

Farmland Conservation: Agricultural Policy Considerations

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What Is A Typical Farm?

- There is no one-size-fits-all description of a farm today
- Even “family farms” vary greatly in terms of what they produce, characteristics, economic situation, and household and business arrangements
- Large and very large family farms are most likely to be viable economic businesses
- Most small farms subsidize the costs of farming activities with off-farm income sources

Farm Typology Groups

Small Family Farms (sales less than \$250,000)

- **Limited-resource.** Gross sales < \$100,000, total farm assets < \$150,000, total operator household income < \$20,000.
- **Retirement.** Small farms, operators report they are retired.
- **Residential/lifestyle.** Small farms, operators report a major occupation other than farming.
- **Farming-occupation/low-sales.** Small farms with sales less than \$100,000, operators report farming as major occupation.
- **Farming-occupation/high-sales.** Small farms with sales between \$100,000 and \$250,000, operators report farming as major occupation.

Other Family Farms

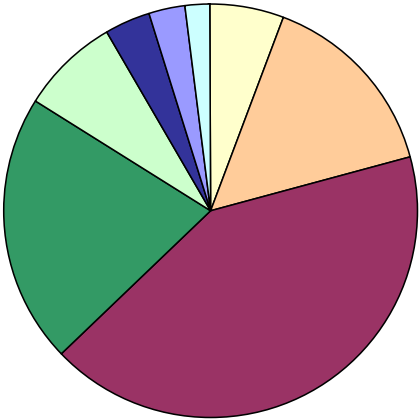
- **Large family farms.** Sales between \$250,000 and \$499,999.
- **Very large family farms.** Sales of \$500,000 or more.

Nonfamily Farms

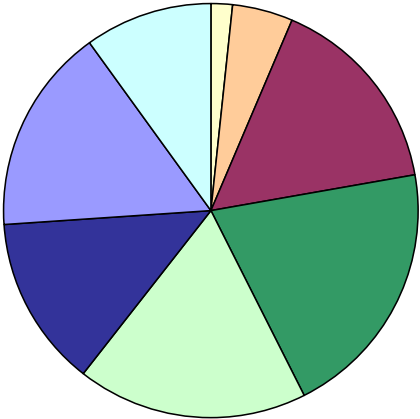
- **Nonfamily farms.** Farms organized as nonfamily corporations or cooperatives, farms operated by hired managers.

Farms, Land, and Production

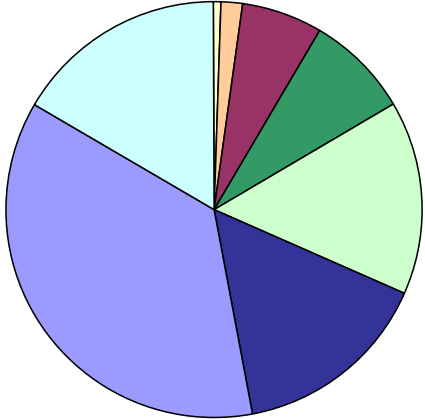
Number of Farms
(2.1 million)



Land Owned
(540 million acres)



Value of Production
(\$191.5 billion)



							
Limited-resource	Retirement	Residential/ lifestyle	Low-sales	High-sales	Large	Very large	Nonfamily
<i>Small family farms</i> (sales less than \$250,000)					<i>Other family farms</i>		

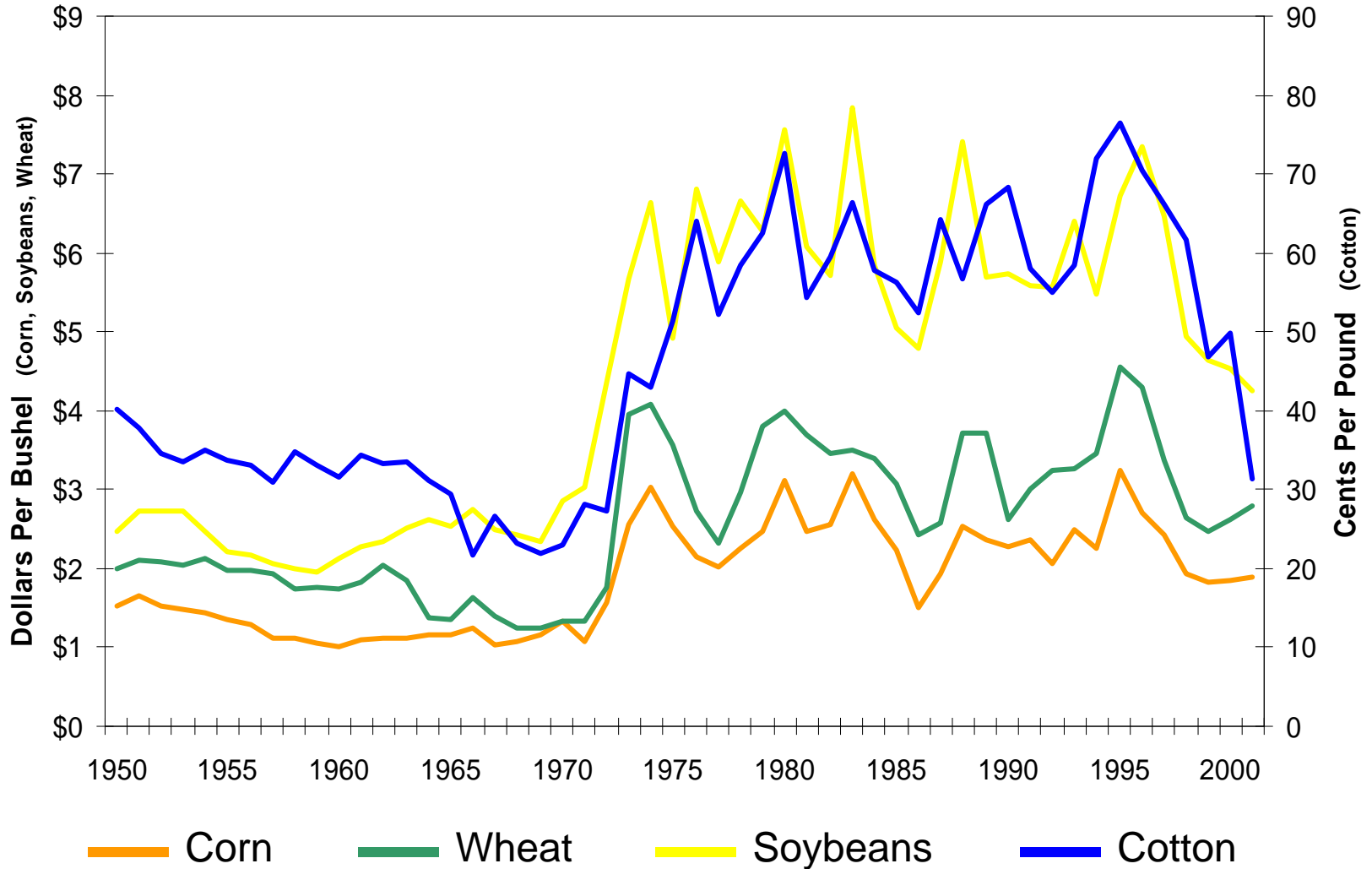
Describing Farms

- 62% of all farms are in the limited-resource, retirement, and residential/lifestyle categories, but produce only 9% of farm output
- Small family farms manage and operate the bulk of farm assets (69%), including the soil, water, energy, and natural habitat resources associated with farmland use
- Large family farms and nonfamily farms accounted for 66% of production in 2000

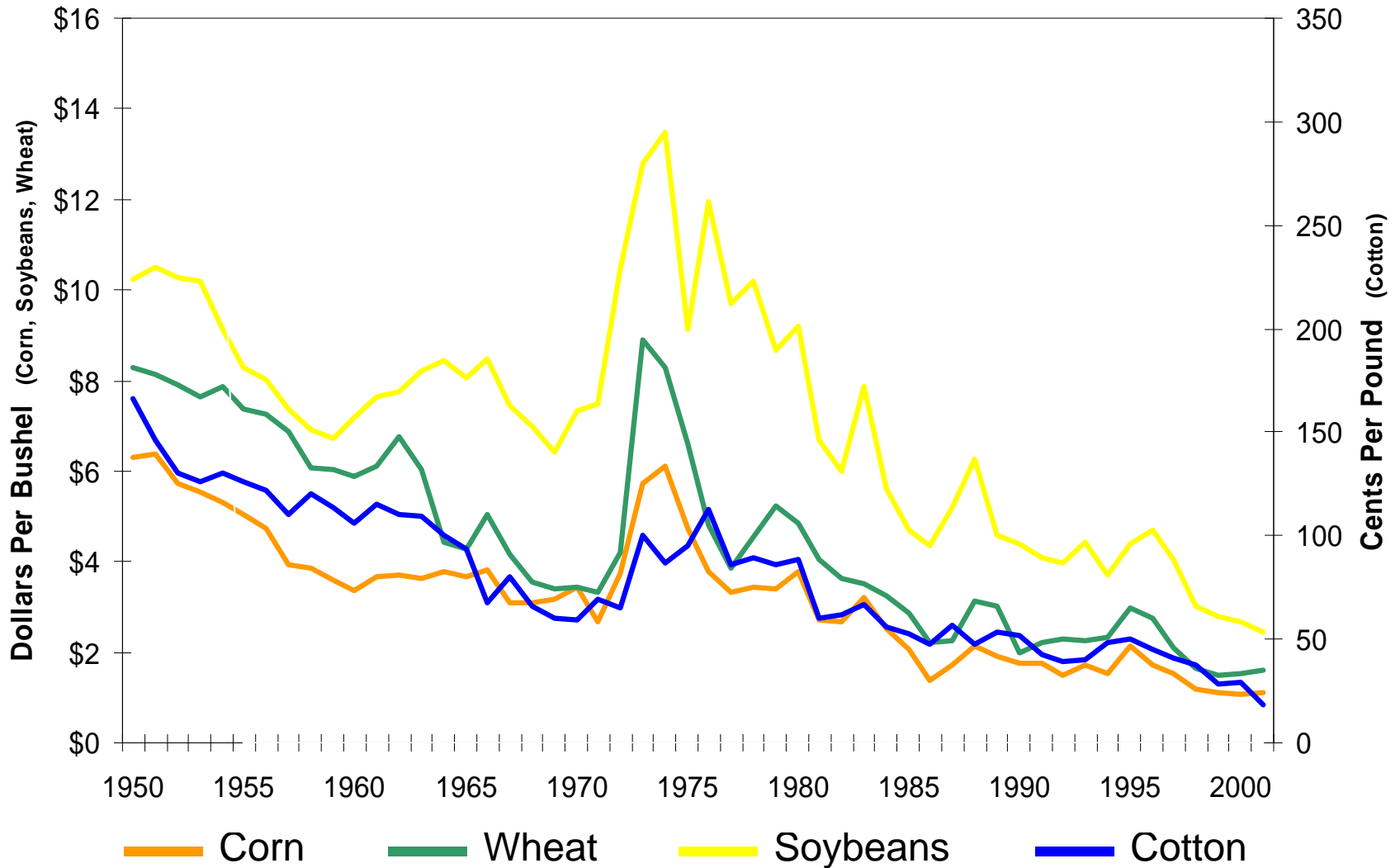
Farm Policy and Family Farms

- A “one-size-fits-all” policy for family farms would be unlikely at best
- The nonfarm economy is critically important to small family farm households
- Government payments and off-farm work help equalize average income for farm and nonfarm households
- Government payments have been most relevant to high-sales small farms and large family farms

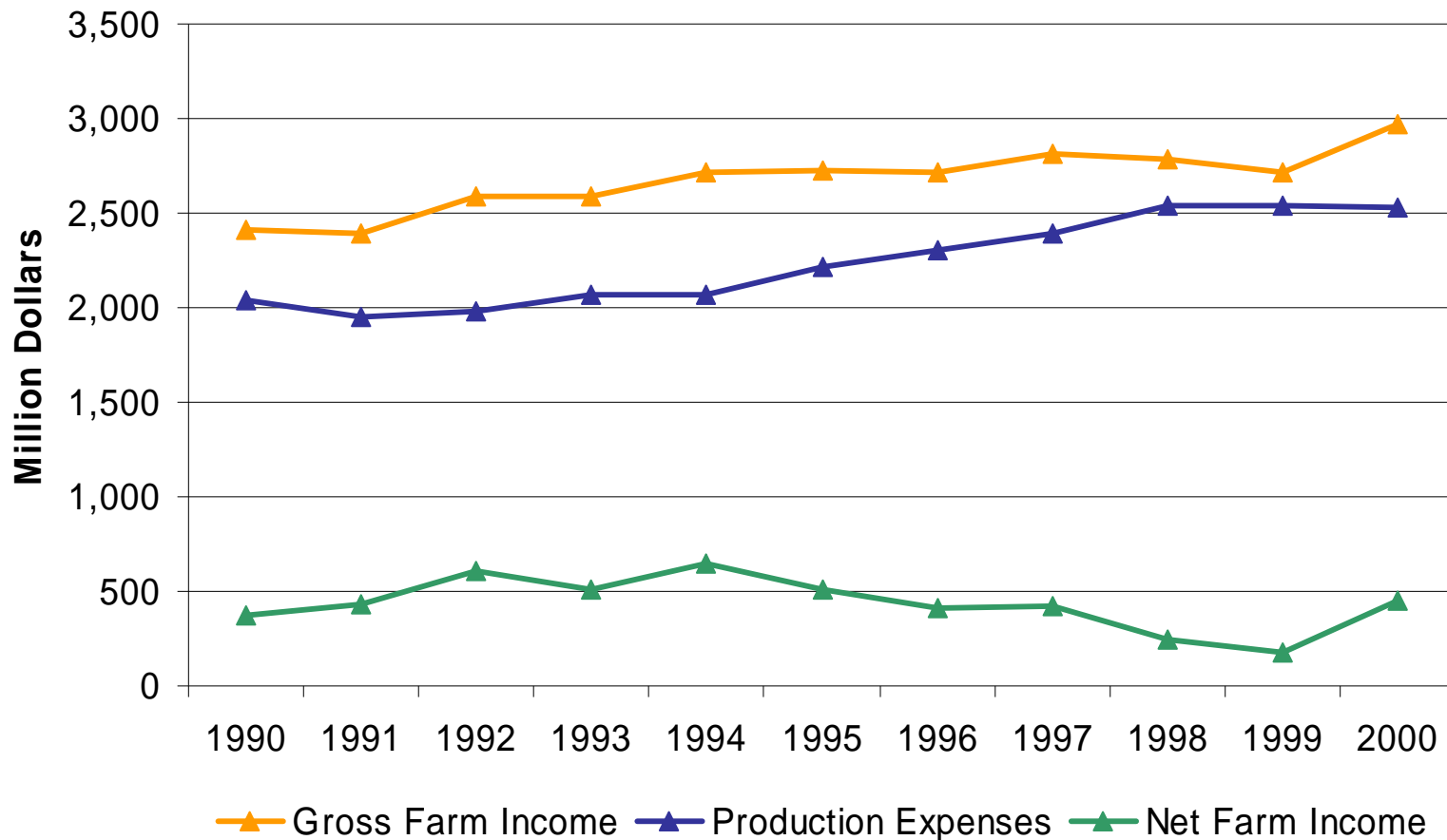
Major Crop Prices



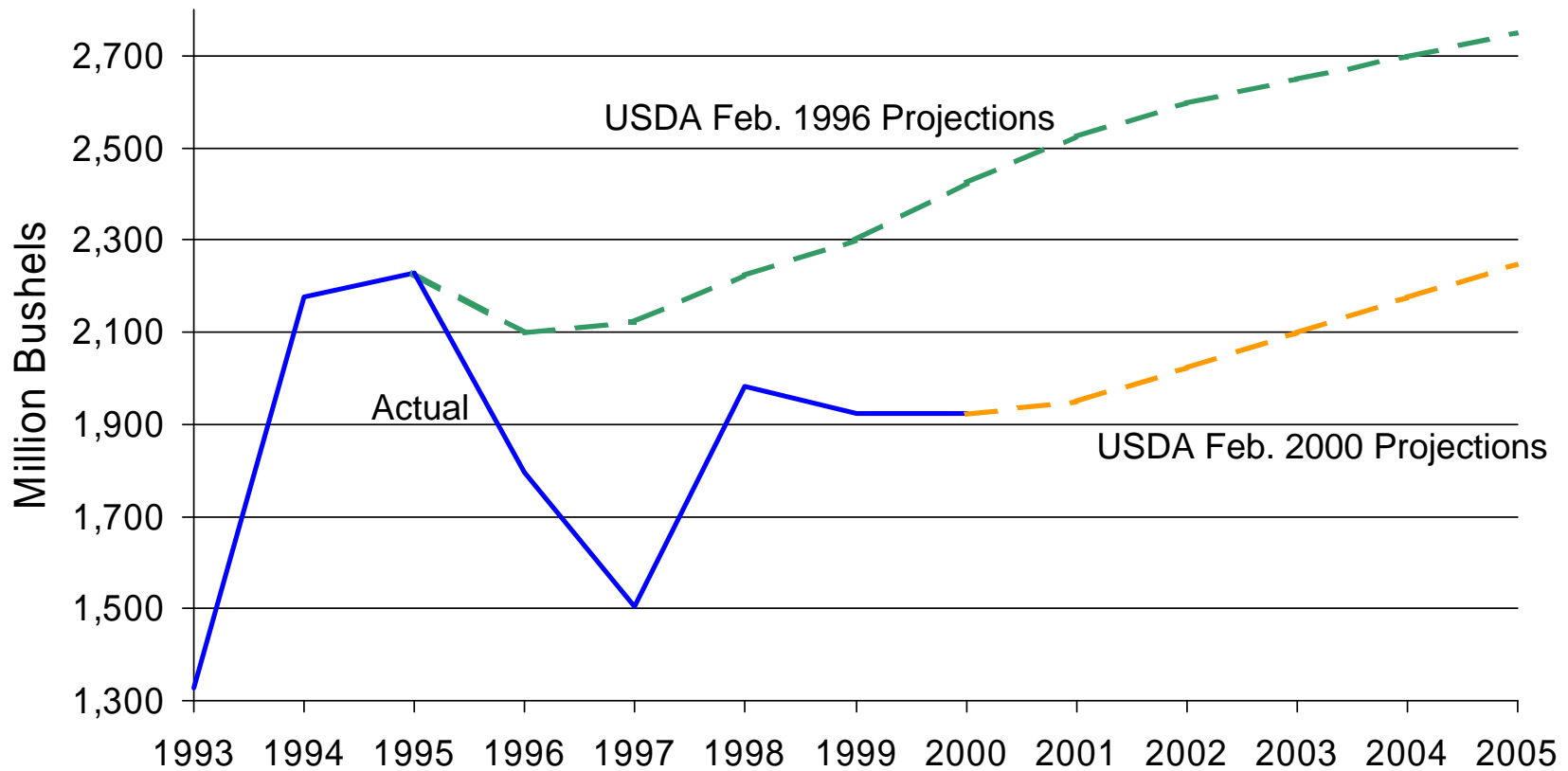
Major Crop Prices, Indexed



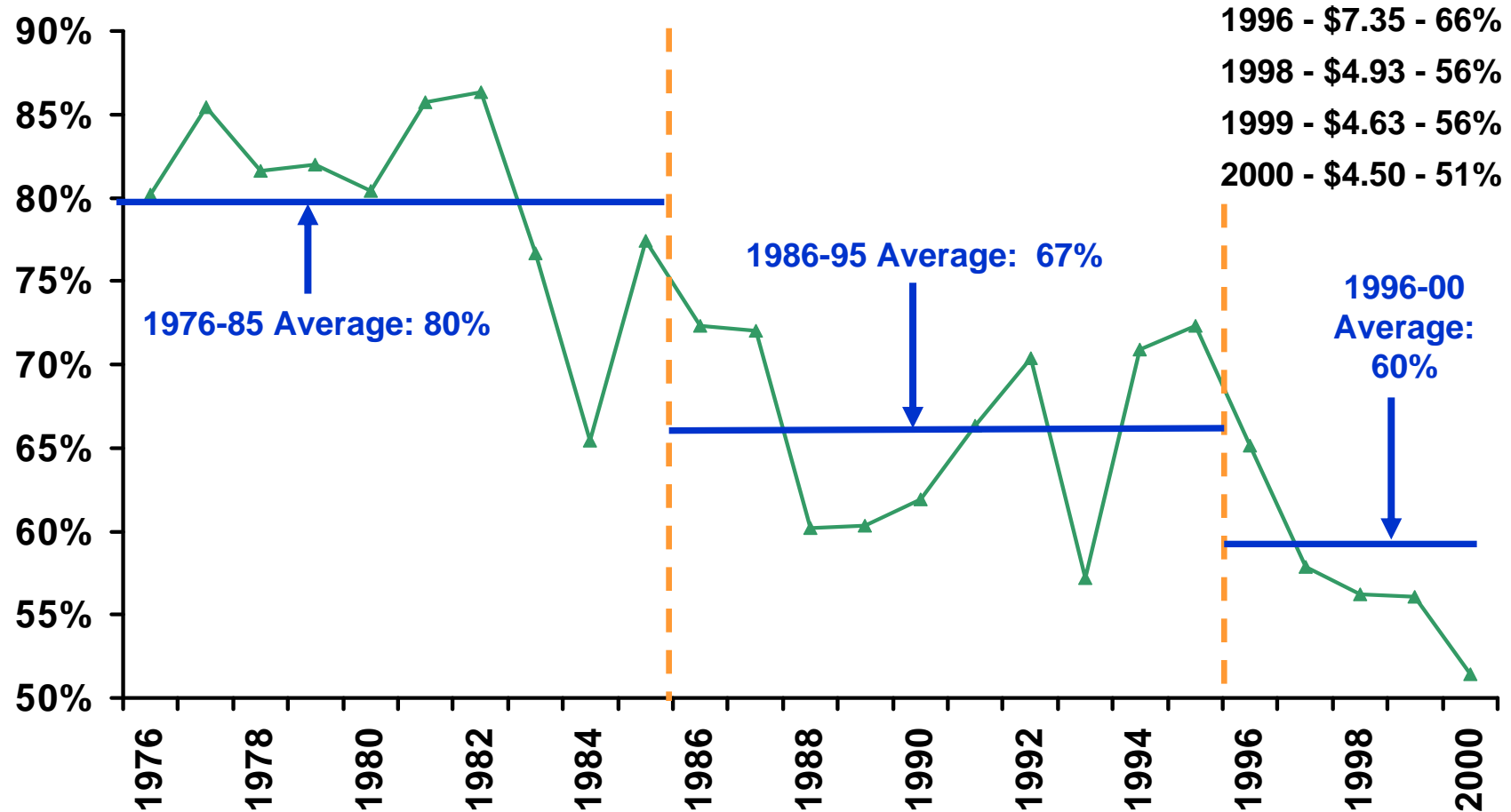
Farm Income & Expenses



U.S. Corn Exports: Actual & Projected, 1993-2005

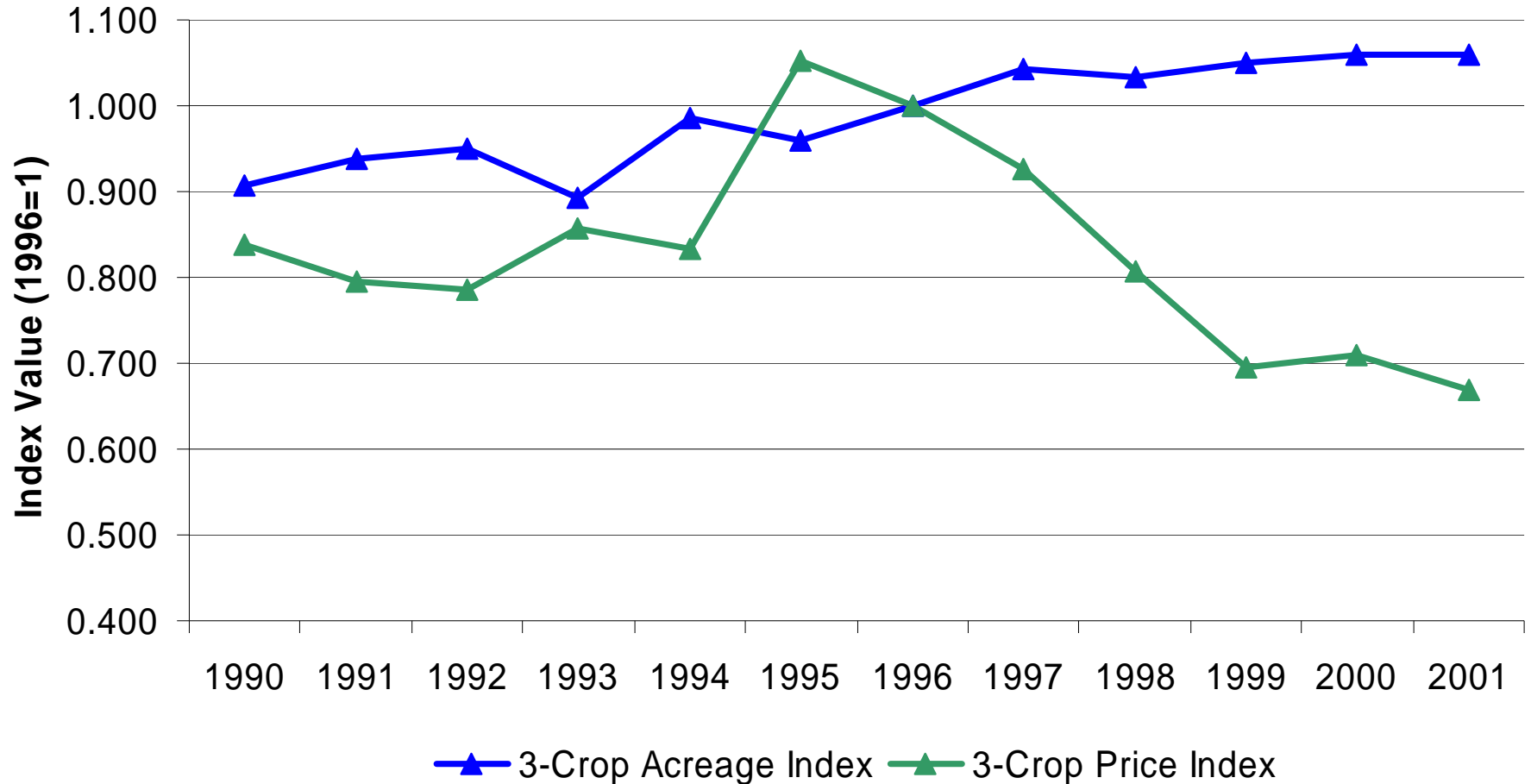


U.S. Share Of World Soybean Exports

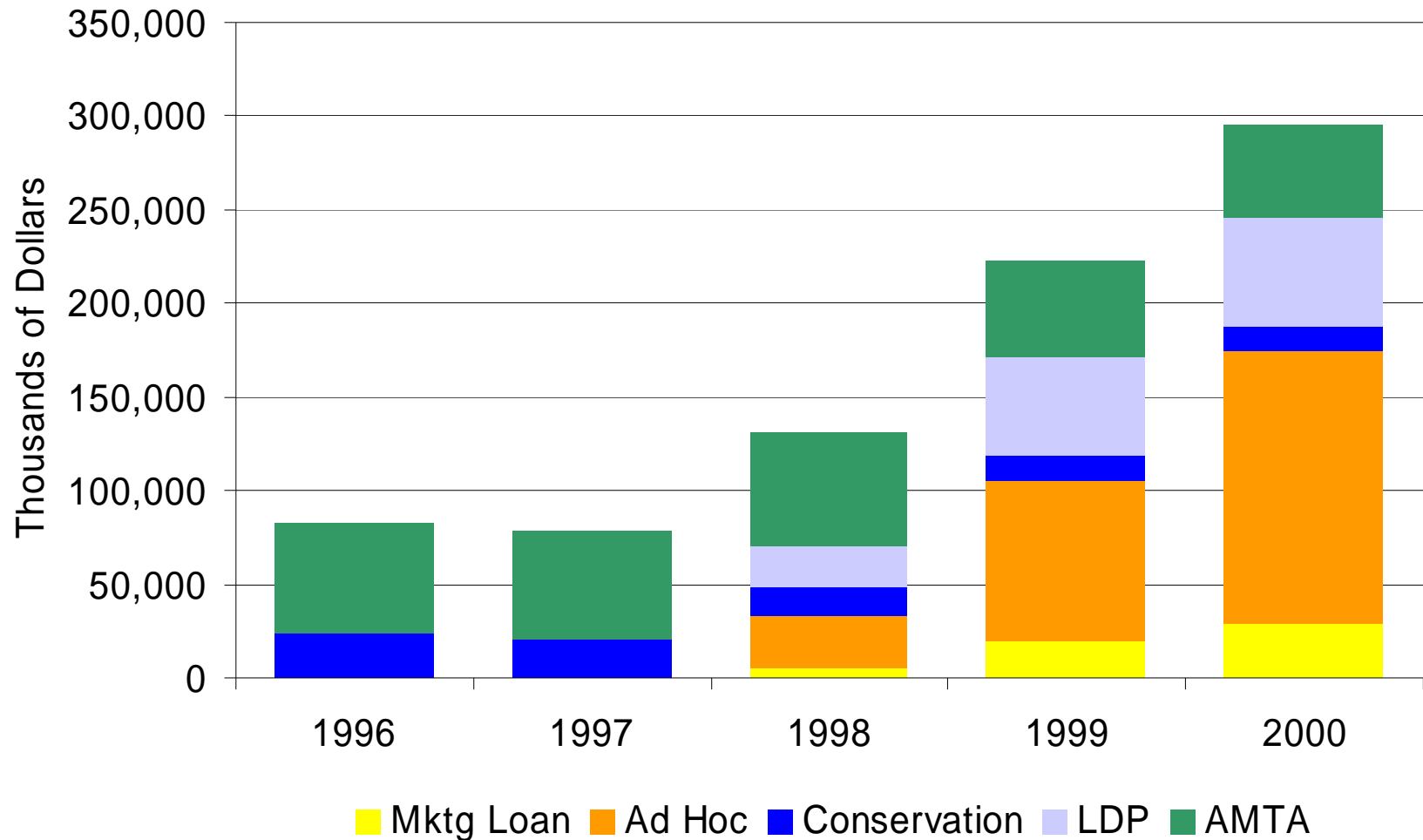


3-Crop Acreage & Price Index

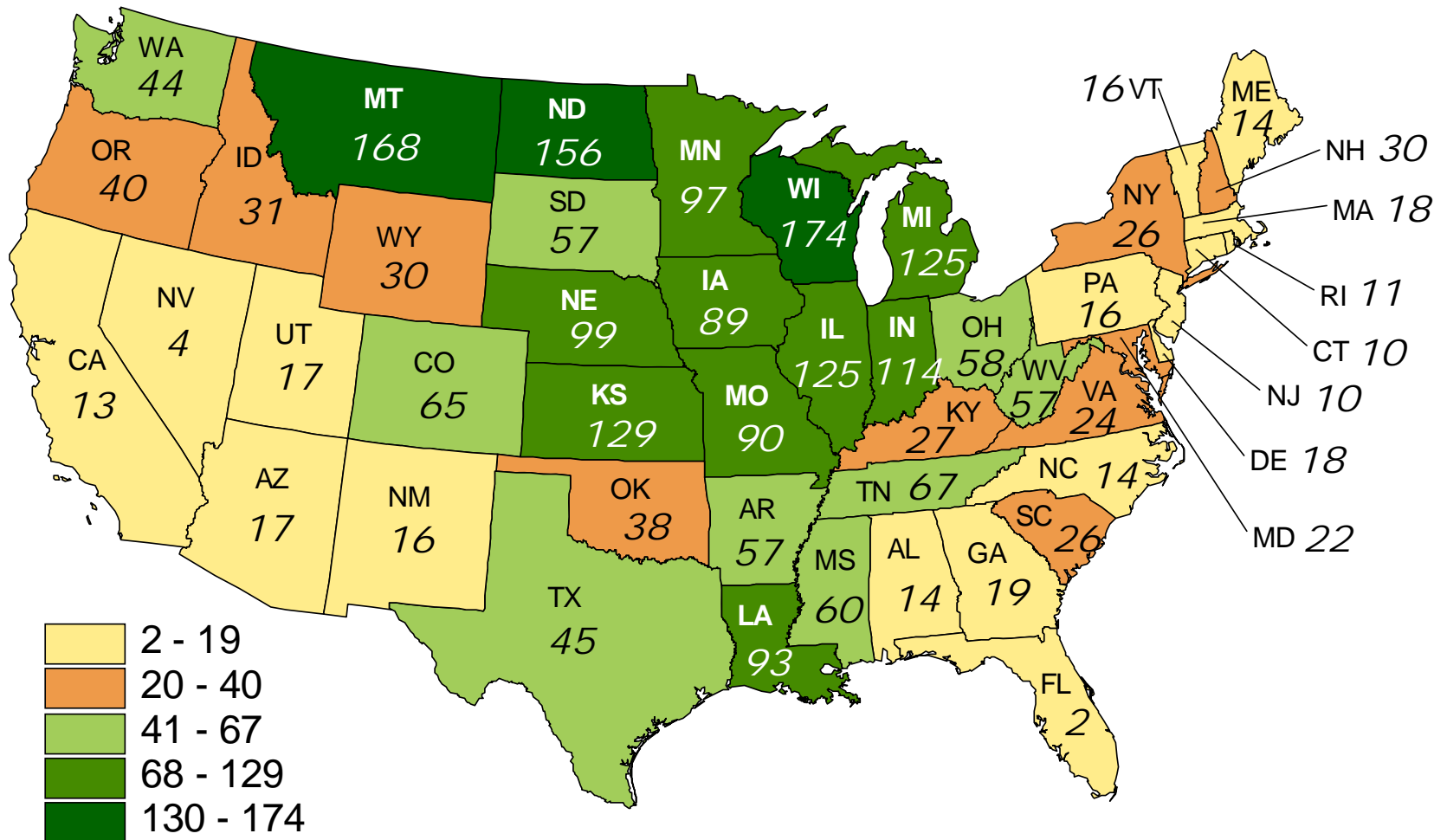
(Cotton, Soybeans, Corn)



Gov't Payments by Program

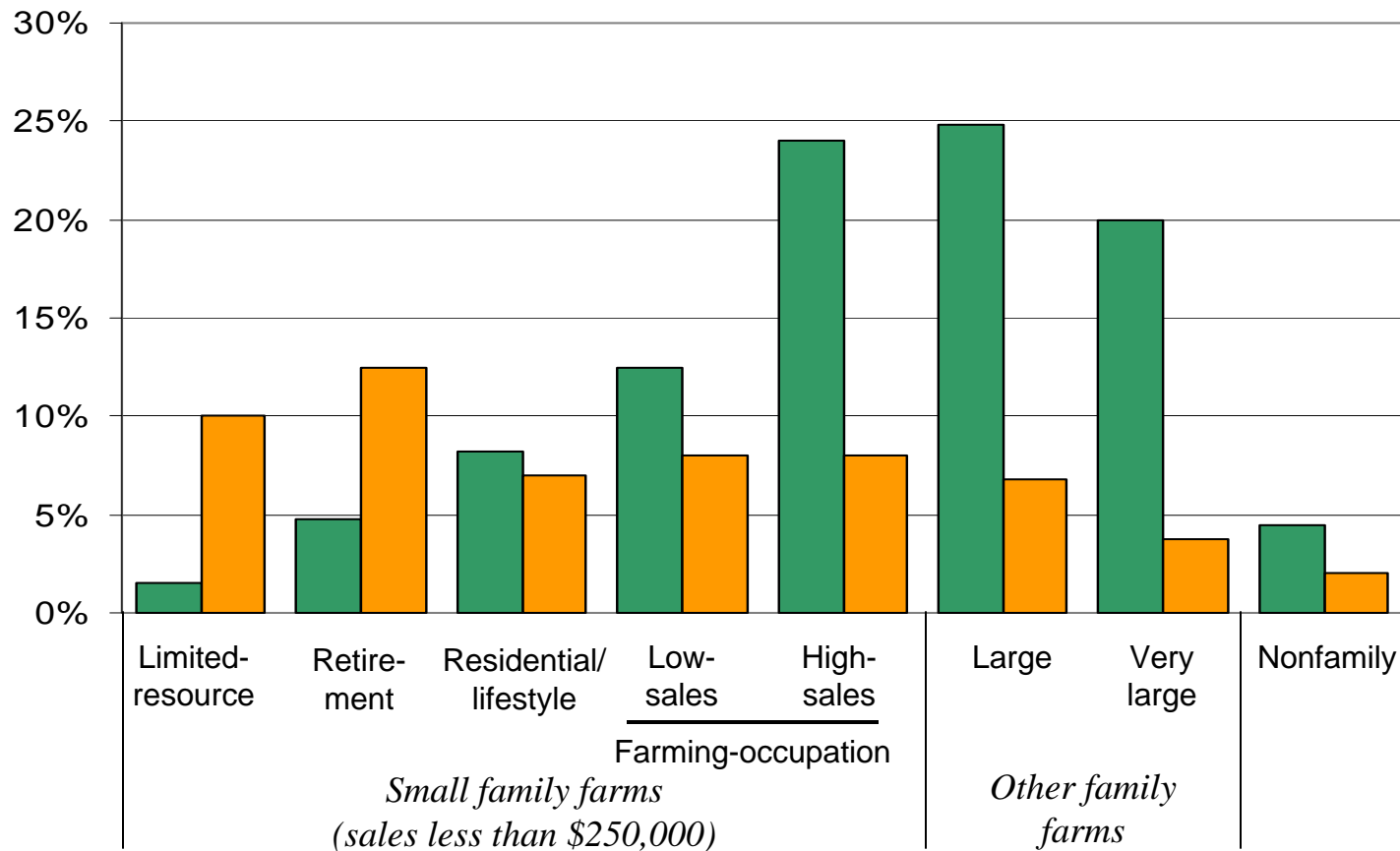


2000 Gov't Payments As A Percentage Of Net Farm Income



Government Payments by Farm Type

■ Share of payments by reporting farms ■ Payment as share of gross cash income

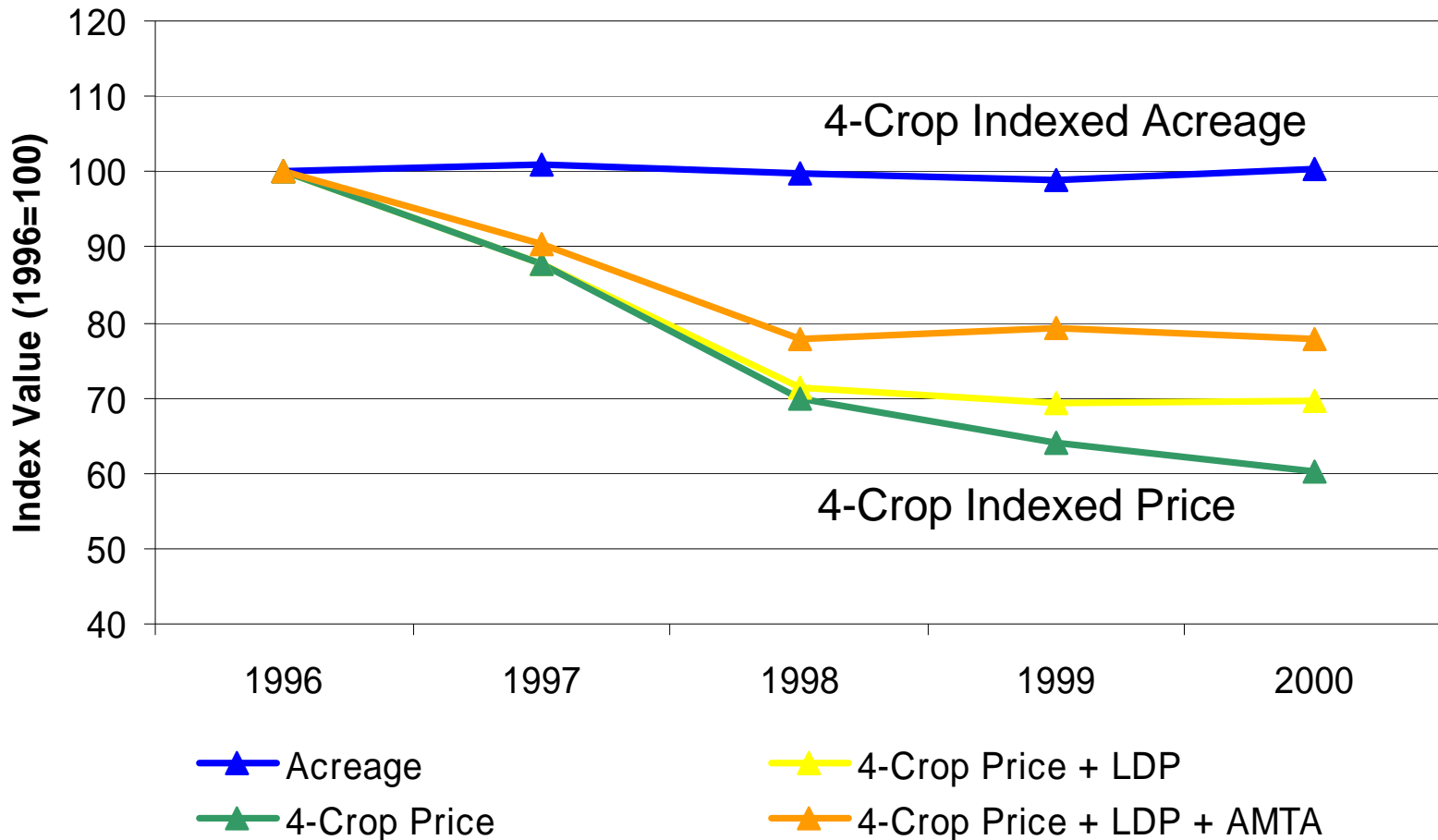


Government Payments

- High-sales small family farms, large, and very large family farms received nearly 70% of all government payments
- They are most likely to specialize in cash grains, covered by commodity programs
- Government payments accounted for more than 10% of gross cash income for limited resource and retirement farms
- Retirement farms received more than 25% of CRP payments
- Though a small proportion of the total, payments have helped keep many limited-resource farms afloat

Indexed 4-Crop Acreage & Price

(Soybeans, Cotton, Corn, Wheat)



2002 Farm Bill

- The Farm Security and Rural Investment Act of 2002
- Replaces 1996 Farm Bill and will remain in place for 6 years beginning crop year 2002 (through 2008)
- Status: Conference bill passed House and Senate, Administration expected to sign
- Increases agriculture spending by 70% over levels approved in 1996 Farm Bill
- Essentially extends and expands 1996 commodity programs and provides a mechanism to automatically distribute “emergency payments” made since 1998.

Major Commodity Provisions

- Allows producers flexibility in planting without “giving up” any established base
- Continues to pay producers of major commodities direct annual decoupled payments
- Allows updating program base acres and yields
- Loan rates (minimum price guarantees) are increased for several commodities
- Introduces a Counter Cyclical Payment program to replace the “double-AMTA” payment

Major Commodity Provisions

- Peanut quota buyout
- Adds program crops: soybeans, peanuts, wool and mohair, honey, pulse crops
- Includes a new dairy program
- New options for timing of payments
- Payments capped at \$360,000, virtually unrestricted with generic certificates

Fixed Payments & Target Prices

	Fixed Payment	Target Price	
	2002-2007	2002-2003	2004-2007
Wheat (bu)	\$0.52	\$3.86	\$3.92
Corn (bu)	0.28	2.60	2.63
Sorghum (bu)	0.35	2.54	2.57
Barley (bu)	0.24	2.21	2.24
Oats (bu)	0.024	1.40	1.44
Rice (cwt)	2.35	10.50	10.50
Soybeans (bu)	0.44	5.80	5.80
Upland Cotton (lb)	0.0667	0.7240	0.7240

Marketing Loan Rates

	2001 Rates	2002-2003	2004-2007
Wheat (bu)	\$2.58	\$2.80	\$2.75
Corn (bu)	1.89	1.98	1.95
Sorghum (bu)	1.71	1.98	1.95
Barley (bu)	1.65	1.88	1.85
Oats (bu)	1.21	1.35	1.33
Rice (cwt)	6.50	6.50	6.50
Soybeans (bu)	5.26	5.00	5.00
Upland Cotton (lb)	0.52	0.52	0.52

Commodity Payments Example

- Large grain farm in Northwest TN (Weakley County), TNG2400, representative farm
- 2,400 acre grain farm, owns 600 acres and cash leases 1,800
- Assumptions, 1998-2001:
 - Farms 2,900 acres: 1,080 corn, 500 double-crop wheat, 500 double-crop soybeans, 820 full-season soybeans
 - Period average yields (in bushels): 125 corn, 55 wheat, 40 soybeans

TNG2400 Under 1996 FB

- Under 1996 Farm Bill:
 - Base acres: 1,200 corn, 600 wheat
 - Base yields: 80 bu. corn, 32 bu. wheat
- AMTA payments: \$28,821
 - $(1,200 \text{ ac} * 0.85) * 80 \text{ bu/ac} * \$0.261/\text{bu} = \$21,298$
 - $(600 \text{ ac} * 0.85) * 32 \text{ bu/ac} * \$0.461/\text{bu} = \$7,523$
- Emergency payments basically doubled AMTA
- Marketing loan gains: \$71,988
 - \$4,514 corn, \$553 wheat, \$71,435 soybeans

TNG2400 – Base Acres

- Base acreage options:
 - Keep current AMTA acres and add soybean base up to total eligible acreage
 - 1,200 corn, 600 wheat, 1,100 soybean
 - Update all base acres using 1998-2001 average planted acres
 - 1,080 corn, 500 wheat, 1,320 soybean

TNG2400 – Direct Payment Yield

- Must use “old” AMTA yield for established base crops
- Multiply 1998-2001 average proven yield by an adjustment factor (0.78) for new oilseed crops
 - Use 75% of county average yield as a “plug” for any year with very low or no yield

TNG2400 – CCP Yield

- IF farm updates all base acreages, can update yields for counter-cyclical payments
- Yield update is higher of:
 - 70% of the difference between current (1996) AMTA yields and updated 1998-2001 average yields
 - 93.5% of 1998-2001 average yields
 - Use 75% of county average yield as a “plug” for any year with low/no yield

TNG2400 – Base Acres

Base Acres

Total Eligible Crop Base Acres
 Total Eligible Crop Base Acres Enrolled In ANY Conservation Program

History	Corn	Soybeans	Wheat
	2900		
	0		

Existing Base Acres

Established base acres ("Pulled-in" base for soybeans)

1200	1100	600
------	------	-----

Updating Base Acres

Acres planted and/or prevented planted in 1998
 Acres planted and/or prevented planted in 1999
 Acres planted and/or prevented planted in 2000
 Acres planted and/or prevented planted in 2001

1080	1320	500
1080	1320	500
1080	1320	500
1080	1320	500

New Base Acres

1080	1320	500
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TNG2400 – Base Yields

Base yields

	Corn	Soybeans	Wheat
Established base yield	80		32
Constructed Established base yield		31.2	

Prove your yield

Number of years in 1998-2001 crop was planted	4	4	4
Proven yield in 1998 (enter "0" when no crop was planted)	125	40	55
Proven yield in 1999 (enter "0" when no crop was planted)	125	40	55
Proven yield in 2000 (enter "0" when no crop was planted)	125	40	55
Proven yield in 2001 (enter "0" when no crop was planted)	125	40	55
Average yield 1998-2001	125.00	40.00	55.00

Check against "The Plug"

	Corn	Corn "Plug"	Soybeans	Bean "Plug"	Wheat	Wheat "Plug"
County average yield in 1998	104	78	32	24	39	29.25
County average yield in 1999	102	76.5	18	13.5	56	42
County average yield in 2000	117	87.75	27	20.25	58	43.5
County average yield in 2001	144	108	36	27	59	44.25

Yield to use in calculating base

1998	125	40	55
1999	125	40	55
2000	125	40	55
2001	125	40	55
Average yield 1998-2001	125.00	40.00	55.00
Updated yield, OPTION 1	116.88	37.40	51.43
Updated yield, OPTION 2	111.50	28.00	48.10
Updated yield	116.88	37.40	51.43

TNG2400 – Revenue

Revenue

	corn	soybeans	wheat	Loan Rate	Target price	Direct payment
Current base yield (constructed for beans)	80	31.2	32	Corn \$1.98	\$2.60	\$0.28
Current base acres (constructed for beans)	1,200	1100	600	Soybean \$5.00	\$5.80	\$0.44
Updated base yield (constructed for beans)	116.88	37.40	51.43	Wheat \$2.80	\$3.86	\$0.52
Updated base acres	1,080	1,320	500			

Actual yield	125	40	55
Actual acres	1,080	1,320	500
Actual bushels	135,000	52,800	27,500
National 12-Month Season Average Price	\$2.15	\$4.58	\$2.61

LDP	\$0.00	\$0.42	\$0.19
CCP Level	\$0.17	\$0.36	\$0.54

Revenue (Reflect maximum payment limits per crop per 3-entity.)

	corn	soybeans	wheat	Total Gov't payments
Direct Payment	\$20,563.20	\$15,402.82	\$7,072.00	\$35,966.02
CCP	\$18,239.51	\$15,106.61	\$11,802.04	\$33,346.12
LDP/MLG	\$0.00	\$22,176.00	\$5,225.00	\$22,176.00
Generic Certificates	\$0.00	\$0.00	\$0.00	\$0.00
Government Payments	\$38,802.71	\$52,685.42	\$24,099.04	\$91,488.14
Cash Value	\$290,250.00	\$241,824.00	\$71,775.00	\$532,074.00
Total Value	\$329,052.71	\$294,509.42	\$95,874.04	\$623,562.14
Value Per Acre	\$304.68	\$223.11	\$191.75	
Value Per Actual Bushel	\$2.44	\$5.58	\$3.49	

Total Gov't payments

\$35,966.02
\$33,346.12
\$22,176.00
\$0.00
\$91,488.14
\$532,074.00
\$623,562.14

In this column, payments for individual crops may not add up to total government payments if combined payments exceed payment limit.

Established base versus updated base

	corn	soybeans	wheat	combined
Direct Payments				
Direct Payment (at established bases)	\$22,848.00	\$12,835.68	\$8,486.40	\$44,170.08
Direct Payment (at updated bases)	\$20,563.20	\$15,402.82	\$7,072.00	\$43,038.02
Counter-Cyclical Payments				
CCP (at established bases)	\$13,872.00	\$10,501.92	\$8,812.80	\$33,186.72
CCP (at updated bases)	\$18,239.51	\$15,106.61	\$11,802.04	\$45,148.16
Direct Payments + CCPs				
Direct Payment + CCP (at established bases)	\$36,720.00	\$23,337.60	\$17,299.20	\$77,356.80
Direct Payment + CCP (at updated bases)	\$38,802.71	\$30,509.42	\$18,874.04	\$88,186.17

What to do?

Advantage

UPDATE

\$10,829.37

Pro Farmer

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Conservation Programs

- 2002 Farm Bill provides \$17.1 billion for conservation programs
- 80% increase over the current conservation spending marks
- Over half goes to the Environmental Quality Incentives Program (EQIP)
- Significant increase for Farmland Protection Program

Continued Conservation Programs

- Environmental Quality Incentives Program, funded at \$9b
 - Promotes ag production and environmental quality as compatible goals
 - Goal is to optimize environmental benefits
- Conservation Reserve Program, increases from 36.4 to 39.2 million acres
- Wetlands Reserve Program, increases to 2.3 million acres

Farmland Protection Program

- Provides matching funds to help purchase development rights to keep productive farmland in agricultural uses
- Adds non-profit organizations as eligible entities
- Recognizes need to protect historic and archaeological resources located on farms and ranches
- USDA provides up to 50% of fair market easement value
- Requires 30 year minimum easement, with priority to perpetual easements
- Program administered by USDA's NRCS

Farmland Protection Program

- Program has provided \$53.4m to protect 108,000 acres since 1996
- Now funded at \$985m, a 20-fold increase
 - FY 2002: \$50m
 - FY 2003: \$100m
 - FY 2004-5: \$125m
 - FY 2006: \$100m
 - FY 2007: \$97m

Qualifications for FPP

- Prime, unique or other productive soil
- Included in a pending offer from a NGO, state, tribe or local farmland protection program
- Privately owned
- Covered by a conservation plan
- Large enough to sustain agricultural production
- Accessible to appropriate ag markets
- Surrounded by parcels of land that can support long-term ag production

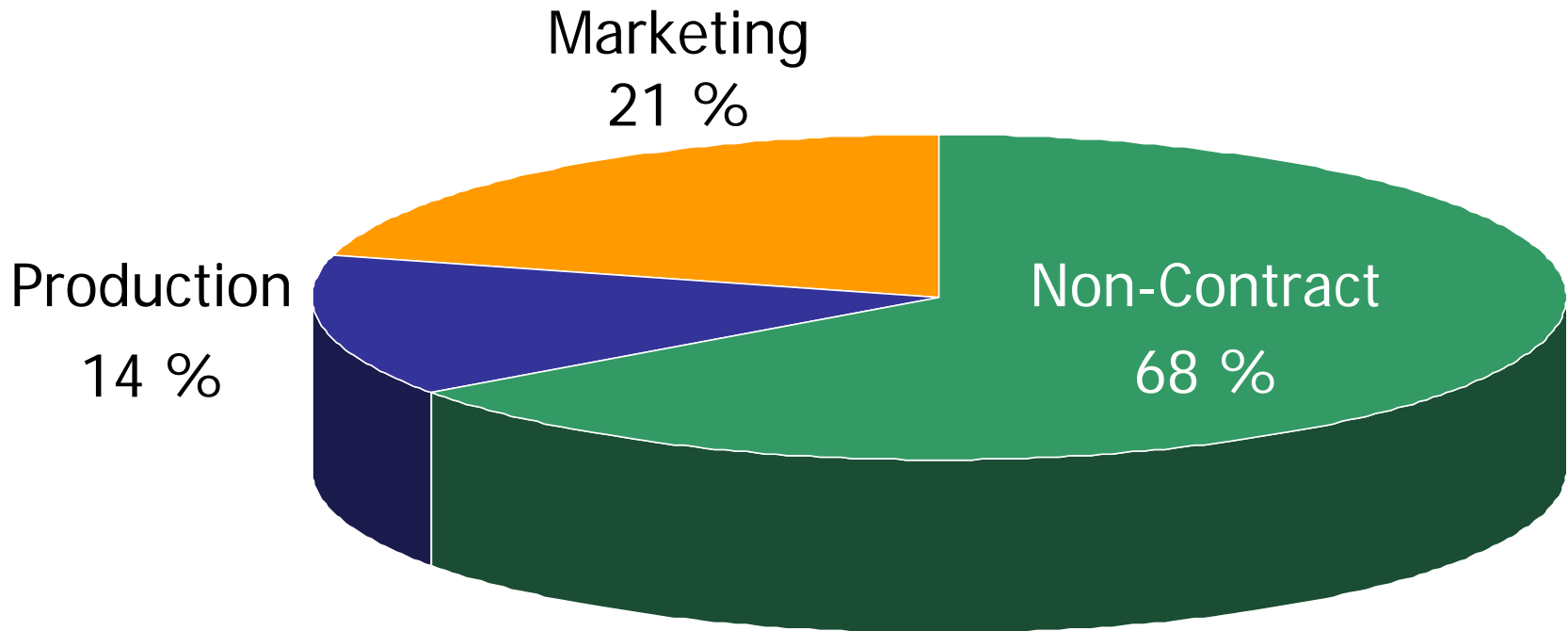
New Conservation Programs

- Conservation Security Program: \$2b
 - Incentive payments for stewardship practices
- Grasslands Reserve Program: \$254m
 - 2 million acres of pastureland
 - 10 to 30 year agreements and easements (40%)
 - Permanent easements (60%)
- Small Watershed Rehab. Program: \$275m

Agriculture Trends & Observations

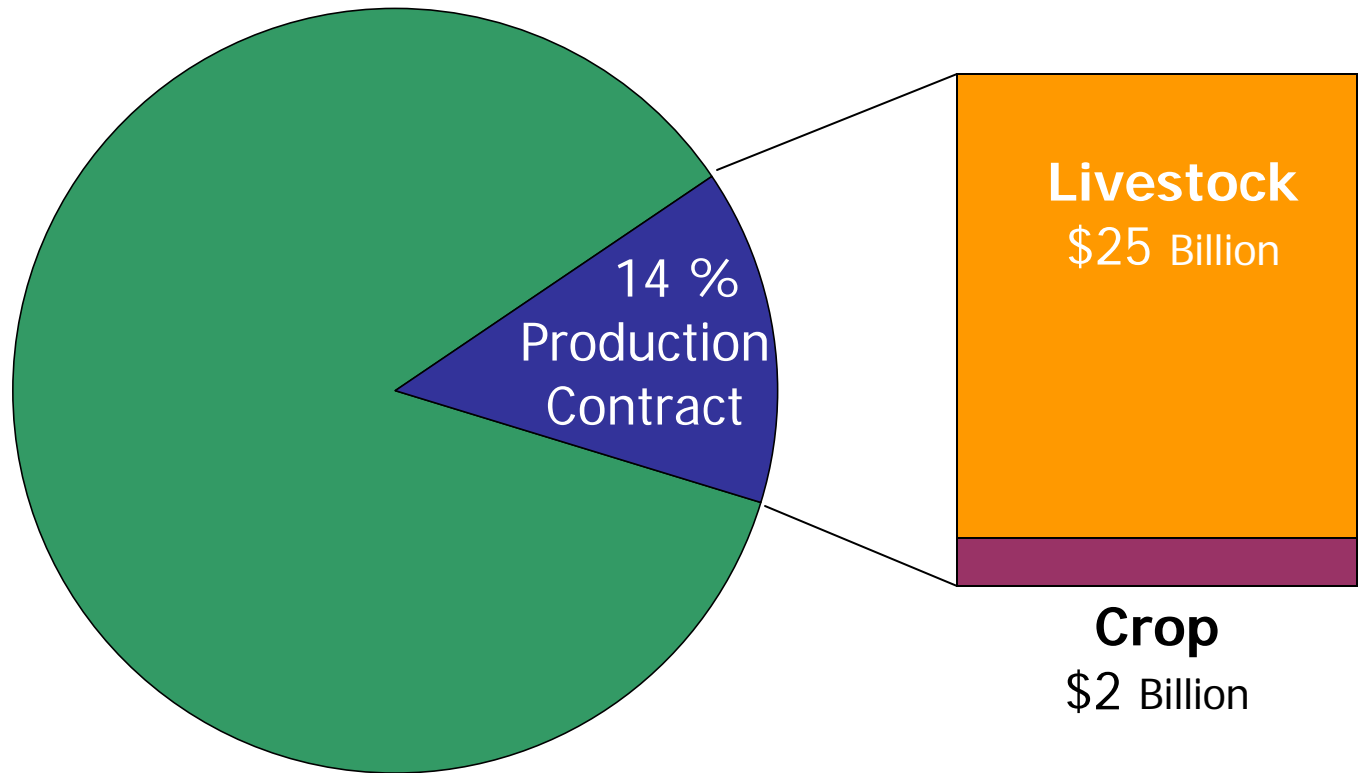
- Increasing use of production and marketing contracts
- Movement toward value-added commodities and niche markets
- Changes in the federal tobacco program will have a significant regional impact
- Current farm policy has significant potential to affect farmland values

Value of Contract Agriculture



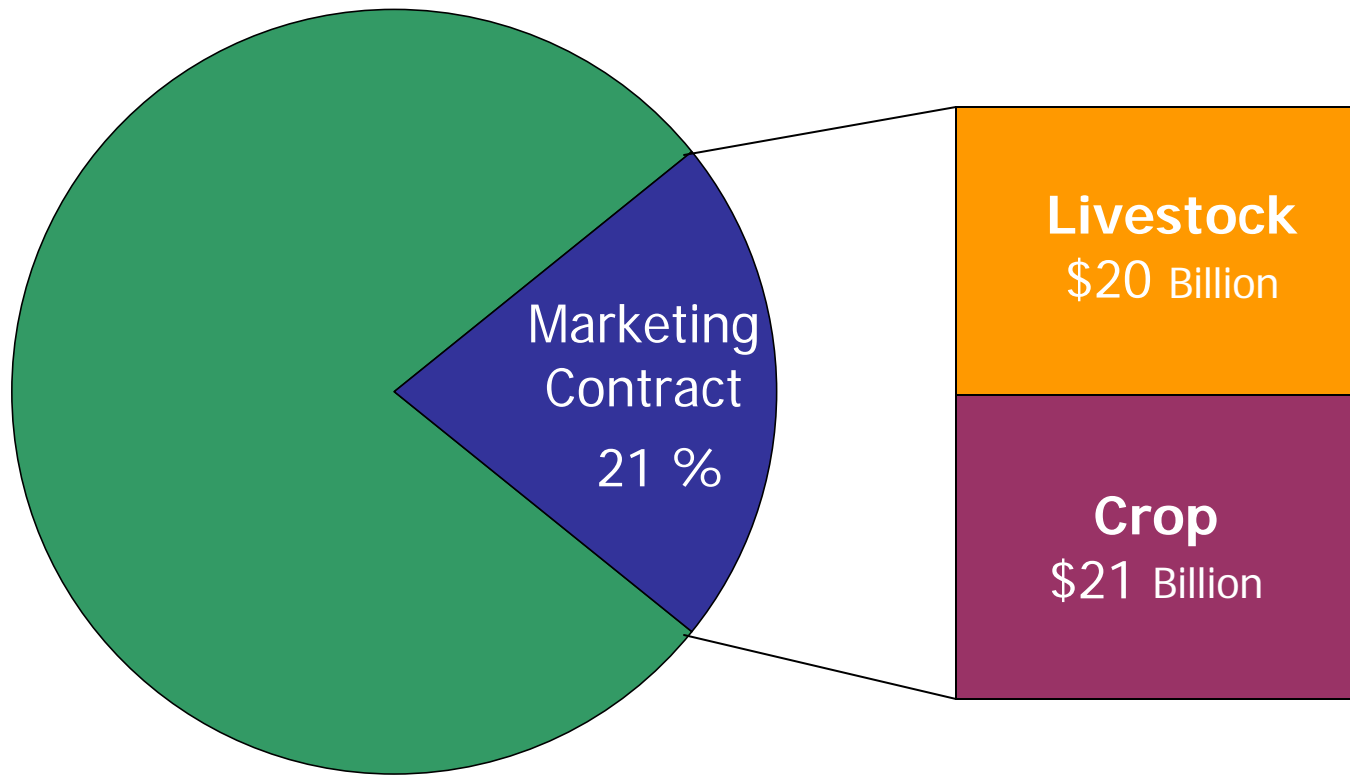
All Agriculture: \$192 Billion

Value of Production Contracts



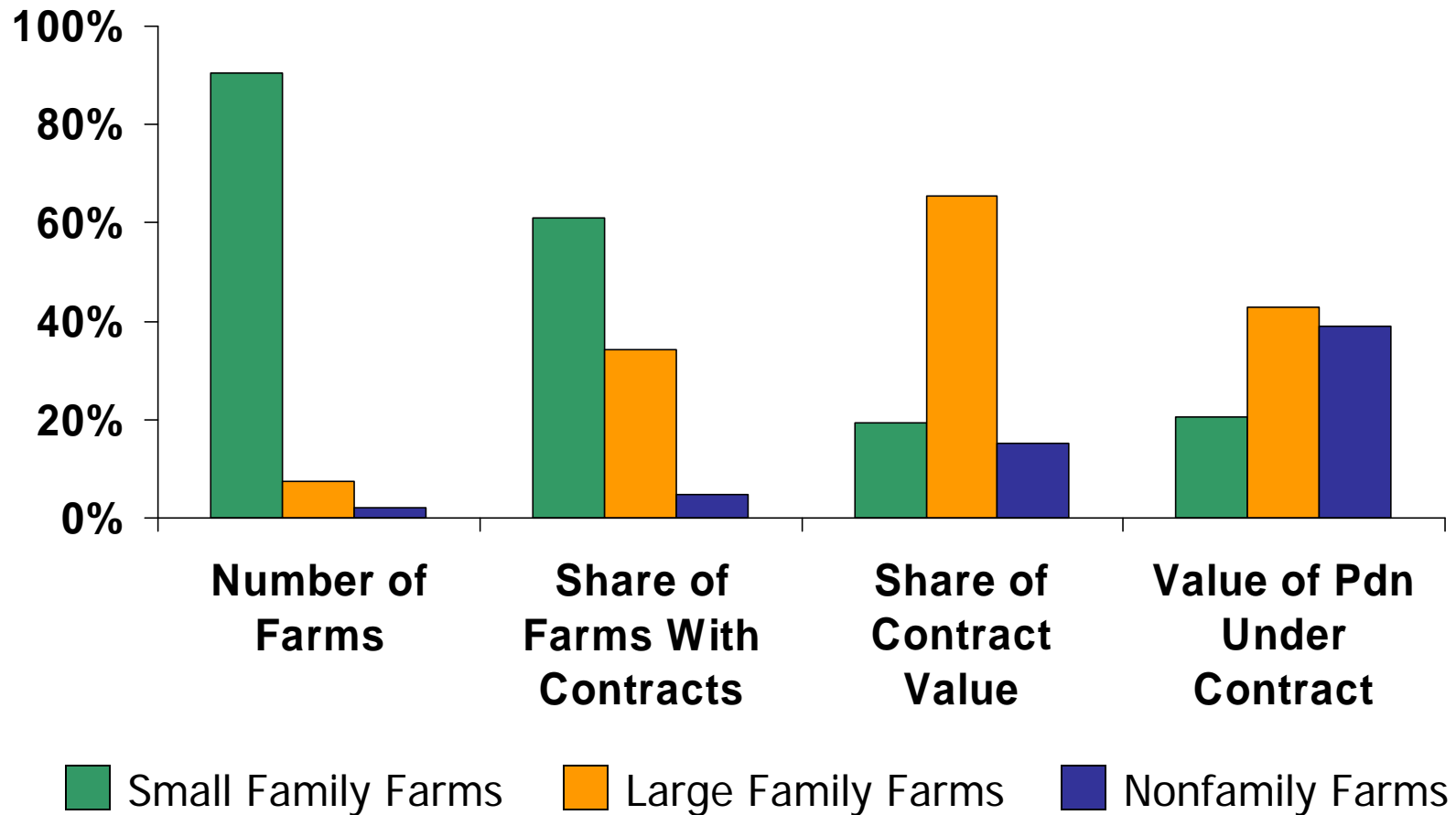
All Agriculture: \$192 Billion

Value of Marketing Contracts



All Agriculture: \$192 Billion

Contracting & Farm Structure



Trends in Contracting

- Farms organized as partnerships or corporations twice as likely to contract
- Marketing contract use on farms outnumbered production contract use 4 to 1
- Average sales on farms with production contracts 10 times greater than cash sales
- Expect to further increase the use of production contracts for livestock, hogs

Trends (Continued)

- Rural Communities May Need To Seek New Sources Of Economic Growth
 - Market Development, Processing, Packaging, Transportation, Information
- Opportunities For Farmers To Create Market Power By Producing Higher Value, Attribute-Specific Commodities

The Food Dollar, 1999

Labor

Packaging

Transportation
Energy

Profits

Advertising
Depreciation

Rent

Interest (net)
Repairs

Business Taxes
Other costs



20¢

Farm value



39¢

8¢

3.5¢

4¢

4¢

3.5¢

4¢

4¢

3.5¢

2.5¢

2.5¢

1.5¢

Marketing bill

Value-Added Agriculture Examples

Commodity

Added Value

Apples



Apple Jelly

Farming



Entertainment Farming

Corn



Popcorn

Sweet Potatoes



Sweet Potato Muffins



Slaw

Hot Pepper
Sauce



Soil
Amendment



Salsa

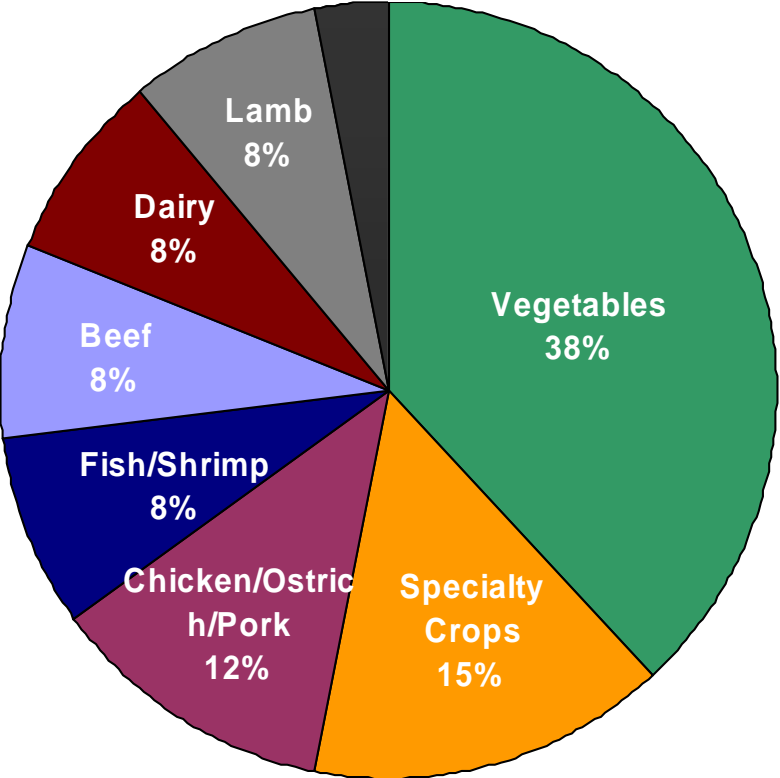


Jams &
Jellies

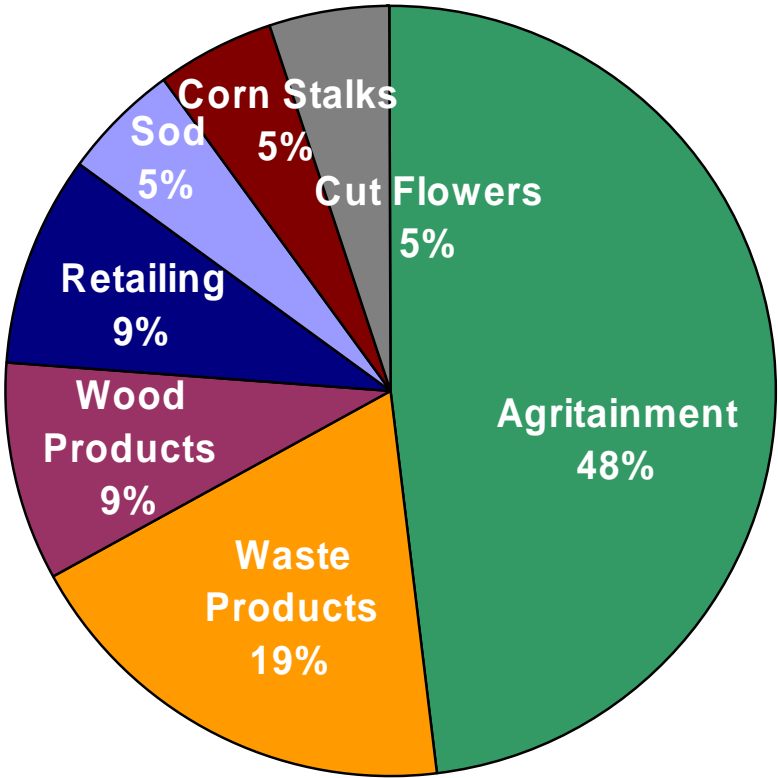


Value-Added Projects

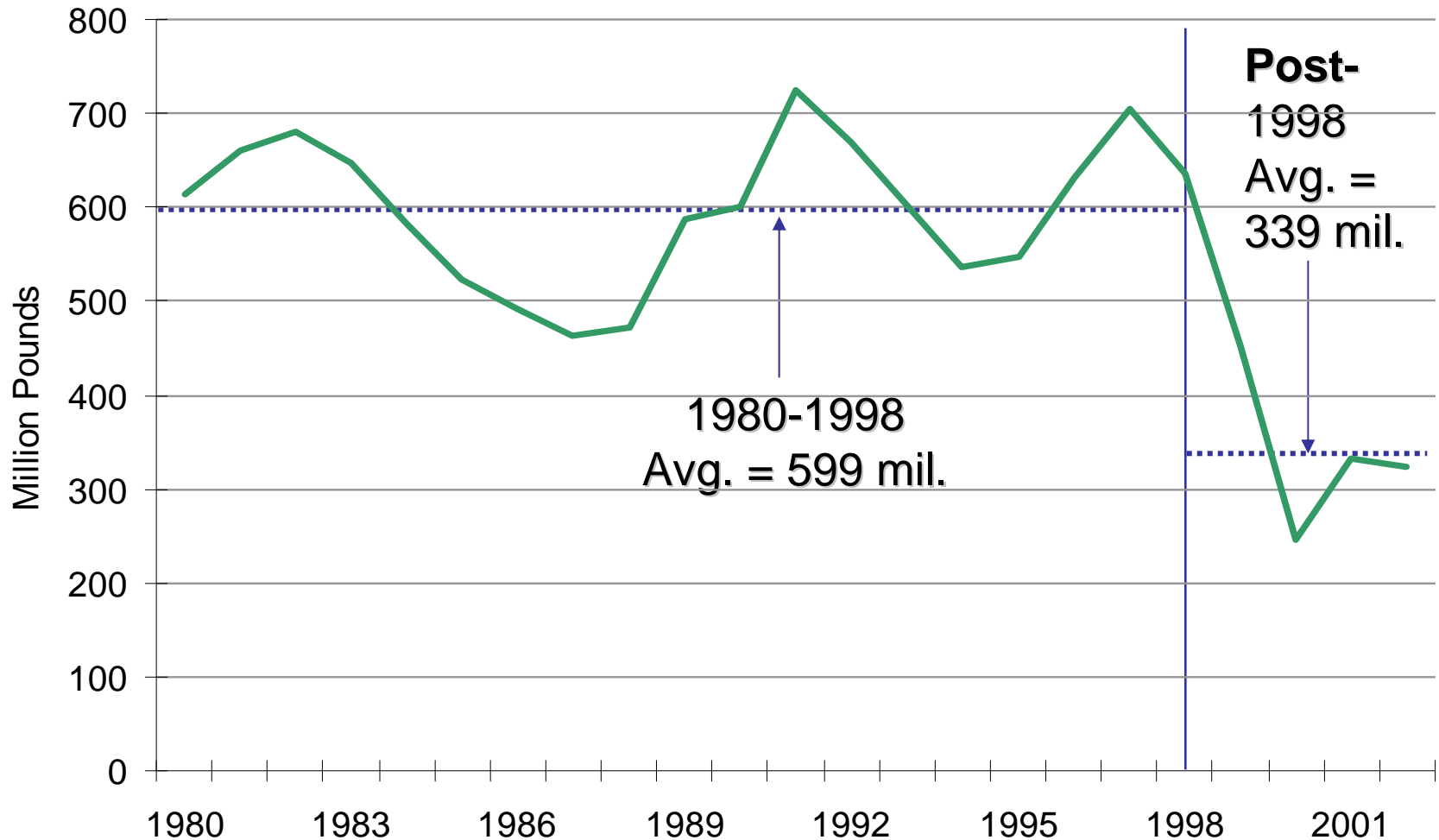
Food Projects



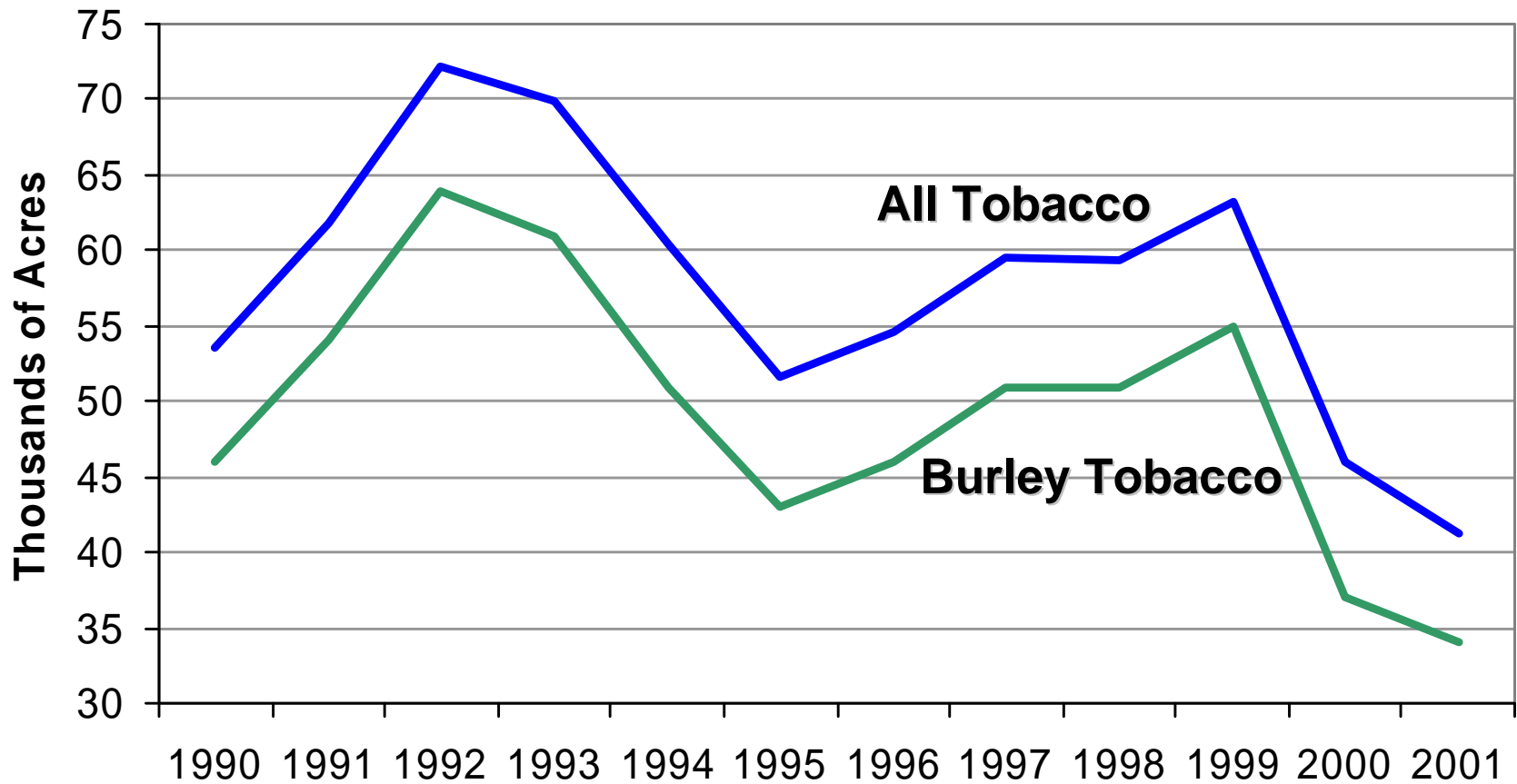
Non-Food Projects



Burley Tobacco Basic Quota



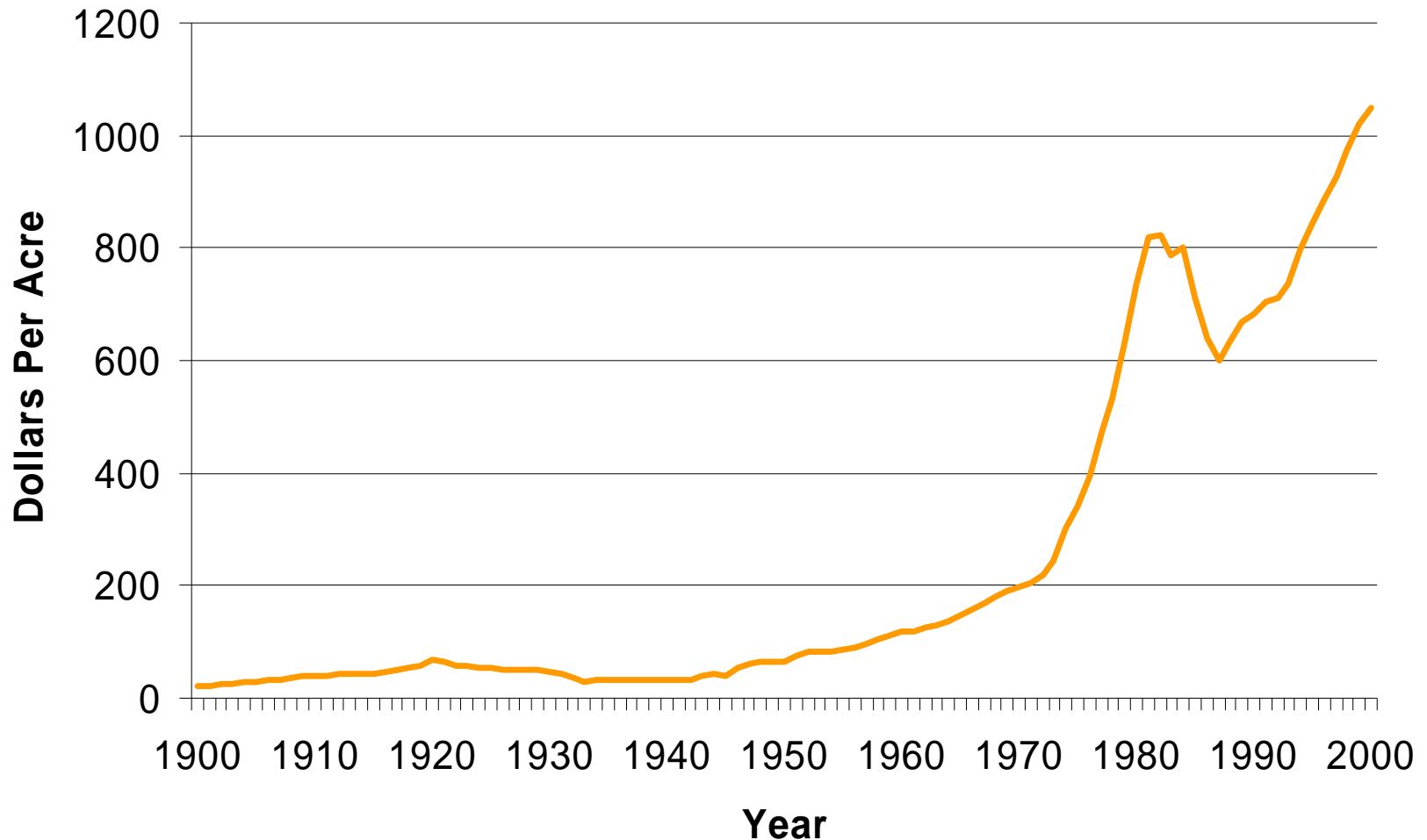
TN Harvested Tobacco Acreage



Declining Tobacco Income

- Many assume that the tobacco settlement and public health concerns are responsible for declining tobacco income
- Larger factors include price above world price, increasing imports, declining exports, movement of cigarette production overseas
- Quickly moving toward contract production, overhaul or termination of federal tobacco program
- Tobacco quota buyout on the horizon? About \$15 billion in 6 states in 5 years?

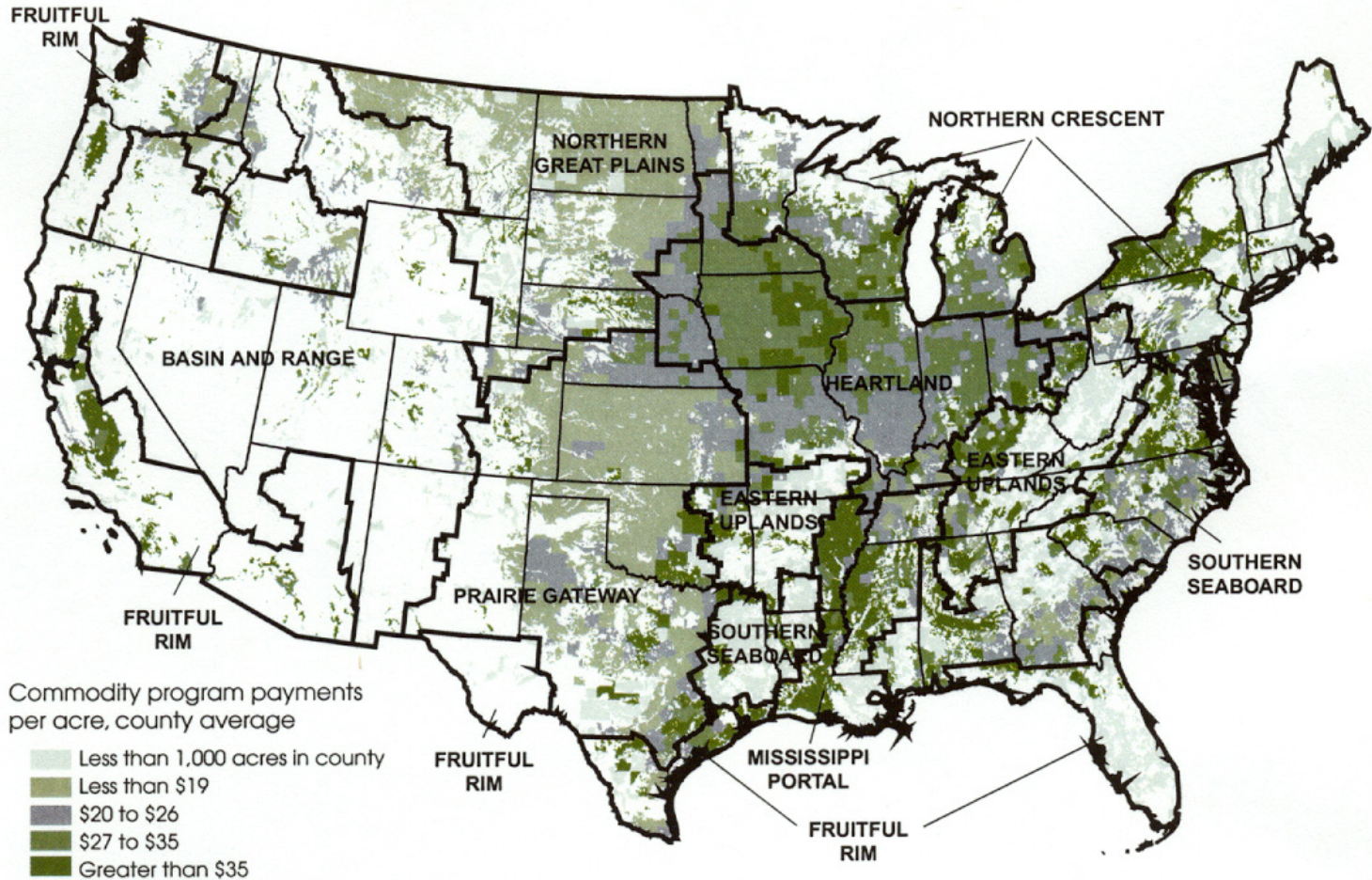
US Avg. Farm Real Estate Value



Ag Policy and Farmland Values

- Direct government payments have a significant impact on farmland values
- Increasing land values increase fixed cost of ag production without corresponding increase in productivity, often without increasing active farmer's wealth
- Farm program payments per acre vary geographically

Farm Commodity Program Payments Vary Regionally



Based on acres in program crops from 1997 Census of Agriculture. Excludes conservation program payments.

Economic Research Service, USDA

Ag Policy and Farmland Values

- The degree to which program payments affect land values depends partly on the form of the payments
 - Direct payments attached to land have a greater effect than production-based LDPs
- Landowner gains, lessee loses
- Relatively more “certainty” in 2002 Farm Bill direct payments will have a greater effect on land values

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