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APPLIED
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This research was funded by the Rapid Agricultural Research Fund (RARF) of the College of Food, Agricultural, and Natural Resource Sciences.

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Alternative Farm Bills: Impacts on Minnesota Farms

Kent D. Olson and Matthew R. DalSanto[1]
April 2007

ABSTRACT

With the current federal farm bill set to expire at the end of September this year, many proposals have been made to redesign the next bill. The objectives of this study are to compare the current policy with major proposed alternatives and estimate the potential payments of farmers under each of the alternatives. The alternative policies are compared in two ways. First a historical comparison of crop revenue and estimated government payments for individual farms are made under each proposal from 2002-2005. In a second comparison, projections of crop revenue and government payments are made using historical yields for each farm, county, and nation; historical price data; statistical distributions of the yields and prices including averages, standard deviations, and correlations; and each proposal's rules for calculating payments. For yields, deviations from the yield trend are used. In three of the four years and on average, the American Soybean Association (ASA) proposal has higher payments and thus higher total gross revenue compared to current policy and the other three proposals. Since the ASA proposal raises both loan rates and target prices, the higher payments should be expected. The proposed USDA policy is estimated to have a slightly higher average government payment and total gross revenue compared to current policy, but it is not higher than current policy in each year. Lower total payments under the National Corn Growers Association (NCGA) proposal are due to higher than average revenues during 2002-05. The revenue insurance proposal does not create any indemnity payments in 2002-05—again due to the higher revenues in these years. Projections of potential revenue also show the ASA proposal to have higher estimated payments. Average government payments are estimated to be slightly higher under current policy compared to USDA's and NCGA's proposals. Since federal budget concerns may not allow the higher payments under the ASA proposal, the choice between the USDA and NCGA proposal may hinge on the level of administrative costs which would appear to be lower with the USDA proposal since it is based on one national estimate of revenue versus many county and individual calculations under the NCGA proposal. The potential use of multi-commodity revenue insurance will hinge on either the ability to provide additional support in fixed direct payments and green payments and larger federal budget concerns.

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Alternative Farm Bills: Impacts on Minnesota Farms

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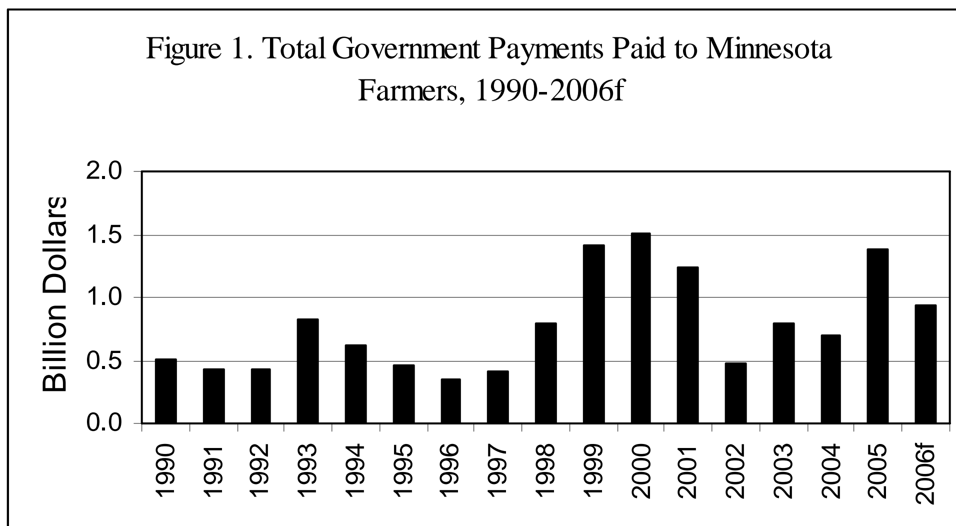
Minnesota farmers collected nearly $1.4 billion in farm subsidies in 2005, but this total has varied over the years (USDA ERS, Figure 1). In Minnesota, government payments totaled 10% of the average gross revenue in 2005, up from 5% in 2004.[3] As a percentage of net farm income, government payments were 57% of the 2005 average and 32% in 2004. Nationally, total government payments of all types made to farmers were $24,349.5 million in 2005.




These numbers help explain the interest farmers and many others have in federal farm policy. This interest is especially high now since current farm policy is in effect only through the 2007 crop year and Congress will be developing a new farm policy during the current session. Many farmers and others involved in agriculture want to see a new policy that is very similar to current policy. However, factors, such as federal budget deficits, international trade issues, energy concerns, and environmental concerns, are increasing the pressure to make fundamental changes in federal farm policy. The fairness of the current distribution of payments is also questioned with calls to change how payments are calculated and allocated. The rationale for and size of government payments to farmers, for rural development, and for food assistance may change considerably from current policy.

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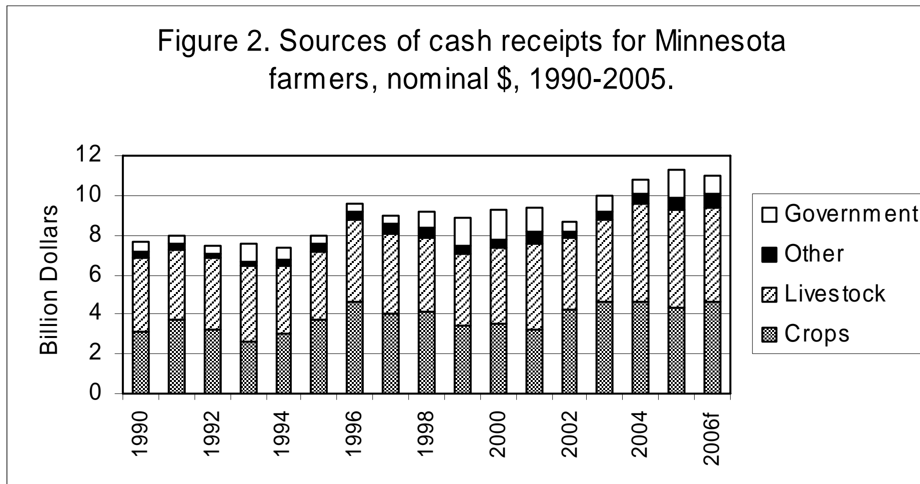
[3] These averages are for the Minnesota farms in the Center for Farm Financial Management's FINBIN, their farm financial database at the University of Minnesota This database is available at www.cffm.umn.edu.

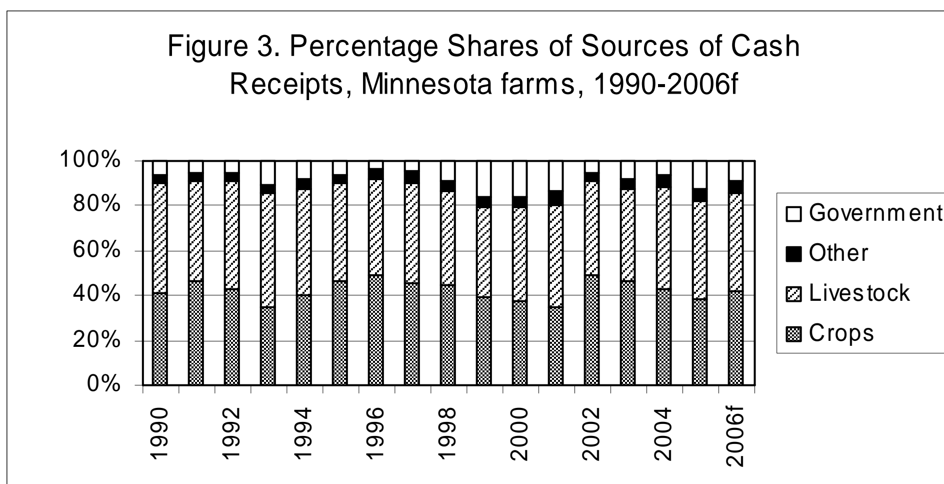
With the potential for change and to help answer some of these questions, the specific objectives of this study are to compare the current policy with major proposed alternatives and estimate the potential payments to farmers under each of these alternatives.

## Background

Before we look at the details of federal farm policy, let us look briefly at the magnitude and relative importance of federal government payments for Minnesota farms in recent years and at the numbers, types, and sizes of farms in Minnesota.

Historically, total farm cash receipts (in nominal terms) have risen from $7-8 billion in the early 1990s to $10-12 billion in recent years (Figure 2). In nominal terms, we can see higher levels of direct federal government payments in 1999-2001 and again in 2005. Government payments were more than 10% of all cash receipts in Minnesota in five years: 1993, 1999-2001, and 2005 (Figure 3).



The current official definition of a farm is “any place that sells or would normally sell $1,000 in agricultural products.” In 2005, the Minnesota Agricultural Statistics Service estimated there were 79,600 farms in Minnesota farming 27.5 million acres for an average size of 345 acres per farm. However, this average is not representative of where production occurs in Minnesota. The USDA has developed a typology of farms that provides a better description of farms today (Table 1). Using this breakdown, only 26% of the 79,600 farms in Minnesota produce 78% of the total value of production on 62% of the land (Figure 4). A similar picture can be seen at the national level.

Table 1. USDA Farm Typologies

| Small Family Farms: sales < $250,000 |
|---|
| Limited Resources |
| Retirement |
| Residential/lifestyle |
| Farming occupation – low sales < $100,000 |
| Farming occupation – high sales between $100,00 and $250,000 |
| Large family farms: sales between $250,000 and $499,999 |
| Very large family farms: sales over $500,000 |
| Nonfamily farms |

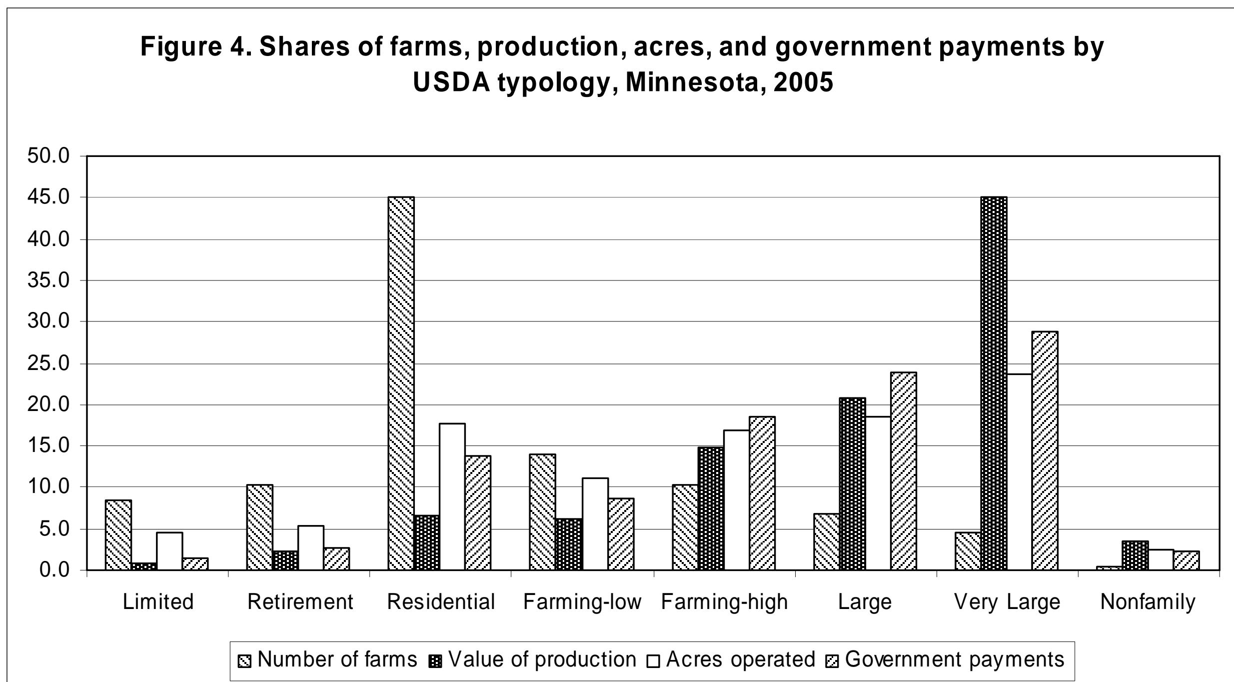



**Figure 4. Shares of farms, production, acres, and government payments by USDA typology, Minnesota, 2005**

## Current Federal Farm Policy

The Farm Security and Rural Investment Act of 2002 commonly referred to as the farm bill is organized in ten titles. These titles are briefly described below with emphasis on those points affecting Minnesota agriculture most directly.

I. Commodity programs
II. Conservation
III. Trade
IV. Nutrition Programs
V. Credit
VI. Rural development
VII. Research and Related Matters
VIII. Forestry
IX. Energy
X. Miscellaneous

Title I, Commodity programs, provides income support for wheat, feed grains, upland cotton, rice, and oilseeds through three programs: direct payments, counter-cyclical payments (CCP), and the marketing assistance loan program that includes Loan Deficiency Payments (LDPs). Congress said the sugar program was to operate as a "no net cost" program by managing allotments to maintain price levels "to the extent possible." For dairy, the Act sets a minimum support price for milk and establishes a new income support program.

Under this Act, direct payments are paid to farmers of covered crop commodities on the basis of the direct payment specified in the Act, 85% of their base acres for the crop, and their payment yield for the crop. The payment is made regardless of current production levels and market conditions. The Act fixes direct payments for the duration of the Act as $0.28 per bushel for corn, $0.44 for soybeans, and $0.52 for wheat.

A counter-cyclical payment (CCP) is made if the national seasonal average market price is less than the target price minus the direct payment rate. The CCP is calculated as the target price minus the direct payment minus the higher of the national season average market price or the loan rate. For the 2007 crop, the target prices are set in the Act at $2.63 per bushel for corn, $5.80 for soybeans, and $3.92 for wheat. For the 2007 crop, Act set the loan rates at $1.95 per bushel for corn, $5.00 for soybeans, and $2.75 for wheat. As an example, a corn farmer will receive a CCP if the national seasonal market price falls below $2.35 which is the target price of $2.63 minus the direct payment of $0.28. The maximum CCP is $0.40 per bushel which is the difference between $2.63 and the loan rate of $1.95. The total payment to a farmer is the product of the actual CCP, the farm's payment yield, and 85% of the acreage base.

Under the Marketing Assistance Loan Program, farmers can take a loan at harvest at the loan rate set in the Act. This program is designed to provide farmers the cash needed to pay bills without having to sell their product at typically low harvest prices. These are nonrecourse loans so farmers have the option to either pay back the loan plus interest costs or forfeit the crop pledged as collateral to the CCC. Instead of a loan, farmers cannot take the loan but receive a loan deficiency payment (LDP) that is calculated as the difference between the local market price and the national loan rate. If the market price is above the loan rate, no loans or LDPs are available. Under the 2002 Act, the receipt of the LDP was not conditioned on the sale of the

commodity; thus, the commodity could be held and sold at prices higher than the price used to determine the LDP received.

For dairy, the 2002 Act set the minimum support price at $9.90 per cwt for milk containing 3.67% butterfat. The Act also establishes a new national dairy market loss payments (DMLP) program in which a monthly direct payment is to be made to qualifying dairy farm operators when the monthly Class I price in Boston (Federal Marketing Order 1) is less than $16.94 per cwt. The payment rate is 45% of the difference between $16.94/cwt and the Class I price in the Boston milk marketing order for the applicable month. However, producers may receive payments on no more than 2.4 million pounds of milk marketed per year. The Dairy Export Incentive Program (DEIP) was extended to 2007.

The second title, Conservation, includes programs for working land through the Environmental Quality Incentives Program (EQIP) and the Conservation Security Program (CSP). Land retirement programs include the Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), CRP Wetland Enrollment Pilot Program, and the Wetlands Reserve Program (WRP). The Farmland Protection Program (FPP) provides funds to help purchase easements against development of productive farmland. The Grassland Reserve Program (GRP) provides assistance for restoring grassland and conserving virgin grassland. The Act also requires conservation compliance for highly erodible land (HEL) conservation (conservation compliance/ sodbuster) and wetland conservation (swampbuster) with certain farm program benefits being denied producers who do not use an approved conservation system on HEL or drained wetland for crop production. Other programs provide funding for rehabilitation of water resource projects, protection of natural resources, and improvement of local economies.

Title III, Trade, includes programs designed to develop and expand trade for U.S. commodities and to provide international food assistance such as PL 480. It includes export credit guarantee, market development, and export enhancement programs. New programs include the McGovern-Dole International Food for Education and Nutrition Program, the Biotechnology and Agricultural Trade Program (that addresses nontariff barriers to U.S. exports), a Technical Assistance for Specialty Crops Program (that addresses barriers affecting exports of specialty crops), and an online Exporter Assistance Initiative.

The Nutrition Programs in Title IV include the Food Stamp Program, the Emergency Food Assistance Program (TEFAP), the Commodity Supplemental Food Program (CSFP), and other commodity distribution programs.

Title V, Credit, covers farm credit programs including authorization of the Farm Credit System. This Title authorizes the Secretary to make or guarantee real estate loans, operating, and emergency loans to family-sized farms that are unable to obtain sufficient credit elsewhere on reasonable terms and for beginning farmers and ranchers.

Title VI, Rural Development, provides funding for rural areas to undertake strategic planning, feasibility assessments, and coordination activities; water and wastewater programs; broadband Internet services; value-added agricultural programs; rural business investments; and training for rural emergency personnel.

Research and Related Matters, Title VII, reauthorizes and establishes new funding for Federal agencies (such as the Agricultural Research Service), land grant university programs, and other research activities. It includes funding for the Initiative for Future Agriculture and Food Systems (IFAFS, a competitive grant program), high-priority research areas, a biosecurity planning and response program, biotechnology risk assessment research, and biotechnology

research on crops important for developing countries. It also includes the beginning farmer and rancher development program

Title VIII, Forestry, authorizes programs of the Forest Service and legislation affecting the national forests.

Title IX, Energy, authorizes support for ethanol production and other bioenergy activities such as educating the public about benefits of biodiesel fuel use and assisting eligible farmers, ranchers, and rural small businesses in purchasing renewable energy systems.

Title X, Miscellaneous, covers crop insurance, disaster assistance, organic agriculture programs, and a wide variety of other programs and activities that do not fit well in other titles of the bill. The Title includes country-of-origin labeling (COOL), animal health and welfare, plant protection, food safety, and some support for specialty commodities.

In its March 2002, the Congressional Budget Office (CBO) estimated expenditures over 10 years would total $782,025 million at the national level (Table 2). The Nutrition Title accounted for 71% of this total. CBO estimated expenditures for the commodity programs would be 18% of the total; conservation programs, 5%.

Table 2. Estimated expenditures for the 2002 Farm Bill*

| Title & Description | $ million | % |
|---|---|---|
| I. Commodity programs | 142,079 | 18.2 |
| II. Conservation | 39,168 | 5.0 |
| III. Trade | 3,784 | 0.5 |
| IV. Nutrition | 555,367 | 71.0 |
| V. Credit | 0 | 0.0 |
| VI. Rural development | 1,030 | 0.1 |
| VII. Research | 1,563 | 0.2 |
| VIII. Forestry | 100 | 0.0 |
| IX. Energy | 405 | 0.1 |
| X. Miscellaneous | 38,529 | 4.9 |
| TOTAL | 782,025 | 100.0 |

* CBO estimated funding over 10 years, FY 2002-11, March 2002 base. Source: USDA,ERS. 2003. What were the estimated costs of the 2002 Farm Act in May 2002? Briefing Room on Farm and Commodity Policy: Questions and Answers. Updated May 7, 2003. Accessed on January 10, 2007at http://www.ers.usda.gov/Briefing/FarmPolicy/questions/cost2002act.htm.

## USDA's Proposed Policy

On January 31, 2007, the USDA unveiled the administration's proposed policy for 2007. The proposal has the same 10 titles as current policy, but several elements of the proposal are significant departures from current policy. In this section, we focus on and summarize the major changes most likely to affect production agriculture in Minnesota. The reader can find the full details of the proposal the USDA website.[4]

[4] The complete proposal and related links is accessible at www.usda.gov/farmbill.

I. Commodities

In Title I, the administration says they have designed their changes for commodity programs to make them less vulnerable to challenges of violating international trading rules and regulations. Thus, their proposal still strives to support farm income but to distance payment calculations from a farmer's current production decisions and, thus, not influence market prices (that is the crux of the legal arguments against current payment systems).

The administration has proposed three rather dramatic changes in the marketing assistance loan program. First, rather than setting the loan rates in the policy for the duration of the policy (as done in the current policy), the proposal prescribes the calculation rule and allows the loan rate to change between years. Under this proposal, the loan rate would be set at 85% of the most recent 5-year Olympic average of market prices with maximum loan rates set at the rates set in the House-passed version of the 2002 farm bill (Table 3). The loan rates would be recalculated each year and thus more responsive to market conditions. The second major change would be a shift from daily posted county prices (PCP) to a monthly PCP. The monthly PCPs would be an average of five daily PCPs on pre-set days during the previous month. The third change would be to revise requirements for establishing loan deficiency payments (LDP) and loan repayment rates based on the month that beneficial interest is lost (i.e., sold in most instances) versus current law that allows LDP rates to be set at times not related to when the crop is sold. This connecting of the LDP and the month when beneficial interest is lost will remove the often-used possibility of choosing the LDP when it is at a high level and then selling the crop later when market prices have improved. For those farmers who do not lose beneficial interest (silage producers, farmer-feeders, for example), USDA would establish a payment rate for these producers based on the average of the monthly PCPs during the first three months of the marketing year.

Table 3. Administration's proposed loan rates for barley, corn, soybean, and wheat

| | Current law | USDA's Estimated Average Proposed Loan Rate over 2008-2012 | Proposed Maximum Loan Rate |
|---|---|---|---|
| Barley ($/bu) | 1.85 | 1.70 | 1.70 |
| Corn ($/bu) | 1.95 | 1.89 | 1.89 |
| Soybeans ($/bu) | 5.00 | 4.92 | 4.92 |
| Wheat ($/bu) | 2.75 | 2.58 | 2.58 |

The administration proposes to increase the direct payment rate for program crops slightly but not immediately for all crops (Table 4). For Minnesota crops, the increase would come for soybeans and barley in 2008 for not for others until 2010. The largest increase in direct payments is proposed for upland cotton: from 6.67 cents per pound to 11.08. The administration also proposes to continue to pay based on 85% of base acres without updating base acres and yields from the 2002 Farm Bill. Thus, neither current production nor a farmer's most recent production history affects these direct payments.

| Table 4. Administration's proposed direct payment rates for barley, corn, soybean, and wheat | | | |
|---|---|---|---|
| | Current law, 2007 | USDA Proposal, 2008-2009 & 2013-2017 | USDA Proposal 2010-2012 |
| Barley ($/bu) | 0.24 | 0.25 | 0.26 |
| Corn ($/bu) | 0.28 | 0.28 | 0.30 |
| Soybeans ($/bu) | 0.44 | 0.47 | 0.50 |
| Wheat ($/bu) | 0.52 | 0.52 | 0.56 |

To help beginning farmers, the USDA proposes to increase the direct payments by 20% for beginning farmers in their first five years. After five years, they would not receive this higher direct payment.

The administration proposes to replace the current price-based counter-cyclical program (CCP) with a revenue-based counter-cyclical program for that commodity. This is not a whole-farm revenue program but a commodity-based program. The USDA proposes the revenue-based payment be triggered when the actual national revenue per acre for the commodity is less than the national target revenue per acre. The national target revenue per acre for a commodity would equal the 2002 farm bill's target price (minus the 2002 farm bill's direct payment rate) multiplied by the national average yield for the commodity during the 2002-2006 crop years, excluding the high yield years. The national actual revenue per acre for a commodity would equal the national average yield for the commodity times the higher of the season-average market price or the loan rate for the commodity. If a payment is triggered, the national revenue-based payment per acre would be converted to a payment rate for producers by dividing the national revenue payment rate per acre by the U.S. average payment yield per base acre under the 2002 farm bill countercyclical payment program. An individual producer's revenue-based counter-cyclical payment would be determined by multiplying the national average payment rate for the commodity times 85% of the producer's base acres times the producer's program payment yield under the 2002 farm bill countercyclical payment program. Base acres and program payment yields would remain fixed over the life of the 2007 farm bill. The national yield for determining target revenue would remain fixed over the life of the 2007 farm bill and would equal the average yield for the 2002-2006 crops, excluding the high and the low year.

The administration also proposes to strengthen payment and eligibility limits. Several proposals may affect Minnesota farmers. They propose to decrease the Adjusted Gross Income (AGI) eligibility cap for all farm commodity program payments from $2.5 million to $200,000 annually—regardless of source of that income. The USDA says that 2003 IRS data indicate that approximately 2 million filers submitted a schedule F and that only 3.6% of these reported AGI of $200,000 or more. The IRS data also showed that 4.5% of all farm program payments (including Conservation Reserve Payments) went to the 3.6% of Schedule F filers with AGI of $200,000 or more. Only 2.3% of all filers (at the national level) had an AGI of over $200,000. The IRS shows 74,467 Minnesota returns had a Schedule F in 2004 and 1,799 of these returns (2.4%) has an AGI of $200,000 or more (2007).

The USDA also proposes to maintain the effective overall payment limit of $360,000 but adjust the separate payment limits from $80,000 to $110,000 for direct payments, from $130,000 to $110,000 for counter-cyclical payments, and from $150,000 to $140,000 for marketing loan gains. This overall payment limit would also apply to payments for honey, peanut, wool, mohair, and dairy. They also propose to replace the three entity rule with direct attribution of payments;

strengthen the requirements for the active management contribution rules; issue new rules to validate AGI; and establish a minimum payment of $10 before a payment is made. Commodity program payments would be eliminated from all newly purchased land benefiting from a 1031 tax exchange after the 2007 Act is enacted. The USDA also proposes to retire crop bases when cropland is sold for non-agricultural uses.

For dairy, the USDA proposes to maintain the support price at $9.90 per cwt and extend the Milk Income Loss Contract (MILC). Payments in MILC would continue to be paid if the Class I price in Boston in any month falls below $16.94 per cwt. The payment rate would start at the current 34% of the difference between the Boston Class I price and $16.94 and gradually decline to 20% in 2013-2017. MILC payments would be based on 85% of the 3-year average of milk marketed during the fiscal years 2004-06 and limited to 2.4 million pounds per year. MILC payments would also contribute towards a producer's overall counter-cyclical payment limit of $110,000 and the proposed AGI limit of $200,000 would also apply to MILC payments.

The USDA proposes to continue the sugar program at no net cost to taxpayers by balancing supply and demand through domestic marketing allotments and the tariff rate quota (TRQ) but to eliminate the provision that requires the Secretary of Agriculture to suspend marketing allotments when sugar imports are projected to exceed 1.532 million short tons.

To avoid the problem of having direct payments declared non-trade distorting green box assistance by the WTO, the USDA proposes to eliminate the provision that limits planting flexibility on base acres that excludes fruits, vegetables, and wild rice.

In an attempt to protect marginal lands, producers would be offered a 10% higher direct payment in lieu of receiving counter-cyclical and marketing loan assistance payments. These producers would be required to adopt conservation and environmental practices described in a new Conservation Security Program. They would not be required to produce agricultural commodities to receive the direct payment. The limit on total direct payments per producer also would be increased by 10% to $121,000.

Compared to the current services baseline (that is, what expenditures would be expected to be under current policies), the USDA proposal would decrease total spending for the commodity title by $4,494 million (Table 5). The proposed rules for the marketing assistance loan program would result in an estimated decrease of $4,500 million and the revenue-based counter-cyclical payment program, by $3,700 million. The direct payment program, however, would increase by $5,500 million.

Table 5. Title I. Commodities: Estimated Change from Baseline for, Budget Authority, 2008-2017, (Million Dollars)

| Program | Current Services Baseline | Administration Proposal change |
|---|---:|---:|
| Marketing Assistance Loan Program | 8,807 | -4,500 |
| Direct Payment Program | 52,491 | 5,500 |
| Revenue-based Counter-cyclical Payment Program | 11,245 | -3,700 |
| Dairy | 613 | 793 |
| Sugar | 1,410 | -1,107 |
| Total (includes other items) | 74,566 | -4,494 |

Source: USDA (2007)

## II. Conservation

In the conservation title of their proposal, the Administration proposes to consolidate several existing programs and to create new ones. A newly designed Environmental Quality Incentives Program (EQIP) would consist of several existing programs that will provide cost-share and incentives for working lands. A new Regional Water Enhancement Program (RWEP) would assist cooperative approaches to enhancing water quantity and/or quality on a regional scale and invest new resources in the Conservation Innovation Grants (CIG) program.

They propose to modify the Conservation Security Program (CSP) to reduce complexity; decrease the number of tiers to two (progressive and master); add enhancement payments and remove base and maintenance payments (to avoid WTO complications); remove cost-share payments to avoid duplication with EQIP; allow the ranking of applications; and to increase funding by an additional $50 million per year. CSP would also aim at enrolling more acres and growing from the current level of 15.5 million acres to 96.5 million acres in ten years.

The USDA proposal includes the creation of a new Private Lands Protection Program by consolidating three existing working-lands easement programs: Farm and Ranchland Protection Program (FRPP), Grasslands Reserve Program (GRP), and the Healthy Forest Reserve Program (HFRP). They propose to increase the funding for this new program by $90 million annually. These programs aim to protect agricultural lands and open spaces by allowing landowners to deed restrictions on development and use and some landscape and resource restoration.

The Conservation Reserve Program (CRP) would be reauthorized and enhanced under the proposal to focus on the most environmentally sensitive land. It would also authorize the USDA to prioritize farmland planted in a biomass reserve of perennial crops used for cellulosic energy production (with harvesting allowed only after nesting season).

The Wetlands Reserve Program (WRP) would be reauthorized and include the floodplain easements of the Emergency Watershed Program.

Conservation compliance provisions would be expanded to include “Sod Saver,” that is, the stipulation that grassland converted into crop production would be permanently ineligible for farm price and income support and other USDA program benefits.

To increase adoption, 10% of farm bill conservation financial assistance would be reserved for beginning and socially disadvantaged farmers.

The Administration also proposes to allow the introduction of market-based approaches to conservation, such as private sector environmental markets, to supplement existing programs and funds.

The proposal includes the repeal of regional equity so funding would be allocated based on highest need and best use.

The Emergency Landscape Restoration Program would be a consolidation of the Emergency Watershed Protection (EWP) and the Emergency Conservation Program (ECP) to assist in the restoration of agricultural landscapes from the devastation from fire, drought, flood, and other natural events that affect resources.

Compared to the current services baseline, the USDA proposal would increase total spending for the conservation title by $7,825 million (Table 6). The largest increases would be in the Revised EQIP program ($4,250 million) and the Wetland Reserve Program ($2,125 million).

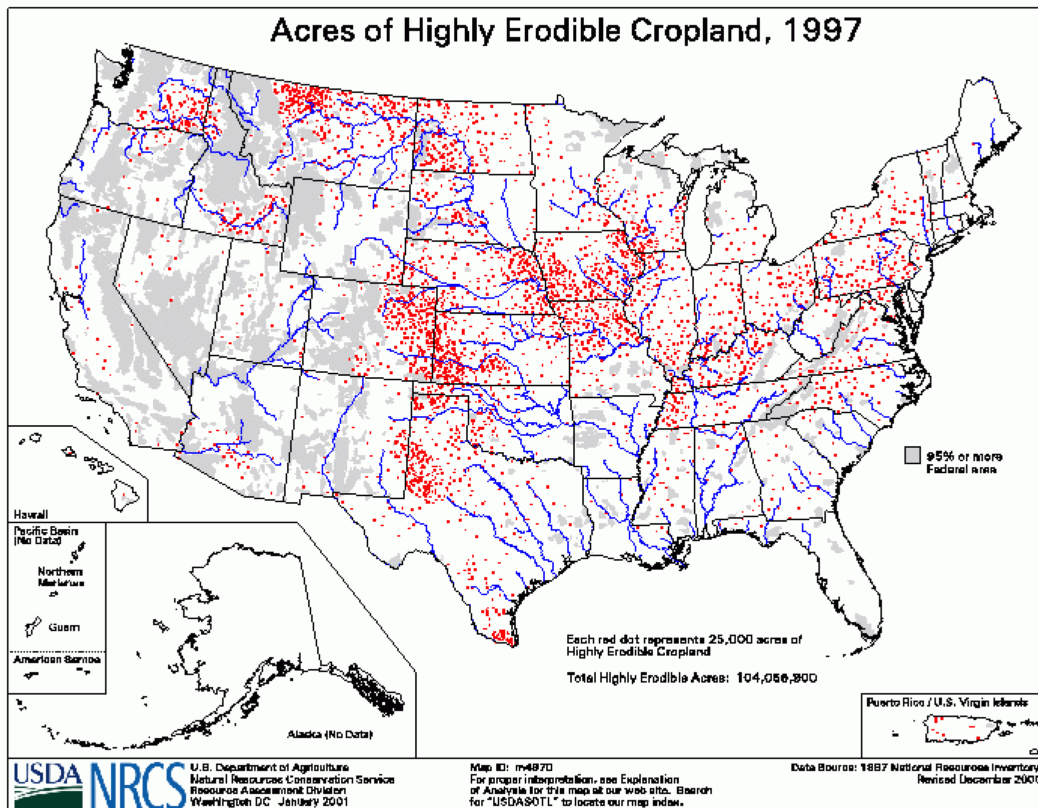
The Conservation Security Program would have a small increase of $500 million. The Conservation Reserve Program (CRP) would receive no change in funding.

| Table 6. Title II. Conservation: Estimated Change from Baseline for, Budget Authority, 2008-2017, (Million Dollars) | | |
|---|---|---|
| Program | Current Services Baseline | Administration Proposal change |
| Revised EQIP | 13,640 | 4,250 |
| CSP, Conservation Security Program | 7,977 | 500 |
| Protection Lands Protection Program, (GRP, FRPP, HFRP) | 970 | 900 |
| CRP, Conservation Reserve Program | 25,656 | 0 |
| Wetlands Reserve Program (WRP) | 455 | 2,125 |
| Total (includes other items) | 48,698 | 7,825 |
| Source: USDA (2007) | | |

To estimate the magnitude of how these changes in the conservation title would affect Minnesota farms, we first looked at the location of highly erodible cropland in the U.S. (Figure 5). Based on this distribution, we would not expect a large amount of the total to be paid for conservation efforts on Minnesota farms. However, since these conservation programs are voluntary, the location of land that may receive a conservation-based payment is only one factor that may affect payments, and highly erodible land is only one resource targeted by conservation programs. Other factors include farmer willingness and ability to participate and knowledge, understanding, and promotion of these programs. Therefore, past participation in conservation programs are perhaps the best indicator of future payments to Minnesota. In 2005, Minnesota received 5.2% of the total payments paid under this title (Table 7). Perhaps fittingly, the "Land of 10,000 Lakes" received 9.6% of the WRP payments.

| Table 7. Conservation Payments by Program, 2005 (Million $) | | | |
|---|---|---|---|
| Program | U.S. | Minnesota | MN as a % of U.S. |
| CRP | 1,823 | 111 | 6.1 |
| WRP | 161 | 15 | 9.6 |
| EQIP | 444 | 15 | 3.3 |
| CSP | 206 | 6 | 2.8 |
| Other | 200 | 6 | 0.3 |
| Total | 2,833 | 147 | 5.2 |
| Source: USDA, 2006. Conservation and the Environment, 2007 Farm Bill Theme Paper Series, p. 41. | | | |

Figure 5. Acres of Highly Erodible Cropland, U.S., 1997.




III. Trade

The USDA proposal contains several provisions related to international trade especially for specialty crops (including organic agriculture); sanitary and phytosanitary (SPS) issues; participation in international standard setting bodies; technical assistance for resolving trade disputes; and trade capacity, food safety, and agricultural extension programs in fragile regions of the world. The proposal also seeks to reform export credit guarantee programs to conform to WTO findings; expand the facility guarantee program; and repeal of the Export Enhance Program (EEP) and Global Market Strategy (GMS). In addition, the USDA seeks authority to use up to 25% of P.L. 480 Title II funds for the local or regional purchase and distribution of emergency food to assist people threatened by a food security crisis.

IV. Nutrition Programs

The USDA proposes to improve access to the Food Stamp Program and to rename it to the Food and Nutrition Program. The proposal has several provisions to change, adapt, and encourage efficiencies in program access and implementation. Increase the purchase and use of fresh fruits and vegetables in school programs. While this important title has the largest share of

the proposed budget, its programs and sections do not have a direct effect on Minnesota farmers so a detailed discussion is left to other sources.

V. Credit

In the Credit title, the Administration is proposing to increase the amount of loans, downpayment assistance, and size of loans allowed for beginning and socially disadvantaged farmers. The proposal also would increase the limits for direct farm ownership (FO) loans and direct operating loans (OL) from a maximum of $200,000 each to a maximum of $500,000 for any combination of the two loan types.

VI. Rural development

The Administration proposes to complete the reconstruction and rehabilitation of all certified Rural Critical Access Hospitals within the five years of the farm bill. The proposal would also improve rural infrastructure by increasing funding for rural water and waste disposal grants and loans, emergency community water assistance grants, Community Facilities loan and grant programs for first responders, broadband access loans and distance learning and telemedicine grants.

VII. Research and Related Matters

The Administration proposes to consolidate USDA's Agricultural Research Service (ARS) and the Cooperative State Research, Education, and Extension Service (CSREES) into a single agency named the Research, Education, and Extension Service (REES) to coordinate both intramural and extramural research, extension, and education programs. They also propose to establish an Agricultural Bioenergy and Biobased Products Research Initiative with $50 million per year for improving the production of renewable fuels and biobased products through research at USDA and university facilities. Another provision adds $100 million per year for a Specialty Crop Research Initiative for the support of both intramural and extramural programs. The proposal also authorizes the USDA to conduct research and diagnostics for highly infectious disease agents, such as foot and mouth disease (FMD), on the U.S. mainland since current regulations do not allow this research on the mainland and the Department of Homeland Security is constructing a new facility for this research on the mainland.

VIII. Forestry

In the Forestry Title, the Administration proposes to provide technical and financial assistance to states for the development and implementation of a Statewide Forest Resource Assessment and Plan; to create a competitive landscape scale grant program that address local forest management issues, develop nontraditional forest product markets, and create value-added forest product industries. The proposal also would initiate a wood-to-energy program to utilize low value woody biomass resources. It would also provide financial support to communities for the acquisition and conservation of community forests and provide technical assistance to communities for forest resource planning.

## IX. Energy

The Administration proposes to expand Federal research on renewable fuels and bioenergy and reauthorize, revise, and expand programs that improve renewable energy production and commercialization. This includes support for producers of cellulosic ethanol, biobased products, and several other programs included in other titles of the proposal.

Compared to the current services baseline, the USDA proposal would increase total spending for the energy title by $978 million (Table 8). The largest increases would be for the Renewable Energy Systems and Energy Efficiency program: $500 million for grants and $210 million for loans.

Table 8. Title IX. Energy: Estimated Change from Baseline for, Budget Authority, 2008-2017, (Million Dollars)

| Program | Current Services Baseline | Administration Proposal change |
|---|---|---|
| Biomass Research and Development | 0 | 150 |
| Renewable Energy Systems and Energy Efficiency--Grants | discretionary | 500 |
| Renewable Energy Systems and Energy Efficiency--Loans | discretionary | 210 |
| CCC Bioenergy Program for Cellulosic Ethanol | na | 100 |
| Total (includes other items) | 0 | 978 |

Source: USDA (2007)

## X. Miscellaneous

As it name implies, Title X includes many sections and programs that do not fit in the other titles. The major changes sought by the Administration involve crop insurance and marketing. For crop insurance, the proposal would allow for the development of a new product to insure a farmer's deductible in the case of an area or countywide loss. The proposal also reduces the expected loss ratio for the crop insurance program, allows private insurers to access data to look for potential fraud among their customers, and permits the use of funds to increase insurance compliance. It would also provide authority to the Federal Crop Insurance Corporation (FCIC) to contract for the research and development to improve crop insurance products and programs and to the USDA to renegotiate the financial terms of the Standard Reinsurance Agreement. The proposal also implements several reforms in the Federal crop insurance program designed to increase participation, reduce the need for ad hoc disaster assistance, and control costs. For marketing, the proposal calls for the collection of a research and promotion assessment on all imported dairy products; the expansion of the Organic Certification Cost Share Program; increased funding for organic farming research and market price information gathering; and increased funding for the purchase of fruits and vegetables for the National School Lunch Program and other nutrition assistance programs.

The total estimated expenditures for the Administration proposal is $623,463 million over ten years (Table 9). The Nutrition title remains the largest portion of the total at over 70%. Compared to the baseline, the total is an increase of $4,950 million but not every title increases. The Commodity title has a decrease in estimated expenditures. The estimate for the Direct Payment program increases by $5,500 million but the Marketing Assistance Loan program decreases by $4,500 million; the Revenue-based Counter-cyclical program decreases by $3,700 million; payment limits and eligibility rules decreases expenditures by $1,500 million; and the sugar program is estimated to decrease by $1,107 million—all from the current baseline.

Table 9. Estimated expenditures over ten years for USDA's proposal for the 2007 Farm Bill*

| | Current Services Baseline | Administration Proposal – Change from Baseline | Total | |
|---|---|---|---|---|
| Title & Description | $ million | $ million | $ million | % |
| I. Commodity programs | 74,566 | -4,494 | 70,072 | 11.2 |
| II. Conservation | 48,698 | 7,825 | 56,523 | 9.1 |
| III. Trade | 2,000 | 389 | 2,389 | 0.4 |
| IV. Nutrition | 438,608 | 467 | 439,075 | 70.4 |
| V. Credit | a | 0 | 0 | 0.0 |
| VI. Rural development | a | 585 | 585 | 0.1 |
| VII. Research | na | 1,500 | 1,500 | 0.2 |
| VIII. Forestry | na | 150 | 150 | 0.0 |
| IX. Energy | 0 | 978 | 978 | 0.2 |
| X. Miscellaneous | 54,641 | -2,450 | 52,191 | 8.4 |
| TOTAL | 618,513 | 4,950 | 623,463 | 100.0 |

* USDA estimates for Administration proposal over 10 years, FY 2008-2017. Source: USDA. 2007. Summary XIV Budget Score, Administration's Farm Bill Proposal: Estimated Change from Baseline, Budget Authority, 2008-2017. Accessed at http://www.usda.gov/documents/07sumbudgetscore.pdf on January 31, 2007.
a = discretionary amount
na = not applicable (proposal not in baseline or included in other base or proposed programs)

## Alternative Proposed Policies

In this section, we summarize four alternatives to current policy and to USDA's proposal: an alternative form of revenue based support payments using local information, increases in current target prices and loan rates, multi-commodity revenue insurance, and conservation or environmental based support payments. Other groups have presented proposals, but we chose to analyze these four since they represent a broad spectrum of proposed alternatives to current policy.

## Local revenue based support payments

The National Corn Growers Association (NCGA) has developed a new proposal for the commodity title of federal farm policy, titled "Forging a New Direction for Farm Policy" (NCGA 2006). For the commodity program, specifically corn, they propose (1) maintaining the current calculation methods for direct payments, (2) changing the nonrecourse loan program to a recourse loan program, (3) creating a support program called Base Revenue Protection (BRP), and (4) modifying the current countercyclical program (CCP) into a Revenue Countercyclical Program (RCCP). The NCGA proposed these for corn specifically although they are discussing these ideas with other commodity groups.

Under the current policy, farmers can use their corn, for example, as collateral for a nonrecourse loan at the loan rate established in current policy. Since this is a nonrecourse loan, farmers are allowed to surrender their grain as full payment of the loan whether the market price (and thus value) is below the loan rate. This assurance of a minimum guaranteed price reduces the market orientation of farmers via the farm bill and, thus, creates criticism of the program. A recourse loan would require farmers to repay the loan with a full monetary payment with no chance to pay with grain. The recourse loan program would allow farmers the chance to borrow at harvest time to pay bills, but they would be subject to the full risk of the marketplace.

In addition to maintaining the direct payments, the NCGA has proposed two new programs: Base Revenue Protection (BRP) and Revenue Countercyclical Program (RCCP). Together, these two programs form a basis for decreasing the down-side risk of farm income based on revenue, not prices. In that sense, the NCGA proposal is similar to the USDA proposal but differs greatly in the proposed implementation procedures. While the USDA proposal estimates the change in revenue at the national level and then applies the payment rate to an individual farm's program yield and acreage, the NCGA proposal has a greater focus on revenue changes at the individual farm and county levels.

Under the BRP program, government payments would occur whenever an individual farm's estimated net farm corn revenue falls more than 30 percent below the previous five year Olympic average of per acre net corn revenue on that farm. Per-acre net revenue in any year would be calculated by multiplying farm-level actual corn yield per planted acre by a national market price, then subtracting per-acre average variable costs of production for the region in which the farm is located. The national market price would be determined by USDA's National Agricultural Statistics Service (NASS). The cost of production would be based on a regional estimate published by USDA's Economic Research Service (ERS).

Another feature of the NCGA's proposal is the modification of the current Countercyclical Program (CCP) which is based on changes in the commodity price to create the RCCP based on changes in revenue at the county level. RCCP payments to farmers would be triggered whenever actual per-acre county revenue falls below the RCCP trigger revenue for that county. Actual county revenue would be calculated in this proposal as the product of a season average price and the NASS county average yield. The county trigger revenue would equal 100 percent of the product of the effective target price (target price less direct payment rate) and expected county yield. The expected county yield for each year of the RCCP program would be estimated for every county based on trend yields for each county using NASS data back to at least 1980. In counties that do not have adequate NASS data available, NCGA recommends using trend yields for RCCP based on crop reporting district yields. RCCP payments to farmers in a county where a loss occurs would equal the per-acre payment times each farmer's number of

planted acres. All farmers in the county would receive the same per-acre RCCP payment. NCGA's proposal also states that because RCCP and BRP are a package of programs, the maximum per-acre RCCP payment would equal the county trigger revenue times 30 percent, reflecting the 70 percent coverage under BRP.

**Continuing current policy especially the commodity provisions**

Some groups support continuing the current policy of commodity support payments as well as other titles. As an example, we review the American Soybean Association's recent policy proposals (ASA, 2007). While the ASA wants the current system of support payments continued, they want adjustments to the loan rates and target prices. These adjustments are increases for most commodities to alleviate the inequities that ASA sees in the current set of rates and prices. In the 2002 farm bill, the current target price for soybeans was 110% of the 2000-04 Olympic average price; corn, 124%; wheat, 123%; barley, 91%; cotton, 155%; and rice, 181%. Under their proposal for the next farm bill, target prices would be raised to a minimum of 130% of 2000-04 Olympic average market prices and marketing loan rates would be set at a minimum of 95% of the Olympic average market prices (Table 10). Thus, the target price would be \$2.75 per bushel for corn and \$6.85 for soybeans. ASA proposes to hold direct payments at current levels. Other features of the commodity program would remain the same as in the 2002 bill.

Table 10. American Soybean Association's proposed loan rates and target prices for barley, corn, soybean, and wheat.

| | Loan rate | | Target price | |
|---|---|---|---|---|
| | Current policy | ASA's proposal | Current policy | ASA's proposal |
| Barley (\$/bu) | 1.85 | 2.35 | 2.24 | 3.21 |
| Corn (\$/bu) | 1.95 | 2.01 | 2.63 | 2.75 |
| Soybeans (\$/bu) | 5.00 | 5.01 | 5.80 | 6.85 |
| Wheat (\$/bu) | 2.75 | 3.03 | 3.92 | 4.15 |

The ASA also proposes features in the other titles of the current farm bill. They support conservation on working lands with restored funding for CSP, increased funding for EQIP, and the use of the Environmental Benefit Index to encourage the enrollment of sensitive land into CRP and the return of productive, non-sensitive land to production from CRP. ASA supports increased funding for market development and export promotion programs and continuance of Emerging Markets Program, Export Credit Guarantee Program, and all food aid programs. They also support reauthorizing current food assistance programs and rural development programs. For research, they support the creation of new grant making body within the USDA for competitive grants and a creation of a grant system to pay farmers to plan approved trait-enhanced soybeans. ASA proposes creation of a new "Biodiesel Incentive Program" to subsidize domestically produced biodiesel, reauthorization of the Biodiesel Fuel Education and Bio-based Products and Procurement Programs. They also support maintaining the federal crop insurance program and including permanent disaster assistance in the farm bill. They note that, if permanent disaster assistance is included, Catastrophic (CAT) and Non-Insured Crop Disaster Assistance Program (NAP) would be redundant and their elimination would reduce the cost of adding disaster assistance. ASA also suggests that if the cost of permanent disaster assistance

consideration should be given to sharing the cost between USDA and a national disaster assistance program.

### Multi-commodity revenue insurance

Multi-commodity revenue insurance would provide coverage for losses in the total whole-farm revenue from multiple commodities produced on a farm. It would not cover the losses suffered due to just one crop's loss; an indemnity payment would be paid only if the total revenue dropped below a specified level. Since it is revenue insurance, losses due to low production, low prices, or both would be covered.

Multi-commodity revenue insurance differs from revenue based support (such as the NCGA's proposal described in the previous section). With revenue insurance, farmers would be involved in choosing their own coverage level and paying a premium to purchase that coverage. The premium might be subsidized. In contrast, NCGA's proposed revenue based support program has a defined set of formulas for calculating the magnitude and timing of support payments. Farmers would not have a choice in coverage, and they would not pay a premium for revenue based support.

Revenue insurance is not a new concept. USDA's Adjusted Gross Revenue (AGR) and AGR-Lite insurance programs and the Canadian Agricultural Income Stabilization (CAIS) Program are three examples of revenue insurance programs. As an example of how revenue insurance could be incorporated into a comprehensive policy, we consider the policy proposed by the Chicago Council on Global Affairs' (CCGA) Task Force on Agriculture and described in their report: "Modernizing America's Food and Farm Policy" (2006). The Task Force's proposal contains many elements beyond the multi-commodity revenue insurance and other ideas for providing support for U.S. farmers—just as the current policy and USDA's proposal do.

We first summarize the seven major points of the Task Force's proposal and then describe in more detail their proposed domestic support provisions (which include multi-commodity revenue insurance).

A. Growing New Markets. The CCGA Task Force starts with the assertion that the U.S. needs to restart the Doha Round of trade negotiations. This will require the reform of current domestic agricultural policy. The Task Force also states that comprehensive immigration reform is also needed to ensure access to needed labor.
B. A New Regime for Domestic Support. Beyond the current stall in trade negotiations, the Task Force said changes are needed in current domestic policy to address distortions in farm structure and production and to serve a broader range of producers. The Task Force recommended a new set of support tools that are nondistorting and compliant with WTO green box rules. This new set of support tools include direct payments delinked from specific products and market conditions, multi-commodity revenue insurance, support for land stewardship and protection of the environment, farmer savings accounts, and public goods (such as research and infrastructure). The Task Force also recommends the development of transition measures to allow farmers to adjust to the new rules smoothly. Further details of the Task Force's recommendations for domestic support are described below.
C. Balancing Hunger and Nutrition. Nutrition programs such as Women, Infants, and Children (WIC) and the Food Stamp programs should be continued and designed to alleviate hunger should be linked to nutritional goals. Fruits and vegetables should be

eligible for WIC funds. Checkout technology should be used to make sure funds are not used for ineligible foods. The National School Lunch Program should comply with dietary guidelines, and schools that reflect dietary guidelines and ban products with low nutritive value from vending machines would receive higher subsidies.

D. Safeguarding Land and Water. Besides the stewardship programs in the proposed domestic support programs, the task force recommended more land use planning, restoration of spending on research and technical assistance, and clear and aggressive goals for existing programs regarding use and protection of water resources and other conservation programs.
E. Bolstering Rural Communities. The Task Force recommended that Congress reorient programs to help rural communities diversify their economic structures and create off-farm jobs, specifically to help in education, health, information technologies, and a more investment-friendly environment.
F. Renewable Energy from Agriculture. The Task Force recommended continuing current subsidies for biofuels, research on new technologies for cellulose or other feedstock grown on lesser quality farmland. The Task Force also recommended that, as markets mature, companies should adapt to allow reduction of subsidies to levels similar to other energy production sectors.
G. Global Hunger and U.S. Food Aid. The Task Force recommended (1) the elimination of current concessional loans to foreign governments and replaced with support for the McGovern-Dole International Food for Education and Child Nutrition Program, an overseas school feeding initiative, and (2) funding requirements for cargo preference should be shifted from USDA to Department of Defense with the savings used to purchase food aid from local producers in those developing countries.

For domestic support, the CCGA Task Force started with the goal of replacing the current trade-distorting domestic support programs with a set of new, WTO-green-box-compliant support programs. The Task Force's new programs include the following.

1. Direct payments that are fully delinked from production decisions and market conditions and included only as a transitional measure until other approaches are fully developed.
2. Multi-commodity revenue insurance that includes all farmers, not just a few program commodities. Farmers would be free to grow new commodities without threat of losing coverage. Multi-commodity revenue insurance would be considered green box because it would not be tied to specific commodities as current crop insurance programs are.
3. Conservation incentives would reward farmers for taking concrete steps to preserve or enhance land, air, and water quality.
4. Farmers savings accounts, similar to tax-deferred 401(k) accounts, would be backed by government matching contributions (in the Task Force's plan) and could be used for a variety of uses.
5. Public goods include research and infrastructure projects that would benefit all farmers as well as the broader public. These public goods would be funded by redirecting some of the funds made available from the elimination of trade-distorting programs.
6. Transition measures are needed, the Task Forces believes, to ease the transition from trade-distorting to green-box compliant programs. These would be to protect investments farmers have made under the old programs in land, capital and

contractual commitments. The Task Force suggests that for producers of program commodities, Congress could consider some form of compensation for expectation of future government payments already built into land (and dairy cow) values.

**Conservation based support payments**

Another major alternative to current policy is the increased subsidy of practices designed to improve and protect the environment. This too is not a new idea. The Natural Resource Conservation Service (NRCS), the Conservation Reserve Program (CRP), the Conservation Security Program (CSP), and other agencies and programs are in federal policy. Many people and groups concerned about the environment are (and have been) pushing for increased funding for these and similar programs. A common call is to find that funding by reallocating some or all of the funding currently used for commodity programs.

As an example of a policy proposal with a greater focus on conservation, let us look at American Farmland Trust's (AFT) proposal: Healthy Farms, Healthy Food, Healthy People (AFT, 2006). AFT describes their proposal as having three pillars (safety net, stewardship, and new markets) and a foundation.

Their safety net includes green payments for environmental performance and tools to manage revenue risk. AFT recommends that all farmers would be eligible for green payments as long as they maintain sound land management and resource conservation. They would be for environmental performance, not specific practices, but they do not specify the environmental performance measures or goals. For farmers currently receiving commodity payments, green payments would gradually increase as commodity payments decrease and eventually disappear.

The other part of AFT's safety net includes public and private tools to help farmers manage revenue risk but not price risk only. They describe two potential programs for risk management. The first program combines a government revenue program with private individual revenue insurance. The government would protect farmers against market-wide risks such as unexpected low prices, drought, frost, wet weather, and so on. The private insurance market would protect revenue at the individual farm level. They describe farmers and ranchers being responsible for the first portion of a decline in revenue (five percent, for example); the government being responsible for the market-wide decline in revenue (the next 10-15 percent, for example); and the private market being ready to insure the remaining decline in an individual farmer's revenue. The government would, in AFT's vision, forecast a national per-acre revenue target each year before planting and provide payments when the realized national average revenue is less than the projected revenue.

In their second potential risk management program, AFT envisions farmers transitioning out of government commodity programs and relying solely on private revenue insurance products. Current commodity payments for each farm would be fixed initially based on historical levels and then gradually decline over time as farmers purchase more private revenue insurance and the government becomes less involved in these programs.

AFT also advocates additional financial tools. A farmer individual retirement account (IRA) could allow tax-deferred contributions and withdrawals allowed for retirement, natural disasters, or to provide liquidity to facilitate intergenerational farm transfer. AFT also recommends the opportunity to have recourse loans to alleviate cash-flow constraints at harvest time.

AFT's stewardship program emphasizes conservation and utilizes competitive grants to focus funding on those areas and projects that are the most cost effective and beneficial to the environment in a specific geographical area. Eligible grantees would include groups of producers, conservation districts, watershed councils, farmer coops, Indian tribes, state and local agencies, and non-governmental organizations. AFT also advocates for increased stable funding for conservation programs especially for working lands and a simplified application process.

In their new markets program, AFT emphasizes innovation and entrepreneurial efforts, global markets, renewable energy, improvement in diets, and community investment in agriculture.

The AFT foundation emphasizes protection of productive land from conversion to other uses; assistance for beginning farmers and disadvantaged farmers; improvements in the support for and process of research, extension, and technical assistance; and increased support for emergency protection against diseases and pests.

## Impact of Alternative Crop Commodity Policies on Farm Revenue

To improve our understanding of the potential impact of alternative commodity programs on crop revenue, we estimated government payments under the current policy, USDA's proposed policy, NCGA's proposal of commodity based revenue-based support, ASA's proposal to adjust loan rates and target prices, and multi-commodity revenue insurance. For this initial study, we used the historical yield data from three farms in Cottonwood County and coupled with historical price information and rules under each of these four proposals. The farms ranged from 800-1000 tillable acres. We assumed the acreage was split evenly between corn and soybeans. The farms had other crop and livestock enterprises, but we focused only on the corn and soybean crops for this analysis.

We compared the policies in two ways. First, we made an historical comparison of the crop revenue and estimated government payments for each farm under each proposal in each of the four years from 2002-2005.[5] To compare the policy alternatives using historical data may not provide an accurate comparison since current policy was designed before this period and results were known and the alternatives were designed after they were. Thus, policy design was influenced by these years but current policy could not be changed. Therefore we also compared the policies in a second way by projecting what crop revenue and government payments might be in the future. We used historical yields for each farm, the county, and the nation; historical data on prices to estimate statistical distributions of the yields and prices including averages, standard deviations, and correlations; and each proposal's rules for calculating payments. For yields, we used the deviations from the yield trend—as the NCGA proposal describes. By incorporating the correlations between yield deviations and prices, we also allowed the joint movements of price and yield. Each farm's average crop revenue, resulting government payment, and the variation in those revenues were estimated using Excel and the program @Risk (Palisade, 2006).

[5] Since data for 2006 was not yet reported, it could not be included in the historical analysis for this report.

## Historical Comparison

Using the actual yield and price conditions for 2002-2005, crop revenues for each farm remain the same but government payments vary (Figures 6, 7, and 8). In three of these four years and on average, the ASA proposal has higher payments and thus higher total gross revenue for all three farms compared to current policy and the other three proposals. Since the ASA proposal raises both loan rates and target prices, the higher payments should be expected. The proposed USDA policy is estimated to have a slightly higher average government payment and total gross revenue compared to current policy, but it is not higher than current policy in each year. In 2004, lower prices increased the current price-based CCP, but higher yields kept the proposed revenue-based payment lower.

The NCGA proposal resulted in lower payments for each farm since the rules for RCCP created a payment only in 2005. None of the farms received a BRP payment under the NCGA proposal in any of these four years. These lower total payments under the NCGA proposal are due to the higher than average revenues during 2002-05. The only payment the farms received in every year was the DP which the NCGA fixed at current rates.

The revenue insurance plan proposed in a few alternatives does not create any indemnity payments in 2002-05—again due to the higher revenues in these years compared to the base years upon which average base revenues are calculated. These other alternatives, such as the Chicago Council and AFT plans, endorse revenue insurance but also propose starting the DP at current levels but then decreasing it as farmers adjusted to green payments which would be increasing presumably. If DP and potential green payments were added to the revenue insurance proposal, total revenue would be similar to the NCGA proposal.

This historical analysis shows the positive effect of fixed government direct payments on farmers' revenue during years of higher revenue such as 2002-05.

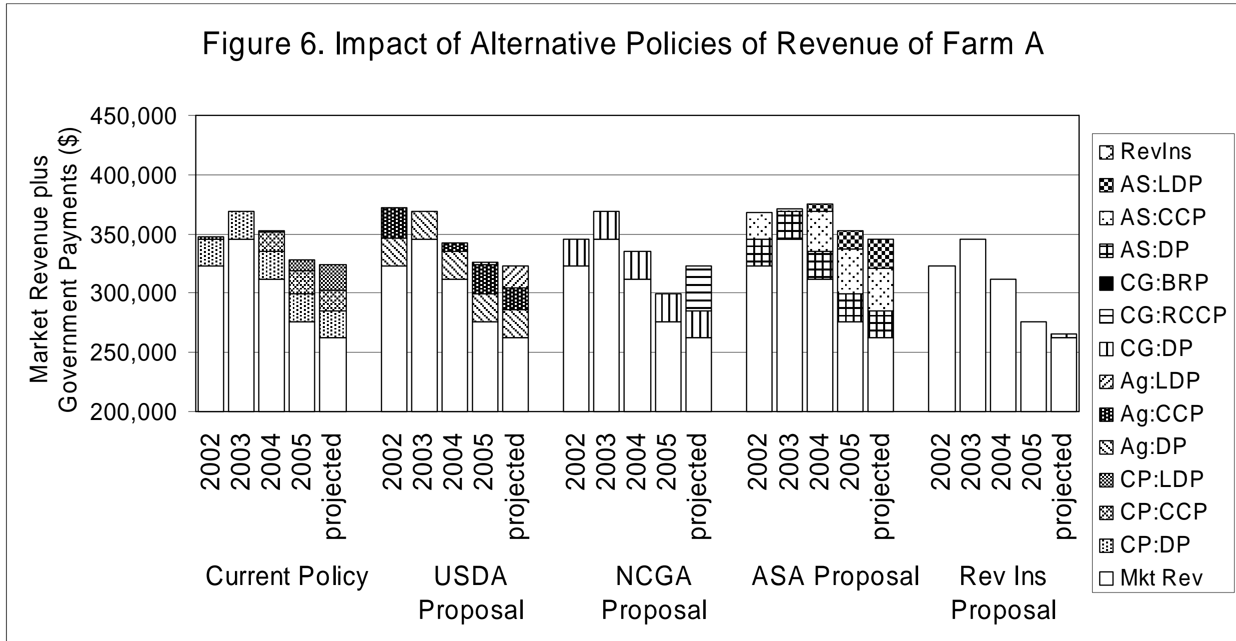
## Projecting Revenue and Payments

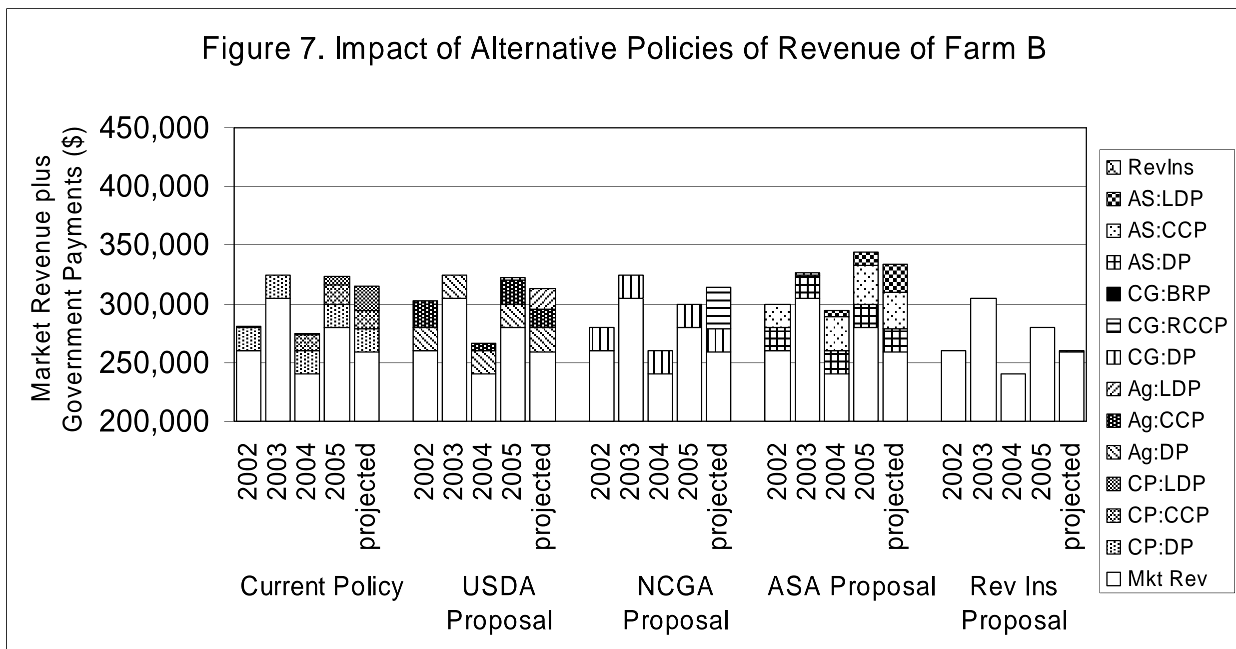
Since all years won't have higher revenues like 2002-05, we also analyzed these proposals by estimating expected revenue and the variation in that revenue using the expectations, variations, and correlations in yields and prices based on historical data. This was done using the program @Risk (Palisade, 2006) within Excel. To establish an accurate distribution of potential results, 50,000 "draws" were taken from the statistical relationships and used to calculate crop revenue and the potential government payments under each proposal's rules.

The projections of potential revenue show the ASA proposal to have higher estimated total payments to each of the three farms—again due to the proposed higher loan rates and target prices. Average government payments are estimated to be slightly higher under current policy compared to USDA's and NCGA's proposals with the proposal being slightly higher than current policy. The proposed USDA policy shifts the payment more towards DP and the revenue-based CCP with less payment coming as an LDP. Most of the government payment under NCGA rules comes in the RCCP payment; the BRP creates only a very small payment on average.

The policy goal of reducing revenue risk for farms is reached by current policy and the USDA, NCGA and ASA proposals. Using the projections of revenue, the coefficient of variation

(CV) for crop revenue alone varies from about 0.17 to 0.19 for each farm (Figure 9). When government payments of all types are added to the crop revenue, the CV varies from just less than 0.08 to just over 0.10. That is, government payments cut the relative risk almost in half for these three farms. The revenue insurance proposal (but without the DP and green payments included) reduces revenue risk only slightly.



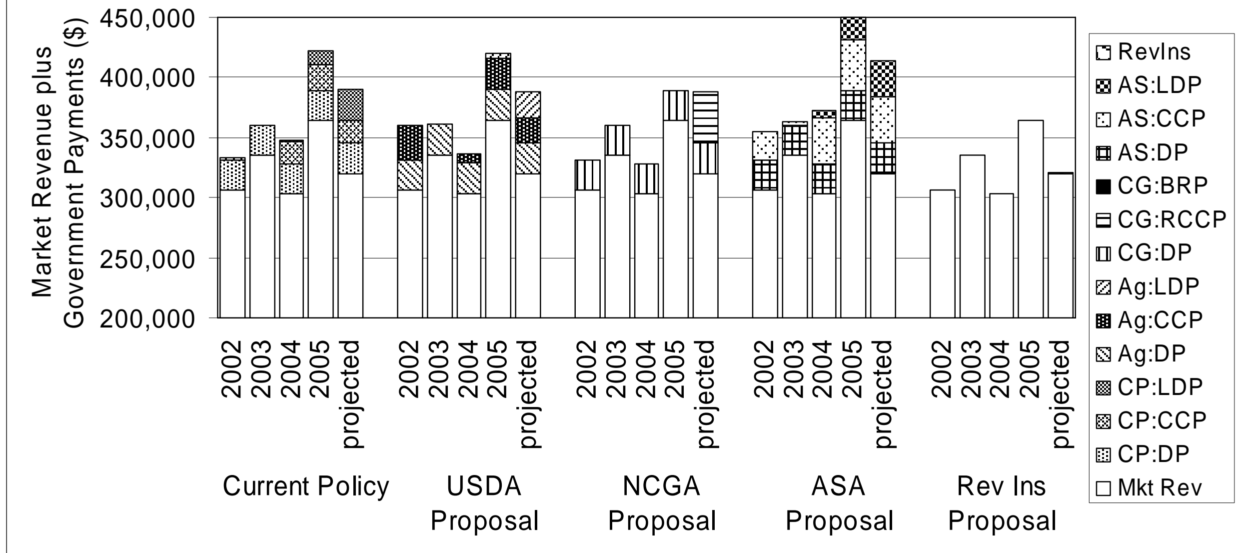


Figure 8. Impact of Alternative Policies of Revenue of Farm C
Market Revenue plus Government Payments ($)
450,000
400,000
350,000
300,000
250,000
200,000
2002
2003
2004
2005
projected
Current Policy
USDA Proposal
NCGA Proposal
ASA Proposal
Rev Ins Proposal
RevIns
AS:LDP
AS:CCP
AS:DP
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CG:DP
Ag:LDP
Ag:CCP
Ag:DP
CP:LDP
CP:CCP
CP:DP
Mkt Rev

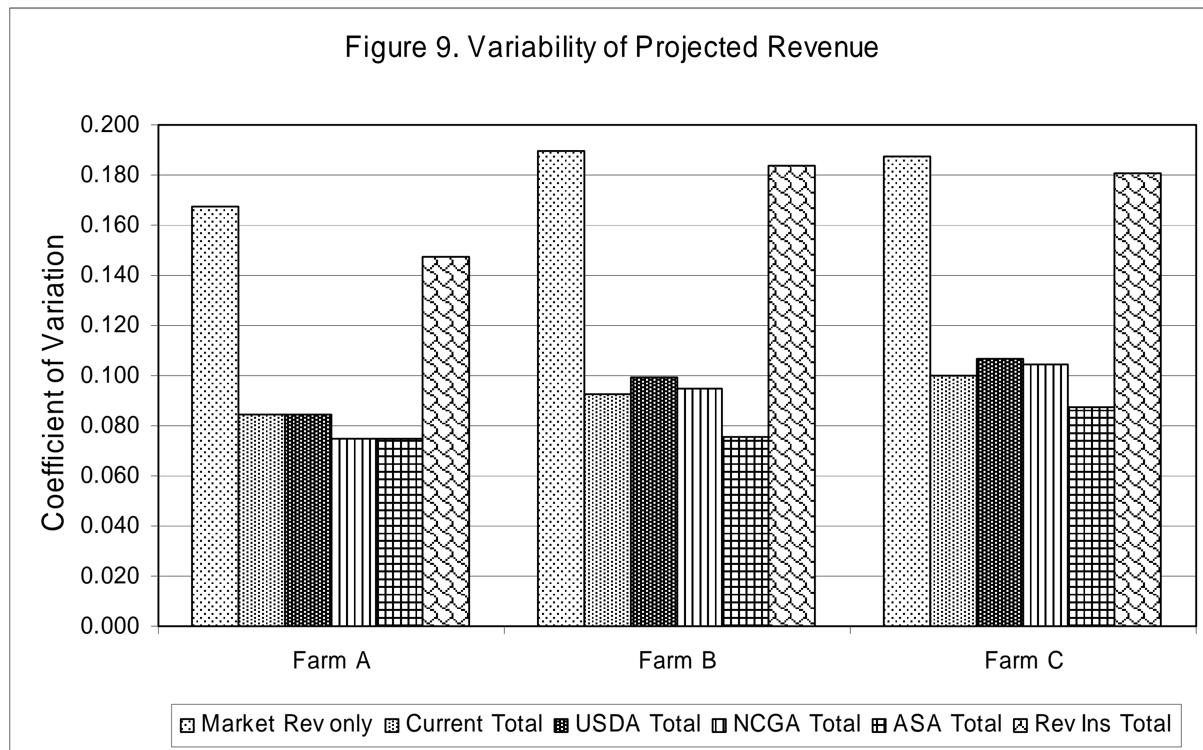
Figure 9. Variability of Projected Revenue
Coefficient of Variation
0.200
0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Farm A
Farm B
Farm C
Market Rev only
Current Total
USDA Total
NCGA Total
ASA Total
Rev Ins Total

## Closing Comments

In this paper, we have described current policy and five alternative proposals for the next farm bill. In terms of their proposed commodity programs, these proposals are USDA's proposal of national revenue-based support payments; NCGA's proposal for local revenue-based support payments; ASA's proposal to keep the current payment system but correct for inequities by increasing target prices and loan rates; the Chicago Council's proposal for multi-commodity revenue insurance (among other proposals); and AFT's proposal for a higher focus on conservation or green support payments (among other proposals).

Aspects of the farm bill debate include the height of a government supported safety net, who should be protected by a safety net, the amount to subsidize green payments, the federal budget, the impact of trade negotiations, the level of support for farm-based renewable energy production, the question of the balance of farm product supply versus demand, the allocation of government spending, and many more issues. Some argue the government should subsidize a safety net for farmers; others say the government should not. Some opponents of the farm bill argue that the federal government should not be supporting farm income when the marketplace is the appropriate place for that—especially under the current conditions of higher crop prices due to increased demand for biofuels. Some argue the U.S. should take a proactive position in trade negotiations and align agricultural support with international trading rules and concerns raised within WTO. Others say that the U.S. should not make such a unilateral move. The current deficits in the federal budget, with continued expenditures for mandatory programs and the Iraq and Afghanistan wars, point to continued and increased pressure to decrease spending in discretionary programs. The farm bill and its programs that become mandatory spending upon enactment are prime targets of this search for areas to decrease spending. The farm bill is part of the wider debate on how government money (that is, tax receipts) should be spent.

While more farm level analyses are needed to have a more complete picture of the potential impact on farms, families, and communities, we have gathered a few thoughts on what a good policy design would be for the future. We limit these ideas to commodity, conservation, and crop insurance programs.

For commodity programs, a revenue based program, not a price based program, is a more appropriate safety net for the future. The USDA has proposed a revenue-based support program using national revenue estimates. The USDA proposal is simpler than NCGA's BRP and RCCP especially from an administrative cost viewpoint. The Chicago Council proposes a multi-commodity revenue insurance program (such as AGR or AGR-Lite). The example farms in this report have similar revenue levels and risk reduction under each of the policies evaluated except for the ASA proposal which raised revenue levels.

A price based program (such as current policy and ASA's proposal) has several problems. A price based program has gaps in coverage when an individual farm's or area's yields are low due to weather or other local impact but market prices are not higher because national production levels are not affected. A price based program is more likely to create violations of international trade rules. The ASA proposal, while striving to correct inequities, corrects them by raising prices higher than Congress will most likely allow in the budget.

For risk protection, we believe a combination of public and private coverage would offer the best combination of effective use of government money and private risk protection. Under the AFT proposal, the government would protect farmers against market-wide risks such as unexpected low prices, drought, frost, wet weather, and so on. The farmers would then have the

option to purchase additional insurance products to protect against other sources of risks. From one point of view, an efficient marketplace should guide producers in the proper level and placement of production by pricing private risk insurance products based on local conditions. However, experience has shown that Congress will respond to disasters with emergency aid. Hence, a more stable approach seems to be having the government protect against market-wide risks and allowing farmers to choose and pay for additional risk coverage products as their local conditions warrant. If the needed additional insurance products are not available or do not become available, Congress could provide incentives or research and development funds to create these products. If revenue based risk programs are adopted in the next farm bill, the federal crop insurance programs will need to be redesigned and realigned with those new programs.

As the Chicago Council and AFT propose, Congress should fix direct payments per farm based on historical payments and describe how they should decline over time. This approach will decrease reliance on government payments gradually and allow farmers to respond more efficiently to the marketplace. As fixed direct payments decrease, the Council and AFT propose that farmers should supplement their income with green payments (discussed in the next paragraph). However, direct payments, safety net payments, and green payments should not be seen as substitutes for each other. Direct payments are direct income support payments with no expectations for farmer decisions or behavior. The safety net should be just that: a safety net to protect farm revenue from downside risk.

Conservation or green payments should be targeted towards those geographic areas and programs that provide the most environmental benefits. Green payments should be based on results (if they can be measured reliably) and not specific practices. Conservation payments should not be confused in concept or payment mechanisms with income support in the safety net view of income support. The AFT proposal of developing a competitive grant program for conservation initiatives is a very good idea. In such a program, groups of farmers, non-governmental agencies, and state and local agencies with a geographic focus can apply for and awards based on an environment benefit index. We would propose no limits on green payments (other than budget limits).

USDA proposes to lower the eligibility limit based on AGI from the current limit of $2.5 million to $200,000. Whether the farm bill should have an eligibility limit, and what level it should be set at, depends on a person’s or group’s goals for the farm bill. If it is to support smaller farmers, than a lower limit such as $200,000 is appropriate. If the goal of farm policy is to support the production of food, fiber, and energy without consideration of the size of farm, then the limit should be removed. Due to our desire to help smaller farmers and being aware of budget limits, we support an AGI limit of $200,000. As noted earlier, this $200,000 limit would affect only about 2.4% of Minnesotans who filed a Schedule F in 2004. To provide some stability in knowing whether a farm would be above or below this limit, an Olympic average of the last five years of AGI could be used to make the determination rather than relying only on the most recent year. Also, as with other government payments to individuals, the rules around the $200,000 or similar limit could be written to gradually decrease program payments when AGI is higher than $200,000 up to a higher limit, say $250,000 at which point they would disappear. This gradual decline may be more acceptable rather than the complete cutoff once the $200,000 line was crossed.

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