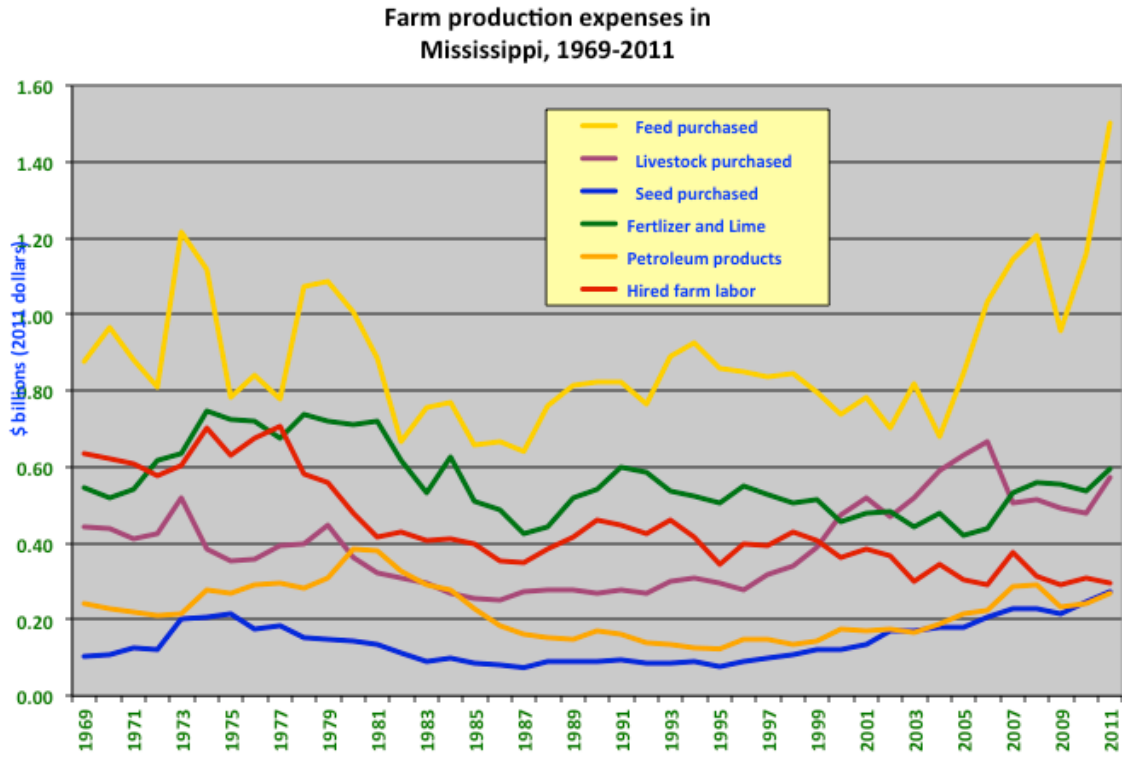


Chart 16: Bureau of Economic Analysis – dollars adjusted for inflation (2011 dollars)

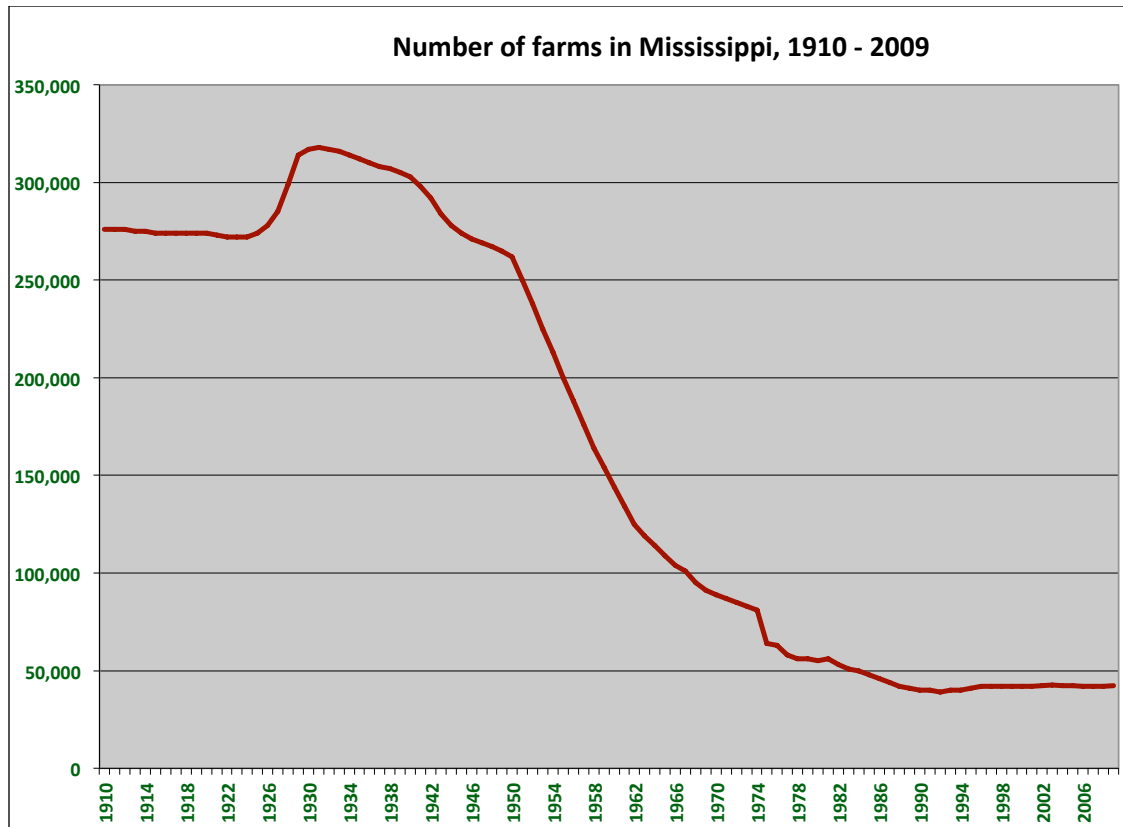


Chart 17: USDA Economic Research Service

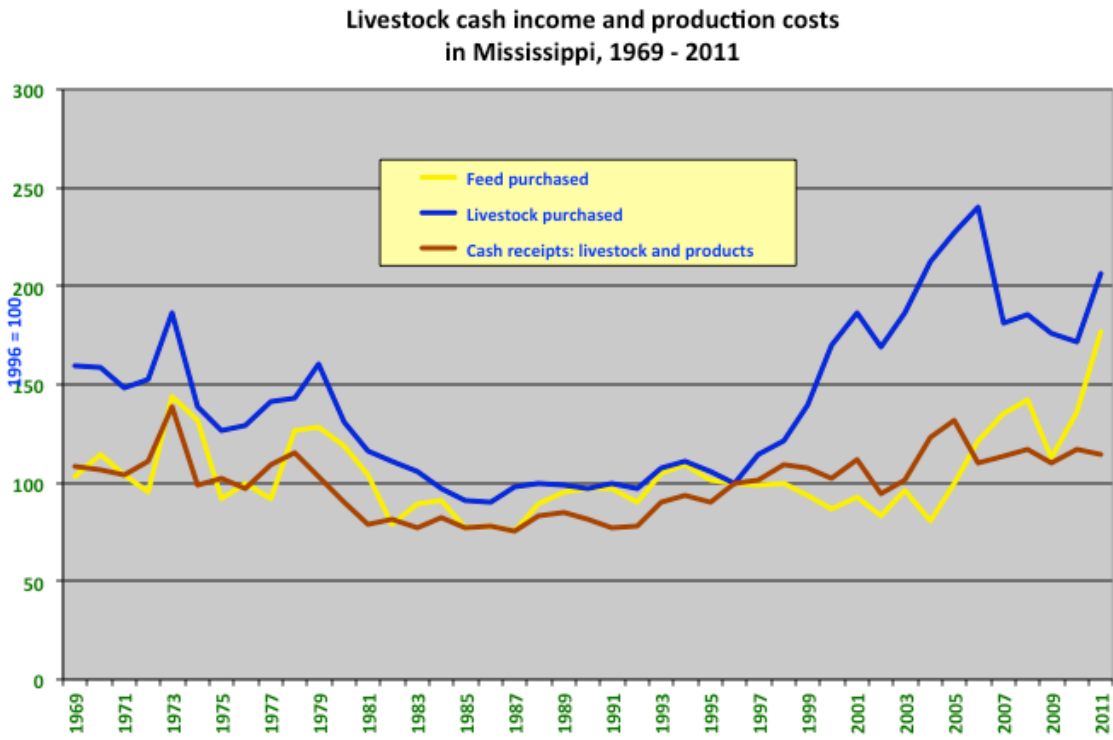


Chart 18: Bureau of Economic Analysis — dollars adjusted for inflation (2011 dollars)

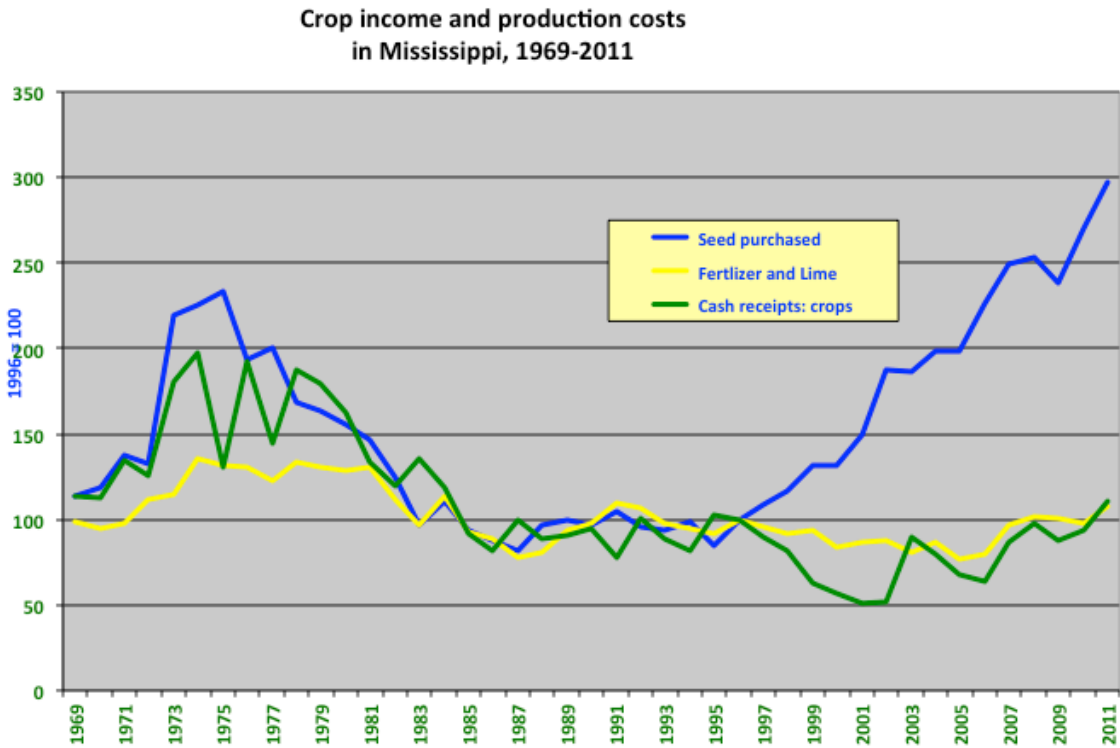


Chart 19: Bureau of Economic Analysis — dollars adjusted for inflation (2011 dollars)

## Policy directions from other Southern states

*Note: Several of our sources reminded us that Mississippi primarily draws inspiration for its policy work from nearby states, and that examples from the rest of the U.S. might be viewed as irrelevant since they arise from vastly different conditions. Accordingly, our review of policy initiatives focuses on Southern states. Important precedents have been created in other states as well.*

A shift is underway regarding state policy approaches to local foods. In the past, policy efforts have focused on producing commodities for export. This worldview assumed that sales of large quantities of raw materials would bring new wealth into state economies, creating local jobs.

Certainly, as the charts in this report show, this has indeed been a lucrative path for Mississippi in the past. Rapid expansion of technology and more sophisticated knowledge contributed to massive increases in production, and solid advances in efficiency.

This strategy was set at a time when the Mississippi population was rather small, and there were very sparse markets for food in the state. Now, with Mississippians spending \$7 billion for food each year, conditions have shifted dramatically. Moreover, the prosperity associated with commodity production in the past appears to be gone forever: it was built upon the previous dominance the U.S. once held in global markets.

As more and more countries have begun producing agricultural commodities — often at lower costs of production because of lower land and labor costs — the U.S. has lost much of its market power. This does not mean the U.S. will not continue to be an important player in world trade, but it does mean that the nation cannot assume dominance in world markets any more.

Conditions have also changed in rural Mississippi. While labor-saving devices were rightfully embraced after World War II as a way of giving farmers and farm workers more freedom from repetitive toil in the fields, and as a way of freeing up spare time for other pursuits, these regions have now become places with high unemployment. Rural Mississippi now needs labor-intensive production, and technology that helps create *work*.

Moreover, as the economic data in this report documents, larger-scale technology often has come at a cost to rural economies across the state. Farmers who spend billions of dollars each year purchasing essential farm inputs (machinery, fuel, oil, fertilizers, and increasingly feed and seed) sourced outside Mississippi unwittingly channel considerable capital outside of the state. In the future, rural Mississippians will also strive to use tools that can be built from materials that are readily available locally. Creating such tools will also create new jobs building them, keeping even more money in the state.

Repatriating the \$6.5 billion that Mississippians spend each year buying food sourced outside of the state, and reducing the \$2.7 billion that state residents spend each year paying for the medical costs of overweightness and diabetes will not be easy nor rapid. Making these shifts will require concerted work and a sustained commitment to long-term change.

Recognizing trends similar to these, Mississippi's neighbors have begun to invest in sustainable agriculture, new farmer training programs, organic certification regimes, farm-to-school campaigns, and a host of other initiatives focused on building local foods activity from the ground up. Credit programs have also proven essential since farmers often have limited access to capital on terms that suits their farm operation.

As MFPC explores its options for promoting local food systems, the following examples from nearby states will hopefully prove valuable.

### **State by State Catalog of Policy Opportunities**

Many Southern states have formed active partnerships with community based organizations addressing issues as diverse as black land loss, immigrant farming, farmworker rights, urban agriculture, sustainable agriculture, organic farming, intensive cultivation, land stewardship, conservation, investment in farming and food businesses, local food marketing, and a host of other issues too numerous to cover in this report. These partnerships often make the work of state government more effective, since community partners can engage farmers and consumers effectively with state officials, while the state often has resources that help leverage the work of their community partners.

To save space, this report focuses primarily on the state departments of agriculture, and highlights relevant programs or policies they have put forth — but this is by no means a complete view of public policy or food-related activity in the South.

One Southern initiative that has been active across the South is the Southern Sustainable Agriculture Working Group (SSAWG), which has worked through two major programs to support community-based initiatives across the South.

SSAWG's Farm-based Enterprise Development provides information and support for organizations and individuals in 13 Southern states. Its annual conference and trade show offers workshops, technical discussions, farm tours, publications and videos covering a variety of topics.

SSWAG's Community Food System program, supported by USDA, provides training and technical assistance to individuals and groups who are developing projects that promote sustainable food systems and community food security. These projects include activities such as increasing the capacity of farmers markets, increasing local food production, promoting "buy local" campaigns, strengthening community and school gardening, supporting nutrition and cooking classes, establishing food policy councils, and general education about where food comes from and how it is produced.

Many states have also joined in the MarketMaker program, which provides an interactive platform for large-scale institutional purchases of food by food services. Formed by a national partnership of land grant institutions and state departments of agriculture, it includes a comprehensive data base with food industry marketing and business data.

**Beginning Farmer and Rancher Development** has been a persistent priority, since the nation lacks young farmers. Motivated by the increasing age of the farming population, projections that the number of primary farm operators will decline, and a migration of youth out of rural areas, the 2008 Farm Bill included \$75 million in appropriations from FY2009 to FY2012 for the education, training, outreach, and mentoring of new farmers. Although many public institutions are eligible to apply for this funding, the Extension Service carries out this program in most states. With the expiration of the 2008 Farm Bill, however, these funds were lost. Sponsoring institutions now face the burden of either financially supporting their programs from other sources, or discontinuing them.

## **Alabama**

The Alabama Department of Agriculture and Industries states that its goal is “to serve the farmers and consumers of this state to the best of our ability.” It was formed in 1883 and originally located on the campus of what is now Auburn University.

At its headquarters in Montgomery, the Department hosts food and drug, agricultural chemical, and petroleum laboratories. It also maintains a pesticide lab and animal and plant diagnostic labs at Auburn, Elba, and Albertville, as well as an aflatoxin lab in Dothan. Shipping-point inspection states are also located throughout the state. The Department employs 420 full-time and 250 part-time workers, under a budget of just under \$30 million per year.

Its food safety division regulates pesticide use. The Alabama Safe Foods Act of 2000, which was passed by the Alabama Legislature and went into effect July 1, 2000, provides for the department to issue permits to food sales establishments that store or sell Class A foods (baby food, infant formula, meat, or dairy products). Additionally, provisions are included for the assessment of monetary penalties for violations of excessive date-expired Class A foods, or selling misbranded or adulterated products.

The animal industry division administers programs to prevent, eradicate, and control diseases of livestock and poultry, as well as assuring that all meat and meat food products offered for sale to consumers are not adulterated, are wholesome, and are properly marked, labeled, and packaged.

Other responsibilities include: assuring that all animals imported into Alabama are in compliance with import requirements, administering the National Poultry Improvement Plan, providing diagnostic laboratories, and conducting epidemiological investigation of disease outbreaks concerning livestock and poultry.

**Alabama Farm-to-school Procurement Act of 2012** called for greater coordination of farm-to-school activities in the state, shored up procedures for farms to gain access to school food programs, and made it easier for small purchases to be made from local farms.

The state also procures food from the Department of Defense food delivery program, conveying it to schools, and allocated \$100,000 of USDA funding for schools to use in purchasing food from local farms.

The Commissioner has also supported urban agriculture using intensive farming techniques, especially in the capital city of Montgomery, now being extended to other cities in the state.

Alabama also participates in beginning farmers and ranchers programs.

## Arkansas

Established in 2005, the Arkansas Agriculture Department (AAD) is a relative newcomer.

The department maintains an “Arkansas Grown” branding program which food sellers can use in promoting their products. To be certified by the state, a raw or finished product has to consist of, or be made substantially from, farm, forest, and nursery products produced in Arkansas. Products certified by the AAD qualify for free listing on the Agency web site.

AAD also promotes the 85 farmers’ markets that are open across the state. Growth in farmers’ markets has been exceptionally rapid, with only 31 markets in 2004.

The state also carries out an Arkansas Agritourism Initiative in partnership with the University of Alabama Division of Agriculture, University of Alabama Winthrop Rockefeller Institute, Arkansas Department of Parks and Tourism, The National Agricultural Law Center, Arkansas Agriculture Department, and the Arkansas Farm Bureau.

In addition to participating in beginning farmer and rancher programs, the state has adopted the MarketMaker institutional food purchasing platform, and has joined the SSAWG network.

### **Beginning Farmer Loan Program**

<http://www.accessarkansas.org/adfa/programs/bflp.html>

The Beginning Farmer Loan Program, run through the Arkansas Development Finance Authority, was designed to assist beginning farmers in the state of Arkansas acquire agricultural property (land, buildings, equipment and breeding stock) at lower than commercial interest rates. The program enables lending institutions, individuals, partnerships and corporations to receive tax-exempt interest for direct loans or contract sales made to beginning farmers. The maximum principal amount of the loan cannot exceed \$250,000. Used depreciable equipment not exceeding \$62,500 may be included in this amount.

A person must be a “First Time Farmer” to be eligible for assistance under the program. A “First-Time Farmer” is an individual who has not at any time had any direct or indirect ownership interest in *substantial farmland* which he operated, or materially participated in operating. Substantial farmland is any parcel of land that has, or has ever had, a fair market value of \$125,000 and/or is larger than 15 percent of the median size of a farm in the county in which the parcel is located.



## **Florida**

The Florida Department of Agriculture and Consumer Services (FDACS) grew out of the Office of the Commissioner of Immigration, formed in 1868 by the state's Constitution in an effort to bring farm laborers into the state.

Since the state is such an important producer of fruits and vegetables, much of the Department's attention is focused on food safety covering these critical commodities. FDACS' Division of Fruit and Vegetables inspects and certifies all fresh shipments of vegetables, fruit, and nuts in accord with federal and state marketing orders and/or rules. In support of that goal, licenses for all citrus dealers, registrants, and agents of licensed fruit dealers, packing houses, and processing plants are collected and maintained annually.

The Division also inspects all fresh tomato packing houses and farms to ensure compliance with food safety regulations, and may choose to inspect fresh produce not covered by regulation if requested. Furthermore, the Division maintains testing equipment, facilities at processing plants, and packing houses.

Main Florida products include citrus, peanuts, produce, tomatoes, and avocados. Citrus packing houses send regular updates showing the movement of citrus shipments to the Department's FreshNet reporting site. The Department aids in marketing peanuts and also keeps records on how many are shipped. Working in collaboration with growers, the FDACS establishes Good Agricultural Practices (GAPs) for the tomato industry, and inspects all avocados handled in the state.

The Division of Marketing and Development promotes Florida products through a "Fresh From Florida" program, which includes a logo that members can use in product packaging and signage, as well as in print and television ads. The Division operates 13 State Farmers' Markets, and maintains an interactive online map (currently) listing 154 community farmers' markets. The Division also offers an online advertising forum, the Florida Market Bulletin, where buyers or sellers can place ads for agriculture-related items. Its outreach initiatives include both the seafood and aquaculture industries. The Division also performs public outreach to help the public learn about agriculture in the state, including its history.

Florida also participates in beginning farmer and rancher programs, the SSAWG programs, and MarketMaker.

## **Georgia**

Established in 1874, the Georgia Department of Agriculture now claims to be the oldest state department of agriculture in the U.S.

The mission of the Georgia Department of Agriculture (GDA) is “to protect consumers, promote agriculture both locally and globally, and assist our customers using education, technology and a professional workforce.” Its vision is “to continue to be a globally recognized leader in agricultural excellence through a commitment to safety, quality, growth and innovation.”

The Department runs regional offices in Forest Park, Gainesville, and Tifton. While running regulation, licensing, food safety, inspection, and other oversight functions, the Department also promotes local farms through a marketing and economic development program, Georgia Grown. The stated goal of the program is “to aid our agricultural economies by bringing together producers, processors, suppliers, distributors, retailers, agritourism and consumers in one powerful, statewide community.”

The Department’s web site also lists 85 community farmers’ markets. The Department also administers a Cottage Food License that allows operators to produce non-potentially hazardous foods in their home kitchens for sale to the end consumer. On May 1, 2013, the GDA consolidated the issuing of licenses into a single division in order to streamline operations and reduce the burden on businesses that file to meet various requirements.

The Georgia Department of Agriculture (GDA) also administers numerous federal grants and cooperative agreements through its various departmental divisions.

The Department is now in the fourth year of running a “Feed My School” program that selects up to five schools each year for intensive support and training to encourage them to purchase foods from Georgia farms. Priority is given to schools with a significant low-income population (at which at least 50 percent of the students qualify for free and reduced meals). In the first year of their involvement, schools form partnerships with farmers and other stakeholders. In the second year, each school features 75 to 100 percent Georgia Grown foods, while highlighting all partnerships formed in the previous year, and educating students about agriculture.

Through its agritourism initiative, the Department features farms and wineries that offer lodging, special events, or pick-your-own sales.

Most efforts in Georgia seem to grow out of the local level through grassroots initiatives, before taking root at the state level, and the Department has partnered with several community organizations to facilitate this growth.

### **Georgia Development Authority Loan Program**

*[http://gdaonline.com/loan\\_programs.htm](http://gdaonline.com/loan_programs.htm)*

The Authority runs an active insured-loan program for agricultural capital purposes. These long-term loans are offered at a variable rate, determined by prime rate plus 1/2 percent, and LIBOR plus 2 percent, adjusted annually. A mortgage on real estate is required. These funds

may be used to buy land, purchase irrigation equipment and wells, build or repair farm buildings, purchase equipment and machinery, build farm ponds, establish permanent pasture, establish livestock operations, refinance debts, or construct specialized buildings for poultry, swine, dairy or beef operations.

## **Kentucky**

The Kentucky Department of Agriculture (KDA) offers a multifaceted set of programs covering diverse issues. Their work is organized broadly into three categories: Animal and Plant, Regulatory, and Promotional.

Animal and Plant covers animal control, safety, and health, as well as training for producers to keep quality high. Regulatory programs are as diverse as amusement ride inspections, maintenance of organic production standards, and distribution of surplus commodities. Through a wide variety of Promotional programs, KDA spreads the word about Kentucky products, locally and globally.

Centerpiece of the promotion effort is the **Kentucky Proud** label, which is a certification that a product was produced in the state. The KDA web site lists 90 participating restaurants, 50 grocers, and 7 supermarket chains that offer Kentucky Proud products. The website also offers an interactive page where a consumer can search for a Kentucky Proud producer by county, or by products offered for sale. KDA estimates that the program generated \$250 million in sales over the past three years.

Forming a partnership with a local dairy, KDA also offers an offshoot marketing program, **Udderly Kentucky**. Milk sold under this label is certified to be 100% sourced from one of over 100 Kentucky dairy farms, and 100% processed in Kentucky by Prairie Farms (Somerset). Udderly Kentucky milk is sold in forty towns, including select Wal-Mart stores in central and south-central Kentucky.

Kentucky also publishes a list of 48 Community Supported Agriculture (CSA) farms offering memberships in their farms; contact information is provided so a consumer can make a connection with a given farm easily.

Furthermore, KDA posts a list of some 140 farmers' markets across the state. Through a collaboration with the University of Kentucky's Center for Crop Diversification, prevailing prices for each product sold at state farmers' markets are published weekly. This helps assure transparency in pricing.

The **KDA Country Store** provides an interactive site where consumers can purchase Kentucky-made products, and also a KDA Farm Store, where items as diverse as livestock, hay, wood products, equipment and services can be purchased from Kentucky farms.

Through the **Kentucky Proud Livestock Tag Program**, the state says, youth who are raising livestock for county fairs can gain assurance that an animal has been treated well in its early life.

Kentucky Proud also hosts two programs focused on veterans. **Kentucky Proud Jobs For Vets** is a strategic partnership with USA Cares, a Kentucky-based 501(c)(3) charitable organization providing financial and advocacy support to military members, veterans, and their families since 2003. This initiative matches veterans who have served in any of the

branches of the United States Military with “good jobs with Kentucky-based farmers and agribusinesses needing quality labor.”

A related **Homegrown By Heroes** marketing initiative will allow veterans to use the Homegrown By Heroes logo on their agribusiness signage and/or agriculture products. This will indicate to consumers that each product was locally grown or raised by a veteran. The state hopes this will serve as an extra incentive to consumers as they make purchasing decisions.

KDA also provides an incentive to local restaurants to purchase eligible Kentucky Proud products through the **Kentucky Restaurant Rewards Program**. This program reimburses participating restaurants and caterers certain percentage of the purchase cost of qualifying Kentucky Proud products. Although the reimbursement goes to food service providers, the objective is to allow farmers to sell to restaurants at a higher price.

All foodservices located in Kentucky are able to participate in the program by signing an agreement with the KDA. This agreement requires the promotion of Kentucky Proud brand products and farms in the foodservice establishment and on menus. The amount of the reimbursement is determined based on a number of criteria, however, the maximum reimbursement rate is 20%, not to exceed \$12,000 over a 12-month period.

Eligible products include Kentucky-grown and/or -raised fruits, vegetables, meat, fish, dairy products, and eggs. Meat from animals raised in Kentucky but finished and/or processed out-of-state may qualify; however, some restrictions apply. Value-added items will meet program requirements if at least 90% of the product ingredients were grown or produced in Kentucky; however, products for re-sale do not qualify. Kentucky bottled water, beer, and spirits are not eligible; however, wines do qualify if more than 75% of their juice content come from Kentucky-grown grapes. All products must be purchased from a Kentucky Proud member and conform to the KDA eligibility guidelines.

A number of food service providers and distribution companies cite this program as the number one reason why they are able to source local products. One distribution company in particular operates across several states, but decided to open a Kentucky specific branch because of this program. Since school food programs are also able to utilize this program, farm-to-school efforts are more financial viable and feasible.

Working in partnership with the University of Kentucky Cooperative Extension Service, and the Kentucky Department for Public Health, KDA also offers a **Kentucky Good Agricultural Practices (GAP) Program** through which farmers can obtain training and certification in best practices. The program boasts, “There have been no food illness outbreaks traced back to Kentucky grown produce and the Kentucky Department of Agriculture, and producers alike, want to continue this trend.”

## **Louisiana**

The Louisiana Department of Agriculture and Forestry (LDAF) mission is to to promote, protect and advance agriculture and forestry, and soil and water resources. To serve this mission, LDAF has several offices.

The **Office of Agricultural and Environmental Sciences** regulates animal feeds, pet foods, fertilizers, agricultural liming materials and pesticides, monitors and manages plant pests and diseases, certifies items for export, enforces pesticide laws, and inspects seed supplies for quality assurance. This office also hosts the Louisiana Sweet Potato Commission, which promotes the consumption of sweet potatoes through consumer education.

The **Office of Agro-Consumer Services** regulates weights and measures, provides licenses for weightmasters and technicians, inspects farm warehouses and milk processing facilities, licenses grain and cotton dealers and their warehouses. This office also administers the **Louisiana Dairy Producers Refundable Tax Credit Program**, created in 2007. This income tax credit is a direct dollar-for-dollar reduction against dairy producers' income tax. Louisiana dairymen may be eligible to receive tax credits ranging from \$5,000 to \$30,000 each, with the total amount of tax credits capped at \$2.5 million dollars per year. Tax credits are calculated on a formula that takes into account the total claims in a given year, the amount of milk produced, milk prices, production costs, and the number of quarters in a year that the USDA Uniform Price drops below the announced production price.

The **Office of Marketing and Agro-Economic Development** promotes the development and growth of markets for Louisiana agricultural and forestry products and develops distribution channels for these products. This office provides a “Certified Cajun” logo and labeling program, business consulting services, and a resource center for aquaculture producers. It also facilitates a traveling outreach effort across the state, as well as in surrounding states, promoting Louisiana-grown products.

LDAF is accredited by USDA to certify Organic Production/Processing/Handling entities within the state of Louisiana. Other offices manage forest resources, carry out inspections, and handle licensing.

Louisiana also participates in MarketMaker.

## North Carolina

The North Carolina Department of Agriculture and Consumer Services (NCDA&CS) works to provide services that promote and improve agriculture, agribusiness and forests; protect consumers and businesses; and conserve farmland and natural resources for the prosperity of all North Carolinians. NCDA&CS executes this mission through a number of divisions. Notably, NCDA&CS executes marketing programs, consumer programs, and grower programs alike.

Marketing programs consist of Certified Roadside Farmers' Markets, a directory of certified NC-grown product stands, a listing of four state farmers' markets and three state agriculture centers, and a "Goodness Grows in NC" labeling and promotion program, among many others.

North Carolina has a rich history of supporting agriculture and food systems development. This is just a small sampling of some of their programs:

### **Agricultural Development and Farmland Preservation Trust Fund**

*<http://www.ncadfp.org>*

Established through a house bill in 2005, the Agricultural Development and Farmland Preservation Trust Fund protects North Carolina's agricultural economy by providing grants to county governments and nonprofit groups for conservation easements, agricultural agreements and programs that develop viable agriculture. In 2012, the Trust Fund awarded grants totaling over \$2 million to support 10 easements protecting 939 acres across the State and 10 plans/projects with an overall impact value of \$6 million.

### **Farm-to-School Program**

*<http://www.ncfarmtoschool.com>*

The North Carolina Farm-to-School Program was formed in 1997 by NCDA&CS's Food Distribution and Marketing divisions and the U.S. Department of Defense Produce Merchandising Office (DOD), to develop a system for North Carolina schools across the state to receive fresh produce grown by local farmers. The state now runs this program for itself. All school districts in North Carolina are encouraged to participate in the NC Farm-to-School Program. Deliveries include strawberries, watermelons, cantaloupes, several varieties of apples, slicing and grape tomatoes, sweet potatoes, red and green cabbage, broccoli, apple slices, sweet potato sticks, blueberries and more, from North Carolina farms. The Marketing Division also develops promotions for the school districts to promote North Carolina grown produce and sends out educational materials supplied by commodity associations to schools statewide. The Food Distribution Division utilizes its fleet of tractor trailers to pick up the produce and deliver it to the school systems.

### **Small Dairy Pasteurizer Loan Program**

*<http://www.ncagr.gov/markets/agribiz/dairyloan.htm>*

The North Carolina Department of Agriculture & Consumer Services' Agribusiness Development Office conducted a pilot project to loan small-batch dairy pasteurizers to

specialty farmstead dairy producers in the state. This project was designed to lower the capital costs of entry into value added dairy production, with particular focus on farmstead cheese. In addition, the project encouraged farmstead dairy entrepreneurs to invest in sanitary production facilities to manufacture wholesome and safe products for the consumer. This project was financed through a grant from the North Carolina Agricultural Advancement Consortium and USDA Valued-Added Block Grant Funds dedicated by the North Carolina Department of Agriculture and Consumer Services.

The pasteurizer loan program was conducted on a pilot basis, with the purpose of assisting farm-based entrepreneurs in entering the market and increasing profits. Participant farms allowed NCDA&CS personnel to track production and sales to determine the business viability of small-scale value added dairy production in the state. Only two pasteurizers were available for loan at a time, one 25-gallon pasteurizer and one 50-gallon pasteurizer. There was no charge to participants for the lease, however a \$1,500 deposit was required.

### **Agriculture Cost Share Program**

*<http://www.ncagr.gov/SWC/costshareprograms/ACSP/index.html>*

The North Carolina Agriculture Cost Share Program, through the Department of Agriculture and Consumer Services, helps address nonpoint pollution by providing technical and financial resources. Landowners or renters of an existing agricultural operation that has been operating for more than three years are eligible for this program. Applicants can be reimbursed up to 75 percent of a predetermined average cost for each best management practice installed. The applicant is responsible for 25 percent of the costs. This may include the use of existing material and labor.

### **Tobacco Trust Fund Commission**

*<http://www.tobaccotrustfund.org>*

Over the course of the 20th Century, tobacco usage sharply declined in the United States in response to better medical information and changing public opinion. One outcome of this shift was a set of lawsuits brought by states against tobacco companies for health care costs associated with tobacco use. The result of these lawsuits was the 1998 Tobacco Master Settlement Agreement, which established a twenty-five-year, \$206 billion plan for cigarette manufacturers to reimburse states for tobacco-related health-care costs. The companies also agreed to restrictions on advertising and marketing their products. To offset the resulting sales losses, the companies agreed to pay an additional \$5.15 billion to tobacco farmers, quota holders, and tobacco-growing states. The Tobacco Transition Payment Program, also known as the buy-out, established ten years of payments to ease the transition to a system less dependent on tobacco.

The 46 states that received settlement money chose to invest it in a myriad of ways. Much of the money was used for anti-tobacco campaigns, but some states also used it for other public projects. The National Governors Association released a report outlining each state's plan for their settlement funds (National Governors Association 2000). North Carolina's investments were the following:



- Establish a non-profit corporation to assist farming communities and two trust funds (listed below)
- 50% of settlement payments to a nonprofit corporation for economic-impact assistance to tobacco-dependent regions of the state
- 25% to a trust fund to be established by the General Assembly for tobacco producers, allotment holders, and persons engaged in tobacco-related businesses
- 25% to a trust fund to be established by the General Assembly for health-related interests (NGA 2000, 41).

The economic impact assistance proportion of the fund was to be used for educational assistance, job training and research. The nonprofit corporation, the North Carolina Tobacco Trust Fund Commission (TTFC) assists tobacco farmers, tobacco quota holders, individuals displaced from tobacco-related employment, and persons engaged in tobacco-related businesses (North Carolina Tobacco Trust Fund Commission, 2007, 11).

Between 2001 and 2006, the Commission invested a total of \$53.8 million in 33 development programs, including the creation of multiple agricultural enterprises, the conservation of ecological resources, and the founding of several farmers' markets. The Commission estimates that nearly 600 jobs were created directly from these programs, and that almost 12,000 workers received job related training.

### **Golden Leaf Foundation, North Carolina**

*<http://www.goldenleaf.org>*

Similar to TTFC, the Golden Leaf Foundation was created by the state legislature with MSA funds and with the goal of strengthening the state's economy through diverse, open-form grants making in several priority areas, including agriculture. Currently Golden Leaf has received \$1 billion in MSA funds and has funded 1,133 grants, totaling more than \$498 million.

### **NC 10% Campaign: Building North Carolina's Local Food Economy**

*<http://www.ncsu.edu/project/nc10percent/index.php>*

The NC 10% Campaign encourages all households and businesses to spend 10% of their existing food budgets on locally produced products. After three years of campaigning, it reports over 6,500 individuals and 850 businesses are participating, with \$40 million in local food purchases tracked since 2010. The NC 10% Campaign is an initiative of the Center for Environmental Farming Systems (CEFS), a partnership of NC State University, NC Agricultural & Technical State University, and the NC Department of Agriculture and Consumer Services. Funded by the Golden LEAF Foundation, the NC 10% Campaign works with the NC Cooperative Extension Service in all 100 North Carolina counties and with the Eastern Band of Cherokee Indians.

North Carolina participates in beginning farmers and ranchers programs, the SSAWG programs, and MarketMaker. The state also houses a number of incubator farms, and has strong institutional supports for local agriculture and food systems.

## **South Carolina**

The South Carolina Department of Agriculture (SCDA) is a state agency established by the South Carolina Legislature in 1879. The mission of the South Carolina Department of Agriculture is to promote and nurture the growth and development of South Carolina's agriculture industry and its related businesses while assuring the safety and security of the buying public.

Similar to other states, SCDA administers a Certified Roadside Market Program, a “Certified South Carolina Grown” logo and promotion program, three state farmers’ markets; provides a directory of 100 community farmers’ markets, certified organic farms, and farms with CSAs, plus a number of small farm programs.

In addition, SCDA handles many of the food safety inspection and regulation programs, weights and measures programs, grading and inspection programs, and seed analysis and compliance, to name a few.

### **Farm-to-School**

The South Carolina Farm-to-School Program (FTS) originated as a two-year funded project from the Centers of Disease Control and Prevention. South Carolina Farm-to-School is a joint effort of the South Carolina Department of Health and Environmental Control, the South Carolina Department of Agriculture, the South Carolina Department of Education, and Clemson University's Youth Learning Institute. The FTS Program aims to increase the number of farmers that are certified to provide locally grown products into schools; provide education to foodservice staff and teachers on FTS practices; and provide hands-on learning activities to promote healthy eating among school children.

The FTS program requires the following components: 1) source at least two SC-grown fruits and vegetables per month to be served as a part of the school meal; 2) promote SC-grown in the school cafeteria; 3) integrate nutrition and agriculture education into classroom activities; and 4) establish a school vegetable garden.

### **Small Farms Program**

The SCDA's Small Farms Program was, reportedly, the first of its kind in the country. The program provides assistance to small family farmers with an emphasis on dissemination of information, referrals, and counseling on issues such as: land retention, alternative land use, and community development. The focus of the Small Farms Program is to assist small farmers in understanding the challenges associated with retail marketing and in helping them to find solutions to their specific problems. The SCDA works with several governmental agencies and non profit partners to provide training materials to small farmers and market managers to help them develop and or improve their marketing skills. According to the 2002 Agricultural Census, 96% of all farms in South Carolina are small farmers, with sales below \$250,000.

### **“Making Small Farms into Big Business” Investment Plan**

*www.crcworks.org/scfood.pdf*

In order to advance the development of small farms and ensure that food hubs would have sufficient volume to be self-sustaining, the SCDA, in partnership with the Department of Commerce and several rural groups, commissioned a “Making Small Farms into Big Business” investment plan. This plan, announced in December, 2013, calls for a multi-million-dollar investment to develop and organize food production “nodes” (clusters of small farms) across the state, combined with promotion of locally grown foods. These food nodes would foster collaboration among growers, encourage food production for local consumption and assist with transporting this food to local markets, restaurants, groceries, and other food outlets. This will be largely funded through a competitive grant program. In addition, the plan calls for expansion of incubator farms, expanded training for emerging farmers, stronger statewide coordination, and solidification of the existing Certified South Carolina program so that all fresh foods sold under the brand show the name of the farm where each was grown. Finally, “Making Small Farms into Big Business” also calls for a statewide “Eat Five, Buy Five” marketing campaign suggesting that consumers eat 5 fruits and vegetables each day for health, and buy \$5 of food each week directly from local farms.

South Carolina participates in beginning farmers and ranchers programs, the SSAWG programs, and MarketMaker. It also houses a number of incubator farms, and has long supported local agricultural production.

## Tennessee

The Tennessee Department of Agriculture promotes local food products and ensures safe and dependable food and fiber for all while conserving our natural resources. The Market Development Division is dedicated to increasing farm income using innovative marketing and promotional services. This division hosts annual conferences on marketing and food safety, maintains a “Pick Tennessee Products” campaign, supports farmers’ markets and agricultural fairs, provides marketing support, conducts inspections, and grants licenses.

### **Tennessee Agricultural Enhancement Program (TAEP)**

TEAP is a cost-share program for Tennessee’s Agricultural community. Participation allows producers to maximize farm profits, adapt to changing market situations, improve operation safety, increase farm efficiency and make a positive economic impact in their communities. TAEP funds are intended for long-term investments in agriculture and are provided through a number of grant programs.

A producer programs reimburses farmers up to \$3,500 for qualified items. Items eligible for cost share are determined on a rotating basis. For example, the most recent program targeted livestock equipment and feed storage.

### **Statewide Agricultural Producer Association Grant Program**

The purpose of the Statewide Agricultural Producer Association Grant Program is to increase income to Tennessee farmers by providing assistance for eligible activities of statewide agricultural producer associations across Tennessee. Grants may award up to \$5,000 to qualified organizations.

### **Farmers’ Market Capital Development Grant Program**

The Farmers’ Market Capital Development Grant Program is intended to increase income to Tennessee farmers by providing assistance for the establishment or improvement of farmers’ markets in communities throughout Tennessee. Grants are available to qualified farmers’ markets in amounts from \$10,000 (minimum) to \$100,000 (maximum) on a 50% matching basis. A smaller program provides grants to qualified Farmers’ Markets in amounts up to \$1,000.

Tennessee also participates in the SSAWG programs.

## **Texas**

Established in 1907, the Texas Department of Agriculture (TDA) serves the mission of making Texas the nation's leader in agriculture, fortifying the economy, empowering rural communities, promoting healthy lifestyles, and cultivating winning strategies for rural, suburban and urban Texas through "exceptional service and the common threads of agriculture in daily life." TDA administers a number of grants and financing initiatives for rural development and infrastructure, the "GO TEXAN" logo and marketing program, and the usual mix of inspections and licensing.

In addition, TDA offers several innovative financing programs for producers. The financing programs, listed below, are financed through the **Agriculture Vehicle Tag Fee** (\$5/year/vehicle). Although some version of agriculture finance program has been available in Texas since 1987, this current portfolio of options has been available since 2009. This current mix of financing options was designed to incentivize the growth and expansion of the agriculture industry in Texas, to encourage new producers to take the risk of going into business, to encourage banks and lending institutions to lend to agricultural producers, and to expose the state to the least amount of risk. These programs "do not compete with the FSA as a lender of last resort," the state says, but instead rewards good banks and credit-worthy businesses.

### **The Agricultural Loan Guarantee Program**

ALG provides a loan guarantee to a lender on behalf of a creditworthy agricultural producer or agriculture-related business. Loan proceeds may be used for any agriculture-related operating expense, the purchase or lease of land or a fixed-asset acquisition or improvement, or for any enterprise based on agriculture as identified in the application. Although the lender collects interest from the borrower at the stated rate, the ALG program rebate is paid directly to the borrower. The borrower's interest cost is reduced by the amount of rebate received. The rebate is based on an interest rate reduction not to exceed three percentage points on the rate the lender charges, but may not effectively lower the interest rate below WSJ Prime (floating) or result in a rebate payment of more than \$5,000 to an applicant in any one year.

### **Interest Rate Reduction Program (IRR)**

IRR reduces interest rates for creditworthy applicants engaged in agricultural enterprises. Loan proceeds may be used for any agriculture-related operating expense, the purchase or lease of land or a fixed asset acquisition or improvement, or for any enterprise based on agriculture as identified in the application. A loan under this program may be applied to existing debt only when required by the lender to finance the expansion of an eligible project. Any person is eligible who proposes to use the proceeds of a loan under the interest rate reduction program in a manner that will help accomplish the state's goal of fostering the creation and expansion of enterprises based on agriculture in this state. Once a loan application is received and accepted, the state of Texas deposits the loan amount with the lending bank. The state collects interest at 1.5% and the bank can charge the borrower no more than 5.5%. Before 2008 and the current set of fiscal policies, several million dollars were lent out for agricultural loans, but since lending rates are currently so low, this program is mostly inactive. The loans that are still current are from pre-2009 portfolios.

### **Young Farmer Interest Rate Reduction Program (YFIRR)**

Similar to the IRR, the Young Farmer Interest Rate Reduction Program is intended to provide below market interest rates to creditworthy applicants. Any person who is 18 years of age but younger than 46 years of age and proposes to use the proceeds of a loan under this program in a

manner that will help accomplish the state's goal of fostering the creation and expansion of an agricultural business in this state. There is no agricultural experience requirement, only that the bank finds the borrower credit worthy and the board of reviewers (typically bankers) approved the application. Loan proceeds may be used for any agriculture-related operating expense, the purchase or lease of land or a fixed asset acquisition or improvement, or for any enterprise based on agriculture as identified in the application. A loan under this program may be applied to existing debt only when required by the lender to finance the expansion of an eligible project. The lender and the borrower determine repayment, maturity and collateral for the loan. Interest rates vary, but the program may result in the reduction of several percentage points on a borrower's interest rate. Like the IRR, the state becomes a depositor to the bank, but collects interest at a rate of 0.5%, and the lending bank can charge no more than 4.5%.

### **Young Farmer Grant Program (YFG)**

YFG is a program that provides grants to eligible young farmers to create or enhance agricultural enterprises in Texas. Grant applications are accepted from any person who is at least 18 years of age but younger than 46 years of age and engaged in creating or expanding agriculture in Texas. There is no experience requirement, however, letters from previous agricultural mentors increase the likelihood of funding. The applicant must be able to make dollar-for-dollar matching expenditures to sustain, create or expand the project. Grants may not be used for capital expenditures with a cost of more than \$5,000 or a useful life of more than one year, and the total given out on any one time to any one producer is \$10,000. Operating expenses for contract labor, seed, fertilizer, livestock, feed and fuel are all eligible expenses. Payment for personal labor is not an acceptable expense. Since 2009, this program has made over 100 grants with a value over \$1 million. In a typical year, this program issues grants twice a year for a total of \$150,000 each time. Although the grants do not exceed \$10,000 for any one producer, the overall reach of this program is considered great since it touches so many producers at vital parts of their careers. This program, in particular, is credited for increasing the diversity of Texas' agricultural industry.

### **Farm-to-School**

In 2009, the Texas legislature established the Interagency Farm-to-School Task Force, charged with developing and implementing a plan to facilitate the availability of locally grown food products in all Texas schools that participate in the National School Lunch Program. The task force included representation from the TDA the Texas Education Agency, the Department of State Health Services and stakeholders representing farmers, school nutrition, distributors, health advocacy, parents and higher education. TDA's statewide Farm-to-School initiative currently focuses on increasing the amount of local food products served in schools participating in the National School Lunch Program and School Breakfast Program, incorporating nutrition education into the classroom, connecting students with local producers, and creating school gardens.

In addition, Texas participates in the beginning farmer and ranchers programs, MarketMaker, and SSAWG.

# Summary of Southern Policy Initiatives

## **Agricultural Finance Support**

Often during interviews, access to capital is cited as the number one challenge that farmers face. This echoed the findings of a national survey conducted by the National Young Farmers' Coalition two years earlier (Lusher Shute, 2011). However, many farmers are unwilling to take on new debt. In many cases this is because farmers perceive that the risks they face -- from unpredictable weather, to fluctuating markets, and rapidly changing markets, are often not recognized by financial institutions that are accustomed to a predictable cash flow. Particularly in the case of new and beginning farmers, a grants program for on-farm, capital investments is more appropriate.

Indeed, many food projects also pose barriers to lenders, since they offer low returns, are high risk, and are often put forward by firms that lack liquidity. Yet this is primarily to say that these pioneering farms and food businesses lack supportive infrastructure that embraces (and reduces or shares) the inherent risk of launching new businesses in emerging markets.

Moreover, the banking system itself is also unsure of how to place itself in relation to farm or food-business debt. Many lenders simply have no clear way of evaluating potential loans, because finance mechanisms are not engineered to consider food investments. Many banks are owned by holding companies, or a corporate group that does not allow local bank officials to deviate from established policy. The demands of the secondary market require standardization of loans (and risk calculations) in ways that often preclude innovative investment.

Even traditional agriculture banks, providers of operating loans to large commodity producers, may struggle with evaluating a diversified, specialty crop operation or an innovative business plan (Peters Moschetti & Phillips, 2012). Farmers also report difficulty since they have shied away from taking on debt, and thus have little track record to show a lender, and little liquid capital since most of what they have is tied up in their operation.

During a broad examination of food-systems funding conducted by RSF Social Finance, several gaps were identified in various sectors. Notably, while most grant funding is directed at non-profits providing support services to food and farm entrepreneurs, it is the entrepreneurs who assume the financial risk. Some producers may obtain patient loans if they have social connections that allow them to reach out to people of means (internet platforms such as Kickstarter have played an important role), but the farmer may still lack resources for purchasing land, obtaining technical assistance, or for contingencies (Foley, Goodman, & McElroy, 2012).

Moreover, given the intricacies of the food system and its various sectors, access to capital is not the only issue plaguing farmers. Many require technical assistance to use their capital effectively; such help may facilitate project financing, or provide guidance as businesses expand. Where funding mechanisms either require the formation of a business development team as part of the application process or can provide access to a team, funding goals are more likely to be fulfilled (St. Onge, Sawyer, Kahler, & Perkins, 2011; Peters Moschetti & Phillips, 2012; Cortese, 2011). Furthermore, a manager of a state-sponsored, on-farm infrastructure fund reports that the business planning class requirements for her program are essential to the producers' success and that most producers express deep appreciation for the requirement. During the program exit interviews, the producers

report that the business planning class was more valuable than the cash itself. She went on to recommend that no public monies should be given away without a business planning class requirement or at least a financial technical assistance team made available (Hayes K. , 2013).

In order to bridge the gap between food-systems enterprises and financial capital, special funds have been developed across the country. Since each was developed to address unique investment issues in their own regions, in their own economies, they differ quite a bit from each other. However, given current economic trends, many pre-2008 financial instruments are inactive due to record low interest rates and the current liquidity of banks. New programs that provide cash grants for expansion or reimbursement for equipment acquisition are having more of an impact during these economic times. Indeed, a cash award is more likely to spur innovation than a debt instrument.

### **New and Beginning Farmer Support**

The surest way to recruit new farmers is to demonstrate that farming is a financially viable occupation and to surround them with educational resources, most importantly- other farmers. Elevating the successes of existing farmers can be an effective form of regional marketing and a recruitment strategy, but in order to retain new farmers, additional support programs are needed.

The biggest challenges faced by beginning and young farmers are access to capital and access to land. For many reasons the USDA's Farm Service Agency is inadequate as the sole lender in a new farm situation, the least of which is that often \$300,000 lending cap is not enough to purchase a piece of land and all the equipment necessary to start up. To address this gap, cash grants or reimbursement programs for capital purchases may be particularly valuable. Programs that ensure access to land through LandLink programs, tax incentives for land owners selling to new farmers, or agriculture easements are also essential for supporting a new generation of farmers.

Even though funding for the Beginning Farmers and Ranchers Program through the USDA has expired with no clear mechanism for renewal, these programs should not go unsupported. These education programs and often the networking that follows them are essential to addressing the knowledge gap between new farmers and retiring farmers. Should a new farm bill come without funding for these invaluable programs, state departments of agriculture will play a key role in ensuring the future of these programs.

### **Farm-to-School**

Farm-to-School policies are as varied as the United States itself. While some of them set out goals for increasing education and training around local procurement, others actually provide local produce and distribute it, and some mandate local procurement without providing additional support to develop the supply chain necessary. Many obstacles must be overcome in order for school districts to fully embrace local procurement policies, and some obstacles can only be overcome with financial support. Indeed, in over-demanded marketplaces, producers may choose to sell to any number of buyers, many of whom can pay more than a school district. The goals of Farm-to-School programs and local procurement policies are probably only fully realized when classroom or menu education are an integral part. The ability of students to recognize local produce through a local label or marketing campaign, and then also be able to prepare those foods is essential for ensuring the long term health of the population and the farm industries.



### **Land Easements**

While the southern states do not appear to be grappling with land access the way other states do, it is certainly only a matter “when,” not “if,” land access becomes a major obstacle to new farm enterprises. Protecting agricultural lands from development pressures and development valuation are likely the most appropriate places for state policy to intervene. The establishment of state funded trust funds to work in concert with local level funds and federal funds are a great opportunity to leverage resources for the permanent protection of agriculture lands through easements. Other states in the country offer capital grants in exchange for temporary (10-20 years) agriculture easement, thus providing a one-time infusion of funds to the farmer and insuring that land stays in agriculture for more time. Agriculture easements should also stipulated that land be sold at agriculture values and not at development values.

### **Marketing and Promotion**

As shown in the state-by-state summaries above, most all Southern states devote considerable resources to promoting sale of agricultural commodities grown in their state. Many of these efforts focus on export markets, but increasingly attention is being devoted to promotion of food for local markets in each state.

### **Local Purchasing Incentives**

The use of local purchasing incentives programs for food service industries is extremely effective in changing behaviors. Since state level programs that incentivize purchasing state labeled and promoted goods are relatively new, it is not known whether or not these programs have a long term impact, or if the effects are lost once the subsidy is removed. Funds may be more effectively used on other promotional programs.

## References

- Cortese, A. (2011). *Locavesting*. Hoboken, NJ: John Wiley & Sons, Inc.
- Foley, K., Goodman, T., & McElroy, B. (2012). *Bridging the Gaps Funding and Social Equity Across the Food System Supply Chain*. RSF Social Finance.
- Hayes, K. (2013, August 5). Lessons learned and impacts of MEGA program. (M. Phillips Goldenberg, Interviewer)
- Lusher Shute, L. (2011). *Building a Future with Farmers: Challenges Faced By Young, American Farmers and a National Strategy to Help Them Succeed*. National Young Farmers' Coalition.
- National Governors' Association Center for Best Practices (2000). "2000-01 State Tobacco Settlement Spending At-A-Glance." Available at: [www.nga.org/files/live/sites/NGA/files/pdf/TOBACCOPLANS.pdf](http://www.nga.org/files/live/sites/NGA/files/pdf/TOBACCOPLANS.pdf)
- North Carolina Tobacco Trust Fund Commission (2007) Six-Year Retrospective. Available at: <http://www.tobaccotrustedfund.org/about.htm>
- Peters Moschetti, W., & Phillips, M. (2012). *Finding Money for Food and Agriculture Projects and Leaders in Colorado: A Feasibility Study*. Rocky Mountain Farmers Union.
- St. Onge, J., Sawyer, S., Kahler, E., & Perkins, K. (2011). *Farm to Plate Strategic Plan: Financing the Food System*. Montpelier, VT: Vermont Sustainable Jobs Fund.

## Key data sources:

- Bureau of Economic Analysis data on farm production balance  
<http://www.bea.doc.gov/bea/regional/reis/>
- Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey  
<http://www.bls.gov/cex/home.htm>
- U.S. Census of Agriculture  
<http://www.nass.usda.gov/census/>
- USDA/Economic Research Service food consumption data:  
<http://www.ers.usda.gov/data/foodconsumption/>
- USDA/ Economic Research Service farm income data:  
<http://ers.usda.gov/Data/FarmIncome/finfidmu.htm>
- Centers for Disease Control and Prevention (CDC): *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [years as shown]. <http://apps.nccd.cdc.gov/brfss/>