

## **Specialty Crops and the 2007 Farm Bill**

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## Overview

The debate surrounding a farm bill involves a large cast of characters with many different interests. In 2007, among the more notable voices in this group have been representatives of the specialty crop industry—a part of agriculture that has traditionally received modest federal assistance compared to producers of commodities such as grains, oilseeds, and cotton.

The specialty crop sector comprised of fruits, tree nuts, vegetables, and floriculture is a major part of U.S. agriculture.<sup>1</sup> Production accounted for 42 percent of the value of crop production in the United States, yet covered only about 3.2 percent of the harvested cropland in 2005.<sup>2</sup> Despite their importance, specialty crop commodities have not been included in the multi-billion dollar commodity subsidy programs that offer direct support to crops such as grains, oilseeds, and cotton. These so-called program crops have received government payments that have ranged from \$10 billion to \$25 billion per year under three major payment schemes. Of course, specialty crops qualify for the same general agricultural programs that benefit all of agriculture, such as R&D, protection from invasive species, and government nutrition programs. The specialty crop industry has recently argued that these general programs, and especially specialty crop benefits from them, have been short-changed by the focus on subsidies for the program crops. Indeed, the specialty crops industry has played a much more active and aggressive role in the 2007 Farm Bill debate than in previous years.

Two major questions surround the role of specialty crops in the 2007 Farm Bill. First, what is the source of money to fund additional programs demanded by advocates of specialty crops? Second, what, if any, additional support should be provided the specialty crop industry if program crop rules are changed to allow planting of fruit, tree nuts, and vegetables on a program crop base. In addition, any expansion of support for specialty crops should be evaluated on its own merits relative to competing uses of the funds, including reducing the federal budget deficit.

Baseline funding for farm programs will likely be far less in 2007 than it was in 2002. Because prices for the major program crops are now expected to remain high, USDA spending for commodity programs (Farm Bill Title I) is projected to be about 42 percent less from 2008 to 2017 than had been projected for a comparable ten-year period when the 2002 bill was written. In the absence of some additional funds, spending constraints of this magnitude would require diverting much of the remaining subsidy funding from existing programs (and their recipients) if funding for specialty crops were to increase significantly.

Regardless of whether new funds for the specialty crop industry results from a shift in policy direction or from compensation for elimination of planting restrictions, any new spending should be evaluated for its contribution to the public good. For some policies, support of the specialty crop industry can be readily identified with such a goal. For example, agricultural R&D outlays have consistently shown high social rates of returns. Likewise, funds to support better environmental performance of specialty crops may also have positive social returns, as would additional efforts to reduce vulnerabilities to invasive species. Programs that stimulate the consumption of fruits, vegetables, and nuts by those who would otherwise consume less than recommended amounts would contribute to a healthier overall diet, with the public benefit of potentially reduced national medical costs.

Other proposed outlays are less clear in terms of public benefits. For example, funds to promote export sales may provide benefits to individual commodities, but have uncertain returns

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<sup>1</sup> This is the definition of specialty crops contained in PL 108-465, the Specialty Crop Competitiveness Act of 2004.

<sup>2</sup> Agricultural Outlook Tables, USDA, Economic Research Service (ERS), March 2007.

to taxpayers at best. Industry-specific promotion programs that cause increased consumption of one fruit at the expense of another also have questionable social benefits. Some R&D funding may also have questionable domestic social rates of return if, for example beneficiaries are largely foreign consumers. The point is that in shifting spending to specialty crops, the individual spending programs must be evaluated on their merits: not simply because they are labeled as specialty crop programs.

### **Size and Variety of the Specialty Crops Industry**

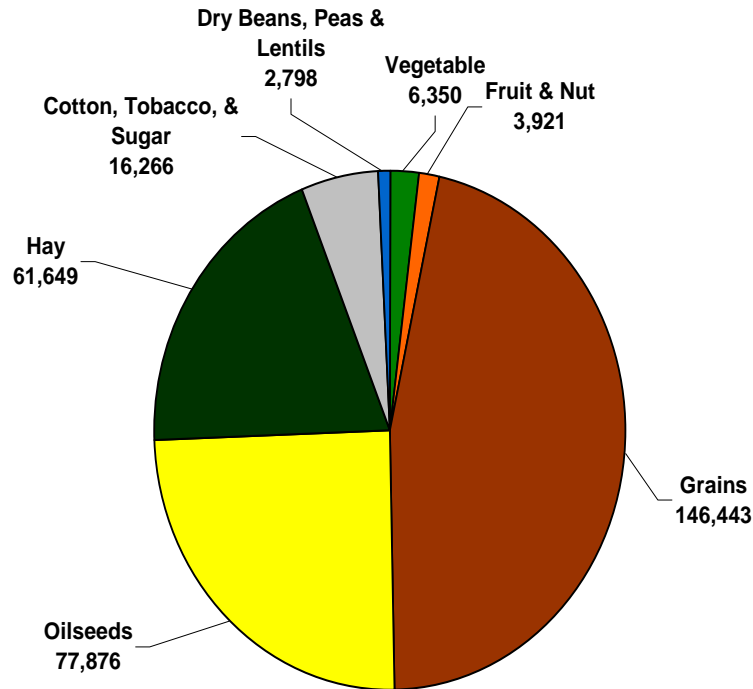
Of the approximately 315 million acres of harvested cropland in the 2005,<sup>3</sup> fruits, tree nuts, vegetables (including potatoes and dry edible beans), melons, nursery crops, floriculture, and miscellaneous other specialty crops account for 3.2 percent or approximately 10.27 million harvested acres (figure 1).<sup>4</sup>

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<sup>3</sup> Production acreage information comes from Agricultural Crop Production Reports and Summary datasets from the USDA National Agricultural Statistics Service (NASS), the USDA Agricultural Statistics Board, and various USDA Economic Research Service (ERS) yearbooks (<http://www.ers.usda.gov/publications/fts/#yearbook>) and crop outlook and situation reports.

<sup>4</sup> Vegetable acreage includes 24 major vegetables, California specialty vegetables, potatoes, melons, miscellaneous specialty crops (coffee, ginger root, hops, peppermint oil, spearmint oil, and taro), and nursery & floriculture acreage. It is likely that the reported number underestimates the actual vegetable acreage, resulting in an underestimation of total cropland acreage.

Figure 1. 2005 Harvested Cropland Acreage by Category



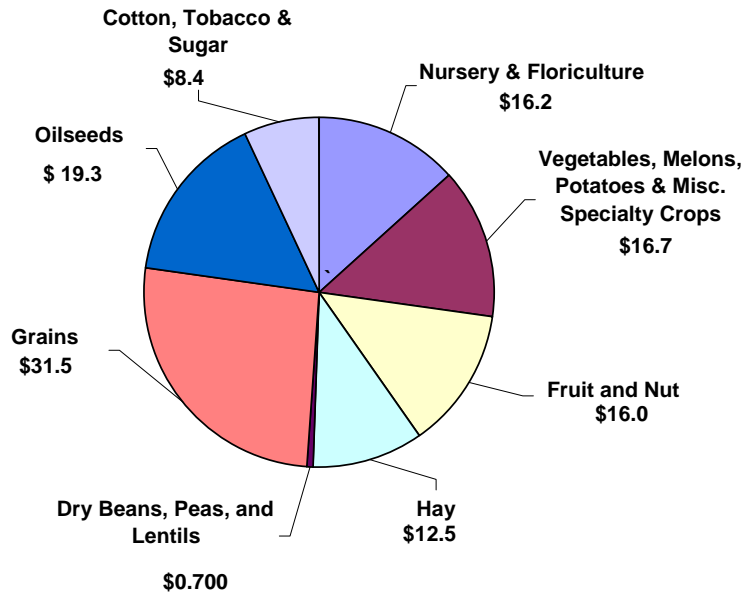
Source: USDA, National Agricultural Statistics Service, Agricultural Crop Production Reports.

**Value of Production.** The 2005 value of total U.S. cropland production was approximately \$121.3 billion. Figure 2 shows the percent of that production value by crop category.<sup>5</sup> Of this, specialty crops accounted for about \$50 billion, or about 42 percent.

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<sup>5</sup> Crop production value data is from 2006 Crop Value Summary, February 15, 2006, USDA National Agricultural Statistics Service (NASS), <http://usda.mannlib.cornell.edu/usda/nass/CropProdSu//2000s/2006/CropProdSu-01-12-2006.pdf>; Agricultural Statistics Board; and various USDA Economic Research Service crop yearbooks for 2005 and 2006. The nursery & floriculture value is cash receipts as reported in table 5 of the cash receipts for commodities, 2000–05, USDA Economic Research Service.

Figure 2. 2005 Crop Value of Production by Crop Category (\$ Million)



Source: USDA, National Agricultural Statistics Service.

The 2003–05 average specialty crop value of production is approximately 38 percent of the total value of crop production.

**Consumption.** Per capita consumption of processed fruit and vegetables, melons, and tree nuts remained stable or declined slightly from 1996 to 2005. Per capita consumption of fresh fruit and vegetables and tree nuts have increased or remained fairly stable over the same period.<sup>6</sup> Increasing U.S. consumption of fruits and vegetables has been a primary objective of the federal dietary guidelines for more than a decade. The attention currently being paid to obesity and its resultant health costs has refocused interest on the role of fruits and vegetables. A review of dietary intervention commissioned by the Center for Disease Control supports the idea that appropriate choices of vegetables, as well as fruits, can be a key to weight control.<sup>7</sup> USDA’s latest food pyramid emphasizes the consumption of dark green vegetables, orange vegetables, legumes, and fruit.<sup>8</sup>

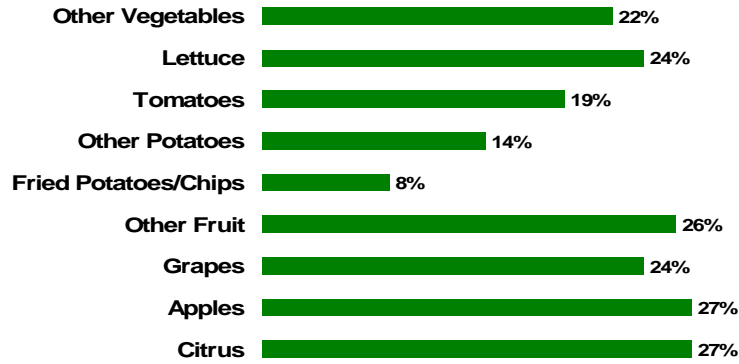
USDA anticipates that fruit and vegetable consumption will grow over the next 15 years (Lin 2004), as shown in figure 3.

<sup>6</sup> “Per Capita Consumption of Major Food Commodities,” Statistical Outlook Table 39, USDA Economic Research Service, March 2007.

<sup>7</sup> “Can Eating Fruit and Vegetables Help People to Manage Their Weight?” [http://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/rtp\\_practitioner\\_10\\_07.pdf](http://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/rtp_practitioner_10_07.pdf)

<sup>8</sup> “Dietary Guidelines for Americans 2005.” U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA).

**Figure 3. Predicted Market Growth 2000 to 2020**



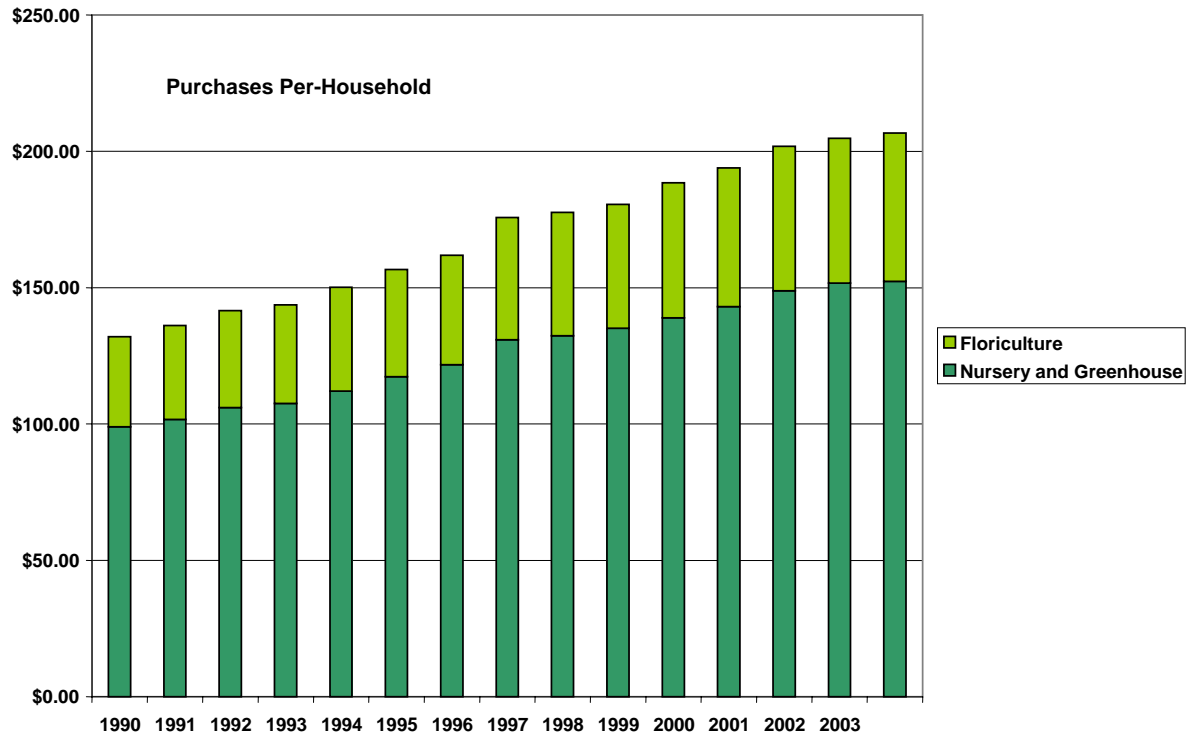
*Source:* Lin (2004).

Nursery, greenhouse, and floriculture products have been one of the fastest growing parts of agriculture. Figure 4 shows purchases of nursery, greenhouse, and floriculture products on a dollars per household basis.<sup>9</sup> Growth was substantial in each category from 1990 to 2004. Household expenditures on nursery and greenhouse products increased by 54 percent, while floriculture expenditures increased by 60 percent from 1990 to 2004.

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<sup>9</sup> "Floriculture and Nursery Crop Situation and Outlook Yearbook," USDA, ERS, June 2005.

Figure 4. Nursery and Greenhouse, and Floriculture Purchases, 1990-2004

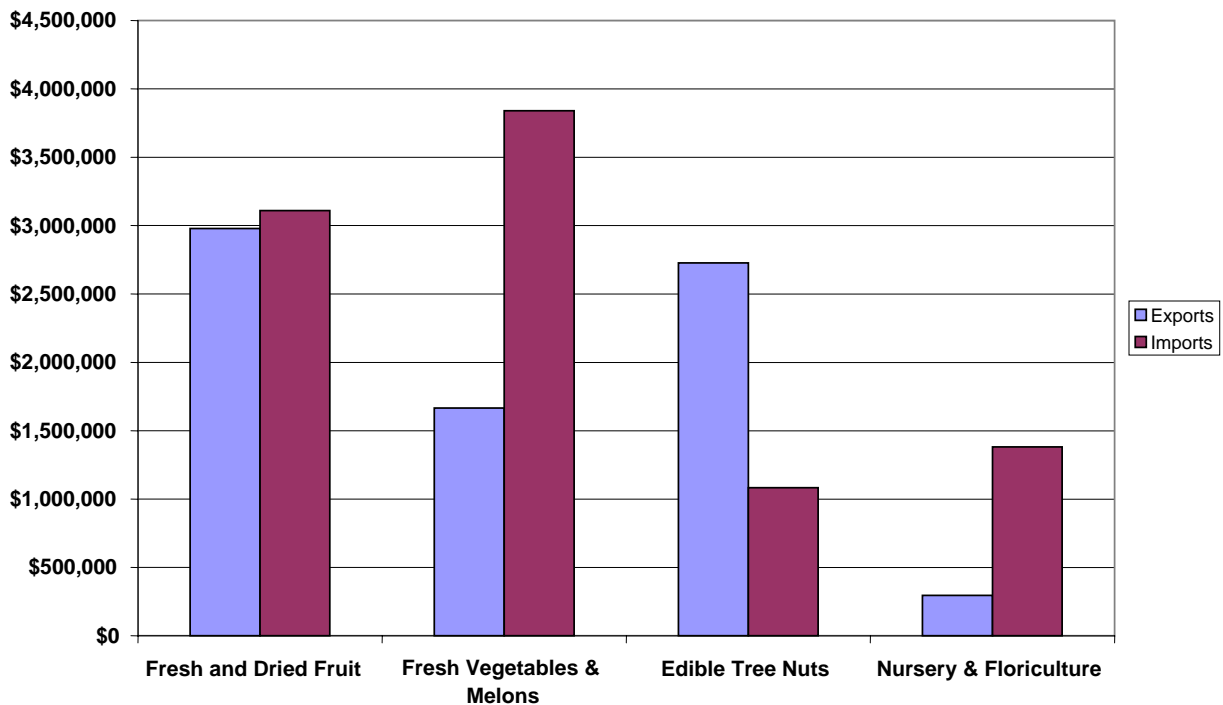


Source: “Floriculture and Nursery Crop Situation and Outlook Yearbook,” USDA, ERS, June 2005.

**International Trade.** Exports are important markets for many specialty crops. Figure 5 shows the 2005 export and import values of different specialty crop categories.<sup>10</sup>

<sup>10</sup> BICO Trade Data, USDA, Foreign Agriculture Service, [http://www.fas.usda.gov/scripts/bico/bico\\_frm.asp](http://www.fas.usda.gov/scripts/bico/bico_frm.asp). Import value of fresh fruit is net of the import value of bananas and plantains. Fresh vegetables and melons categories include potatoes.

Figure 5. 2005 U.S. Specialty Crop Imports and Exports (\$1,000)



Source: USDA, Foreign Agricultural Service, BICO Trade Data.

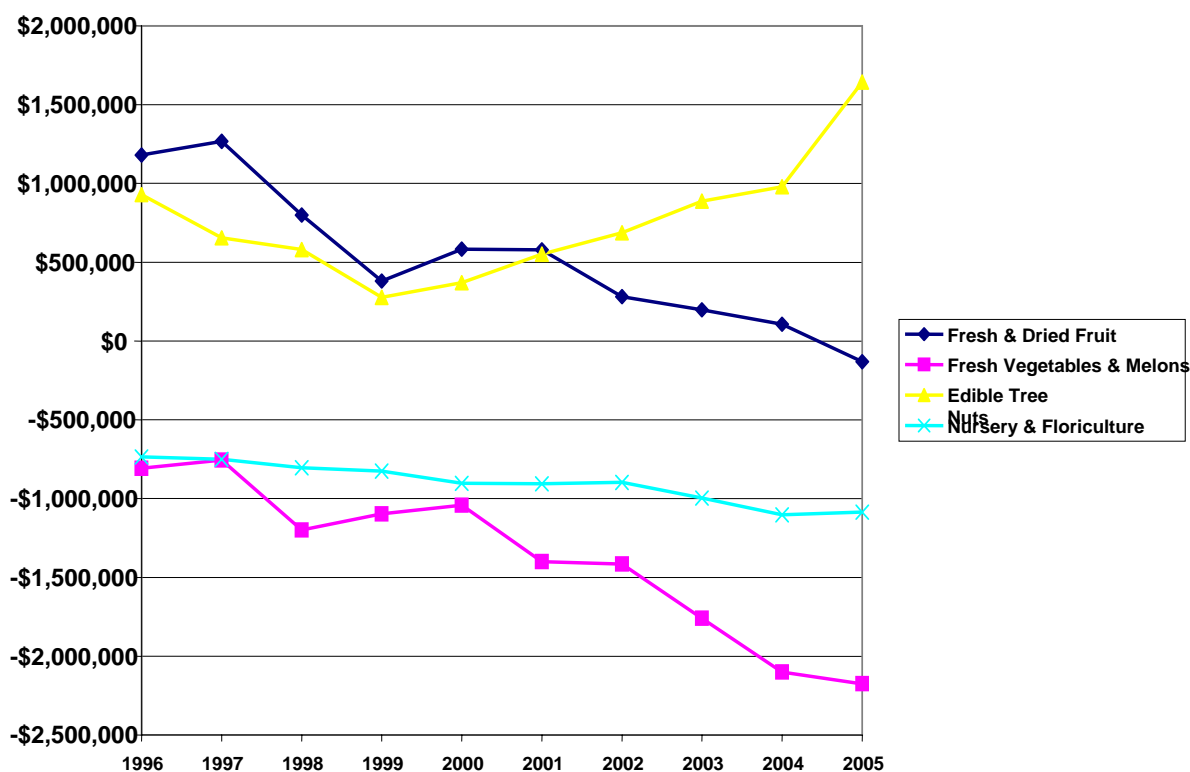
Fresh and dried fruit account for almost 40 percent of the specialty crop category exports shown in figure 5. Fresh vegetables and melons account for another 22 percent of exports, while edible tree nuts account for 35.6 percent and nursery and floriculture account for 3.8 percent. As for imports, fresh vegetable and melon imports represent 40.8 percent of the specialty crop categories shown in figure 5, followed by 33 percent for fresh and dried fruit, 14.7 percent for nursery and floriculture, and 11.5 percent for edible tree nuts.

The importance of the export market for fruits, tree nuts, vegetables, and melons is likely to increase. Global trade in horticultural products increased 58 percent in the 1990s. Latin America, East Asia, and Southeast Asia are home to 3 billion consumers, of whom roughly 700 million are middle class. They are registering the world's fastest growth in food demand, in the face of slower growth in mature food markets in the European Union (EU), the United States, and Japan. This suggests that the export market for fresh and dried fruit, tree nuts, fresh vegetables, and melons is important for those industries' economic sustainability, while the export market for nursery and floricultural products is relatively minor.

Figure 6 shows the U.S. net trade balance in fresh fruit, vegetables—including potatoes and melons—tree nuts, and nursery and floriculture from 1996 to 2005.



Figure 6. Specialty Crop Trade Balance: 1996—2005  
(\$1,000)



Source: USDA, Foreign Agricultural Service, BICO Trade Data.

Tree nuts are the lone specialty crop category to show a positive balance of trade in 2005. That positive trade balance is driven primarily by almond exports. The trade balance for fresh and dried fruit was positive until 2004 and then turned slightly negative. The trade balance for both fresh vegetables and melons and nursery and floricultural products was negative for the entire period.

The primary market for most U.S. produced specialty crops is the domestic market; however, some commodities are very reliant on export markets for sales. Most of the tree nut industry is trade-dependent. Approximately 77 percent of the almond supply, 43 percent of the walnuts supply, and 59 percent of the pistachio supply are exported annually. Similarly, over 30 percent of the fresh orange supply is exported annually (Rowhani and Sumner 2007). Fruit, tree nuts, and vegetables accounted for around 20 percent of U.S. agriculture exports in fiscal year 2006.<sup>11</sup>

Developing countries are the source of much of the increased U.S. imports of fresh fruits, tree nuts, and vegetables (Jerado 2004). Natural resource endowments in many developing countries favor the production of abundant agricultural and food supplies intended for export.

<sup>11</sup> "Agricultural Outlook: Statistical Indicators," Table 27, USDA, ERS, March 2007. <http://www.ers.usda.gov/publications/Agoutlook/AOTables/>

For example, despite their large populations, China, India, and Indonesia are producing some crops in excess of domestic consumption to export.

Among the advantages that developing countries can exploit are the global availability of farm, seed, and food processing technology; a large and underemployed labor force; and favorable climates.

The negative U.S. agricultural trade balance in fruits, vegetables and melons, and nursery products is not by itself a measure of export competitiveness or import dependence. Many imported fruits, vegetables and melons, and nuts—notably bananas—are either not grown in the United States or are imported in times of the year when U.S.-grown products are not available. Thus the negative trade balance mostly reflects Americans' preference for a wider variety of foods and beverages and intense competition among foreign food producers and manufacturers to supply the large and lucrative U.S. market.

**Geographical and Economic Characteristics of Specialty Crops.** To provide additional perspective on the role of specialty crops in the U.S. agricultural economy, it is useful to have a general understanding of the geographical and economic diversity of the U.S. specialty crop industry. More than 100 separate fruit, nut, and vegetable commodities or groups of commodities are included in data for the 2002 Census of Agriculture (Census). Within the nursery and floriculture categories, there are numerous cut flowers, potted flowering and foliage plants, breeding and garden plants, and propagative materials being produced.

More than 132,000 farms specialized in the production of fruit, tree nuts, berries, vegetables, and pulses in 2002, according to the Census of Agriculture.<sup>12</sup> Approximately 17 percent of farms specializing in specialty crop production are classified as commercial (with sales of more than \$250,000). The majority of these farms are located in the West and South. More than half the farms that specialize in specialty crop production are classified as rural-resident farms (farms with annual sales of less than \$250,000 and whose operators report their primary occupation as either retirement or off-farm). The remainder fall into the intermediate category (farms with sales of less than \$250,000, whose operators report farming as their primary occupation).

Fruit, nuts, and vegetables are produced throughout the United States, with the largest acreage (excluding potatoes) in California and Florida. The Upper Midwest and Northwest report the largest vegetable acreage for processing, while California, Florida, and Texas harvest the largest share of fresh vegetable and melon acreage. California is the largest producer of grapes, strawberries, peaches, nectarines, avocados, and kiwifruit. It also leads in fresh-market orange production and tree nut production. Florida is the largest citrus producer, while Washington is the largest apple producer for both fresh apples and processed products. Midwest and Northeastern states are important producers of processed fruit products.

There were 12,916 floriculture growers in the United States in 2002. Some 38.5 percent were classified as large growers (with sales of \$100,000 or more); the remaining 61.5 percent were classified as small growers. Floriculture production takes place in 40 states. The Southern states are the largest producer of floricultural products, followed by the Western states, then

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<sup>12</sup> Data from 2002 and 2003 are used to discuss the geographical diversity of specialty crop production. In general, the same location characteristics exist today. The number of specialty crop producers declined from 2002 to 2003, most notably in floriculture and nursery production. However, the distribution in farm size remains about the same. Much of the information contained in this section comes from Lucier and others (2006).

Midwest states and the Northeastern states. The state with the largest floriculture production is Florida, followed by California.

Of the 7,742 nursery producers in 2003, 4,593 were small producers (with sales less than \$100,000) and 3,149 were large producers (with sales of \$100,000 or more). Nursery crops are produced in 17 states. Leading producing states, in order of size of production (acres), are Oregon, Pennsylvania, Michigan, North Carolina, Tennessee, Florida, and California. These seven states account for 60.8 percent of total nursery production acreage.

Seasonality plays a key role in determining production location. Every state has some commercial production of specialty crops during the summer and early fall. The arrival of cooler temperatures results in production moving to the Southern and Southwestern states and California. Winter production of vegetables occurs in Arizona, the Imperial Valley of California, Texas, and Florida.

Specialty crops move through the domestic marketing channel in a number of ways. These include direct marketing, cooperative marketing, packer-shippers or nursery wholesalers, terminal markets, and brokers. More than half the volume of fresh and processed fruit, tree nuts, and vegetables reaches consumers through supermarkets and other retail establishments. Food service is also an important market for fruits and vegetables. Direct marketing (farmers' markets, roadside stands, and pick-your-own operations) is not a significant marketing channel (representing around 1 percent of total sales). However, it does provide the opportunity for some fruit, tree nut, and vegetable producers to sell their products directly to the final consumer and thus potentially increase their profitability.

### **The Role of Government in Promoting Specialty Crops**

As noted, the major interest of advocates of specialty crops with respect to the 2007 Farm Bill is in expanding existing programs that benefit these industries. Thus it is useful to review briefly some of the major ways government programs affect specialty crops. However, before turning to these long-standing programs, a review of some ad hoc support for specialty crops is in order.

Areas of federal support for specialty crops outside the farm bill include legislation to provide funding for states to administer programs on behalf of the industry. For example, the Emergency Agricultural Assistance Act (EAAC) of 2001 provided states with block grants to promote specialty crops. The act provided almost \$160 million to all 50 states and Puerto Rico. The funds allocated to the states were used to fund a variety of programs and the decision on what programs to fund was left almost entirely to the individual states, with the provision that the programs funded improve the competitiveness of U.S. specialty crops.

The specialty crop block grant program continued with the passage of Specialty Crop Competitiveness Act (SCCA) of 2004 (PL 108-465). SCCA block grants are used to support programs in research, marketing, education, pest and disease management, production, and food safety. The initial legislation (HR 3242) called for a mandatory annual appropriation of \$470 million in mandatory funds from the Commodity Credit Fund to support the block grant program. The final bill authorized the program subject to annual appropriations, and limited funding to \$44.5 million per year; \$7 million was actually appropriated in FY 2006.

**Crop Insurance and Disaster Assistance.** Federally subsidized crop insurance programs are available for many crops, including specialty crops. Under the federal crop insurance program, USDA authorizes private insurance companies to sell and service insurance policies, while the government provides subsidized reinsurance and compensates them for administrative costs. Besides paying costs and covering losses for insurance companies, the government pays much of the premium.

In general the crop insurance policies available to specialty crop growers are the same as those available to other commodity producers. The lowest level of coverage, catastrophic loss coverage (CAT), is universally available. CAT pays 55 percent of an established price on crop losses in excess of 50 percent. The federal government pays the premium for CAT coverage. Producers pay only a \$100 administrative fee for each commodity enrolled in the program. Other program coverage is available for a selected number of crops in certain areas. The premium on these policies is subsidized in accordance with the amount of coverage provided.

A variety of insurance policies are utilized by 44 different specialty crops, according to USDA data for the 2005 crop year.<sup>13</sup> The annual subsidy for these crop insurance programs in 2005 was about \$424 million.<sup>14</sup> Subsidy levels are around 70 percent when compared to the total premium for all policies. The overall subsidy level is influenced by the substantial amount of CAT coverage that specialty crop producers have obtained. CAT coverage accounted for around 32 percent of all the policies for specialty crops in the 2005 crop year.

Congress also provides occasional ad hoc assistance for specialty crops. For example, Congress has authorized three separate market loss payments since 2001. Apple growers were provided \$269 million in income assistance in the 1999 and 2000 crop years, and potato growers were eligible for assistance in 2001. Since 1988 ad hoc crop loss programs have provided a cumulative total of just under \$20 billion to specialty crop growers (CRS 2006).

**Marketing Orders and Agreements.** Marketing orders and agreements allow collective action among industry participants for product definitions, promotion, research, and occasionally supply control. Federal marketing orders and agreements for fruits, vegetables, melons, and tree nuts were first authorized in the Agricultural Marketing Agreement Act of 1937 (AMAA). There are currently 32 authorized federal marketing orders in place for fruits, vegetables, and tree nuts, covering many of the major crops and production locations.

Marketing orders and agreements are designed to provide benefits to growers and handlers. Few marketing orders exercise supply controls any longer. Even where authorized, the impacts are occasional and mostly temporary. . However, for a few crops such as raisins, the order results in considerable price discrimination across time and across markets. A substantial body of evidence documents the benefits of marketing orders and agreements to their participants. For example, research by Alston and others (1995) and a more recent study by Crespi and Chacon (2004) conclude that the marketing order for almonds results in net benefits to the industry at the expense of consumers, many of whom are foreign consumers. Gray and others (2005) find that the new marketing order that regulated food safety in pistachios is likely to benefit producers and consumers.

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<sup>13</sup> “Federal Crop Insurance Statistics for 2005, National Summary by Crop,” USDA, Risk Management Agency, <http://www.rma.usda.gov/data/sub.html>

<sup>14</sup> Subsidy is calculated as indemnity less premium paid by producers.

**Generic Promotion, Research, and Information Programs (Check-off Programs).** Federally regulated but industry funded generic promotion, research, and information programs have also been used in the marketing of specialty crops. The origin of the so-called check-off programs dates back to the 1954 promotion program for wool. Enabling legislation established 18 federal check-off programs; however, some have been terminated or are no longer active (Neff and Plato 1995).

These programs are authorized separately for each commodity and are fully funded by industry assessments. To be approved, they may require approval of a two-thirds vote of those growers voting or those persons voting in favor of the order represent a two-thirds majority of the volume of the agricultural commodity under consideration. Once approved, the assessment made to pay for the activities of the order are binding on the producers and importers of the commodity. The mandatory participation by all participants eliminates the accrual of benefits to anyone not contributing to the cost of the program (the “free rider” problem). Producer assessments are collected by the first handlers of the commodity and importer assessments are collected and remitted by the U.S. Customs Service. The specifics of the order dictate what the funds collected will be used for. Currently specialty crops with promotion, research, and information programs include mangos, cultivated blueberries, popcorn, potatoes, watermelons, and Hass avocados.

A variety of studies of market promotion activities conducted under the authority of marketing orders and individual check-off programs provide estimates of positive cost/benefits returns. Williams (2004) reports a benefit to cost ratio range from 12 for apples to 27 for tomatoes.<sup>15</sup> In a recent study reporting on the returns to promotion by the Hass Avocado Promotion and Research Order, Carman (2006) finds that California producers gain an additional \$70.4 million in revenue from promotional spending of \$7.86 million.<sup>16</sup>

Despite evidence of positive returns to marketing orders and commodity promotion programs, producer support for such programs has not been universal. A number of legal challenges to promotion programs have produced conflicting decisions regarding their status. Cases based on arguments related to free speech provisions of the First Amendment to the Constitution have resulted in two Supreme Court rulings. Complaints have maintained that the mandatory nature of the assessments force contributors to fund activities they would not do voluntarily.

Specialty crop programs have been prominent in these disputes. In the mid-1990s, California handlers challenged the marketing order for peaches and nectarines. Despite two lower court decisions in their favor, the Supreme Court ultimately decided in favor of the validity of the programs included in the government program (Becker 2005). In 2001 the Supreme Court ruled that the mushroom promotion program was in violation of the free speech provisions of the First Amendment to the Constitution, concluding that the stand-alone promotion program was different than provisions contained in the larger regulatory authority of marketing orders. As a result, generic mushroom promotion activities were discontinued. However, a Supreme Court ruling in 2005 upheld the constitutionality of promotional activities of the beef check-off program.

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<sup>16</sup> See also Carman and Craft (1998) for the California avocado industry. See the studies in Kaiser and others (2005) for many recent studies of pay off to these programs, as well as legal challenges.

**Export Promotion.** The federal government also provides direct support for the international marketing of many specialty crops. The USDA Foreign Agricultural Service, Market Access Program (MAP) provides federal matching funds to assist in the overseas marketing of U.S. agricultural commodities. Funding is provided in annual allocation of USDA Commodity Credit Corporation (CCC) funds on a competitive grant basis. Activities to promote the sales of branded products require a 50 percent industry match. Generic promotion efforts require a 10 percent industry match.

In 2005 MAP allocated a total of \$138.5 million to promote a variety of U.S. commodities. Specialty crops accounted for 35 percent of MAP fund allocations, with about \$49 million going to promote export marketing efforts of 38 commodity groups and related organizations.<sup>17</sup>

**Food Purchases.** Through the USDA's Agricultural Marketing Service (AMS), the federal government purchases food products, including specialty crops and products, from handlers and processors. Those purchases remove surplus commodities if the products can be used by other agencies. The objective is to reduce supply and thus improve prices within the industry. Purchases of fruit and vegetable and tree nuts are provided to school children and the needy through various USDA feeding programs. The surplus removal has accounted for about two-thirds of the annual value of fruit, vegetable, and tree nut purchases by AMS.<sup>18</sup> Fruit and vegetable purchases were relatively constant from 1991 to 1999 and then increased to over \$600 million in 2001. After declining and fluctuating since 2001, purchases reached about \$375 million in 2005.<sup>19</sup>

**Food Assistance and Nutrition.** Several programs under the Food and Nutrition Title of the federal Farm Bill benefit the fruit and vegetable industry. Five programs are among the most beneficial: the Food Stamp; Woman, Infants, and Children (WIC); National School Lunch; School Breakfast; and Fruit and Vegetable Snack programs. These five programs account for about 95 percent of USDA's total expenditures for domestic food assistance, some \$53 billion in fiscal year 2006. The exact amount of specialty crop industry benefits derived from these programs is difficult to determine. A 2002 report by the USDA Food and Nutrition Service reported that around 20 percent of all domestic food assistance went to support the consumption of fresh and processed fruits and vegetables, but the degree of demand expansion is not clear (USDA, FNS 2002).

**Research and Extension.** USDA conducts research, extension, and economics projects for programs related to the specialty crop industry through three USDA agencies: the Agricultural Research Service (ARS), the Cooperative State Research, Education and Extension Service (CSREES), and the Economic Research Service (ERS). The FY 2005 research budget of these agencies totaled approximately \$2.6 billion:<sup>20</sup> about 2.2 percent of USDA's FY 2005 budget.<sup>21</sup>

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<sup>17</sup> USDA, FAS, June 21, 2005 .[http://www.fas.usda.gov/scripts/sw/PressRelease/pressrel\\_dout.asp?PrNum=0083-05](http://www.fas.usda.gov/scripts/sw/PressRelease/pressrel_dout.asp?PrNum=0083-05).

<sup>18</sup> USDA, ERS, Fruit and Vegetable Backgrounder, VGS-313-01, April 2006.

<sup>19</sup> Ibid.

<sup>20</sup> USDA, FY 2007 Budget Summary and Annual Performance Plan. [www.usda.gov/agency/obpa/Budget-Summary/2007/FY07budsum.pdf](http://www.usda.gov/agency/obpa/Budget-Summary/2007/FY07budsum.pdf).

<sup>21</sup> Not including the Forest Service budget.

A review of recent research efforts on the part of ARS, CSREES, and ERS provides a perspective on the level of federal research expenditures relative to specialty crops.<sup>22</sup> The total ARS budget for research on crops in FY 2005 was \$476.1 million, with 33.7 percent allocated to fruits, nuts, and vegetables and 6.3 percent to trees, shrubs, flowers, potted plants, bedding, and ornamental turf. In FY 2003, CSREES invested approximately \$79.6 million to support research, extension, and education focused on specialty crops, representing about 7.2 percent of a total budget of \$1.1 billion. Funds are distributed based on a formula, competitive review, and Congressional direction through designated line items in the budget. Proposals for formula funds spent on programs for specialty crops originate with state land grant university faculty and their stakeholder advisory groups to respond to newly identified research needs and critical issues.

Multi-state research projects are funded through CSREES Hatch funds involving scientists from multiple state agricultural experiment stations, collaboratively tackling high priority topics that go beyond the scope of a single state. Of particular note, 51 research projects in a total of 87 projects or activities support specialty crops in the multi-state portfolio of state agricultural experiment stations. In addition, 124 projects were funded by CSREES under Special Research Grants, totaling \$24.7 million.

**Protection from and Control of Invasive Species.** The USDA Animal and Plant Health Inspection Service (APHIS) is responsible for protecting U.S. agriculture against potential losses from invasive pests, harmful insects like the Mediterranean fruit fly, dealing with foreign countries' import requirements regarding pest and diseases, and negotiating science-based standards to protect U.S. agricultural exports from unjustified barriers to trade.

The total APHIS budgetary outlays to address pest and diseases related specifically to specialty crops are difficult to isolate. The one program that is easily identified with specific efforts on behalf of the specialty crop industry is the fruit fly exclusion and detection program, with annual appropriation of \$60 million. Budgetary allocations of \$127 million to address emerging plant pest include efforts directed at emerald ash borer, citrus canker, karnal bunt, and citrus longhorned beetle, and not readily attributable to individual pest programs. In addition, a portion of the \$18 million budgetary outlays for trade issues management and resolution is directed to activities on behalf of the specialty crop industry.

Recent evidence suggests that to the extent APHIS activities reduce the probability of potential pest and disease occurrences, potential benefits are large. In a study of California government measures to control exotic pest and diseases, Sumner (2005) concluded that the approximate benefits outweigh the cost by several times. In his analysis, domestic benefits for selected specialty crops (greenhouse/nursery, grapes, lettuce, almonds, strawberries, and citrus) of \$394 million would result from activities that led to prevention of infestations that reduced expected supplies by 5 percent.

### **Restrictions on Planting Specialty Crops on Program Crop Base Acreage**

Beginning with the 1990 Farm Bill, producers who were participating in government commodity programs were allowed to plant other program crops on a portion of their program crop base acres but were generally prohibited from planting fruits, tree nuts, melons crops, or vegetables,

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<sup>22</sup> National Agricultural Research, Extension, Education and Economics Advisory Board (2006).

including dry edible beans and potatoes. Wild rice was added to the restricted list a couple of years later. Restrictions on the area that may be planted to specialty crops reduce the potential supply of those products and raise prices.

In May 2005, Senator Richard Lugar introduced a bill that would allow producers to convert base acreage to the production of fruit or vegetables designated for processing.<sup>23</sup> Under the provisions of the proposed legislation, producers would be allowed to remove the base acreage from payment eligibility in the year of production but reestablish the base in subsequent years if production reverts to eligible program crops. The legislation did not progress.

In March 2005, the World Trade Organization (WTO) appellate body ruled that direct payments to U.S. cotton producers counted as support for cotton in part because the WTO agreement on agriculture explicitly stated that payments that limited what could be produced on base land could not be included in the list of payments considered only minimally trade distorting.<sup>24</sup> Accordingly, if the United States is to continue the planting restriction for direct payments to program crops, these payments will need to be included among those subsidies that are limited by the WTO agreement. This raises concerns because the United States has already been near its subsidy limit.

Three publicly available studies have analyzed the likely effects of elimination of the current planting restrictions. The research emphasizes the motivations involved in making the switch from current cropping patterns. In each case, the elimination of the planting restrictions is coupled with a continuation of payments for program participants. The scope of the analysis includes a variety of quantitative and qualitative estimates of the likely magnitude of potential shifts in crop acreage and revenue impacts for current specialty crop industry participants.

The USDA Economic Research Service (ERS) has provided an analysis from a farm, regional, and national perspective (Johnson and others 2006). The ERS report concludes that market effects will likely be limited and confined to specific commodities and regions. The report does not attempt to provide a detail quantitative estimate of the overall effects, but does provide an illustrative example for dry edible beans. The effects of elimination of planting restrictions, with the continuation of program payments for participants, results in about a 2 percent net increase in dry edible bean acreage: a 4.9 percent decline in gross returns per acre. The analysis does not address market adjustment dynamics. The ERS study emphasizes that the illustration for dry beans is not comprehensive and other factors will enter into the overall effects of a removal of any penalties associated with planting restrictions. Among the factors identified in the ERS report are importance of non-base acreage land constraints and barriers to entry associated with specialized production and marketing.

A second study (Thorsbury, Martinez, and Schweikhardt 2006) examines those factors that are likely to induce program crop producers in Michigan to enter into the production of specialty crops, along with factors that are likely to act as impediments to new entrants. The study examines the potential effects on mixture of six commodities produced in Michigan for fresh or processed markets (dry beans, pickling cucumbers, fresh market tomatoes, processed tomatoes, squash, and blueberries). With the exception of dry beans, the study concludes that a removal of the planting restrictions would provide only small incentives for program crop producers to enter the production of these commodities and that barriers to entry would be significant enough to limit entry by program crop producers. The Michigan study also discusses

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<sup>23</sup> S. 1038, Farming Flexibility Act of 2005, May 16, 2005.

[http://www.wto.org/english/tratop\\_e/dispu\\_e/find\\_dispu\\_documents\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/find_dispu_documents_e.htm).

<sup>24</sup> [http://www.wto.org/english/tratop\\_e/dispu\\_e/find\\_dispu\\_documents\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/find_dispu_documents_e.htm).



the fairness concerns from producers who complain that their new competitors would get payments, while traditional specialty crop producers would not get such payments. Of course, that same concern has applied to hay producers and where planting restrictions have not applied.

The third study (Patterson and Richards 2006) provides calculations of the potential impact of lifting the planting restrictions on the fruit and vegetable sector under assumed acreage shifts and price elasticities. The study examines the effects of changes in the cropping patterns in 205 counties where both fruit and vegetable production and commodity program production are prevalent. The study assumes that between 1 and 5 percent of current certified base acreage shift to fresh fruits and vegetable production. Revenues from specialty crop decline between \$1 billion and \$2 billion under these assumptions.

The evidence and basic economic reasoning suggest that an elimination of planting restrictions would have significant market impacts for some specialty crops, but not major widespread implications. The mix of commodities affected, the magnitude of the changes, and regional location of the impacts are difficult to determine with precision.

### **Evaluation of Policy Issues and Options for the 2007 Farm Bill**

The specialty crops industry has played a much more active and aggressive role in the 2007 Farm Bill debate than in previous years. The specialty crop industry, as represented for example by Western growers, is pursuing additional funding for R&D, protection from invasive species, and related programs that they expect improve the productivity and competitiveness of their industries. They also want to assure that this funding is secure, rather than vulnerable to annual appropriations. If the planting restrictions on program base land were removed, specialty crop producers would expect an even larger increase in funding for their interests. They have been explicit that they do not want to institute farm payments such as have been in place for the program crops, but they are now demanding more attention and more funding.

The interest in permanently incorporating specific specialty crop programs into federal legislation has resulted in the formation of the Specialty Crop Farm Bill Alliance. It is composed of over 70 specialty crop organizations representing growers of fruits, vegetables, dried fruit, tree nuts, nursery plants, and other products. The alliance was influential in getting HR 1600, the "Equitable Agriculture Today for a Healthy America Act" (known as the "EAT Healthy America Act") introduced in March 2007. HR 1600 has eight titles that provide for increased funding and/or government support for specialty crop block grants, disaster assistance, conservation, international trade, pest and disease control, nutrition, research and development, renewable energy, and miscellaneous issues. The bill, bolstered by 74 cosponsors, has been referred to committee for consideration.

The obvious source of additional funding for specialty crops would be from the budget allocations to farm subsidies for program crops. Unlike previous years, when specialty crop producers expressed little interest in the Title I programs, they recognized in the lead-up to the 2007 Farm Bill that program crop subsidies were the only significant source of additional funding for their demands. However, recent budget projections make this option even more difficult. The USDA recently projected mandatory spending on farm programs to decline from a record \$32.3 billion in 2000 to \$11.7 billion in 2008, if the 2002 Act were to continue (which typically establishes the outlay baseline). Because prices for the major program crops are expected to remain high, baseline funds available for spending on (Farm Bill Title I) commodity

programs would reportedly be about 41 percent less than the total \$140 billion in funding provided in the 2002 Farm Bill.<sup>25</sup> The most recent Congressional Budget Office (CBO) Baseline (March 2007) projects \$83.7 billion in Commodity Credit Corporation price support and related program expenditures over the period 2008–17. In the absence of some additional funds, significantly increased funding for specialty crops would require diverting much of the remaining subsidy funding from existing programs (and their recipients). Moreover, other groups, such as environmental and nutrition interests, are also in competition for these funds.

### **Conclusion**

The total value of federal support for specialty crops is difficult to calculate, but that support is mostly indirect and small (relative to their market value of output) compared to subsidies for program crops.

As suggested by the comments of Agriculture Secretary Johannes and some provisions of the USDA's 2007 Farm Bill proposal, increasing government support for specialty crops is on the policy agenda. But it is not sufficient as a rationale for increasing spending to observe that federal support for specialty crops is modest compared with support for program crops. If Congress decides to use taxpayer dollars to support specialty crops, then it makes sense to support services that would not be provided by the private sector and that achieve positive net public benefits.

Accordingly, policies that support increased research and development in various areas related to specialty crops seem promising. In the United States, agricultural R&D continues to be a very profitable use of public funds, with significant benefits to consumers, farmers, and the environment, mainly through enhanced productivity on and off the farm, and consequently improved competitiveness in both domestic and international markets. Studies of the payoff to public investments in agricultural R&D consistently show very high benefit-cost ratios, or rates of return (Alston and others 2000).

In addition, policies that provide public support for better environmental performance by specialty crop enterprises, reduce vulnerabilities to invasive species, and stimulate the consumption of fruits, vegetables, and tree nuts by those who would otherwise consume less than recommended dietary guidelines have the potential to generate positive external (social) benefits.

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<sup>25</sup> Collin C. Peterson and Bob Goodlatte, testimony to Chairman John Spratt Jr., Committee on the Budget, U.S. House of Representatives, March 1, 2007.

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