# Economic Analysis for the Final Decision on Class III and Class IV Price Formulas

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United States Department of Agriculture Marketing and Regulatory Programs Agricultural Marketing Service Dairy Programs

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#### I. Statement of Need for the Final Action

## A. Statutory Directive

The Consolidated Appropriations Act, 2000, required the United States Department of Agriculture (USDA) to reconsider the Class III and Class IV component pricing formulas that were implemented on January 1, 2000 as part of the consolidation and reform of Federal milk orders.

A formal hearing was held by the Agricultural Marketing Service (AMS) on May 8-12, 2000, in Alexandria, Virginia, to consider proposals submitted by the industry to change the formulas. The material issues on the record of the hearing relate to the elements of the Class III and Class IV pricing formulas, including: commodity prices, manufacturing (make) allowances, and factors related to product yield. In December 2000, the Department released a Tentative Final Decision on Class III and Class IV Price Formulas. However, some of the provisions of the interim final rule were enjoined by the U.S. District Court for the District of Columbia. The recommended decision released in October 2001 considered comments filed in response to the tentative final decision and recommended changes that were consistent with record evidence and the Court's ruling.

The major changes in the price formulas under the recommended decision from the formulas implemented on January 1, 2000 were: (1) adjusting product yield factors in the protein and nonfat solids prices; (2) using a barrel cheese price at 38 percent moisture rather than 39 percent moisture in the Class III component formulas; and (3) adjusting the make allowances for butter, nonfat dry milk, dry whey, and cheese.

Comments on the recommended decision were received and considered in making the changes in this final decision. The changes in the price formulas that will be adopted in this decision from the current price formulas implemented in January 2001 are: (1) adjusting product yield factors to reflect farm to plant loss; (2) adjusting factors in the protein formula to more accurately account for protein and additional butterfat values; and (3) adjusting the make allowance for dry whey. A minor change that will be adopted in this decision is adjusting product yield factors for butter, nonfat dry milk, and dry whey to be multipliers in place of divisors.

The purpose of the *Economic Analysis for the Final Decision on Class III and Class IV Price Formulas* is to evaluate the costs and benefits of the adopted changes to the pricing formulas.

## B. Final Decision Analysis

The final decision sets out product pricing formulas to be used to price milk regulated under Federal milk marketing orders and classified as either Class III or Class IV milk. These product price formulas also affect the prices of regulated milk classified as Class I and Class II. The economic effects of the modifications in this decision are analyzed simultaneously as a change from the set of formulas implemented in January 2001 by the U.S. District Court for the District of Columbia. See Appendix A for a listing of formula changes.

#### 1. Baseline

Impacts are measured as changes from the model baseline as adapted from the USDA baseline developed in June 2002 for the mid-session budget review. The baseline projections are "a Departmental consensus on a long-run scenario for the agricultural sector." Included is a national, annual projection of the supply-demand price situation for milk. The mid-term review reflects the provisions of the Farm Security and Rural Investment Act of 2002. Baseline assumptions for dairy are: (1) the price support program will extend through December 31, 2007, supporting the price of milk (3.67 percent butterfat) at \$9.90; (2) the Dairy Export Incentive Program will continue to be utilized; (3) the Federal Milk Marketing Order Program will continue as reformed on January 1, 2000, and modified by the Select, et al. v Veneman court decision in January 2001; and (4) Milk Income Loss Contract program will make payments to dairy farmers through September 2005 when the Class I price in Boston is less than \$16.94 per hundredweight (cwt).

# 2. Analysis Assumptions and Relationships

This analysis focuses on impacts on milk marketed under all Federal milk marketing orders. Order-specific changes in uniform blend prices and fluid grade prices are estimated. The Federal order share of U.S. milk marketings is about 70 percent. About 83 percent of all milk used in fluid products and about 65 percent of all milk manufactured into dairy products is marketed under Federal order regulation. Milk marketed in California, milk marketed under other state regulations, and unregulated milk are treated separately. The hard manufactured dairy product markets are national.

#### a. Econometric Model

The dairy industry econometric model used in this analysis includes milk marketed through the Federal order system, California, and other milk markets. Demands for fluid milk and the major manufactured dairy products are included. The model generates estimates for the annual average National Agricultural Statistical Service (NASS) wholesale prices for American cheese (weighted average for blocks and barrels), butter, nonfat dry milk, and dry whey. The Federal order pricing formulas are driven by the NASS prices. Individual Federal order ble nd prices are calculated from class prices and class uses. The order blend prices are then used to estimate regional fluid grade prices. Resulting Federal order regional prices are averaged with the California all-milk price to estimate a U.S. all-milk price. See Appendix B for more details.

## b. Regions

The impacts of the Final Decision Class III and Class IV price formula changes are estimated for the separate Federal orders and milk supply regions, California, and the other Western markets. In the model, the U.S. is divided into 14 milk marketing regions, 11 that generally correspond to the Federal order areas, California, an aggregated other West, and Alaska-Hawaii. Milk marketed through the Federal order system is the predominant subset of milk marketings in the United States. Given the prominence of Federal order marketings, prices paid for both fluid and manufactured milk outside of the order system are generally aligned with prices paid in the Federal order system. California stands out as the state with the highest production and has its own set of comprehensive market regulations similar to the Federal order system. California milk marketings are estimated as a function of the California pool price.

Individual order uniform prices at test are based on the class prices at test and class uses for the individual orders. To try to capture the over-order premiums paid to producers in the Federal order system, the regional fluid grade prices are statistically related to the corresponding minimum uniform prices for each order. The regional fluid grade prices are the weighted averages of state fluid grade prices as reported by <u>Agricultural Prices</u> (USDA, NASS). The fluid grade price is the price paid for Grade A milk at the plant before hauling cost deductions. The model's regional fluid grade prices are estimated as functions of the appropriate order uniform price at test and, in most cases, product prices. For orders that have higher Class I utilization, such as the Appalachian and the Southeast, the product prices are assumed to capture any change in premiums needed to bid milk away from manufacturing uses to fluid use. In the Upper Midwest, Central, Mideast, Southwest, Western, and Pacific Northwest orders, the product prices are assumed to capture the change in premiums based on the value of milk used in manufacturing that is not captured by minimum Federal order prices.

The all-milk price, as reported by NASS, is an average of the fluid grade price and the price of Grade B milk used in manufactured dairy products. The regional all-milk prices are estimated as a function of the corresponding fluid grade price and dairy product prices. The product prices are included to capture the change in the value of Grade B milk as product prices change. In regions with higher Grade B milk production, it is estimated that as product prices increase, the Grade B milk price moves closer to the Grade A milk price. For the Pacific Northwest, Western, Arizona-Las Vegas, Southwest, and Florida the all-milk price is equal to the fluid grade price. All of these regions have very little Grade B milk.

## c. Potential Impact on Class I and II Prices

In addition to altering minimum order Class III and IV prices, the Final Decision's formula changes have an impact on Class I and Class II prices. Class I skim prices reflect the higher of the Class III or Class IV skim values during an earlier two week period, plus a location differential ranging from \$1.60 to \$4.30 per cwt. Class II prices reflect an advanced Class IV skim milk value plus a 70-cent per cwt differential.

# d. Product Demand and Milk Allocation Relationships

Demands for fluid milk and manufactured dairy products are functions of per capita consumption and population. Per capita consumption for the major milk and dairy products are estimated as functions of own prices, substitute prices, and income. Retail and wholesale margins are assumed unchanged from baseline. The regions milk supply is used first to meet the demands for fluid milk and soft manufactured products. After these demands are met, the remaining milk supply is used for manufacturing hard products. This volume is allocated to making cheese and making butter and nonfat dried milk according to gross returns to manufacturing in each class. Wholesale prices for cheese, butter, nonfat dry milk, and dry whey reflect national supply and demand for these products.

#### e. Baseline Price Structure

The relative price structures of the key dairy products in the baseline are important to the effects of the formula changes. First, relative prices and returns to manufacturers are assumed to influence the allocation of nonfat solids and butterfat in Class III and Class IV products. Second, the protein price varies inversely with the butter price. The baseline projects an increase in the demand for cheese, with cheese prices increasing steadily from \$1.25 per pound in 2003 to \$1.36 in 2007. With the extension of the price support program, nonfat dried milk prices are projected to range between \$0.90 and \$0.94 per pound over the time period. Butter prices increase over the time period from \$1.23 per pound in 2003 to \$1.57 per pound in 2007. The ratio of butter to cheese prices increases from 0.98 in 2003 to 1.15 in 2007. When the butter price increase relative to the cheese price, the formula driven protein price decreases. The protein price increases in 2004 from 2003, and then decreases from 2005 to 2007 as the projected butter price increases at a faster rate.

This set of product prices generates Class IV prices (3.5 percent butterfat) ranging from \$11.35 to \$13.17 per cwt over 2003-2007. Class III prices (3.5 percent butterfat) range from \$11.12 to \$12.31. The higher of the Class III and Class IV advanced values at 3.5 percent butterfat are used to set the minimum Class I price. The Class IV value is projected to be the higher through the baseline years.

#### II. CLASS III AND IV FORMULA CHANGES

The Class III and IV price formulas are amended in the Final Decision by slightly adjusting conversion (yield) factors and adjusting the make allowance for dry whey. A single price for butterfat is used in both Class III and Class IV. See Appendix A for details on the formulas.

# A. Class III Formula Changes

## 1. Background

The Federal Order system as of January 1, 2000, calculated a single price for butterfat, based on its value in butter using the NASS butter price series. This butterfat price was applicable for Class III and Class IV. Since the Class III and Class IV butterfat prices were the

same, a butterfat adjustment was included in the Class III protein price formula to compensate for the difference in the value of butterfat in cheese versus butter.

```
Protein Price = (Cheese Price - 0.1702)* 1.405 + ((Cheese Price - 0.1702)* 1.582 - Butterfat Price)*1.28
```

The butterfat value adjustment subtracts the uniform butterfat price from the value of butterfat in cheese according to the Van Slyke cheese yield formula, and multiplies the difference by 1.28. (See *New England et al. Final Decision*, March 1999, p.185.) As can be seen in the formula, the protein price moves in opposite direction to butterfat price movements. When the butterfat price increases relative to the cheese price, the protein price declines. Thus, a butter price increase results in a butterfat price increase and reduced protein and Class III skim milk prices, even if the cheese price does not change. (With the exception of the make allowance set at \$0.165 and the adjustment of cheese prices to 38 percent moisture, the Court ordered that the protein price formula must be identical to that implemented on January 1, 2000.)

#### 2. Final Decision

The Final Decision adjusts the yield factors for each component to account for farm to plant loss. The final decision modifies the protein price formula by multiplying the butterfat price by 0.9 and replacing the 1.28 adjustment factor with 1.17. Using the Van Slyke formula, the protein and butterfat yield factors in the protein price are adjusted to account for loss from farm to plant, therefore, slightly decreasing yields. The NASS weighted average cheese prices will continue to use the 500-pound barrel price adjusted to 38% moisture instead of 39% moisture. The make allowance for "other nonfat solids" is increased to \$0.159, having been at \$0.137 under reform implemented on January 1, 2000, and \$0.140 under the Court order. The make allowance for butter is to remain at \$0.115, which is a \$0.001 per pound increase from that implemented on January 1, 2000. The yield factors for dry whey and butter are adjusted to account for farm-to-plant loss and are converted to be multipliers instead of divisors in the butterfat and other solids price formulas. There is no snubber on the other solids price.

```
Protein Price = (Cheese Price - 0.165)*1.383+
((Cheese Price - 0.165)*1.572 – (Butterfat Price*0.9))*1.17
Other Solids Price = (Dry whey price - $0.159)*1.03
Butterfat Price = (Butter Price - 0.115)*1.20
```

The Final Decision protein price formula puts relatively more weight on the cheese price. As a result, the protein price under the final decision will not change as much when butter prices change relative to cheese (all else constant).

## B. Class IV Formula Changes

The make allowances for butter and nonfat dry milk are increased slightly from the Federal order reform levels, by \$0.001 for butter and \$0.003 for nonfat dry milk and unchanged from the Court ordered levels effective January 1, 2001. The divisor used in the butterfat component formula is adjusted for farm-to-plant loss and converted to a multiplier of 1.20. The 1.02 divisor previously used in the nonfat solids price formula to reflect the relative values and yields of buttermilk powder and nonfat dry milk under order reform was changed to the use of no divisor under the Judge order formulas (Implicitly a value of 1.0). Under the final decision, the nonfat solids price includes a multiplier of 0.99 (Equivalent to a divisor of 1.01 which recognizes farm-to-plant loss.). With nonfat dry milk priced at \$0.90 per pound, the formula change results in a decrease in the Class IV price (3.5 butterfat) of \$0.07 per cwt from the Court order prices effective January 1, 2001.

Butterfat price = (Butter Price - \$0.115)\*1.20

Nonfat Solids Price = (Nonfat Dry Milk Price - \$0.14)\*0.99

## III. AGGREGATE RESULTS OF THE CLASS III AND CLASS IV AMENDMENTS

The impacts of the changes to the Class III and Class IV formulas adapted in the Final Decision are summarized using annual and five-year, 2003-2007, average changes from the model baseline (Tables 2A-2C).

#### A. Results Overview.

The advanced Class I base price is driven by the higher of the Class III or Class IV skim milk values for a prior 2-week period. The Class I base price is the Class IV price in all years of the analytical period for the baseline, while Class III becomes the Class I base price in 2003 through 2005 under the Final Decision. It is possible, however, that within a year, the Class I base price could switch in some months. The Class I price, at the class average test of 2 percent butterfat, is slightly below baseline price levels, -\$0.008 per cwt, on average over the 5-year period. The Class I price increases from the baseline in 2004 and 2005 by \$0.13 and \$0.12 per cwt, respectively. The 5-year average decrease in the Class I price results in a small increase in the demand for skim milk and butterfat for Class I use. The Class II prices decreases by \$0.23 per cwt on average at butterfat test of 7.92% from 2003 to 2007, which increases the demand for Class II products. The resulting increase in Class I and Class II demand for nonfat and fat solids, sufficiently absorbs production increases to very slightly increase cheese and butter prices and only slightly decrease nonfat dry milk prices.

The Federal order blend price (3.5 percent BF) increases by an average \$0.07 per cwt over the 2003-2007 period. The Class I price at 3.5 percent butterfat decreases by an average of \$0.04 per cwt. The Class III price at 3.5 percent butterfat increases by an average of \$0.24 per cwt, while the Class II and Class IV prices (3.5 percent BF) decrease by an average of \$0.14 per cwt. The minimum blend price at test increases by \$0.06, but with greater variation in changes

among the separate classes, with the average Class IV price declining \$0.26 per cwt and the Class III increasing by \$0.23.

The Federal order fluid grade price (at test), which includes premiums, increases an average of \$0.03 per cwt over the period. This increase relative to the \$0.06 increase in the minimum uniform price at test implies a decline in the premiums on Class III milk, which is due to the increase in the Class III Federal order price.

#### B. Producers

Over the five-year period, the Federal order minimum blend price for milk at test increases by about \$0.06 per cwt over the model baseline. The Federal order fluid grade price, which includes the effects of over-order premiums, is increased by \$0.03 per cwt. Federal order marketings increase by an average 58 million pounds annually due the production increase in response to higher producer prices. Cash receipts in the Federal order system increase by \$47.2 million annually (0.3 percent) from baseline receipts of \$16,729 million.

The distribution of the 2003-2007 annual average price changes across the 11 orders varies mainly with the distribution of Class III and other class utilizations. (See Regional Analysis Section for greater detail.) The increases in the Federal order minimum blend at test range from around -\$0.04 in the Florida and Appalachian orders to \$0.11 to \$0.13 in the Central, Mideast, and Upper Midwest orders. Increases in the Federal order fluid grade price, which includes premiums, range from -\$0.05 per cwt in Florida to \$0.08 per cwt in the Arizona-Las Vegas orders.

Shifts in milk pooling were accounted for in the Upper Midwest, Central, Mideast, and Western orders. The milk pooling shifts keep pool price differences among these orders to differ by not more than the estimated interregional marketing cost. However, it is possible that the range of changes in the fluid grade prices across the Federal order supply regions could be significantly narrowed by changes in premiums that cannot be estimated. The decreases in the fluid grade prices in the Florida and Appalachian regions, mainly Class I markets, could generate premiums to bid the milk away from manufacturing uses to the Class I market. (Regional analysis is discussed in greater detail below.)

Due to the 5-year average increase in the butter and cheese prices, the California all-milk price increases on average by \$0.01 per cwt over the 5-year period. The 5-year average increases in the all-milk price of \$0.01 in California and \$0.04 in the weighted-average Federal order regions and other West region results in the weighted-average U.S. all-milk price increasing by \$0.03 per cwt. U.S. milk marketings increase by an average 73 million pounds annually, and cash receipts increase by \$67.2 million (0.3 percent) from baseline receipts of \$23,535 million.

## C. Milk Processors and Manufacturers

Annual Class IV and Class II skim milk prices decrease each year by an average of \$0.07 per cwt (1.0 percent) for the 5-year period. This results mainly from changing the conversion factor for nonfat dry milk to nonfat solids from 1.0 to 0.99. The Class I skim milk price increase

averages \$0.04 due to the increased Class III skim price being the mover in 2004 and 2005. Butterfat prices decline each year by an average of \$0.02 per pound, as a result of recognizing farm-to-plant losses of milk. The result was to reduce the yield factor from the equivalent of 1.22 pounds of butter per pound of butterfat to 1.20.

Changes in class prices at class butterfat tests indicate the changes in pool obligations per cwt of milk, by processor class. The Class IV price at test (about 7.92 percent butterfat) declines by an average of \$0.26 from a baseline average of \$17.93 per cwt, reflecting the decreases in the Class IV skim price and the butterfat price. The Class II price at test (7.92% butterfat) decreases by \$0.23 from the baseline average of \$19.02 per cwt. The Class I price at test (about 2 percent butterfat) decreases on average \$0.01 from a baseline average of \$12.70 per cwt (0.06 percent).

The annual average Class III price at test (3.52 percent butterfat) increases by about \$0.23 from a baseline average of \$12.27 per cwt during 2003-2007. From the 2003 and 2004 Class III price increase of \$0.15 and \$0.17 per cwt, respectively, the price increases, ending in an increase of \$0.34 in 2007. The major change in the Class III price is the average protein price increase of \$0.14 per pound, ranging from an increase of \$0.10 in 2003 to an increase of about \$0.18 in 2007. The nature of this change is dependent upon the baseline structure of butter and cheese prices. The years of greatest increase are in 2006-2007 when the butter price exceeds the cheese price the greatest. The change in the Class III price results primarily from the changes in the protein formula that slightly reduces the impact of the butterfat price on the protein price.

## D. Consumers

Changes in consumer expenditures are calculated assuming that no changes other than the formula changes occur. The expected \$0.01 per cwt decrease in the minimum Class I price for 2003-2007 results in an average \$0.001 decrease in the price per gallon of fluid milk for consumers. Annual consumer expenditures for fluid milk over 2003-2007 are estimated to decrease on average by about \$3.25 million in the Federal order system and by \$4.1 million in the U.S.

The price of butter is estimated to increase on average by \$0.004 per pound for the period. Cheese is estimated to increase \$0.001 per pound. Annual consumer expenditures over the five-year period are estimated to increase by \$5.6 million on butter and by \$4.1 million on American cheese, assuming no other economic changes.

# IV. RESULTS OF THE FINAL DECISION CLASS III AND CLASS IV FORMULA AMENDMENTS BY REGION AND ORDER

The model includes 14 milk marketing regions, 11 that generally correspond to the Federal order areas, California, an aggregate other West, and Alaska-Hawaii. Regional milk production is based on estimates of the number of cows and milk per cow. (The exception is Alaska and Hawaii, which is not impacted by this decision.) Total Federal order marketings are equal to previous year Federal order marketings plus the percentage change in milk production in

Federal order regions. Marketings from supply regions into the 11 Federal order regions are based on the 2001 Producer Milk Marketed under Federal Milk Orders by State of Origin data, adjusted by the consumption and balancing requirements for the deficit orders, and interregional pooling needed to align blend prices in the Upper Midwest, Western, Central, and Mideast orders. The class uses and class prices are used to calculate an order's minimum uniform price at test. Fluid grade milk prices for the 11 Federal order regions are estimated as functions of Federal order minimum prices and dairy product prices. The regional all-milk prices, which are used in the regional milk supply responses, are in turn estimated from the regional fluid grade milk prices and national dairy product prices.

# A. Regional Milk Supply Estimation

Regional supply responses were estimated and incorporated into the model. Regional fluid grade and all-milk prices are the weighted state average all-milk prices from Agricultural Prices (USDA/NASS). The relationships are summarized in Appendix B. However, some differences in the regional estimates of elasticities with respect to the current and lagged milk-feed (feed or concentrate ration, see footnotes 1 and 2 for Table B-3 and B-4) price ratios are worth noting. The lagged milk-to-feed price ratio is used in all regions, while the current ratio is used in only the Pacific Northwest, California, and Florida. Cow numbers are least responsive to the milk-feed price ratios in the Northeast, unregulated West, Pacific Northwest, California, Appalachian, and Upper Midwest with elasticities from 0.03 to 0.05. For the Southwest, Arizona, Southeast, Central, and Mideast regions, responses to milk-feed prices range from 0.050 to 0.073. In Florida, the lagged milk-feed price elasticity is about 0.16, while the current elasticity is 0.12. The highest response is in the Western order at 0.23. Milk price response was captured in six regions by using the current milk price to slaughter cow price ratio with elasticities ranging form 0.03 (Northeast) to 0.23 (Western).

Milk per cow responses to the lagged milk to concentrate price ratio vary as well. The lagged milk-feed price ratio was more significant in the Appalachian and Arizona regions. Milk per cow elasticities with respect to milk-feed price ratio are less than 0.03 in the Western and Northeast, and between 0.03 and 0.04 in the Pacific Northwest, Mideast, Appalachian, and Upper Midwest regions. The milk per cow elasticities range from 0.041 to 0.048 in the Central, California, Southwest, and Southeast regions. Milk per cow response to the milk-feed ratio is the greatest in the unregulated West (0.060) and the Arizona (0.061) regions.

# B. Order and Regional Impact of Formula Amendments

The impacts of the Class III and Class IV amendments are extended to the 11 Federal orders and the 13 supply regions that correspond to the 11 orders and the other West, and California. Class III milk from the Upper Midwest region can be pooled on the Central and Mideast to align pool prices between the orders. Western and Central order prices are similarly constrained to prevent pool prices differing by more than interregional marketing costs. Milk can move from adjoining regions into the Florida, Southeast, and Appalachian orders to meet total class needs. Other pooling patterns are based on the patterns in 2000 and 2001.

# 1. Changes in Federal Order Class Uses

Under the model baseline, total annual Federal order marketings are expected to average 120,834 million pounds over the baseline period. Class I and II utilizations are expected to remain fairly constant over the time period at 39 percent and 10 percent, respectively. Class III utilization is expected to increase over the baseline period from 42.3 percent in 2003 to 45.4 percent in 2007. The Class III utilization is projected to be above the Federal order average in five orders, Southwest (45 percent), Western (46 percent), Arizona-Las Vegas (50 percent), Central (59 percent), and Upper Midwest (74 percent). On the other hand, Class IV utilization is expected to decrease from 8.4 percent in 2003 to 5.1 percent in 2007, mainly due to more nonfat solids being used in cheese production, and therefore, decreasing the production of nonfat dry milk. The orders with the highest Class IV utilization are the Western (15 percent), Arizona-Las Vegas (17 percent), and the Pacific Northwest (25 percent).

Under the Final Decision, total Federal order marketings are expected to increase by 58 million pounds on average over the period from the baseline. Due to lower Class I and II prices at test, Class I and Class II uses are expected to increase annually by 3 and 35 million pounds, respectively. Total Class III use decreases by 7 million pounds, while Class IV use increases by 28 million pounds. These changes have no significant impact on the overall Federal order class utilizations. However, there are some impacts on individual orders due to changes in Class III and Class IV prices. Due to the increase in the Class III price, the Upper Midwest uniform price increases. Therefore, less milk from the Upper Midwest is pooled on the Central and Mideast orders. The Upper Midwest Class I utilization decreases by 1 percentage point, while the Class III utilization increases by almost 2 percentage points. In the Mideast order, Class I utilization increases by 2 percentage points and the Class II increases by 1 percentage point, while Class III decreases by 3 percentage points. With the Western order being a higher Class IV utilization market, more milk from the Western order is expected to be pooled on the Central order. The Class II and IV utilization each increase by 1 percentage point and the Class I utilization increases by 2 percentage points in the Western order. These increases are offset by a 4 percentage points decrease in Class III utilization in the order. The Central utilizations remained unchanged as the increase milk pooled from the Western order offseting the decrease in milk pooled from the Upper Midwest.

## 2. Changes in Federal Order Blend Prices

The estimated impacts of the formula changes on each order's minimum blend prices at test are reported in Table 5. The five-year national average \$0.06 impact on the minimum blend prices at test ranges from -\$0.046 per cwt (Florida) to \$0.129 per cwt. (Upper Midwest). Differences in the orders' class utilizations determine the effects on the blend and fluid grade prices.

Orders with high Class III utilization, Upper Midwest, Western, and Central have the greatest positive impact from the Final Decision with the Class III price at test averaging \$0.23 over the baseline 5-year average of \$12.27 per cwt. The Upper Midwest blend price increases by \$0.13 over the five-year average of \$12.80 per cwt. The Central and Western blend prices increase by \$0.11 and \$0.10 over average blend prices of about \$13.04 and \$12.93 per cwt,

respectively. The Mideast blend price increases by \$0.12 per cwt due to less Class III milk pooled from the Upper Midwest under the Final Decision compared to the model baseline projections.

Orders with lower Class III utilizations have the greatest negative impact from the Final Decision. Florida and Appalachian orders blend prices at test decrease by \$0.05 and \$0.04 per cwt, respectively. The Southeast uniform price at test decreases by \$0.01 per cwt on average over the period. The minimum blend price increases for the other orders range from \$0.03 to \$0.08 per cwt.

The Final Decision formulas reduces some of the incentives to shift milk out of the Upper Midwest to the Central and Mideast orders due to a higher uniform price in the Upper Midwest. On the other hand, a higher Class IV utilization market, such as the Western order, would pool more milk on the Central order due to the lower Class IV prices under the Final Decision.

# 3. Changes in Fluid Grade Prices at Test

The positive impact on the Federal order regions fluid grade price, the blend price plus premiums, is less than the impact on the blend price (Table 8). This implies that the premiums on Class III milk decreases under the Final Decision, due to increases in the Federal order Class III price, and given a very slight increase in the cheese price.

The five-year average change in the fluid grade prices was \$0.03 per cwt, ranging from -\$0.05 per cwt in Florida to \$0.08 per cwt in Arizona-Las Vegas. Orders with changes of \$0.04 to \$0.06 per cwt include the Western, Central, Mideast, and Upper Midwest.

Average fluid grade price changes in the remaining regions range from -\$0.04 to \$0.03 per cwt. At the high end of the range are the Pacific Northwest (\$0.03), and the Northeast (\$0.03). The Appalachian fluid grade price decreases by \$0.04, while the Southeast fluid grade price remains unchanged from the baseline.

It could be expected that the range of changes in the Federal order fluid grade prices across the orders could be significantly narrowed by changes in premiums, especially on the low end of the range. The decreases in the fluid grade prices for Florida and Appalachian, mainly Class I markets, could be offset by premium increases to bid the milk away from manufacturing uses to the Class I market.

## 4. Changes in Regional All-Milk Prices

All-milk prices are averages of the prices paid for all milk, Grade A and Grade B. Under the Final Decision, the U.S. all-milk price is estimated to increase an average \$0.03 per cwt from the baseline average of \$13.43 per cwt from 2003 to 2007. The estimated regional price impacts are very similar to the changes in the fluid grade price.

## 5. Changes in Regional Milk Production

Regional milk production is projected through the analytical period based on regional

supply equations. Changes in regional milk production due to implementing the Final Decision are shown in Table 4. The 5-year average U.S. milk production is estimated to increase by 73 million pounds under the Final Decision with regional milk production changes ranging from a decrease of 2 million pounds in Florida to an increase of 19 million pounds in the Western region

The Western region milk production increase is by far the largest change, averaging 19 million pounds over the baseline resulting mainly from its higher cow number response to price increases. Milk production increases by an average 9 million pounds per year in both the Southwest and Upper Midwest regions and by 8 million pounds in the Central, Mideast, and California regions. The Appalachia and Florida regions are the only two regions estimated to have decreased milk production, with Appalachian decreasing by 1 million pounds and Florida decreasing by 2 million pounds. Milk production increases in all other regions range up to about 6 million pounds per year on average over the five-year period.

# 6. Changes in Milk Income Loss Contract (MILC) and Price Support Programs

The 2002 Farm Bill included provisions for a MILC program and the extension of the price support program. The changes in the payments of the MILC program due to the Final Decision are in Table 9. Under the model baseline, \$3.1 billion in payments are expected over the life of the program, with an average payment on eligible production of \$0.93 per cwt. The impact of the Final Decision is very minimal with the total cost of the program decreasing by \$29.4 million.

The impacts on the price support program are presented in Table 10. Under the baseline and decision results, government price support purchases are expected to be limited to nonfat dry milk. The Final Decision is expected to increase purchases by 2 million pounds on average from the baseline annual average of 211 million pounds from 2003-2007.

## V. SUMMARY

On average over the 5-year period:

- Fluid grade and all-milk prices increase by \$0.03 per cwt.
- Higher prices call forth an additional 73 million pounds of production.
- Higher prices and milk marketings raise farm cash receipts by \$67.2 million.
- Higher marketings result in a 1 percent increase in sales of NDM to CCC under the price support program.
- Higher average Class I price through 2005 reduces the payments under the MILC program by 1 percent.

Table 1A: Baseline: Selected Supply-Demand-Price Estimates from the Model Baseline Based on the USDA Mid-session Baseline, 2003-2007.

	Units	2003	2004	2005	2006	2007	5-year average
U.S. Milk Production	mil. Lbs	172,456	174,564	176,132	178,140	180,544	176,367
U.S. Marketings							
Class I	mil. Lbs	57,211	57,329	57,633	57,836	57,818	57,566
Class II	mil. Lbs	15,728	16,195	16,126	16,115	16,133	16,059
Class III	mil. Lbs	80,349	82,656	85,283	87,871	90,361	85,304
Class IV	mil. Lbs	18,200	17,484	16,208	15,504	15,434	16,566
Total U.S. Marketings	mil. Lbs	171,202	173,378	174,965	177,041	179,461	175,209
Import Ingredients	mil. Lbs	286	286	286	286	286	286
Total Supply	mil. Lbs	171,488	173,664	175,250	177,326	179,746	175,495
U.S. Marketings Fat							
Class I Fat	mil. Lbs	1,163	1,166	1,172	1,176	1,176	1,171
Class II Fat	mil. Lbs	1,438	1,381	1,377	1,377	1,379	1,390
Class III Fat	mil. Lbs	2,711	2,797	2,893	2,978	3,057	2,887
Class IV Fat	mil. Lbs	1,004	1,052	1,012	998	1,005	1,014
Total U.S. Fat	mil. Lbs	6,295	6,374	6,432	6,507	6,595	6,441
Import Ingredients Fat	mil. Lbs	22	22	22	22	22	22
Total Supply Fat	mil. Lbs	6,317	6,396	6,453	6,529	6,617	6,462
U.S. Marketings SNF							
Class I SNF	mil. Lbs	5,079	5,089	5,117	5,135	5,133	5,111
Class II SNF	mil. Lbs	1,295	1,342	1,337	1,336	1,337	1,329
Class III SNF	mil. Lbs	7,035	7,237	7,466	7,693	7,912	7,469
Class IV SNF	mil. Lbs	1,558	1,489	1,377	1,315	1,308	1,409
Total U.S. SNF	mil. Lbs	14,943	15,134	15,273	15,454	15,666	15,294
Import Ingredients SNF	mil. Lbs	24	24	24	24	24	24
Total Supply SNF	mil. Lbs	14,967	15,157	15,296	15,478	15,690	15,318
U.S. Marketings Skim							
Class I Skim	mil. Lbs	56,048	56,163	56,461	56,660	56,642	56,395
Class II Skim	mil. Lbs	14,290	14,813	14,749	14,738	14,755	14,669
Class III Skim	mil. Lbs	77,638	79,859	82,390	84,893	87,303	82,417
Class IV Skim	mil. Lbs	17,196	16,432	15,196	14,506	14,429	15,552
Total U.S. Skim	mil. Lbs	164,907	167,004	168,533	170,534	172,866	168,769
Import Ingredients Skim	mil. Lbs	264	264	264	264	264	264
Total Supply Skim	mil. Lbs	165,171	167,268	168,797	170,798	173,129	169,033
Product Prices							
Cheese Price	\$/lb.	1.2530	1.3117	1.3408	1.3418	1.3630	1.3221
Dry Whey Price	\$/lb.	0.1856	0.1931	0.2069	0.2125	0.2168	0.2030
Butter Price	\$/lb.	1.2267	1.3368	1.4219	1.5068	1.5670	1.4118
NDM Price	\$/lb.	0.9000	0.9000	0.9049	0.9230	0.9430	0.9142
U.S. Milk Prices at Test							
U.S. All-milk price	\$/cwt.	12.66	13.16	13.52	13.76	14.03	13.43
Cash Receipts							
United States	Mil. Dol.	21,673	22,816	23,654	24,354	25,180	23,535
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Table 1B: Baseline: Selected Supply-Demand-Price Estimates from the Model Baseline Based on the USDA Mid-Session Baseline, 2003-2007.

							5-year
	Units	2003	2004	2005	2006	2007	average
F.O. Marketings							
Class I	mil. Lbs	47,347	47,417	47,686	47,854	47,795	47,620
Class II	mil. Lbs	11,922	12,348	12,275	12,251	12,246	12,209
Class III	mil. Lbs	50,903	51,902	53,072	54,179	55,188	53,049
Class IV	mil. Lbs	10,087	9,041	7,669	6,761	6,223	7,956
Total F.O. Marketings	mil. Lbs	120,259	120,709	120,703	121,045	121,452	120,834
F.O. Marketings Fat							
Class I Fat	mil. Lbs	954	955	961	964	963	959
Class II Fat	mil. Lbs	944	978	972	970	970	967
Class III Fat	mil. Lbs	1,861	1,809	1,853	1,887	1,917	1,865
Class IV Fat	mil. Lbs	669	702	657	633	619	656
Total F.O. Fat	mil. Lbs	4,427	4,444	4,443	4,454	4,469	4,447
Total F.O. Fat	IIIII. LDS	4,421	4,444	4,443	4,454	4,409	4,447
F.O. Marketings SNF		4.000	4.000	4.000	4.040	4.040	4.007
Class I SNF	mil. Lbs	4,203	4,209	4,233	4,248	4,242	4,227
Class II SNF	mil. Lbs	995	1,031	1,025	1,023	1,022	1,019
Class III SNF	mil. Lbs	4,430	4,525	4,627	4,724	4,813	4,624
Class IV SNF	mil. Lbs	853	755	635	555	507	661
Total F.O. SNF	mil. Lbs	10,480	10,520	10,519	10,550	10,585	10,531
F.O. Marketings Skim							
Class I Skim	mil. Lbs	46,394	46,462	46,726	46,889	46,832	46,660
Class II Skim	mil. Lbs	10,978	11,371	11,303	11,281	11,276	11,242
Class III Skim	mil. Lbs	48,929	49,980	51,108	52,184	53,164	51,073
Class IV Skim	mil. Lbs	9,418	8,340	7,012	6,128	5,604	7,300
Total F.O. Skim	mil. Lbs	115,719	116,152	116,149	116,483	116,876	116,276
F.O. Fat Content by Class							
Class I	%	2.01%	2.01%	2.01%	2.01%	2.02%	2.01%
Class II	%	7.92%	7.92%	7.92%	7.92%	7.92%	7.92%
Class III	%	3.66%	3.49%	3.49%	3.48%	3.47%	3.52%
Class IV	%	6.63%	7.76%	8.57%	9.36%	9.94%	8.45%
Total	%	3.68%	3.68%	3.68%	3.68%	3.68%	3.68%
50 5 4V I							
F.O. Fat Value							
Class I	Mil. \$	1,293	1,423	1,531	1,636	1,705	1,518
Class II	Mil. \$	1,287	1,464	1,556	1,654	1,724	1,537
Class III	Mil. \$	2,523	2,695	2,953	3,203	3,395	2,954
Class IV	Mil. \$	907	1,045	1,048	1,074	1,095	1,034
Total	Mil. \$	6,009	6,628	7,087	7,567	7,920	7,042
F.O. Skim Value							
Class I	Mil. \$	3,173	3,178	3,217	3,304	3,385	3,251
Class II	Mil. \$	828	857	857	874	894	862
Class III	Mil. \$	3,234	3,375	3,444	3,325	3,368	3,349
Class IV	Mil. \$	644	570	483	432	405	507
Total	Mil. \$	7,879	7,981	8,000	7,935	8,051	7,969
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Table 1C: Baseline: Selected Supply-Demand-Price Estimates from the Model Baseline Based on the USDA Mid-session Baseline, 2003-2007.

	I						
	Units	2003	2004	2005	2006	2007	5-year average
F.O. Component Prices							
Protein Price	\$/lb.	2.0422	2.0740	2.0420	1.9129	1.8924	1.9927
Other Solids Price	\$/lb.	0.0471	0.0548	0.0691	0.0749	0.0793	0.0650
Nonfat Solids Price	\$/lb.	0.7600	0.7600	0.7649	0.7830	0.8030	0.7742
F.O. Class Butterfat Prices							
Class I Price 1/	\$/lb.	1.3557	1.4900	1.5937	1.6973	1.7708	1.5815
Class II Price	\$/lb.	1.3627	1.4970	1.6007	1.7043	1.7778	1.5885
Class III price	\$/lb.	1.3557	1.4900	1.5937	1.6973	1.7708	1.5815
Class IV price	\$/lb.	1.3557	1.4900	1.5937	1.6973	1.7708	1.5815
Fat Pool Price	\$/lb.	1.3630	1.4973	1.6011	1.7047	1.7781	1.5888
F.O. Class Skim Prices							
Class I Price 1/	\$/cwt.	6.84	6.84	6.88	7.05	7.23	6.97
Class II Price	\$/cwt.	7.54	7.54	7.58	7.75	7.93	7.67
Class III price	\$/cwt.	6.61	6.75	6.74	6.37	6.33	6.56
Class IV price	\$/cwt.	6.84	6.84	6.88	7.05	7.23	6.97
Skim Pool Price	\$/cwt.	7.89	7.95	7.97	7.90	7.97	7.93
Over-order Premiums							
Class I Over-order	\$/cwt	0.89	0.92	0.95	0.97	1.00	0.95
F.O. Milk Prices at 3.5% Fat							
Minimum Class I Price 2/	\$/cwt.	14.04	14.51	14.91	15.43	15.86	14.95
Minimum Class II Price	\$/cwt.	12.05	12.52	12.92	13.44	13.87	12.96
Minimum Class III price	\$/cwt.	11.12	11.73	12.08	12.09	12.31	11.87
Minimum Class IV price	\$/cwt.	11.35	11.82	12.22	12.74	13.17	12.26
Minimum Blend Price	\$/cwt.	12.38	12.91	13.30	13.59	13.91	13.22
Average Fluid Grade Price 3/	\$/cwt.	12.82	13.29	13.64	13.88	14.15	13.56
F.O. Milk Prices at Test							
Minimum Class I Price 2/	\$/cwt.	12.12	12.39	12.64	13.01	13.34	12.70
Minimum Class II Price	\$/cwt.	17.85	18.91	19.78	20.75	21.50	19.76
Minimum Class III price	\$/cwt.	11.47	12.11	12.49	12.53	12.78	12.27
Minimum Class IV price	\$/cwt.	15.17	16.20	17.84	19.57	20.87	17.93
Minimum Blend Price	\$/cwt.	12.67	13.22	13.63	13.95	14.29	13.55
Average Fluid Grade Price 3/	\$/cwt.	13.06	13.56	13.93	14.19	14.47	13.84
Cash Receipts							
Federal Order	Mil. Dol.	15,711	16,366	16,815	17,174	17,578	16,729
1/ Door not include a Class Ld							

<sup>1/</sup> Does not include a Class I differential.
2/ Weighted average Class I price for all eleven orders.

<sup>3/</sup> Average fluid grade price for the eleven regions that closely match the Federal Orders.

Table 2A: Final Decision: Changes in Selected United States Supply-Demand-Price Estimates from the Model Baseline Based on the USDA Baseline, 2003-2007.

		(	Change from	m Baseline	due to Fi	nal Decision	on	Baseline	
	Units	2003	2004	2005	2006	2007	5-year average	5-year average	Percentage change from baseline
U.S. Milk Production	mil. Lbs	30	56	59	98	122	73	176,367	0.041%
U.S. Marketings									
Class I	mil. Lbs	35	-83	-74	63	70	2	57,566	0.004%
Class II	mil. Lbs	24	52	52	45	52	45	16,059	0.281%
Class III	mil. Lbs	-17	-2	3	-8	-8	-6	85,304	-0.008%
Class IV	mil. Lbs	-12	88	78	-2	8	32	16,566	0.193%
Total U.S. Marketings	mil. Lbs	30	56	59	98	122	73	175,209	0.042%
U.S. Marketings Fat									
Class I Fat	mil. Lbs	1	-2	-1	1	1	0	1,171	0.004%
Class II Fat	mil. Lbs	2	4	4	3	4	3	1,390	0.238%
Class III Fat	mil. Lbs	-1	0	0	-1	-1	0	2,887	-0.017%
Class IV Fat	mil. Lbs	-1	0	0	0	0	Ö	1,014	-0.020%
Total U.S. Fat	mil. Lbs	1	2	2	4	4	3	6,441	0.041%
II S Marketings SNE									
U.S. Marketings SNF Class I SNF	mil. Lbs	3	-7	-7	6	6	0	5,111	0.004%
Class II SNF	mil. Lbs	2	4	4	4	4	4	1,329	0.285%
Class III SNF	mil. Lbs	-1	0	0	-1	-1	-1	7,469	-0.007%
Class IV SNF	mil. Lbs	-1 -1	8	7	0	1	3	1,409	0.207%
Total U.S. SNF	mil. Lbs	3	5	, 5	9	11	5 6	15,294	0.207%
10tal 0.0. 0141	IIII. LOS	3	3	3	3		0	10,204	0.04270
U.S. Marketings Skim									
Class I Skim	mil. Lbs	35	-81	-72	62	68	2	56,395	0.004%
Class II Skim	mil. Lbs	22	49	48	41	48	42	14,669	0.285%
Class III Skim	mil. Lbs	-16	-2	3	-8	-7	-6	82,417	-0.007%
Class IV Skim	mil. Lbs	-12	88	78	-2	8	32	15,552	0.207%
Total U.S. Skim	mil. Lbs	29	54	57	94	117	70	168,769	0.042%
Product Prices									
Cheese Price	\$/lb.	0.0029	0.0004	-0.0001	0.0017	0.0016	0.0013	1.3221	0.096%
Dry Whey Price	\$/lb.	0.0001	0.0000	0.0000	0.0001	0.0001	0.0000	0.2030	0.024%
Butter Price	\$/lb.	0.0107	-0.0027	0.0005	0.0067	0.0036	0.0038	1.4118	0.267%
NDM Price	\$/lb.	0.0000	0.0000	-0.0007	0.0000	0.0000	-0.0002	0.9142	-0.018%
U.S. Milk Prices at Test U.S. All-milk price	\$/cwt.	0.020	0.031	0.042	0.035	0.035	0.033	13.43	0.243%
Cash Receipts United States	Mil. Dol.	38.2	61.8	81.3	75.0	79.9	67.2	23,535.4	0.286%

Table 2B: Final Decision: Changes in Federal Order Marketings and Class Revenues from the Model Baseline Based on the USDA Baseline, 2003-2007.

		(	Change from	m Baseline	due to Fi	nal Decisio	on	Baseline	_
	Units	2003	2004	2005	2006	2007	5-year average	5-year average	Percentage change from baseline
F.O. Marketings									
Class I	mil. Lbs	37	-78	-69	61	66	3	47,620	0.007%
Class II	mil. Lbs	18	40	40	34	40	35	12,209	0.283%
Class III	mil. Lbs	-13	-4	-1	-9	-10	-7	53,049	-0.014%
Class IV	mil. Lbs	-30	88	86	-7	2	28	7,956	0.347%
Total F.O. Marketings	mil. Lbs	12	46	56	79	98	58	120,834	0.048%
F.O. Marketings Fat									
Class I Fat	mil. Lbs	1	-2	-1	1	1	0	959	0.007%
Class II Fat	mil. Lbs	1	3	3	3	3	3	967	0.283%
Class III Fat	mil. Lbs	0	0	0	0	0	0	1,865	-0.005%
Class IV Fat	mil. Lbs	-1	0	0	0	0	0	656	-0.039%
Total F.O. Fat	mil. Lbs	1	2	2	3	4	2	4,447	0.055%
F.O. Marketings SNF									
Class I SNF	mil. Lbs	3	-7	-6	5	6	0	4,227	0.007%
Class II SNF	mil. Lbs	2	3	3	3	3	3	1,019	0.283%
Class III SNF	mil. Lbs	-1	-1	0	-1	-1	-1	4,624	-0.019%
Class IV SNF	mil. Lbs	-3	8	8	-1	0	3	661	0.382%
Total F.O. SNF	mil. Lbs	1	4	5	7	8	5	10,531	0.046%
F.O. Marketings Skim									
Class I Skim	mil. Lbs	36	-77	-68	60	65	3	46,660	0.007%
Class II Skim	mil. Lbs	17	37	37	32	37	32	11,242	0.283%
Class III Skim	mil. Lbs	-15	-7	-4	-11	-11	-10	51,073	-0.019%
Class IV Skim	mil. Lbs	-29	87	86	-7	2	28	7,300	0.382%
Total F.O. Skim	mil. Lbs	9	41	51	74	92	53	116,276	0.046%
F.O. Fat Content by Class									
Class I	%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	2.015%	0.000%
Class II	%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	7.919%	0.000%
Class III	%	0.001%	0.001%	0.001%	0.000%	0.000%	0.000%	3.518%	0.009%
Class IV	%	0.008%		-0.090%		-0.007%	-0.032%	8.453%	-0.374%
Total	%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	3.681%	0.007%
F.O. Fat Value									
Class I	Mil. \$	-7.4	-28.1	-26.1	-16.4	-20.8	-19.8	1,517.8	-1.302%
Class II	Mil. \$	-6.3	-21.7	-19.2	-14.0	-17.8	-15.8	1,536.9	-1.029%
Class III	Mil. \$	-16.7	-48.6	-45.8	-36.6	-46.8	-38.9	2,953.8	-1.316%
Class IV	Mil. \$	-7.5	-18.6	-15.8	-12.8	-15.4	-14.0	1,033.9	-1.355%
Total	Mil. \$	-37.9	-117.0	-106.8	-79.7	-100.8	-88.5	7,042.3	-1.256%
F.O. Skim Value									
Class I	Mil. \$	-18.2	82.8	75.5	-29.1	-29.3	16.4	3,251.4	0.503%
Class II	Mil. \$	-6.2	-5.0	-5.8	-5.6	-5.3	-5.6	862.0	-0.647%
Class III	Mil. \$	90.3	138.1	162.4	202.9	234.8	165.7	3,349.0	4.948%
Class IV	Mil. \$	-8.4	0.2	0.6	-4.8	-3.9	-3.3	506.8	-0.646%
Total	Mil. \$	57.5	216.2	232.7	163.4	196.2	173.2	7,969.3	2.173%

Table 2C: Final Decision: Changes in Federal Order Prices and Cash Receipts from the Model Baseline Based on the USDA Baseline, 2003-2007.

Basellile Based on the OSDA B			Change fro	m Baseline	due to Fina	al Decisior	1	Baseline	
	Units	2003	2004	2005	2006	2007	5-year average	5-year average	Percentage change from baseline
F.O. Component Prices									
Protein Price	\$/lb.	0.0975	0.1270	0.1403	0.1634	0.1805	0.1417	1.9927	7.113%
Other Solids Price	\$/lb.	-0.0196	-0.0197	-0.0198	-0.0197	-0.0197	-0.0197	0.0650	-30.308%
Nonfat Solids Price	\$/lb.	-0.0076	-0.0076	-0.0084	-0.0079	-0.0081	-0.0079	0.7742	-1.021%
F.O. Class Butterfat Prices									
Class I Price 1/	\$/lb.	-0.0088	-0.0270	-0.0249	-0.0191	-0.0240	-0.0208	1.5815	-1.314%
Class II Price	\$/lb.	-0.0088	-0.0270	-0.0249	-0.0191	-0.0240	-0.0208	1.5885	-1.308%
Class III price	\$/lb.	-0.0088	-0.0270	-0.0249	-0.0191	-0.0240	-0.0208	1.5815	-1.314%
Class IV price	\$/lb.	-0.0088	-0.0270	-0.0249	-0.0191	-0.0240	-0.0208	1.5815	-1.314%
Fat Pool Price	\$/lb.	-0.0088	-0.0270	-0.0249	-0.0191	-0.0240	-0.0208	1.5888	-1.308%
F.O. Class Skim Prices									
Class I Price 1/	\$/cwt.	-0.044	0.190	0.172	-0.071	-0.073	0.035	6.968	0.499%
Class II Price	\$/cwt.	-0.068	-0.068	-0.075	-0.071	-0.073	-0.071	7.668	-0.928%
Class III price	\$/cwt.	0.187	0.277	0.318	0.390	0.443	0.323	6.561	4.925%
Class IV price	\$/cwt.	-0.068	-0.068	-0.075	-0.071	-0.073	-0.071	6.968	-1.021%
Skim Pool Price	\$/cwt.	0.050	0.181	0.195	0.137	0.163	0.145	7.933	1.831%
Over-order Premiums									
Class I Over-order	\$/cwt.	0.002	-0.002	-0.002	0.003	0.003	0.001	0.95	0.091%
F.O. Milk Prices at 3.5% Fat									
Minimum Class I Price 2/	\$/cwt.	-0.074	0.089	0.079	-0.135	-0.154	-0.039	14.95	-0.262%
Minimum Class II Price	\$/cwt.	-0.097	-0.161	-0.160	-0.135	-0.154	-0.141	12.96	-1.091%
Minimum Class III price	\$/cwt.	0.149	0.173	0.220	0.310	0.343	0.239	11.87	2.015%
Minimum Class IV price	\$/cwt.	-0.097	-0.161	-0.160	-0.135	-0.154	-0.141	12.26	-1.153%
Minimum Blend Price	\$/cwt.	0.017	0.080	0.101	0.065	0.073	0.067	13.22	0.510%
Average Fluid Grade Price 3/	\$/cwt.	0.010	0.046	0.057	0.031	0.034	0.036	13.56	0.262%
F.O. Milk Prices at Test									
Minimum Class I Price 2/	\$/cwt.	-0.061	0.132	0.118	-0.108	-0.120	-0.008	12.70	-0.061%
Minimum Class II Price	\$/cwt.	-0.134	-0.278	-0.268	-0.218	-0.258	-0.231	19.76	-1.170%
Minimum Class III price	\$/cwt.	0.147	0.165	0.212	0.305	0.338	0.233	12.27	1.900%
Minimum Class IV price	\$/cwt.	-0.111	-0.321	-0.362	-0.223	-0.290	-0.261	17.93	-1.456%
Minimum Blend Price	\$/cwt.	0.016	0.074	0.095	0.060	0.067	0.063	13.55	0.461%
Average Fluid Grade Price 3/	\$/cwt.	0.009	0.042	0.053	0.028	0.030	0.032	13.84	0.233%
Cash Receipts									
Federal Order	Mil. Dol.	11.8	56.4	71.4	45.1	51.1	47.2	16,728.8	0.282%
								1	]

<sup>1/</sup> Does not include a Class I differential.

<sup>2/</sup> Weighted average Class I price for all eleven orders.

<sup>3/</sup> Average fluid grade price for the eleven regions that closely match the Federal Orders.

Table 3: Regional Milk Production, Federal Marketings, and All-milk Prices Based on USDA Baseline, Mid-session Review June 2002

Mid-session Review June 20	002						
Regions	Units	2003	2004	2005	2006	2007	5-year average
Northeast Region							
Milk Production	mil. lbs.	29,792	29,939	29,963	30,111	30,338	30,029
FO Marketings	mil. lbs.	27,947	28,103	28,131	28,288	28,509	28,195
All-milk price	\$/cwt.	13.46	13.99	14.39	14.75	15.10	14.34
Appalachian Region							
Milk Production	mil. lbs.	6,290	6,149	5,972	5,815	5,668	5,979
FO Marketings	mil. lbs.	5,786	5,660	5,499	5,357	5,223	5,505
All-milk price	\$/cwt.	13.91	14.41	14.82	15.27	15.67	14.82
Southeast Region							
Milk Production	mil. lbs.	5,031	4,858	4,635	4,389	4,139	4,611
FO Marketings	mil. lbs.	4,700	4,546	4,342	4,118	3,888	4,319
All-milk price	\$/cwt.	13.24	13.80	14.17	14.42	14.73	14.07
Florida Region							
Milk Production	mil. lbs.	2,296	2,231	2,172	2,120	2,084	2,181
FO Marketings	mil. lbs.	2,278	2,215	2,157	2,107	2,072	2,166
All-milk price	\$/cwt.	15.41	15.91	16.35	16.90	17.35	16.39
Mideast Region							
Milk Production	mil. lbs.	13,452	13,407	13,285	13,188	13,082	13,283
FO Marketings	mil. lbs.	11,994	11,973	11,879	11,811	11,731	11,878
All-milk price	\$/cwt.	13.22	13.70	14.03	14.20	14.43	13.91
Upper Midwest Region							
Milk Production	mil. lbs.	33,408	32,818	32,049	31,401	30,767	32,089
FO Marketings	mil. lbs.	29,858	29,380	28,727	28,191	27,657	28,763
All-milk price	\$/cwt.	12.36	12.86	13.26	13.47	13.72	13.13
Central Region							
Milk Production	mil. lbs.	12,359	12,382	12,358	12,346	12,321	12,353
FO Marketings	mil. lbs.	10,685	10,722	10,714	10,720	10,712	10,710
All-milk price	\$/cwt.	12.61	13.10	13.45	13.63	13.87	13.33
Southwest Region							
Milk Production	mil. lbs.	11,956	12,433	12,892	13,377	13,856	12,903
FO Marketings	mil. lbs.	11,415	11,878	12,319	12,789	13,250	12,330
All-milk price	\$/cwt.	13.10	13.52	13.81	13.98	14.21	13.72
Arizona Region		0.470	0.000	0.407	0.504	0.704	0.450
Milk Production	mil. lbs.	3,172	3,290	3,427	3,594	3,784	3,453
FO Marketings	mil. lbs.	3,138	3,256	3,392	3,560	3,749	3,419
All-milk price	\$/cwt.	12.09	12.62	12.99	13.21	13.48	12.88
Western Region	mail libra	10.070	10 744	11 017	11 000	10 100	11 010
Milk Production	mil. lbs. mil. lbs.	10,272	10,744 5,416	11,317	11,893	12,486	11,343
FO Marketings All-milk price	mii. ibs. \$/cwt.	5,099 11.39	5,416 11.88	5,834 12.25	6,243 12.44	6,657 12.69	5,850 12.13
	+						
Pacific Northwest Region	., .,	7 70-	0.004	0.450	0.00=	0.4==	
Milk Production	mil. lbs.	7,797	8,004	8,159	8,307	8,455	8,144
FO Marketings	mil. lbs. \$/cwt.	7,173 13.15	7,368 13.62	7,512 13.94	7,654 14.13	7,792 14.38	7,500 13.84
All-milk price	φ/CWI.	13.15	13.02	13.94	14.13	14.30	13.04
,							L

Table 3: Regional Milk Production, Federal Marketings, and All-milk Prices Based on USDA Baseline, Mid-session Review June 2002

Regions	Units	2003	2004	2005	2006	2007	5-year average
Other West Region							
Milk Production	mil. lbs.	432	430	424	419	412	423
FO Marketings	mil. lbs.	33	33	32	32	31	32
All-milk price	\$/cwt.	13.18	13.64	13.88	13.90	14.07	13.73
Total Non-California							
Milk Production	mil. lbs.	136,256	136,685	136,653	136,962	137,394	136,790
FO Marketings	mil. lbs.	120,106	120,549	120,537	120,872	121,270	120,667
All-milk price	\$/cwt.	12.89	13.39	13.75	13.99	14.26	13.66
California							
Milk Production	mil. lbs.	36,054	37,730	39,330	41,028	42,999	39,428
FO Marketings	mil. lbs.	153	160	166	174	182	167
All-milk price	\$/cwt.	11.77	12.33	12.70	12.97	13.29	12.61
Hawaii-Alaska							
Milk Production	mil. lbs.	147	148	150	151	151	149
Willik Frederich	11		. 10	100		101	1 10
United States							
Milk Production	mil. lbs.	172,456	174,564	176,132	178,140	180,544	176,367
All-milk price	\$/cwt.	12.66	13.16	13.52	13.76	14.03	13.43

Table 4: Final Decision: Changes in Regional Milk Production, Federal Marketings, and All-milk Prices from the Model Baseline, Based on the USDA Baseline, Mid-session Review June 2002, 2003-2007

Regions	Units	2003	2004	2005	2006	2007	5-year average
Northeast Region							
Milk Production	mil. lbs.	1	3	6	8	7	5
FO Marketings	mil. lbs.	1	3	5	8	6	5
All-milk price	\$/cwt.	-0.010	0.047	0.063	0.015	0.018	0.026
Appalachian Region							
Milk Production	mil. lbs.	0	-1	-1	0	-2	-1
FO Marketings	mil. lbs.	0	-1	-1	0	-2	-1
All-milk price	\$/cwt.	-0.051	0.025	0.026	-0.082	-0.094	-0.035
Southeast Region							
Milk Production	mil. lbs.	0	1	1	2	1	1
FO Marketings	mil. lbs.	0	1	1	2	1	1
All-milk price	\$/cwt.	-0.007	0.030	0.031	-0.020	-0.025	0.002
Florida Region							
Milk Production	mil. lbs.	-2	-1	2	-1	-6	-2
FO Marketings	mil. lbs.	-2	-1	2	-1	-6	-2
All-milk price	\$/cwt.	-0.075	0.068	0.061	-0.134	-0.153	-0.047
Mideast Region							
Milk Production	mil. lbs.	2	7	7	10	14	8
FO Marketings	mil. lbs.	2	7	6	9	12	7
All-milk price	\$/cwt.	0.035	0.037	0.053	0.060	0.063	0.050
Upper Midwest Region							
Milk Production	mil. lbs.	0	13	8	9	14	9
FO Marketings	mil. lbs.	0	12	8	8	13	8
All-milk price	\$/cwt.	0.041	0.043	0.054	0.062	0.063	0.053
Central Region		_					
Milk Production	mil. lbs.	2	7	7	10	15	8
FO Marketings	mil. lbs.	2	6	6	9	13	7
All-milk price	\$/cwt.	0.037	0.039	0.048	0.059	0.059	0.048
Southwest Region							
Milk Production	mil. lbs.	1	4	8	14	17	9
FO Marketings	mil. lbs.	1 0.016	3 0.061	8	13 0.054	16 0.063	8
All-milk price	\$/cwt.	0.016	0.061	0.075	0.054	0.063	0.054
Arizona Region		_	_	_			
Milk Production	mil. lbs.	0	2	5	9	12	6
FO Marketings	mil. lbs.	0	2	5	9	12	6
All-milk price	\$/cwt.	0.010	0.059	0.093	0.097	0.122	0.076
Western Region		_	4.5	40	05	00	40
Milk Production	mil. lbs.	9	15	16	25	32	19
FO Marketings	mil. lbs. \$/cwt.	8	12	13 0.049	20	25	15
All-milk price	φ/CWt.	0.031	0.034	0.049	0.058	0.060	0.046
Pacific Northwest Region		_		_	_	_	_
Milk Production	mil. lbs.	0	1	2	5	8	3
FO Marketings	mil. lbs. \$/cwt.	0	1	2	4	8	3
All-milk price	φ/CWt.	-0.001	0.020	0.043	0.050	0.061	0.034

Table 4: Final Decision: Changes in Regional Milk Production, Federal Marketings, and All-milk Prices from the Model Baseline, Based on the USDA Baseline, Mid-session Review June 2002, 2003-2007

Regions	Units	2003	2004	2005	2006	2007	5-year average
Other West Region Milk Production FO Marketings All-milk price	mil. lbs.	0	0	0	0	0	0
	mil. lbs.	0	0	0	0	0	0
	\$/cwt.	0.022	0.003	-0.001	0.013	0.012	0.010
Total Non-California Milk Production FO Marketings All-milk price	mil. lbs.	13	51	63	89	110	65
	mil. lbs.	12	46	56	79	98	58
	\$/cwt.	0.015	0.042	0.055	0.038	0.041	0.038
California Milk Production FO Marketings All-milk price	mil. lbs.	17	5	-4	8	11	8
	mil. lbs.	0	0	0	0	0	0
	\$/cwt.	0.041	-0.006	-0.004	0.024	0.016	0.014
Hawaii-Alaska Milk Production	mil. lbs.	0	0	0	0	0	0
United States Milk Production All-milk price	mil. lbs. \$/cwt.	30 0.020	56 0.031	59 0.042	98 0.035	122 0.035	73 0.033

Table 5: Individual Order Marketings, Pool Values, and Prices Based on USDA Baseline, Mid-session Review June 2002, 2003-2007.

Mid-session Review June 2002, 200	03-2007.						1
Order		2003	2004	2005	2006	2007	5-year average
Northeast Order							
Class Uses							
Class I Use	Mil. Lbs.	10,882	10,852	10,868	10,880	10,840	10,864
Class II Use	Mil. Lbs.	4,142	4,290	4,264	4,256	4,254	4,241
Class III Use	Mil. Lbs.	7,931	8,120	8,394	8,655	8,938	8,408
Class IV Use	Mil. Lbs.	2,284	2,048	1,737	1,531	1,409	1,802
Total Pool	Mil. Lbs.	25,240	25,310	25,263	25,322	25,441	25,315
Pool Values							
Class I Value	Mil Dol	1,389	1,416	1,446	1,488	1,519	1,452
Class II Value	Mil Dol	701	768	797	834	864	793
Class III Value	Mil Dol	898	970	1,034	1,068	1,124	1,019
Class IV Value	Mil Dol	306	285	259	245	237	266
Total Pool Value	Mil Dol	3,294	3,439	3,536	3,636	3,743	3,529
Prices at Test							
Minimum Class I price	\$/cwt	12.77	13.05	13.31	13.68	14.01	13.36
Minimum Class II price	\$/cwt	16.92	17.90	18.69	19.60	20.30	18.68
Minimum Class III price	\$/cwt	11.32	11.95	12.31	12.34	12.57	12.10
Minimum Class IV price	\$/cwt	13.39	13.90	14.91	16.01	16.80	15.00
Minimum Uniform price	\$/cwt	13.05	13.59	14.00	14.36	14.71	13.94
Regional Fluid Grade Price	\$/cwt	13.46	13.99	14.39	14.75	15.10	14.34
Appalachian Order							
Class Uses	į l						İ
Class I Use	Mil. Lbs.	4,444	4,430	4,434	4,447	4,440	4,439
Class II Use	Mil. Lbs.	989	1,025	1,018	1,016	1,016	1,013
Class III Use	Mil. Lbs.	634	647	661	675	688	661
Class IV Use	Mil. Lbs.	759	680	577	509	468	599
Regional Fluid Grade Price	Mil. Lbs.	6,827	6,782	6,691	6,648	6,612	6,712
Pool Values							
Class I Value	Mil Dol	563	574	586	605	619	590
Class II Value	Mil Dol	177	194	202	211	219	201
Class III Value	Mil Dol	96	103	116	129	140	117
Class IV Value	Mil Dol	114	109	101	97	95	103
Total Pool Value	Mil Dol	951	981	1,005	1,043	1,072	1,010
Prices at Test							
Minimum Class I price	\$/cwt	12.68	12.96	13.22	13.60	13.94	13.28
Minimum Class II price	\$/cwt	17.93	18.97	19.82	20.78	21.53	19.81
	·						
Minimum Class III price	\$/cwt	15.06	15.99	17.49	19.12	20.30	17.59
Minimum Class IV price	\$/cwt	15.06	15.99	17.49	19.12	20.30	17.59
Minimum Uniform price	\$/cwt	13.65	14.17	14.61	15.12	15.54	14.62
Regional Fluid Grade Price	\$/cwt	13.90	14.40	14.82	15.28	15.67	14.81
Southeast Order							
Class Uses							
Class I Use	Mil. Lbs.	4,974	4,991	5,029	5,050	5,048	5,019
		,	•	,			
Class II Use	Mil. Lbs.	900	932	926	925	924	921
Class III Use	Mil. Lbs.	1,453	1,482	1,515	1,547	1,576	1,515
Class IV Use	Mil. Lbs.	669	599	508	448	413	527
Total Pool	Mil. Lbs.	7,996	8,004	7,979	7,970	7,960	7,982
Pool Values							
Class I Value	Mil Dol	636	653	672	694	711	673
Class II Value	Mil Dol	158	173	179	187	194	178
Class III Value	Mil Dol	176	190	201	206	215	198
Class IV Value	Mil Dol	113	110	105	103	101	106
Total Pool Value	Mil Dol	1,082	1,125	1,156	1,190	1,221	1,155
Prices at Test							
Minimum Class I price	\$/cwt	12.78	13.08	13.35	13.74	14.08	13.41
Minimum Class II price	\$/cwt	17.51	18.51	19.33	20.26	20.98	19.32
Minimum Class III price	\$/cwt	12.12	12.83	13.26	13.35	13.63	13.03
Minimum Class IV price	\$/cwt	16.87	18.33	20.58	22.89	24.58	20.65
Minimum Uniform price	\$/cwt	13.49	14.01	14.44	14.89	15.29	14.43
Regional Fluid Grade Price	\$/cwt	13.31	13.87	14.25	14.50	14.82	14.15

Table 5: Indivi dual Order Marketings, Pool Values, and Prices Based on USDA Baseline, Mid-session Review June 2002, 2003-2007.

Order		2003	2004	2005	2006	2007	5-year average
Florida Order							
Class Uses							
Class I Use	Mil. Lbs.	2,594	2,616	2,649	2,679	2,696	2,647
Class II Use	Mil. Lbs.	185	191	190	190	190	189
Class III Use	Mil. Lbs.	39	40	41	42	43	41
Class IV Use	Mil. Lbs.	62	56	47	42	38	49
Total Pool	Mil. Lbs.	2,881	2,903	2,928	2,952	2,967	2,926
Pool Values							
Class I Value	Mil Dol	356	367	378	393	405	380
Class II Value	Mil Dol	55	61	64	67	70	63
Class III Value	Mil Dol	7	7	8	8	9	8
Class IV Value	Mil Dol	20	20	21	22	23	21
Total Pool Value	Mil Dol	437	455	472	491	507	472
Prices at Test							
Minimum Class I price	\$/cwt	13.71	14.01	14.28	14.67	15.01	14.34
Minimum Class II price	\$/cwt	29.68	31.88	33.62	35.47	36.85	33.50
Minimum Class III price	\$/cwt	17.28	18.52	19.37	19.89	20.46	19.11
Minimum Class IV price	\$/cwt	32.50	36.38	45.06	54.07	60.96	45.79
Minimum Uniform price	\$/cwt	15.12	15.61	16.04	16.57	17.01	16.07
· ·							
Regional Fluid Grade Price	\$/cwt	15.41	15.91	16.35	16.90	17.35	16.39
Mideast Order							
Class Uses							
Class I Use	Mil. Lbs.	6,794	6,776	6,786	6,778	6,738	6,774
Class II Use	Mil. Lbs.	2,025	2,097	2,085	2,081	2,080	2,074
Class III Use	Mil. Lbs.	6,921	6,333	6,571	7,950	8,320	7,219
Class IV Use	Mil. Lbs.	793	711	603	532	490	626
Total Pool	Mil. Lbs.	16,534	15,918	16,046	17,340	17,628	16,693
Pool Values							
Class I Value	Mil Dol	766	782	799	822	839	802
Class II Value	Mil Dol	342	375	389	407	421	387
Class III Value	Mil Dol	780	753	805	974	1,038	870
Class IV Value	Mil Dol	176	174	171	175	176	174
Total Pool Value	Mil Dol	2,065	2,083	2,163	2,378	2,474	2,233
Prices at Test							
Minimum Class I price	\$/cwt	11.28	11.53	11.77	12.13	12.45	11.83
Minimum Class II price	\$/cwt	16.89	17.86	18.65	19.55	20.25	18.64
Minimum Class III price	\$/cwt	11.27	11.89	12.24	12.26	12.48	12.03
Minimum Class IV price	\$/cwt	22.23	24.41	28.33	32.89	35.96	28.76
Minimum Uniform price	\$/cwt	12.49	13.08	13.48	13.71	14.03	13.36
Regional Fluid Grade Price	\$/cwt	13.30	13.77	14.11	14.28	14.51	13.99
regional ridid Grade rifice	ψισνι	13.30	15.77	17.11	14.20	14.51	13.33
Upper Midwest Order							
Class Uses	Milita	4.000	4 100	4 100	4.400	4 404	4.440
Class I Use	Mil. Lbs.	4,096	4,103	4,126	4,133	4,121	4,116
Class II Use	Mil. Lbs.	668	692	688	686	686	684
Class III Use	Mil. Lbs.	14,767	15,355	14,735	12,661	11,975	13,899
Class IV Use	Mil. Lbs.	245	220	186	164	151	193
Total Pool	Mil. Lbs.	19,776	20,369	19,735	17,644	16,933	18,892
Pool Values							
Class I Value	Mil Dol	439	448	460	474	485	461
Class II Value	Mil Dol	152	168	176	185	192	175
Class II Value	Mil Dol	1,672	1,835	1,813	1,560		1,677
						1,503	
Class IV Value Total Pool Value	Mil Dol Mil Dol	94 2,357	98 2,549	100 2,549	99 2,318	100 2,280	98 2,411
B:							
Prices at Test							
Minimum Class I price	\$/cwt	10.71	10.93	11.14	11.47	11.76	11.20
Minimum Class II price	\$/cwt	22.74	24.32	25.58	26.95	27.97	25.51
Minimum Class III price	\$/cwt	11.32	11.95	12.31	12.32	12.55	12.09
Minimum Class IV price	\$/cwt	38.56	44.56	53.58	60.50	66.10	52.66
Minimum Uniform price	\$/cwt	11.93	12.52	12.92	13.15	13.47	12.80
Regional Fluid Grade Price	\$/cwt	12.43	12.93	13.34	13.55	13.80	13.21

Table 5: Individual Order Marketings, Pool Values, and Prices Based on USDA Baseline, Mid-session Review June 2002, 2003-2007.

Mid-session Review June 2002, 20	003-2007.						1
Order		2003	2004	2005	2006	2007	5-year average
Central Order							
Class Uses							
Class I Use	Mil. Lbs.	5,037	5,042	5,068	5,082	5,071	5,060
Class II Use	Mil. Lbs.	1,141	1,182	1,175	1,173	1,172	1,168
Class III Use	Mil. Lbs.	9,918	9,588	9,565	9,799	9,835	9,741
Class IV Use	Mil. Lbs.	561	503	426	376	346	442
Total Pool	Mil. Lbs.	16,657	16,315	16,235	16,429	16,424	16,412
Pool Values							
Class I Value	Mil Dol	563	576	591	610	624	593
Class II Value	Mil Dol	203	222	231	242	251	230
Class III Value	Mil Dol	1,133	1,156	1,188	1,219	1,247	1,188
Class IV Value	Mil Dol	128	128	127	128	129	128
Total Pool Value	Mil Dol	2,026	2,082	2,136	2,199	2,250	2,139
Prices at Test							
Minimum Class I price	\$/cwt	11.18	11.42	11.65	12.00	12.31	11.71
Minimum Class II price	\$/cwt	17.76	18.82	19.68	20.64	21.39	19.66
Minimum Class III price	\$/cwt	11.42	12.05	12.42	12.44	12.68	12.20
Minimum Class IV price	\$/cwt	22.85	25.45	29.67	33.98	37.15	29.82
Minimum Uniform price	\$/cwt	12.17	12.77	13.17	13.39	13.71	13.04
Regional Fluid Grade Price	\$/cwt	12.64	13.14	13.49	13.67	13.91	13.37
Southwest Order							
Class Uses	1						
Class I Use	Mil. Lbs.	4,219	4,254	4,308	4,352	4,376	4,302
Class II Use	Mil. Lbs.	787	815	810	809	808	806
Class III Use	Mil. Lbs.	4,002	4,320	4,641	4,955	5,267	4,637
Class IV Use	Mil. Lbs.	624	559	475	418	385	492
Total Pool	Mil. Lbs.	9,632	9,949	10,234	10,534	10,837	10,237
Pool Values							
Class I Value	Mil Dol	543	561	580	604	622	582
Class II Value	Mil Dol	145	160	166	174	180	165
Class III Value	Mil Dol	448	510	563	602	651	555
Class IV Value	Mil Dol	99	97	93	92	93	95
Total Pool Value	Mil Dol	1,235	1,327	1,403	1,471	1,546	1,396
Prices at Test							
Minimum Class I price	\$/cwt	12.87	13.18	13.47	13.87	14.22	13.52
Minimum Class II price	\$/cwt	18.44	19.57	20.49	21.52	22.30	20.47
Minimum Class III price	\$/cwt	11.19	11.80	12.14	12.14	12.36	11.92
Minimum Class IV price	\$/cwt	15.91	17.31	19.58	22.05	24.07	19.78
Minimum Uniform price	\$/cwt	12.83	13.34	13.71	13.97	14.27	13.63
Regional Fluid Grade Price	\$/cwt	13.10	13.52	13.81	13.98	14.21	13.72
Arizona-Las Vegas Order Class Uses							
Class I Use	Mil. Lbs.	1,010	1,024	1,043	1,049	1,051	1.036
Class I Use	Mil. Lbs.	1,010	152	152	151	151	151
Class III Use	Mil. Lbs.	1,331	1,511	1,734	1,966	2,197	1,748
Class IV Use	Mil. Lbs.	739	662	562	495	456	583
Total Pool	Mil. Lbs.	3,228	3,350	3,490	3,662	3,856	3,517
Pool Values							
Class I Value	Mil Dol	119	123	128	132	136	128
Class II Value	Mil Dol	29	31	33	34	35	32
Class III Value	Mil Dol	180	214	251	283	318	249
Class IV Value	Mil Dol	67	58	46	38	35	49
Total Pool Value	Mil Dol	394	426	457	488	524	458
Prices at Test							
Minimum Class I price	\$/cwt	11.74	12.00	12.25	12.62	12.94	12.31
Minimum Class II price	\$/cwt	19.37	20.55	21.51	22.58	23.40	21.48
Minimum Class III price	\$/cwt	13.51	14.16	14.45	14.38	14.45	14.19
Minimum Class IV price	\$/cwt	9.04	8.76	8.17	7.72	7.60	8.26
Minimum Uniform price	\$/cwt	12.18	12.70	13.07	13.29	13.56	12.96
Regional Fluid Grade Price	\$/cwt	12.09	12.62	12.99	13.21	13.48	12.88
			-				

Table 5: Individual Order Marketings, Pool Values, and Prices Based on USDA Baseline, Mid-session Review June 2002, 2003-2007.

Mid-session Review June 2002, 2003	3-2007.						
Order		2003	2004	2005	2006	2007	5-year average
Western Order							
Class Uses							
Class I Use	Mil. Lbs.	4.000	4 4 4 4	4.404	4.420	4.440	4.404
		1,096	1,111	1,131	1,139	1,142	1,124
Class II Use	Mil. Lbs.	471	487	485	484	483	482
Class III Use	Mil. Lbs.	1,494	1,644	1,850	2,179	2,300	1,894
Class IV Use	Mil. Lbs.	802	719	610	538	495	633
Total Pool	Mil. Lbs.	3,863	3,962	4,076	4,340	4,420	4,132
Pool Values							
Class I Value	Mil Dol	122	126	131	136	140	131
Class II Value	Mil Dol	76	83	86	90	93	85
Class III Value	Mil Dol	171	199	231	272	292	233
Class IV Value	Mil Dol	99	93	83	78	75	85
Total Pool Value	Mil Dol	468	501	531	576	600	535
Prices at Test							
Minimum Class I price	\$/cwt	11.13	11.38	11.62	11.97	12.29	11.68
Minimum Class II price	\$/cwt	16.09	16.97	17.70	18.53	19.18	17.69
Minimum Class III price	\$/cwt	11.47	12.10	12.47	12.48	12.72	12.25
Minimum Class IV price	\$/cwt	12.33	12.92	13.65	14.43	15.06	13.68
Minimum Uniform price	\$/cwt	12.12	12.65	13.03	13.26	13.57	12.93
Regional Fluid Grade Price	\$/cwt	11.39	11.88	12.25	12.44	12.69	12.13
Pacific Northwest Order							
Class Uses							
	AAS I I I -	0.400	0.040	0.044	0.004	0.070	0.000
Class I Use	Mil. Lbs.	2,198	2,216	2,244	2,264	2,273	2,239
Class II Use	Mil. Lbs.	468	485	482	481	481	479
Class III Use	Mil. Lbs.	2,411	2,862	3,364	3,750	4,050	3,287
Class IV Use	Mil. Lbs.	2,548	2,284	1,937	1,708	1,572	2,010
Total Pool	Mil. Lbs.	7,626	7,847	8,027	8,202	8,376	8,016
Pool Values							
Class I Value	Mil Dol	243	250	258	268	277	259
Class II Value	Mil Dol	92	101	105	111	115	105
Class III Value	Mil Dol	277	347	420	468	515	405
	l I						
Class IV Value	Mil Dol	313	294	263	245	236	270
Total Pool Value	Mil Dol	924	992	1,046	1,093	1,142	1,040
Prices at Test							
Minimum Class I price	\$/cwt	11.04	11.28	11.51	11.86	12.17	11.57
Minimum Class II price	\$/cwt	19.61	20.87	21.87	22.99	23.84	21.84
Minimum Class III price	\$/cwt	11.48	12.11	12.47	12.49	12.72	12.26
Minimum Class IV price	\$/cwt	12.29	12.89	13.58	14.37	15.01	13.63
Minimum Uniform price	\$/cwt	12.12	12.65	13.04	13.32	13.64	12.95
Regional Fluid Grade Price	\$/cwt	13.15	13.62	13.94	14.13	14.38	13.84
Total Federal Order Class Uses							
Class I Use	Mil. Lbs.	47,347	47,417	47,686	47,854	47,795	47,620
Class II Use	Mil. Lbs.	11,922	12,348	12,275	12,251	12,246	12,209
Class III Use	Mil. Lbs.	50.903		53,072	54,179	55,188	53,049
		,	51,902				
Class IV Use	Mil. Lbs.	10,087	9,041	7,669	6,761	6,223	7,956
Total Pool	Mil. Lbs.	120,259	120,709	120,703	121,045	121,452	120,834
Pool Values							
Class I Value	Mil Dol	5,739	5,876	6,029	6,227	6,376	6,049
Class II Value	Mil Dol	2,128	2,336	2,428	2,542	2,633	2,413
Class III Value	Mil Dol	5,837	6,284	6,628	6,790	7,051	6,518
Class IV Value	Mil Dol	1,530	1,465	1,368	1,323	1,299	1,397
Total Pool Value	Mil Dol	15,234	15,960	16,454	16,883	17,358	16,378
Prices at Test							
Minimum Class I price	\$/cwt	12.12	12.39	12.64	13.01	13.34	12.70
	· ·						12.70
Minimum Class II price	\$/cwt	17.85	18.91	19.78	20.75	21.50	19.76
Minimum Class III price	\$/cwt	11.47	12.11	12.49	12.53	12.78	12.27
•	\$/cwt	15.17	16.20	17.84	19.57	20.87	17.93
Minimum Class IV price	Φ/CWI						
Minimum Class IV price Minimum Uniform price	\$/cwt	12.67	13.22	13.63	13.95	14.29	13.55

Table 6: Final Decision: Changes in Individual Order Marketings, Pool Values, and Prices from the Model Baseline Based on USDA Baseline, Mid-session Review June 2002, 2003-2007

Order	Units	2003	2004	2005	2006	2007	5-year average
Northeast Order							
Class Uses							
Class I Use	Mil. Lbs.	8	-17	-15	14	15	1
Class II Use	Mil. Lbs.	6	14	14	12	14	12
Class III Use	Mil. Lbs.	-9	-15	-14	-21	-29	-18
Class IV Use	Mil. Lbs.	-7	20	20	-2	0	6
		- <i>1</i> -1		20 4		0	2
Total Pool	Mil. Lbs.	-1	2	4	3	U	2
Pool Values Class I Value	Mil Dol	-6	12	11	-10	-11	-1
Class II Value	Mil Dol	-4	-9	-8	-6	-8	-7
Class III Value	Mil Dol	11	12	16	24	27	18
Class IV Value	Mil Dol	-3	-3	-2	-3	-3	-3
Total Pool Value	Mil Dol	-3	12	17	4	5	7
Prices at Test							
Minimum Class I price	\$/cwt	-0.062	0.130	0.117	-0.109	-0.121	-0.009
Minimum Class II price	\$/cwt	-0.128	-0.260	-0.251	-0.205	-0.242	-0.217
Minimum Class III price	\$/cwt	0.148	0.168	0.215	0.306	0.339	0.235
Minimum Class IV price	\$/cwt	-0.110	-0.268	-0.292	-0.192	-0.237	-0.220
Minimum Uniform price	\$/cwt	-0.010	0.047	0.063	0.015	0.018	0.027
Regional Fluid Grade Price	\$/cwt	-0.010	0.047	0.063	0.015	0.018	0.027
Appalachian Order							
Class Uses							
Class I Use	Mil. Lbs.	3	-7	-6	5	6	0
		2	3	3			
Class II Use	Mil. Lbs.				3	3	3
Class III Use	Mil. Lbs.	0	0	0	0	0	0
Class IV Use	Mil. Lbs.	-2	7	6	-1	0	2
Regional Fluid Grade Price	Mil. Lbs.	2	3	4	8	9	5
Pool Values							
Class I Value	Mil Dol	-2	5	4	-4	-5	0
Class II Value	Mil Dol	-1	-2	-2	-2	-2	-2
Class III Value	Mil Dol	-1	-2	-2	-1	-2	-2
Class IV Value	Mil Dol	-1	-1	-1	-1	-1	-1
Total Pool Value	Mil Dol	-5	-1	-1	-8	-10	-5
Prices at Test							
Minimum Class I price	\$/cwt	-0.062	0.128	0.115	-0.110	-0.122	-0.010
Minimum Class II price	\$/cwt	-0.135	-0.276	-0.267	-0.217	-0.257	-0.231
					-0.217		
Minimum Class III price	\$/cwt	-0.112	-0.323	-0.356		-0.270	-0.254
Minimum Class IV price	\$/cwt	-0.112	-0.323	-0.356	-0.212	-0.270	-0.254
Minimum Uniform price	\$/cwt	-0.059	0.028	0.030	-0.093	-0.107	-0.040
Regional Fluid Grade Price	\$/cwt	-0.052	0.025	0.027	-0.083	-0.095	-0.036
Southeast Order							
Class Uses	NACE 1.	,	_	•	•	_	
Class I Use	Mil. Lbs.	4	-7	-6	6	7	1
Class II Use	Mil. Lbs.	1	3	3	3	3	3
Class III Use	Mil. Lbs.	0	0	0	0	0	0
Class IV Use	Mil. Lbs.	-2	6	6	0	0	2
Total Pool	Mil. Lbs.	3	2	2	8	9	5
Pool Values							
Class I Value	Mil Dol	-3	5	5	-5	-5	-1
Class II Value	Mil Dol	-1	-2	-2	-1	-2	-2
Class III Value	Mil Dol	2	2	3	4	5	3
Class IV Value	Mil Dol	-1	-1	-1	-1	-1	-1
Total Pool Value	Mil Dol	-3	4	5	-3	-3	0
Prices at Test							
Minimum Class I price	\$/cwt	-0.063	0.126	0.113	-0.112	-0.124	-0.012
Minimum Class II price	\$/cwt	-0.132	-0.268	-0.259	-0.112	-0.124	-0.224
Minimum Class III price	\$/cwt	0.141	0.150	0.198	0.292	0.321	0.221
Minimum Class IV price	\$/cwt	-0.115	-0.391	-0.442	-0.243	-0.321	-0.302
Minimum Uniform price	\$/cwt	-0.038	0.051	0.058	-0.052	-0.059	-0.008
Regional Fluid Grade Price	\$/cwt	-0.008	0.031	0.032	-0.021	-0.026	0.001
Regional Fluid Grade Flice			0.001	0.032		-0.020	

Table 6: Final Decision: Changes in Individual Order Marketings, Pool Values, and Prices from the Model Baseline

Based on USDA Baseline, Mid-session Review June 2002, 2003-2007 Units 2003 2004 2005 2006 2007 5-year average Florida Order Class Uses Class I Use Mil. Lbs. 2 -3 3 3 0 -3 Class II Use Mil. Lbs. 0 1 1 1 Class III Use Mil. Lbs. 0 0 0 0 0 0 Class IV Use 0 0 0 0 Total Pool Mil. Lbs. 2 -2 -2 3 Pool Values Class I Value Mil Dol -1 3 3 -3 -3 0 Class II Value Mil Dol n -1 -1 -1 -1 -1 Mil Dol Class III Value 0 0 0 0 0 0 Class IV Value Mil Dol 0 0 0 0 0 0 Total Pool Value Mil Dol Prices at Test Minimum Class I price \$/cwt -0.382 Minimum Class II price \$/cwt -0.211 -0.509 -0.482 -0.465 -0.410 0.031 Minimum Class III price \$/cwt 0.099 0.086 0.200 0.207 0.124 -0.990 Minimum Class IV price \$/cwt -0 197 -1.151 -1.409 -0.678 -0.885 Minimum Uniform price 0.060 \$/cwt -0.073 0.067 -0 131 -0.150 -0.046 Regional Fluid Grade Price -0.075 -0.153 -0.047 0.068 0.061 -0.134 \$/cwt Mideast Order Class Uses Class I Use Mil. Lbs. 6 -12 -11 9 10 0 Class II Use Mil. Lbs. 3 6 6 Class III Use Mil I bs -723 -502 -888 -1,198 -1.204 -903 Class IV Use Mil I bs -2 7 -1 n 2 Total Pool Mil. Lbs. -716 -500 -885 -1,184 -1,187 -895 Pool Values Class I Value Mil Dol -3 7 -6 -7 0 8 Class II Value Mil Dol -2 -4 -3 -3 Class III Value Mil Dol -72 -49 -96 -126 -125 -94 Class IV Value Mil Dol -5 -3 -5 -5 -6 Total Pool Value Mil Dol -81 -50 -98 -140 -142 -102 Prices at Test Minimum Class I price \$/cwt -0.060 0.135 0.121 -0.106 -0.117 -0.005 -0 127 -0 259 -0.250 -0 204 -0 241 -0.217 Minimum Class II price \$/cwt 0.152 0.314 0.348 0.242 Minimum Class III price 0.176 0.223 \$/cwt Minimum Class IV price \$/cwt -0.335 -0.764 -1.065 -0.969 -1.191 -0.865 Minimum Uniform price \$/cwt 0.055 0.102 0.143 0.137 0.152 0.118 Regional Fluid Grade Price 0.036 0.038 0.054 0.061 0.064 0.051 \$/cwt Upper Midwest Order Class Uses -7 Mil I hs 3 -8 6 6 0 Class I Use Class II Use Mil I bs 2 2 2 2 2 1,145 1,086 1,170 Class III Use Mil I hs 830 1.460 1.328 Class IV Use Mil. Lbs. 2 2 0 0 Total Pool 1,172 Mil. Lbs. 1,149 826 1,083 1,468 1,336 Pool Values Class I Value Mil Dol -2 5 4 -4 0 Class II Value Mil Dol -1 -2 -2 -1 -2 -2 Class III Value Mil Dol 154 127 169 224 213 177 Class IV Value Mil Dol -1 n 2 Total Pool Value Mil Dol 152 130 171 221 208 176 Prices at Test
Minimum Class I price -0.058 0.143 0.129 -0.101 -0.110 0.001 \$/cwt Minimum Class II price \$/cwt -0.164 -0.379 -0.360 -0.288 -0.348 -0.308 Minimum Class III price \$/cwt 0.151 0.174 0.221 0.312 0.346 0.241 Minimum Class IV price \$/cwt 0.528 -0.665 -0.488 1.063 0.819 0.251 Minimum Uniform price \$/cwt 0.070 0.124 0.152 0.146 0.156 0.129 Regional Fluid Grade Price \$/cwt 0.042 0.046 0.057 0.065 0.066 0.055

Table 6: Final Decision: Changes in Individual Order Marketings, Pool Values, and Prices from the Model Baseline

Based on USDA Baseline, Mid-session Review June 2002, 2003-2007 Units 2003 2004 2005 2006 2007 5-year average Central Order Class Uses Class I Use Mil. Lbs. 4 -10 -8 7 7 0 Class II Use 2 3 Mil. Lbs. 4 4 4 3 Class III Use Mil. Lbs. -219 44 205 -42 75 13 Class IV Use 0 Mil. Lbs. 5 5 0 Total Pool Mil. Lbs. -215 43 205 -33 87 18 Pool Values Class I Value Mil Dol -3 6 5 -4 -5 0 Class II Value Mil Dol -1 -3 -2 -2 -2 -2 47 25 Class III Value Mil Dol -10 22 25 44 -2 Class IV Value Mil Dol -2 -2 -1 -2 -1 Total Pool Value Mil Dol -15 17 22 Prices at Test Minimum Class I price \$/cwt -0.060 0.137 0.124 -0.104 -0.115 -0.004 Minimum Class II price \$/cwt -0.133 -0.277 -0.267 -0.217 -0.257 -0.230 0.345 0.240 Minimum Class III price \$/cwt 0.151 0.173 0.220 0.312 Minimum Class IV price \$/cwt -0.150 -0.628 -0 714 -0.362 -0.489 -0.469 Minimum Uniform price \$/cwt 0.057 0.109 0.129 0.132 0 140 0.113 Regional Fluid Grade Price 0.049 0.060 0.049 0.038 0.040 0.060 \$/cwt Southwest Order Class Uses Class I Use Mil. Lbs. 3 -6 -5 6 6 Class II Use Mil. Lbs. 3 3 2 3 2 Class III Use Mil I bs -5 2 7 0 -3 0 Class IV Use Mil I bs -2 5 5 0 n 2 Total Pool Mil. Lbs. -2 4 10 7 6 5 Pool Values Class I Value Mil Dol -2 -1 -5 Class II Value Mil Dol -1 -2 -2 -1 -2 -1 Class III Value Mil Dol 6 8 11 16 18 12 Class IV Value Mil Dol -1 -1 -1 -1 Total Pool Value Mil Dol 10 13 9 11 9 Prices at Test Minimum Class I price \$/cwt -0.064 0.122 0.109 -0.114 -0.127 -0.015 -0 291 -0.280 -0 227 -0 270 -0 241 Minimum Class II price \$/cwt -0 137 0.354 0.248 Minimum Class III price \$/cwt 0.156 0.181 0.229 0.320 Minimum Class IV price \$/cwt -0.118 -0.361 -0.412 -0.246 -0.330 -0.294 Minimum Uniform price \$/cwt 0.019 0.090 0.112 0.077 0.091 0.078 Regional Fluid Grade Price 0.016 0.061 0.054 0.063 0.054 \$/cwt 0.075 Arizona-Las Vegas Order Class Uses 2 Mil I hs -2 -2 0 Class I Use Class II Use Mil I hs 0 0 0 0 0 0 Class III Use 7 Mil I bs 1 -3 n 10 3 Class IV Use Mil. Lbs. -2 6 6 -1 0 2 Total Pool Mil. Lbs. 0 2 5 9 12 6 Pool Values Class I Value Mil Dol -1 -1 0 -1 Class II Value Mil Dol 0 0 0 0 0 0 Class III Value Mil Dol 2 3 7 8 4 Mil Dol 0 Class IV Value -1 n n -1 -1 Total Pool Value Mil Dol 0 2 4 5 6 4 Prices at Test
Minimum Class I price -0.061 -0.107 -0.119 -0.007 \$/cwt 0.133 0.119 Minimum Class II price \$/cwt -0.144 -0.305 -0.293 -0.237 -0.282 -0.252 Minimum Class III price \$/cwt 0.130 0.122 0.176 0.277 0.308 0.203 Minimum Class IV price \$/cwt -0.094 -0.075 -0.064 -0.113 -0.116 -0.092 Minimum Uniform price \$/cwt 0.010 0.059 0.093 0.097 0.122 0.076 Regional Fluid Grade Price \$/cwt 0.010 0.059 0.093 0.097 0.122 0.076

Table 6: Final Decision: Changes in Individual Order Marketings, Pool Values, and Prices from the Model Baseline Based on USDA Baseline, Mid-session Review June 2002, 2003-2007

Order	Units	2003	2004	2005	2006	2007	5-year average
Western Order							
Class Uses							
Class I Use	Mil. Lbs.	1	-2	-2	2	2	0
Class II Use	Mil. Lbs.	1	2	2	1	2	1
Class III Use	Mil. Lbs.	-210	-342	-381	-218	-191	-268
Class IV Use	Mil. Lbs.	-2	7	7	-1	0	2
Total Pool	Mil. Lbs.	-210	-335	-374	-216	-187	-265
Pool Values							
Class I Value	Mil Dol	-1	1	1	-1	-1	0
Class II Value	Mil Dol	0	-1	-1	-1	-1	-1
Class III Value	Mil Dol	-22	-39	-44	-21	-17	-29
Class IV Value	Mil Dol	-1	0	0	-1	-1	-1
Total Pool Value	Mil Dol	-24	-39	-44	-23	-20	-30
Prices at Test	<b>(</b> */	0.000	0.400	0.400	0.405	0.440	0.005
Minimum Class I price	\$/cwt	-0.060	0.136	0.122	-0.105	-0.116	-0.005
Minimum Class II price	\$/cwt	-0.123	-0.242	-0.235	-0.193	-0.227	-0.204
Minimum Class III price	\$/cwt	0.154	0.176	0.224	0.317	0.350	0.244
Minimum Class IV price	\$/cwt	-0.086	-0.174	-0.170	-0.125	-0.154	-0.142
Minimum Uniform price	\$/cwt	0.037	0.092	0.129	0.125	0.140	0.104
Regional Fluid Grade Price	\$/cwt	0.031	0.034	0.049	0.058	0.060	0.046
Pacific Northwest Order							
Class Uses		_			_	_	
Class I Use	Mil. Lbs.	2	-4	-4	3	3	0
Class II Use	Mil. Lbs.	1	2	2	1	2	1
Class III Use	Mil. Lbs.	6	-18	-17	3	4	-4
Class IV Use	Mil. Lbs.	-8	22	22	-2	0	7
Total Pool	Mil. Lbs.	1	2	3	6	10	4
Pool Values	A COLO	,	•	•			
Class I Value	Mil Dol	-1	3	2	-2	-2	0
Class II Value	Mil Dol	-1	-1	-1	-1	-1	-1
Class III Value	Mil Dol	4	3	5	12	15	8
Class IV Value	Mil Dol	-4	-2	-1	-3	-3	-2
Total Pool Value	Mil Dol	-1	3	6	7	9	5
Prices at Test							
Minimum Class I price	\$/cwt	-0.059	0.138	0.124	-0.104	-0.114	-0.003
Minimum Class II price	\$/cwt	-0.145	-0.315	-0.301	-0.243	-0.291	-0.259
Minimum Class III price	\$/cwt	0.154	0.176	0.224	0.317	0.350	0.244
Minimum Class IV price	\$/cwt	-0.101	-0.198	-0.205	-0.154	-0.183	-0.168
Minimum Uniform price	\$/cwt	-0.011	0.029	0.065	0.070	0.088	0.048
Regional Fluid Grade Price	\$/cwt	-0.001	0.020	0.043	0.050	0.061	0.034
Total Federal Order Class Uses							
Class I Use	Mil. Lbs.	37	-78	-69	61	66	3
Class II Use	Mil. Lbs.	18	-78 40	-69 40	34	40	35
Class II Use	Mil. Lbs.	-13	-4	-1	-9	-10	-7
Class IV Use	Mil. Lbs.	-30	88	86	-9 -7	2	28
Total Pool	Mil. Lbs.	12	46	56	79	98	58
Pool Values							
Class I Value	Mil Dol	-25	53	48	-44	-48	-3
Class I Value	Mil Dol	-13	-27	-25	-20	-23	-21
Class III Value	Mil Dol	73	85	112	164	185	124
Class IV Value	Mil Dol	-16	-15	-13	-16	-18	-16
Total Pool Value	Mil Dol	20	96	122	84	96	84
Prices at Test							
Minimum Class I price	\$/cwt	-0.061	0.132	0.118	-0.108	-0.120	-0.008
Minimum Class II price	\$/cwt	-0.134	-0.278	-0.268	-0.218	-0.258	-0.231
Minimum Class III price	\$/cwt	0.147	0.165	0.212	0.305	0.338	0.233
Minimum Class IV price	\$/cwt	-0.111	-0.321	-0.362	-0.223	-0.290	-0.261
Minimum Uniform price	\$/cwt	0.016	0.074	0.095	0.060	0.067	0.063
Average Fluid Grade Price	\$/cwt	0.009	0.042	0.053	0.028	0.030	0.032
	1						1

Table 7: Changes in Individual Order's Minimum Uniform Prices at test from the Model Baseline Based on USDA Baseline, Mid-session Review June 2002, 2003-2007

		Change from Baseline due to Final Decision							
Order	Units	2003	2004	2005	2006	2007	5-year average	5-year average	Percentage change from baseline
Northeast Appalachian Southeast Florida Mideast Upper Midwest Central Southwest Arizona-Las Vegas Western Pacific Northwest	\$/cwt \$/cwt \$/cwt \$/cwt \$/cwt \$/cwt \$/cwt \$/cwt \$/cwt	-0.010 -0.059 -0.038 -0.073 0.055 0.070 0.057 0.019 0.010 0.037 -0.011	0.047 0.028 0.051 0.067 0.102 0.124 0.109 0.090 0.059 0.092	0.063 0.030 0.058 0.060 0.143 0.152 0.129 0.112 0.093 0.129 0.065	0.015 -0.093 -0.052 -0.131 0.137 0.146 0.132 0.077 0.097 0.125 0.070	0.018 -0.107 -0.059 -0.150 0.152 0.156 0.140 0.091 0.122 0.140 0.088	0.027 -0.040 -0.008 -0.046 0.118 0.129 0.113 0.078 0.076 0.104 0.048	13.94 14.62 14.43 16.07 13.36 12.80 13.04 13.63 12.96 12.93 12.95	0.19% -0.28% -0.06% -0.28% 0.88% 1.01% 0.87% 0.57% 0.59% 0.81% 0.37%
All Federal Orders	\$/cwt	0.016	0.074	0.095	0.060	0.067	0.063	13.55	0.46%

Table 8: Changes in Individual Region's Fluid Grade Price at test from the Model Baseline Based on USDA Baseline, Mid-session Review June 2002, 2003-2007

		Change from Baseline due to Final Decision							
Region	Units	2003	2004	2005	2006	2007	5-year average	5-year average	Percentage change from baseline
Northeast	\$/cwt	-0.010	0.047	0.063	0.015	0.018	0.027	14.34	0.19%
Appalachian	\$/cwt	-0.052	0.025	0.027	-0.083	-0.095	-0.036	14.81	-0.24%
Southeast	\$/cwt	-0.008	0.031	0.032	-0.021	-0.026	0.001	14.15	0.01%
Florida	\$/cwt	-0.075	0.068	0.061	-0.134	-0.153	-0.047	16.39	-0.28%
Mideast	\$/cwt	0.036	0.038	0.054	0.061	0.064	0.051	13.99	0.36%
Upper Midwest	\$/cwt	0.042	0.046	0.057	0.065	0.066	0.055	13.21	0.42%
Central	\$/cwt	0.038	0.040	0.049	0.060	0.060	0.049	13.37	0.37%
Southwest	\$/cwt	0.016	0.061	0.075	0.054	0.063	0.054	13.72	0.39%
Arizona-Las Vegas	\$/cwt	0.010	0.059	0.093	0.097	0.122	0.076	12.88	0.59%
Western	\$/cwt	0.031	0.034	0.049	0.058	0.060	0.046	12.13	0.38%
Pacific Northwest	\$/cwt	-0.001	0.020	0.043	0.050	0.061	0.034	13.84	0.25%
All Federal Orders	\$/cwt	0.009	0.042	0.053	0.028	0.030	0.032	13.84	0.23%

Table 9: Final Decision: Changes in the Milk Income Loss Contract Program from the Model Baseline Based on USDA Baseline Mirksession Review June 2002 2003-2007

Regions	Units	2002	2003	2004	2005	Total
Northeast						
Weighted Average Payment	\$/cwt	0.00	0.02	-0.03	-0.02	-0.01
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	7.0	-8.2	-6.1	-7.3
Appalachian	0, ,			0.00	0.00	0.04
Weighted Average Payment	\$/cwt	0.00	0.03	-0.03	-0.02	-0.01
Eligible Production Total Payment	Mil. Lbs. Mil. \$	0.0 0.0	0.0 1.7	0.0 -2.0	0.0 -1.5	0.0 -1.8
Southeast						
Weighted Average Payment	\$/cwt	0.00	0.02	-0.03	-0.02	-0.01
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	1.2	-1.4	-1.0	-1.2
Florida						
Weighted Average Payment	\$/cwt	0.00	0.01	-0.01	-0.01	0.00
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	0.1	-0.2	-0.1	-0.1
Mideast Weighted Average Payment	\$/cwt	0.00	0.02	-0.03	-0.02	-0.01
Weighted Average Payment Eligible Production	%/cwt Mil. Lbs.	0.00	0.02	-0.03 0.0	-0.02 0.0	-0.01
Total Payment	Mil. \$	0.0	3.0	-3.5	-2.6	-3.1
Upper Midwest						
Weighted Average Payment	\$/cwt	0.00	0.03	-0.03	-0.02	-0.01
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	8.6	-10.0	-7.4	-8.8
Central						
Weighted Average Payment	\$/cwt	0.00	0.02	-0.02	-0.02	-0.01
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	2.5	-2.9	-2.2	-2.6
Southwest Weighted Average Payment	\$/cwt	0.00	0.01	-0.01	-0.01	0.00
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	0.8	-0.9	-0.7	-0.8
Arizona						
Weighted Average Payment	\$/cwt	0.00	0.00	0.00	0.00	0.00
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	0.1	-0.1	-0.1	-0.1
Western Weighted Average Payment	\$/cwt	0.00	0.01	-0.01	-0.01	0.00
Eligible Production	Mil. Lbs.	0.00	0.01	0.0	0.0	0.00
Total Payment	Mil. \$	0.0	0.9	-1.0	-0.7	-0.9
Pacific Northwest						
Weighted Average Payment	\$/cwt	0.00	0.01	-0.01	-0.01	0.00
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	0.8	-0.9	-0.7	-0.8
Other West		2.25	0.0-	0.05	2.25	2.2:
Weighted Average Payment	\$/cwt	0.00	0.02	-0.02	-0.02	-0.01
Eligible Production Total Payment	Mil. Lbs. Mil. \$	0.0 0.0	0.0 0.1	0.0 -0.1	0.0 -0.1	0.0 -0.1
California						
Weighted Average Payment	\$/cwt	0.00	0.00	-0.01	0.00	0.00
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.00	0.0
Total Payment	Mil. \$	0.0	1.7	-2.0	-1.5	-1.8
Hawaii- Alaska						
Weighted Average Payment	\$/cwt	0.00	0.03	-0.04	-0.04	-0.01
Eligible Production	Mil. Lbs.	0.0	0.0	0.0	0.0	0.0
Total Payment	Mil. \$	0.0	0.0	-0.1	-0.1	-0.1
Total	\$/cwt	0.00	0.03	-0.04	-0.04	-0.01
Payment						
Payment Weighted Average Payment	·					
Payment Weighted Average Payment Eligible Production	\$/cwt Mil. Lbs.	0.00	0.02	-0.02 0.0	-0.01 0.0	0.00

Table 10: Final Decision: Changes in Government Removals of NDM from the Model Baseline Based on USDA Baseline, Mid-session Review June 2002, 2003-2007.

		2003	2004	2005	2006	2007	5-year Average
Baseline							
NDM Government Removals	Mil Lbs.	529	432	377	271	172	356
DEIP	Mil Lbs.	145	145	145	145	145	145
Purchases	Mil Lbs.	384	287	232	126	27	211
Change From Baseline							
NDM Government Removals	Mil Lbs.	-1	8	4	0	0	2
DEIP	Mil Lbs.	0	0	0	0	0	0
Purchases	Mil Lbs.	-1	8	4	0	0	2

## Appendix A

## Pricing Formulas as Modified in Final Decision

Make Allowance = M.A.

changes from formulas implemented in January 2001 in bold

Class III/IV:

Butterfat price (per lb.): (NASS AA butter price - \$0.115 M.A.) \*1.20

Class IV:

Class IV nonfat solids price (per lb.): (NASS nonfat dry milk price - \$0.14 M.A.) \*0.99

Class IV skim milk price (per cwt): (Class IV nonfat solids price X 9)

Class IV price (per cwt): (Class IV skim milk price X 0.965) + (Butterfat price X 3.5)

Class III:

NASS weighted average

cheese price (per lb.): Weighted average of the NASS 500-pound barrel price

(adjusted to 38% moisture) plus 3 cents and the NASS 40-pound block price, both as reported by the Department for

the month

Class III protein price (per lb.): ((NASS wtd. avg. cheese price - \$0.165 M.A.) X **1.383** 

yield factor) + ((((NASS wtd. avg. cheese price - \$0.165)

M.A.) X **1.572** yield factor) - (Butterfat price **X 0.90**)) **X 1.17**)

Class III other nonfat solids (per lb.): (NASS dry whey price - \$0.159 M.A.) \*1.03

Class III skim milk price (per cwt): (Class III protein price X 3.1) + (Other nonfat solids price X

5.9)

Class III price (per cwt): (Class III skim milk price X 0 .965) + (Butterfat price X

3.5)

Class II:

Class II skim milk price (per cwt): (Advanced Class IV skim milk price + \$0.70)

Class II nonfat solids price (per lb.): (Class II skim milk price) / 9

Class II butterfat price (per lb.): (Butterfat price + \$0.007)

Class II price (per cwt): (Class II skim milk price X 0 .965) + (Class II butterfat

price X 3.5)

Class I:

Class I skim milk price (per cwt): The skim milk price of the higher of the advanced Class III or Class

IV milk prices plus the Class I differential adjusted for

location

Class I butterfat price (per lb.): The butterfat price plus (the Class I differential adjusted for

location divided by 100)

Class I price (per cwt): (Class I skim milk price X 0.965) + (3.5 X Class I butterfat

price)

Advanced pricing factors: For use in calculating the Class I skim milk and butterfat

prices and the Class II skim milk and nonfat solids prices, the advanced pricing factors are computed using the

weighted average of the 2 most recent NASS U.S. average weekly survey prices announced before the 24<sup>th</sup> day of the

month.

Prices to producers:

Skim/butterfat orders: No change from current

Component orders:

Protein price (per lb.): Protein price from Class III protein price calculation.

Other solids price (per lb.): Other solids price from Class III other solids price

calculation.

Butterfat price (per lb.): Butterfat price from Class III and IV butterfat price calculation.

All hundredweight prices are rounded to the nearest whole cent.

All component prices are rounded to the nearest one-hundredth cent.

### Appendix B

# Dairy Programs Econometric Model as Specified for Class III and Class IV Price Formula Analysis

#### Introduction

An econometric model of the U.S. dairy industry developed by Dairy Programs' Office of the Chief Economist of the Agricultural Marketing Service is used to support its economic analysis and forecasting responsibilities. The model is comprehensive, including the supply of milk, the allocation of butterfat and nonfat solids to fluid milk and the major manufactured dairy products, and consumer demands for milk and dairy products. The model's supply and demand equations are estimated using annual data from 1980 to 1999. The model is specified to generate long-term supply, demand, and price projections that are consistent with USDA's official baseline projections for the dairy sector. The model is estimated and simulated with SAS (SAS Institute, Inc., SAS/ETS User's Guide. Version 6, Second Edition).

Modifications to the official USDA baseline for Federal order analyses include shifting the baseline from a fiscal year basis to a calendar year basis, and breaking out Federal order milk marketings from national milk marketings. The model baseline used in the analysis is based on the June 2002 mid-session review of the long-term baseline projections released in February 2002. For information on USDA's official baseline, see *USDA Agricultural Baseline Projections to 2011*, U.S. Department of Agriculture, Office of the Chief Economist, World Agricultural Outlook Board, Staff Report WAOB-2002-1. The model includes the Federal Milk Marketing Order pricing and pooling system, as well as the dairy price support program and the Milk Income Loss Contract Program.

The dynamic model forecasts annual milk production, fluid milk and manufactured dairy product consumption, and the respective prices through 2007. The supply and demand for fluid milk and manufactured dairy products are used to estimate prices for milk in fluid and manufactured uses. Butterfat and nonfat solids are allocated to different dairy products consistent with milk marketed and product manufacturing. The dairy industry model includes eleven supply regions that closely match the Federal milk marketing orders, a Federal order unregulated West region, California, and Alaska-Hawaii. See Table B-1 for details on the fourteen regions.

## **Analytical Framework**

Milk production is estimated for 14 supply regions, 11 regions that roughly correspond to the Federal orders, and other West<sup>1</sup>, California, and Alaska-Hawaii. After accounting for farm use, regional Grade B milk production is calculated as a percent of total milk marketings based on 2001 data. Using the 2000 and the 2001 Producer Milk Marketed under Federal Milk Orders by State of Origin data, the amount of regional milk marketings that is marketed under the Federal order system is estimated. The remaining marketings in a region are non-Federal order regulated milk.

<sup>&</sup>lt;sup>1</sup> Milk that is marketed outside of the Federal order system and California is referred to as "other" milk.

Once the amount of regional milk marketed under the Federal order system is determined, the milk can move to the order associated with the region or to other orders. The 2000 and the 2001 Producer Milk Marketed under Federal Milk Orders by State of Origin data was used to estimate the quantity of milk moving from a supply region to individual orders.

Milk production and demand of Class I and II products are estimated on a regional basis. The production of manufactured products in Class III and IV are estimated on a national basis, but share equations are estimated to break California's production out of the total. The demands of Class III and IV products are estimated on a national basis.

## Dairy Product Composition – Butterfat and Nonfat Solids

The requirements of fluid and manufactured dairy products for nonfat solids and butterfat are estimated from published product contents and reported historical data. These milk and component uses are classified on a basis consistent with the Federal orders as follows:

Class I - fluid uses.

Class II - soft manufactured products (frozen products and other Class II),

Class III - cheese, dry whey, and canned milk, and

Class IV - butter, nonfat dry milk, and whole dry milk.

Fluid use is obtained from <u>Dairy Market Statistics</u> (USDA,AMS), and butterfat and nonfat solids content for fluid milk is from Federal order and California data. Manufactured products include American cheese, other cheese, butter, canned milk, whole dry milk, nonfat dry milk, total frozen products, and other Class II products. Manufactured product production is reported by <u>Dairy Products</u> (USDA, NASS) for all but the other Class II products. Other Class II is treated as a composite solids-equivalent product, historically calculated as the residual butterfat and nonfat solids after meeting all other product requirements.

The nonfat solids and butterfat pounds utilized in each product are determined by multiplying the production of hard manufactured products and the demands for fluid, frozen, and other Class II products by the appropriate conversion factors in Table B-2. The factors for the aggregate frozen product are recent-year weighted averages across all frozen products. The "other Class II" solids requirements in the historical data are the residual butterfat and nonfat solids left when accounting for all solids in Class I, III, IV and total frozen products. The proportions of the solids in "other Class II" for the forecast period are held at recent-year averages.

## Regional and Order Milk Price

Individual order uniform prices at test are based on the class prices at test and class uses for the individual orders. To try to accurately capture the over-order premiums paid to producers in the Federal order system, the regional fluid grade prices are statistically related to the corresponding minimum uniform prices for each order. The regional fluid grade prices are the weighted averages of state fluid grade prices as reported by <u>Agricultural Prices</u> (USDA, NASS). The fluid grade price is the price paid for Grade A milk at the plant before hauling cost deductions. The model regional fluid grade prices are estimated as functions of the appropriate order uniform price at test and, in most cases, dairy product prices. The estimations are based on regional monthly prices from January 2000 through December 2001. For orders that have higher Class I

utilization, such as the Appalachian and the Southeast, the product prices are assumed to capture any change in premiums needed to bid milk away from manufacturing uses to fluid use. In the Upper Midwest, Central, Mideast, Southwest, Western, and Pacific Northwest orders, the product prices are assumed to capture the change in premiums based on the value of milk used in manufacturing that is not captured by minimum Federal order prices. The Western order relationship seemed to be the most plausible with respect to premiums declining with increasing Federal Order. uniform prices and unchanged product prices. Therefore, in an effort to more accurately measure over-order payments in the Upper Midwest, Central, and Mideast orders, the parameter estimates on the uniform price at test are restricted at the level of the Western region. By restricting the parameter estimates on the uniform price, it allows the products prices, which are a measurement of over-order premiums, to become a more significant explanatory factor in changes in the fluid grade prices.

The all-milk price, as reported by NASS, is an average of the fluid grade price and the price of Grade B milk used in manufactured dairy products. The regional all-milk prices are estimated as a function of the corresponding fluid grade price and product prices. The product prices are included to capture the change in the value of Grade B milk as product prices change. For the Pacific Northwest, Western, Arizona-Las Vegas, Southwest, and Florida the all-milk price is equal to the fluid grade price. All of these regions have very little Grade B milk. The regional all milk price equations were estimated using monthly data from January 2000 through December 2001.

The Class I over-order payments are used in the fluid demand equations to calculate the total cost of fluid milk to consumers. The aggregated Federal order average Class I over-order is estimated as a change in cheese production and per capita fluid milk demand, where cheese production limits milk available for fluid use. Class I over-order payments for each order are estimated from the aggregated Federal order average Class I over-order, based on levels in recent years.

## Milk Supply, Demand, and Allocation

The model estimates regional milk production via milk per cow and number of cows for the regions representing the 48 contiguous states. Milk production in Alaska and Hawaii is estimated as a function of the lagged total milk production in the two states. The number of cows is estimated as a function of the producer milk price, feed costs, slaughter prices, and other variables. Milk production per cow is estimated as a function of milk prices and feed costs. Producers respond to milk price changes relative to feed costs by adjusting milk cow numbers. Milk marketings are estimated as milk production (milk cows times milk per cow), less farm use.

Feed costs are among the most important variable costs in milk production. The Dairy Programs model includes a mixed ration cost based upon prices for corn, soybeans, and hay. The statistical correlations of regional ration price movements with the U.S. ration price were calculated using the April monthly average prices for 1986-1999. April is the only month for which regional and national 16-percent protein dairy ration prices are reported by NASS. The simple correlations of regional feed ration prices to U.S. feed ration prices average 95 percent, ranging between 90 and 99 percent. Further statistical analysis indicates that the means of the regional feed prices are not significantly different from the average U.S. feed price for years

1986-1999, and that regional feed price changes are proportional to U.S. feed price changes. Therefore, the regional supply relationships use the U.S. feed price as calculated from corn, soybean, and hay prices.

Total demand for milk and dairy products are functions of price, per capita consumption and population. Consumption of each specific product is specified as per capita demand times the projected population for each year. The demands for milk in fluid and soft manufactured uses are specified as plant-level demands for raw milk. The Federal order fluid milk prices at test are estimated using the Class I differentials plus the estimated over-order premium for the appropriate regions. The demands for frozen products and other Class II products are specified at retail, using the retail ice cream price (index) and the CPI- other dairy products as prices. The six hard manufactured product demand equations are specified at the wholesale level. Wholesale prices for cheese, butter and nonfat dry milk, and dry whey are estimates of the annual average NASS product prices used in the Federal Order price formulas. Per capita demands are estimated as functions of product price, per capita income, the price or price index for a product substitute (e.g., margarine for butter), and other factors, such as expenditures on food away from home and trend.

Regional demands for butterfat and nonfat solids in fluid milk products and soft manufactured dairy products have priority in the model, and such demands are satisfied directly from the regional raw milk supply before the hard manufactured product market demands are met. Because of the stability and lack of price responsiveness in the demands for whole milk powder, and canned and evaporated milk, the demands for milk components in these uses are satisfied directly as well. The remaining milk components are allocated among cheeses, butter, and nonfat dry milk. Milk used in American and other cheese varies as a function of the gross returns of milk in each cheese relative to milk in butter and nonfat dry milk. The remaining nonfat and butterfat solids are manufactured into nonfat dry milk and butter. Nonfat dry milk and condensed skim can be used in making cheese, using the butterfat in the cheese milk as opposed to skimming it for butter. The data were obtained from the American Dairy Product Institute. Other dairy products used in frozen products and NDM used in fortifying fluid milk are assumed in the forecast years at levels consistent with recent years.

## Federal Order, California, and Other Marketings

Class II, Class III, and Class IV milk can move in and out of the pool based on the individual class prices relative to the uniform price. Most of these decisions are based on price relationships in a month or group of months. Therefore, it is difficult in an annual model to accurately estimate the quantity of milk that may not be pooled because of unfavorable price relationships. The total Federal order marketings are calculated by multiplying the prior year Federal order marketings by the percentage change in milk production in the Federal order regions. The marketings in the California pool are calculated from California milk production and netting out any Grade B milk or milk moving to the Federal order system. Other marketings are the remaining milk supplies available for each region, except California, after Grade B and Federal order marketings are met.

Federal order, California, and other market uses are solved based on satisfying regional Class I and II demand first and then allocating milk into Class III and Class IV uses across the

markets. Individual Federal order Class I use is based on 2001 Class I data and adjusted annually by changes in the individual order's fluid demand based on per capita demand equations. Total Federal order Class II use is estimated similar to the Class I use. The California and the other Class I and II uses are assumed to behave the same as F.O.

Class III and IV uses are allocated with the following steps. American and other cheese production are estimated on the national level and California production shares of both types of cheese are estimated to separate the production between California and Federal orders. California's production of dry whole milk, canned milk, and dry whey is estimated as a percent of the U.S. total production. Using the percent of nonfat solids and butterfat required for production of each product in Table 1, the use of milk can be broken out on both a butterfat and nonfat solids basis. Therefore, the quantity of milk solids used in Class III and IV products can be estimated for California, Federal orders, and other regions.

Total Federal order Class IV use is estimated to be approximately 95 percent of the annual Federal order plus other Class IV use. Total Class III milk pooled in the Federal order system is estimated as the remaining butterfat and nonfat solids of all milk pooled under the order system after Class I, II, and IV uses are assigned.

The individual order's Class IV use is computed using the prior year's Class IV and adjusted for any change in the total Federal order. Class IV use. In most orders, Class III use is the residual milk available from the order's total marketings after meeting the demand of Class I, II, and IV. For the Upper Midwest, Mideast, and Central orders, Class III use can move among the orders based on the relationship between the orders uniform prices. Class III milk can move mainly between the Upper Midwest to the Mideast or Central pools to align uniform price. The Central uniform price cannot be more than \$0.25 per cwt higher than the Upper Midwest, while the Mideast uniform price cannot be more than \$0.58 per cwt higher than the Upper Midwest. A similar constraint exists for the Central and Western orders, where the Central uniform price can not be more than \$0.13 per cwt higher than the Western uniform price. This provides for an interregional market equilibrium to be solved under which uniform prices differ by no more than the estimated interregional marketing costs.

Individual order marketings are determined by allocating the region's Grade A milk marketing based on the 2001 Producer Milk Marketed under Federal Milk Orders by State of Origin data as the starting point. Under baseline projections, the majority of movements of milk between marketing areas were maintained at levels consistent with recent years. In the Appalachian, Southeast, and Florida orders, such marketings were based on total need. Instead of being a residual, the Class III uses in these orders are estimated similar to Class IV use in all orders, based on prior year levels and adjusted based on the change of total Class III use. This allows for all class uses to be calculated and therefore provides the total marketings needed to meet the total class uses. If an order needs milk marketings to met class needs, milk can move from adjacent orders to meet the deficit.

The California pool milk that also was being pooled on Federal order pools is modeled to end after 2002 based on the expectations that regulations will prevent it from happening after that

time. There is an estimate of milk produced in California being pooled in the Arizona-Las Vegas and Pacific Northwest orders, but it is consistent with historical levels.

## **Supply and Demand Equations**

The model and its equations are outlined in Tables 3-9 below, focusing on the estimation of milk production, production of dairy products and milk allocation, product demand, and prices. This econometric model comprises a set of equations that are estimated with annual data from 1980 to 1999. The equations are modified as needed to true up to baseline conditions, but the modifications are held constant in doing an impact analysis.

Table B-1: Representation of Regions by States

Northeast New York New Jersey Maryland Pennsylvania New Hampshire Connecticut Vermont Massachusetts Rhode Island Delaware Maine	Appalachian North Carolina South Carolina Tennessee Kentucky Virginia	Southeast Georgia Alabama Mississippi Louisiana Arkansas Missouri	<u>Florida</u> Florida
Mideast Ohio Indiana Michigan West Virginia	Southwest Texas New Mexico	Central Illinois Iowa Oklahoma Kansas Colorado Nebraska	Upper Midwest Wisconsin Minnesota North Dakota South Dakota
Western Utah Nevada Idaho	Other West Wyoming Montana  Pacific	Oregon Washington	<u>ona</u> Arizona
<u>California</u> California	<u>Alaska-Hawaii</u> Alaska Hawaii		

**Table B-2: Dairy Product Conversion Factors** 

Table B-2. Daily 1 rounce Conversion Pactors	Butterfat and nonfat solids required per product unit Nonfat		
Products	Butterfat	Solids	
	per	cent	
California Producer Milk	3.66	8.76	
Non-CA Producer Milk	3.67	8.70	
Butter	80.4	1.0	
American cheese 1/	36.8	85.1	
Other Cheese -Non-California 2/	28	85.8	
-California 2/	27	85.8	
NDM	0.8	96.2	
Canned Milk	7.9	18.5	
Dry Whey	1.1	95.0	
Dry whole milk	26.5	71.0	
Fluid -FO-plus 3/	2.02	8.74	
Fluid CA 4/	2.24	9.65	
Ice cream-Regular	12.0	10.0	
Ice cream-Lowfat	6.0	11.0	
Ice Cream-Nonfat	2.0	14.0	
Sherbet	2.0	2.0	
Frozen yogurt	1.7	9.0	
Other	6.0	7.7	
Mellorine type		10.0	
Total Frozen Products 5/	8.95	9.7	
Other Class II 6/	46	54	

<sup>1/</sup> Based on Van Slyke Formula for cheddar Cheese, reflects solids required for production not actual percentage in final product.

<sup>2/</sup> Weighted average of other cheeses, reflects solids required for production not actual percentage in final product.

<sup>3/</sup> Based on Federal order data of fluid milk sold.

<sup>4/</sup> Based on California data of Class I milk and Fluid Sales.

<sup>5/</sup> Derived a weighted average frozen product category. Ice Cream products are assumed to weigh 4.5 lbs. per gallon, other frozen products are assumed to weigh 6 lbs. per gallon.

<sup>6/</sup> Other Class II composite solids equivalent product. Based on recent years' average.

Table B-3: Regional Number of Cows

Table B-3: Regi	ional Number of Cows				
Region	Parameter	Estimate	t-Value	$Pr \!\!>\!\!  t $	R-Square
Northeast	Intercent	3.544	6.24	<.0001	
Northeast	Intercept  Mills price to also what a price set is			0.1420	
	Milk price to slaughter price ratio Trend	0.025	1.56		
		-0.006	-3.88	0.0017	
	Milk to feed price ratio, lagged 1/	0.032	1.88	0.0807	
	Dummy, 1980-86	0.047	6.12	<.0001	0.0067
	Cow numbers, lagged	0.527	7.03	<.0002	0.9967
Appalachian	Intercept	2.230	4.37	0.0006	
	Trend	-0.013	-5.30	0.0001	
	Milk to feed price ratio, lagged 1/	0.042	2.20	0.0447	
	Cow numbers, lagged	0.685	9.90	<.0001	
	Dummy, 1987-88	-0.023	-2.58	0.0218	
	Dummy, 1989-92	0.016	2.65	0.0190	0.9984
Couthoost	Intercent	4 222	1.70	0.0056	
Southeast	Intercept	4.233	1.79	0.0956	
	Cow numbers, lagged	0.922	8.03	<.0001	
	Milk to feed price ratio, lagged 1/	0.062	2.01	0.0640	
	Dummy, 1980-87	-0.060	-4.09	0.0011	
	Non-farm Earnings, per capita	-0.531	-2.91	0.0114	0.0040
	Number of replacements per milk cow	0.272	1.62	0.1267	0.9940
Florida	Intercept	8.863	3.66	0.0038	
	Milk to feed price ratio 1/	0.121	2.78	0.0179	
	Log of trend	-0.213	-3.71	0.0034	
	Cow numbers, lagged	0.389	2.55	0.0269	
	Milk to feed price ratio, lagged 1/	0.157	3.70	0.0035	
	Dummy, 1980-1987	-0.146	-5.23	0.0003	
	Non-farm Earnings, per capita	-0.517	-2.72	0.0200	
	Replacement cow price	-0.099	-1.86	0.0896	0.9687
3.61.1	*	2 000	1.01	0.0012	
Mideast	Intercept	2.088	1.81	0.0913	
	Milk price to slaughter price ratio	0.037	2.01	0.0638	
	Cow numbers, lagged	0.695	4.29	0.0007	
	Trend	-0.008	-2.33	0.0350	
	Milk to feed price ratio, lagged 1/	0.073	2.89	0.0119	
	Dummy, buyout program 1986-1987	-0.030	-2.52	0.0244	0.9938
Upper Midwest	Intercept	3.790	2.65	0.0189	
**	Trend	-0.013	-3.13	0.0074	
	Milk to concentrate price ratio, lagged 2/	0.046	1.91	0.0775	
	Cow numbers, lagged	0.610	4.36	0.0007	
	Dummy, 1986-1988	-0.019	-1.50	0.1546	
	Replacement cow price	-0.075	-1.51	0.1526	0.9935
	r	2.0,0		<b></b>	,

Table B-3(continued): Regional Number of Cows

Region	Parameter	Estimate	t-Value	Pr> t	R-Square
					•
Central	Intercept	3.740	2.80	0.0151	
	Milk price to slaughter price ratio	0.033	1.27	0.2247	
	Log of trend	-0.301	-3.69	0.0027	
	Milk to concentrate price ratio, lagged 2/	0.068	2.62	0.0212	
	Cow numbers, lagged	0.552	3.52	0.0038	
	Dummy, 1980-1984	-0.044	-2.68	0.0189	0.000
	Dummy, buyout program 1986-1987	-0.037	-2.03	0.0639	0.9939
Southwest	Intercept	4.637	5.01	0.0002	
	Land Value	-0.403	-5.71	<.0001	
	Milk to concentrate price ratio, lagged 2/	0.050	1.98	0.0693	
	Dummy, buyout program 1986-1987	-0.059	-3.92	0.0018	
	Number of replacements per milk cow	0.457	2.41	0.0316	
	Intercept shifter at 1994	0.071	3.36	0.0051	
	Cow numbers, lagged	0.330	2.61	0.0217	0.9945
Arizona	Intercept	1.337	3.81	0.0022	
	Milk price to slaughter price ratio	0.100	3.83	0.0021	
	Trend	0.015	4.39	0.0070	
	Milk to feed price ratio, lagged 1/	0.051	1.66	0.1203	
	Dummy, 1980-84	0.029	2.58	0.0228	
	Cow numbers, lagged	0.553	5.05	0.0002	0.9978
Western	Intercept	3.905	12.30	<.0001	
	Milk to slaughter price ratio	0.233	2.77	0.0144	
	Trend	0.035	10.27	<.0001	
	Milk to feed price ratio, lagged 1/	0.233	2.14	0.0464	
	Dummy, 1980-1984	0.187	3.78	0.0018	0.9262
Pacific					
Northwest	Intercept	0.136	0.61	0.5501	
	Milk to concentrate price ratio 2/	0.043	2.51	0.0263	
	Cow numbers, lagged	0.964	26.06	<.0001	
	Milk to feed price ratio, lagged 1/	0.048	2.34	0.0358	
	Dummy, buyout program 1986-1987	-0.059	-6.93	<.0001	
	Dummy, 1996-2000	-0.043	-6.64	<.0001	0.9858
Other West	Intercept	1.708	3.58	0.0027	
	Cow numbers, lagged	0.733	8.69	<.0001	
	Milk to concentrate price ratio, lagged 2/	0.032	1.18	0.2545	
	Log of trend	-0.270	-4.10	0.0009	
	Dummy, 1980-1987	-0.048	-2.60	0.0200	0.9924
California	Intercept	6.296	112.58	<.0001	
	Milk to concentrate price ratio 2/	0.042	2.41	0.0293	
	Milk price to slaughter price ratio	0.041	2.78	0.0140	
	Milk to feed price ratio, lagged 1/	0.043	2.03	0.0606	
	Trend	0.025	51.60	<.0001	0.9951

Table B-4: Regional Milk per cow

Region	Parameter	Estimate	t Volue	Dex  t	R-Square
Region	1 drameter	Estimate	t- value	Pr> t	K-Square
Northeast	Intercept	5.411	5.48	0.0001	
	Milk to concentrate price ratio, lagged 2/	0.021	2.63	0.0206	
	Milk per cow, lagged	0.411	3.81	0.0021	
	Trend	0.011	5.02	0.0002	
	Dummy, diversion program, 1984	-0.021	-3.26	0.0062	
	Dummy, 1995	0.017	2.86	0.0134	
	Dummy, 1992	0.036	6.06	<.0001	0.9984
Appalachian	Intercept	5.785	4.53	0.0004	
	Milk to feed price ratio, lagged 1/	0.032	1.64	0.1220	
	Trend	0.010	4.12	0.0009	
	Milk per cow, lagged	0.362	2.58	0.0210	
	Dummy, diversion program, 1984	-0.058	-4.74	0.0003	0.9911
Southeast	Intercept	0.502	2.92	0.0113	
	Milk to concentrate price ratio, lagged 2/	0.048	4.36	0.0007	
	Milk per cow, lagged	0.944	51.32	<.0001	
	Dummy, diversion program, 1984	-0.033	-3.03	0.0089	
	Dummy, 1996-1998	-0.019	-3.56	0.0032	0.9967
Florida	Intercept	0.793	1.76	0.0990	
	Milk to concentrate price ratio, lagged 2/	0.040	1.61	0.1284	
	Milk per cow, lagged	0.915	19.74	<.0001	
	Dummy, 1980-1984	-0.036	-2.46	0.0266	
	Dummy, 1998	-0.085	-4.23	0.0007	0.9861
Mideast	Intercept	5.722	3.08	0.0076	
	Milk to concentrate price ratio, lagged 2/	0.031	1.71	0.1074	
	Milk per cow, lagged	0.374	1.84	0.0859	
	Trend	0.012	2.88	0.0115	
	Dummy, 1988-1989	-0.019	-1.91	0.0753	0.9906
Upper Midwest	Intercept	5.318	2.67	0.0167	
	Milk to concentrate price ratio, lagged 2/	0.036	1.99	0.0644	
	Milk per cow, lagged	0.417	1.91	0.0738	
	Trend	0.011	2.67	0.0169	0.9885
Central	Intercept	0.214	0.79	0.4396	
	Milk to concentrate price ratio, lagged 2/	0.041	1.78	0.0937	
	Milk per cow, lagged	0.976	33.61	<.0001	0.9869
Southwest	Intercept	0.207	0.64	0.5301	
	Milk to concentrate price ratio, lagged 2/	0.045	1.46	0.1644	
	Milk per cow, lagged	0.976	28.93	<.0001	
	Dummy, 1986-1987	-0.036	-1.98	0.0654	0.9831

Table B-4 (continued): Regional Milk per cow

	nued): Regional Milk per cow				
Region	Parameter	Estimate	t-Value	Pr> t	R-Square
		• ===	2.02	0.0.500	
Arizona	Intercept	2.799	2.03	0.0620	
	Milk to feed price ratio, lagged 1/	0.061	1.31	0.2106	
	Milk per cow, lagged	0.704	480.00	0.0003	
	Trend from 1994 on	0.003	2.02	0.0633	
	Dummy, 1989-1993	0.049	1.93	0.0743	0.9900
		0.446	205	0.0004	
Western	Intercept	0.412	3.05	0.0081	
	Milk to concentrate price ratio, lagged 2/	0.021	1.93	0.0731	
	Milk per cow, lagged	0.958	69.03	<.0001	
	Dummy, 1980-1984	-0.027	-5.40	<.0002	0.9985
Pacific					
Northwest	Intercept	3.630	2.53	0.0222	
TTOTHIWEST	Milk to concentrate price ratio, lagged 2/	0.030	1.80	0.0909	
	Milk per cow, lagged	0.611	3.96	0.0011	
	Trend	0.007	2.26	0.0379	0.9918
	Tiend	0.007	2.20	0.0377	0.7710
Other West	Intercept	5.564	3.33	0.0043	
	Milk to concentrate price ratio, lagged 2/	0.060	2.75	0.0143	
	Milk per cow, lagged	0.387	2.11	0.0510	
	Trend	0.010	3.11	0.0067	0.9801
California	Intercept	5.225	4.88	0.0005	
	Milk to concentrate price ratio 2/	0.044	2.12	0.0577	
	Milk per cow, lagged	0.442	3.92	0.0024	
	Trend	0.010	4.84	0.0005	
	Dummy, 1994	0.053	5.46	0.0002	
	Dummy, 1996	-0.035	-3.59	0.0042	
	Dummy, 1998	-0.062	-5.23	0.0003	
	Dummy, 1986	-0.040	-3.37	0.0063	
	Dummy, 1990	0.032	3.40	0.0006	0.9956

<sup>1/</sup> The milk-feed ratio reported by NASS in <u>Agricultural Prices</u> is the basis for calculating feed and concentrate prices. The NASS milk-feed price ratio is reported as a 16 percent protein mixed feed with 51 pounds of corn (0.911 bushels), 8 pounds of soybeans (0.133 bushels), and 41 pounds of alfalfa hay (0.0205 tons).

<sup>2/</sup> Some regions are more responsive to a milk-concentrate price ratio, which is used in place of the milk-feed price ratio. The concentrate value is calculated using the same ratio of corn and soybeans as in the above formula to calculate the value of 100 lbs. of concentrate.

Table B-5. Milk Manufacturing and Allocation Parameters

g and Allocation Parameters				
Parameter	Estimate	t-Value	Pr> t	R-Square
<b>T</b>	0.422	0.24	0.7250	
	-0.433	-0.34	0.7358	
	0.250	1.10	0.0070	
	0.065	1.79	0.0943	
	1.055		0.001	0.5051
government removals, lagged	1.055	6.69	<0.001	0.7951
Intercept	-0.184	1.38	0.2129	
	0.180	1 91	0.0740	
				0.9959
Domestic disappearance, ragged	1.012	32.17	<.0001	0.7737
Intercept	-2.246	-2.66	0.0170	
Log (Trend)	0.430	2.72	0.0150	0.987
Intercept	-1.974	-1.54	0.1438	
	21,7 .	1.0 .	0.1.00	
	0.428	1.39	0.1838	
Č .				0.962
eri share, ragged	0.070	1.50	0.0002	0.702
Intercept	165.002	2.79	0.0132	
	0.297	1.40	0.1820	
Production NDM	-0.058	-1.82	0.0874	0.464
Intercent	6.821	117 98	< 0001	
-				0.819
Trend	0.022	0.55	<.0001	0.017
Intercept	154.759	1.78	0.0948	
Production total cheese	0.028	1.23	0.2378	
Production dry whey, lagged	0.717	4.45	0.0004	0.786
_	0.000	2.02	0.0010	
				0.010
Ratio, lagged	0.714	7.77	<.0001	0.910
	-117.6	-2 50	0.0245	
*				
	-0.193	-3.03	0.0003	
	0.035	3.32	0.0047	
				0.798
	Parameter  Intercept Gross value American cheese/ Gross value butter-powder Dummy 1980-1983 Domestic disappearance and government removals, lagged  Intercept Gross value other cheese/ gross value butter-powder Domestic disappearance, lagged  Intercept CA Share, lagged Log (Trend)  Intercept Gross value American cheese/ gross value other cheese CA Share, lagged  Intercept Production DWM, lagged Production NDM  Intercept Trend  Intercept Production total cheese Production dry whey, lagged  Intercept Butter price/cheese Price Ratio, lagged	Parameter Estimate  Intercept -0.433 Gross value American cheese/ Gross value butter-powder 0.358 Dummy 1980-1983 0.065 Domestic disappearance and government removals, lagged 1.055  Intercept -0.184 Gross value other cheese/ gross value butter-powder 0.180 Domestic disappearance, lagged 1.012  Intercept -2.246 CA Share, lagged 0.533 Log (Trend) 0.430  Intercept -1.974 Gross value American cheese/ gross value other cheese 0.428 CA Share, lagged 0.690  Intercept -1.974 Gross value American cheese/ gross value other cheese 0.428 CA Share, lagged 0.690  Intercept 165.002 Production DWM, lagged 0.297 Production NDM -0.058  Intercept 6.821 Trend -0.022  Intercept 154.759 Production total cheese 0.028 Production dry whey, lagged 0.717  Intercept 9.0028 Butter price/cheese Price 1.9024 Ratio, lagged 0.714  Intercept -117.6 NDM in cheese production Nonfat solids used in cheese production 0.035	Parameter         Estimate         t-Value           Intercept         -0.433         -0.34           Gross value American cheese/Gross value butter-powder         0.358         1.10           Dummy 1980-1983         0.065         1.79           Domestic disappearance and government removals, lagged         1.055         6.69           Intercept         -0.184         1.38           Gross value other cheese/ gross value butter-powder         0.180         1.91           Domestic disappearance, lagged         1.012         52.19           Intercept         -2.246         -2.66           CA Share, lagged         0.533         3.05           Log (Trend)         0.430         2.72           Intercept         -1.974         -1.54           Gross value American cheese/gross value other cheese         0.428         1.39           CA Share, lagged         0.690         4.90           Intercept         165.002         2.79           Production DWM, lagged         0.297         1.40           Production NDM         -0.058         -1.82           Intercept         6.821         117.98           Trend         -0.022         -8.35           Intercept         0.028	Parameter         Estimate         t-Value         Pr> t            Intercept         -0.433         -0.34         0.7358           Gross value American cheese/Gross value butter-powder         0.358         1.10         0.2872           Dummy 1980-1983         0.065         1.79         0.0943           Domestic disappearance and government removals, lagged         1.055         6.69         <0.001

Table B-6. Estimated Milk and Dairy	Product Demand Parameters				
Variable	Parameter	Estimate	t-Value	Pr> t	R-Square
US Fluid Milk per capita(log log)	Intercept	4.027	9.04	<.0001	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fluid price/CPI-all*	-0.169	-3.55	0.0016	
	Per capita income/CPI-all*	0.614	4.42	0.0002	
	Food expenditures Ratio- away to home	-0.545	-3.44	0.0021	
	Trend	-0.012	-4.68	< 0.0021	0.9183
	*Parameters used in CA and FO-plus fluid			<0.0001	0.9163
EO Elecid	Teterrent	2.002	429.22	× 0001	
FO-plus Fluid per capita(log-log)	Intercept	3.982	428.22	<.0001	0.0770
	Trend	-0.010	-13.34	<.0001	0.8770
CA Fluid per capita (log-log)	Intercept	4.245	247.74	<.0001	
	Trend	-0.023	-28.56	<.0001	0.7980
B (400 000 000 240 (100 100)	Towns	0.671	0.04	0.2625	
Butter per capita(log-log)	Intercept	0.671	0.94	0.3625	
	NASS butter price/CPI-margarine	-0.056	-1.14	0.2717	
	Per capita income/CPI-all	0.383	1.85	0.0855	
	Dummy 1998	0.084	1.47	0.1649	
	Dummy 1989-1992	-0.130	-4.89	0.0002	0.755
Other Cheese per capita(log-log)	Intercept	-0.562	-1.17	0.2588	
	Mozzarella price/CPI-meat	-0.324	-2.10	0.0529	
	Per capita income/CPI-all	0.644	2.15	0.0481	
	Log of trend	0.525	4.44	0.0005	0.9863
American Cheese per capita(log-log)	Intercept	0.480	0.45	0.6564	
1 1 ( 2 2)	NASS cheese price/CPI-Meat	-0.157	-1.27	0.2201	
	Per capita income/CPI-all	1.029	5.06	0.0001	0.908
NDM per capita(log-log)	intercept	3.345	2.24	0.0394	
NDW per capita(log-log)	price/CPI-food	-0.493	-1.49	0.0394	
	Government Removals/NDM Production	-0.493	-4.23	0.1330	0.6023
					0.0025
Dry Whey per capita(log-log)	Intercept	0.576	2.69	0.0163	
	NASS whey price/CPI-food	-0.118	-1.73	0.10.38	
	Dry Whey per capita, lagged	0.815	13.43	<.0001	0.930
Canned Milk per capita(log-log)	Intercept	3.417	50.42	<.0001	
			Assume	d to approxi	mate NDM
	Canned milk price/CPI-food	-0.600		elasticity	r
	Trend	-0.045	-14.37	<.0001	0.887
Dry Whole Milk per capita(log-log)	Intercept	6.061	4.89	0.0002	
Dif whole with per explusives rog/	DWM price/CPFall	-1.591	-5.62	<.0001	
	Dummy 1980-1990	0.624	6.38	<.0001	0.757
		• 0 * 4		0004	
Frozen products per capita(log-log)	Intercept	2.861	15.03	<.0001	
	Retail Price Ice cream/CPI-all	-0.239	-3.70	0.0019	
	Per capita income/CPI-all	0.214	3.50	0.0030	0.850
Other Class 2 solids per capita(log-log)	Intercept	5.000	4.16	00008	
1 1 0 0	CPI-other dairy products/CPI-food	-0.756	-4.67	0.0003	
	Per capita income/CPI-all	0.384	0.93	0.3660	
	Trend	-0.022	-3.25	0.0053	0.711

Table B-7. Price Linkages

Variable  Variable	Parameter	Estimate	t-Value	Pr> t	R-Square
Class I over-order payment	Intercept	-2.298	-2.28	0.0365	
class I s ver staet payment	Production of total cheese	0.00009	4.47	0.0004	
	Per capita fluid demand	0.011	2.49	0.0243	0.598
	Tor cupitu itura demana	0.011		0.02.0	0.000
CPI-other dairy products	Intercept	30.676	7.85	<.0001	
	Class II price at test	2.68	10.51	<.0001	
	Trend	1.807	12.36	<.0001	0.9723
CPI-margarine	Intercept	-10.405	-3.73	0.0017	
	CPI-fat	1.105	48.84	<.0001	0.993
	011100	11100			0.556
Retail price -ice cream	Intercept	-0.022	-0.24	0.8106	
	Class II price at test	0.024	5.37	<.0001	
	Retail price, lagged	0.972	19.79	<.0001	0.9687
D. I	Intercent	100 107	1.04	0.0720	
Replacement Cow Price	Intercept	-408.437	1.94	0.0728	
	Milk to feed price ratio, lagged	63.293	1.68	0.1159	
	Cow slaughter price	5.198	2.30	0.0374	
	Replacement cow price, lagged	0.854	6.66	<.0001	
	Trend	8.177	3.28	0.0055	0.7655
Replacement per milk cows	Intercept	-28.268	-1.78	0.0939	
T	Trend	0.809	5.26	<.0001	
	Number of Cows	0.005	4.21	0.0007	
Northeast Land Value	Intercept	111.385	0.69	0.4977	
	Trend	124.830	17.27	<.0001	0.9431
Southwest Land Value	Intercept	123.2	2.03	0.057	
Southwest Euna Varae	Land value, lagged	0.68	4.14	0.0006	0.4595
	Zama varae, mggee	0.00		0.0000	0050
Southeast Non-Farm Earnings	Intercept	-475.965	-2.68	0.0349	
	Per capita personal disposable	0.710	<i>c</i> 1 0	0001	0.0052
	income	0.719	61.9	<.0001	0.9953
Florida Non-Farm Earnings	Intercept	132.887	0.76	0.4576	
_	Per capita personal disposable				
	income	0.68	69.78	<.0001	0.9963

Table B-8: Fluid	Grade Prices at test			
Region	Parmeter	Estimate	t-Value	Pr> t
Northeast	Intercept	0.177	1.10	0.2840

Table b-8: Fluid Gra					
Region	Parmeter	Estimate	t-Value	Pr> t	R-square
Northeast	Intercept	0.177	1.10	0.2840	
	Uniform Price 1/	0.991	90.54	< 0.0001	0.9972
	Childrin i fice 1/	0.771	70.54	<0.0001	0.7712
Appalachian	Intercept	0.687	2.45	0.0233	
	Uniform Price 1/	0.900	27.09	< 0.0001	
	Cheese Price	0.627	2.56	0.0184	0.9939
C 4 .	II : C D: 1/	0.500	4.61	0.0001	
Southeast	Uniform Price 1/	0.560	4.61	< 0.0001	0.0074
	Cheese Price	4.592	3.23	0.0039	0.9974
Florida	Uniform Price 1/	1.023	188.05	< 0.0001	0.9993
Mideast	Intercept	3.845	11.56	< 0.0001	
	Uniform Price 1/	0.379			
	Cheese Price	2.494	5.09	< 0.0001	
	Butter Price	0.659	2.32	0.0001	
	Dry Whey Price	4.238	2.31	0.0318	0.9790
	Dry whey thee	4.230	2.51	0.0310	0.5750
Upper Midwest	Intercept	2.823	11.30	< 0.0001	
-11	Uniform Price 1/	0.379			
	Cheese Price	2.035	5.53	< 0.0001	
	Butter Price	0.808	3.78	0.0012	
	Dry Whey Price	9.217	6.69	< 0.0001	0.9918
	, ,				
Central	Intercept	2.880	6.62	< 0.0001	
	Uniform Price 1/	0.379			
	Cheese Price	2.616	4.21	0.0004	
	Butter Price	0.744	2.06	0.0527	
	Dry Whey Price	4.638	1.99	0.0605	0.9728
Southwest	Intercept	2.814	9.29	< 0.0001	
	Uniform Price 1/	0.668	12.43	< 0.0001	
	Cheese Price	1.367	3.00	0.0068	0.9892
Arizona	Uniform Price 1/	1.001	399.00	< 0.0001	0.9998
Western	Intercept	1.316	2.19	0.0415	
Western	Uniform Price 1/	0.379	1.72	0.1020	
	Cheese Price	2.636	1.72	0.1020	
	Butter Price	0.818	2.66	0.0031	
	Dry Whey Price	5.663	1.96	0.0130	0.9829
	Dry whey rice	3.003	1.90	0.0030	0.9629
Pacific Northwest	Intercept	2.581	7.01	< 0.0001	
	Uniform Price 1/	0.658	8.87	< 0.0001	
	Cheese Price	2.067	3.52	0.0020	0.9845

<sup>1/</sup> Uniform Price at test for corresponding order

Pool price

California

1.000

Table B-9: All-milk Prices at test

Table B-9. All-lillik	Parameter	Estimate	t-Value	Pr> t	R-square
NI antha ant	Eluid Condo Daine	0.006	670.26	-0.0001	
Northeast	Fluid Grade Price	0.996	670.36	< 0.0001	1 0000
	Cheese	0.039	2.31	0.0308	1.0000
Appalachian	Intercept	0.053	1.33	0.1965	
	Fluid Grade Price	0.989	204.00	< 0.0001	
	Cheese Price	0.090	2.56	0.0182	0.9999
Southeast	Fluid Grade Price	0.971	112.12	< 0.0001	
	Cheese Price	0.246	2.55	0.0183	1.0000
Florida	Fluid Grade Price	1.000			
Mideast	Fluid Grade Price	0.982	194.40	< 0.0001	
	Cheese Price	0.134	2.43	2.43	1.0000
		0.10	25	25	1.0000
Upper Midwest	Fluid Grade Price	0.946	80.01	< 0.0001	
	Cheese Price	0.355	3.75	0.0012	
	Dry Whey Price	0.828	2.85	0.0095	1.0000
Central	Fluid Grade Price	0.974	130.32	< 0.0001	
	Cheese Price	0.235	3.06	0.0058	1.0000
Southwest	Fluid Grade Price	1.000			
Arizona	Fluid Grade Price	1.000			
Western	Fluid Grade Price	1.000			
Pacific Northwest	Fluid Grade Price	1.000			
Other West	Intercept	2.647	2.53	0.0222	
	Cheese Price	7.615	9.38	<.0001	
	Trend	0.015	1.20	0.2474	0.8700
California	Fluid Grade Price	0.993	823.86	<.0001	
	Cheese Price	0.054	4.51	0.0002	
	Butter Price	0.014	2.77	0.0115	1.0000

### Other Milk Prices Formulas

Uniform Price at test (3.67 percent) <sup>1/</sup> = (Minimum Class I Price at test \*Class I Use + Minimum Class II Price at test \*Class II Use + Minimum Class III Price at test \*Class III Use + Minimum Class IV Price at test \*Class IV Use) /(Total F.O. marketings)

Uniform Price at test (3.67 percent) <sup>2/</sup> = (Butterfat price\*Order Butterfat test )+ (Protein price\*Order Protein test) + (Other Solids Price\*Order other solids test )+ PPD

California Pool Price = (0.32\*Quota Pool Price) + (0.68\*Non-Quota Pool Price)

U.S. All-milk Price = weighted average of all regions all-milk prices

<sup>1/</sup> For the skim and butterfat pricing orders of Florida, Southeast, Appalachian, and Arizona-Las Vegas.

<sup>2/</sup> For the component pricing orders, all orders exempt those referenced in 1/.

### Appendix C

# Economic Analysis for the Final Decision on Class III and Class IV Price Formulas Based on the USDA February 2001 Baseline

### **Analysis**

In order to provide an comparison of the Final Decision to the Recommended Decision, the impact of changes in the Final Decision pricing formulas were examined using the same model and baseline used in the analysis of the Recommended Decision.

The modifications in the Final Decision are analyzed simultaneously as a change from the formulas implemented under order reform in January 2000. For more information on techniques and results, see Economic Analysis for the Recommended Decision on Class III and Class IV Price Formulas (http://www.ams.usda.gov/dairy/econ\_anal\_for\_rec\_dec.pdf).

# **Scope of Analysis**

Impacts were measured as changes from the model baseline as adapted from the August 2001 World Agricultural Supply and Demand Estimates(WASDE-337) report for the 2002 projections and the USDA dairy baseline published in February 2001 (USDA Agricultural Baseline Projections to 2010,USDA Staff Report WAOB-2001-1) for annual projections from 2003 to 2006. The USDA baseline is a national, annual projection of the supply-demand-price situation for milk and dairy products. Baseline assumptions were: (1) the price support program will end on December 31, 2001; (2) the Dairy Export Incentive Program will continue to be utilized; and (3) the Federal Milk Marketing Order Program will continue as reformed on January 1, 2000. While closely adapted from the USDA baseline, the Dairy Programs model baseline is on a calendar year (Tables 1A-1C). The five-year analytical period runs from 2002 through 2006.

### **Summary of Results**

The results of the changes to the Class III and Class IV formulas adopted under Federal order reform that are recommended in this decision are summarized using five-year, 2002-2006 average changes from the model baseline. The results presented for the Federal order system are in the context of the larger U.S. market.

The Final Decision formula changes increase the protein prices and reduce the prices for butterfat and other solids. The result is higher Class III prices and lower Class IV and Class II prices. The advanced Class I base price is the higher of the Class III or Class IV advance pricing factors. The Class I base price is the Class IV price in all years of the analytical period for the baseline, while Class III becomes the Class I base price in 2002 and 2006 under the Final decision. The Class I price, at the class average test of 2 percent butterfat, increases by less than \$0.01 per cwt. on average from the baseline from 2002 to 2006. The price impact results in an average decrease of 1 million pounds in Class I use. The Class II price at test decreases by \$0.10 per cwt on average over the time period. The resulting increases in Class II demand for

nonfat and fat solids, more than absorbs production increases of butterfat to very slightly increase cheese and butter prices, while there is an increase of nonfat solids in Class IV causing the nonfat dry milk price to decrease slightly.

*Producers.* Over the five-year period, the changes taken as a whole result in an increase of about \$0.13 per hundredweight in the Federal order minimum blend price for milk at test. Including the effects of Class I premiums and the reduced returns from manufactured milk, the Federal order blend price plus premiums is increased by \$0.06 per hundredweight. Federal order marketings increase by an average 47 million pounds due to an increase in production in response to higher producer prices. Cash receipts increase by \$74.0 million (0.4 percent) from baseline receipts of \$17,194 million.

The distribution of the 2002-2006 annual average price changes across the 11 orders varies with the distribution of Class III and Class IV utilizations. The 5-year average blend price at test varies from no change in the Appalachian and Florida orders to an increase \$0.24 per cwt. in the Upper Midwest. The blend prices at test plus premiums on average for the 5-year period varies from a decrease of \$0.02 in the Appalachian order to an increase of \$0.10 per cwt. in the Central.

The five-year annual average U.S. all-milk price increases by \$0.05 per hundredweight. U.S. milk marketings increase by an average 57 million pounds annually, and cash receipts increase by \$86.8 million (0.4 percent) from baseline receipts of \$23,884 million.

In comparison to the Recommended Decision, the Federal order minimum blend price at test increased on average by \$0.20 per cwt., while the blend price at test plus premiums increased by \$0.10 per cwt. on average from the model baseline.

Milk Manufacturers and Processors. Annual Class IV and Class II skim milk prices increase each year for an average of \$0.02 per hundredweight (0.2 percent) for the 2002-2006 period. This increase results mainly from changing the conversion factor for nonfat dry milk to nonfat solids from a 1.02 divisor to a 0.99 multiplier. The Class I skim milk price increases by an average of \$0.03 per hundredweight. Butterfat prices decline each year by an average of 1.44 cents per pound.

The Class IV price at test (about 6.85 percent butterfat) declines by an average of \$0.12 per hundredweight, mainly as the result of a slight reduction in the butterfat content of Class IV and lower butterfat prices over 2002-2006. The Class II price at test decreases on average by \$0.10 per cwt. The Class I price at test (about 2 percent butterfat) on average is unchanged from the baseline.

The annual average Class III price at test (3.82 percent butterfat) increases by about \$0.31 per hundredweight during 2002-2006. From the 2002 and 2003 Class III price increase of \$0.40 and \$0.42 per hundredweight, respectively, the changes steadily decline, ending in an increase of \$0.15 in 2006. The major change in the Class III price is the average protein price increase of \$0.17 per pound, ranging from an increase of \$0.20 in 2002 and 2003 and declining steadily to an increase of about \$0.11 in 2006.

In comparison, the Recommended Decision would have increased the average Class III price at test over the 5-year period by \$0.38 per cwt, while the Class IV price at test would decrease by \$0.07 per cwt. The average Class I price at test increased by \$0.07 per cwt, while the Class II price at test was unchanged.

Consumers. Since the average minimum Class I price at test for 2002-2006 is unchanged from the baseline, the average price per gallon of fluid milk for consumers is expected to remain unchanged as well. Annual consumer costs for fluid milk over 2002-2006 are estimated to increase on average by about \$2 million in the Federal order system and by \$3 million in the U.S.

The price of butter is estimated to increase on average \$0.008 per pound for the period. Cheese is estimated to increase \$0.0004 per pound. Annual consumer expenditures over the five-year period are estimated to increase by \$11 million on butter, and by \$1 million on American cheese.

Summary of Changes Based on August 2001 Model Baseline: Recommended Decision and Final Decision

	Recommended	<u>Final</u>	<b>Difference</b>
Prices at test (\$/cwt.)			
Class I	0.07	0.00	-0.07
Class II	0.00	-0.10	-0.10
Class III	0.38	0.31	-0.07
Class IV	-0.07	-0.12	-0.05
Minimum Blend	0.20	0.14	-0.07
Blend plus Premium	0.10	0.06	-0.05
U.S. All-milk	0.07	0.05	-0.02
Marketings (Mil. Lbs.)			
Federal Order	83	47	-36
United States	65	57	-8
Cash Receipts (Mil. Dol.)			
Federal Order	135.7	74.0	-61.7
United States	125.6	86.8	-38.8

Table C-1A: Baseline: Selected Supply-Demand-Price Estimates from the Model Baseline Based On the USDA Baseline used for Recommended Decision Analysis, 2002-2006.

	Units	2002	2003	2004	2005	2006	5-year average
U.S. Milk Production	Mil. Lbs	170,174	173,279	176,079	177,957	180,086	175,515
U.S. Marketings Class I Class II Class III Class IV Total U.S. Marketings Import Ingredients Total Supply	Mil. Lbs	56,396	56,931	57,358	57,281	57,398	57,073
	Mil. Lbs	15,616	15,794	15,814	15,889	16,004	15,823
	Mil. Lbs	81,109	84,289	86,772	88,840	90,586	86,319
	Mil. Lbs	16,244	15,475	15,424	15,261	15,486	15,578
	Mil. Lbs	169,074	172,204	175,079	176,982	179,186	174,505
	Mil. Lbs	290	284	290	289	287	288
	Mil. Lbs	169,364	172,488	175,369	177,270	179,473	174,793
U.S. Marketings Fat Class I Fat Class II Fat Class III Fat Class IV Fat Total U.S. Fat Import Ingredients Fat Total Supply Fat	Mil. Lbs	1,142	1,153	1,162	1,160	1,163	1,156
	Mil. Lbs	1,336	1,349	1,351	1,356	1,365	1,351
	Mil. Lbs	2,812	2,900	2,974	3,046	3,111	2,969
	Mil. Lbs	933	936	958	951	955	947
	Mil. Lbs	6,202	6,316	6,422	6,491	6,572	6,401
	Mil. Lbs	22	22	22	22	22	22
	Mil. Lbs	6,223	6,338	6,444	6,513	6,594	6,423
U.S. Marketings SNF Class I SNF Class II SNF Class III SNF Class IV SNF Total U.S. SNF Import Ingredients SNF Total Supply SNF	Mil. Lbs	4,997	5,045	5,083	5,076	5,087	5,057
	Mil. Lbs	1,291	1,306	1,308	1,314	1,324	1,309
	Mil. Lbs	7,081	7,361	7,579	7,760	7,912	7,539
	Mil. Lbs	1,385	1,315	1,308	1,294	1,314	1,323
	Mil. Lbs	14,730	15,003	15,254	15,421	15,614	15,204
	Mil. Lbs	24	24	24	24	24	24
	Mil. Lbs	14,754	15,027	15,278	15,445	15,637	15,228
U.S. Marketings Skim Class I Skim Class II Skim Class III Skim Class IV Skim Total U.S. Skim Import Ingredients Skim Total Supply Skim	Mil. Lbs	55,253	55,778	56,196	56,120	56,235	55,917
	Mil. Lbs	14,280	14,445	14,464	14,533	14,639	14,472
	Mil. Lbs	78,297	81,388	83,799	85,794	87,474	83,350
	Mil. Lbs	15,311	14,539	14,467	14,310	14,531	14,631
	Mil. Lbs	162,872	165,888	168,657	170,490	172,614	168,104
	Mil. Lbs	268	262	268	267	265	266
	Mil. Lbs	163,140	166,150	168,925	170,757	172,879	168,370
Product Prices Cheese Price Dry Whey Price Butter Price NDM Price	\$/lb.	1.3121	1.2547	1.3096	1.3549	1.4104	1.3284
	\$/lb.	0.2268	0.2208	0.2286	0.2309	0.2380	0.2290
	\$/lb.	1.3815	1.3790	1.3396	1.2265	1.1668	1.2987
	\$/lb.	0.9265	0.8726	0.9670	1.0843	1.1401	0.9981
U.S. Milk Prices at Test U.S. All-milk price	\$/cwt.	13.42	13.05	13.57	13.99	14.36	13.68
Cash Receipts United States	Mil. Dol.	22,698	22,469	23,750	24,767	25,738	23,884

Table C-1B: Baseline: Selected Supply-Demand-Price Estimates from the Model Baseline Based On the USDA Baseline used for Recommended Decision Analysis, 2002-2006.

	Units	2002	2003	2004	2005	2006	5-year average
F.O. Marketings Class I Class II	Mil. Lbs Mil. Lbs	46,295 11,526	46,726 11,653	47,075 11,665	47,031 11,702	47,130 11,773	46,851 11,664
Class III	Mil. Lbs	52,447	56,059	57,820	59,053	61,042	57,284
Class IV	Mil. Lbs	7,525	6,876	6,494	5,833	5,443	6,434
Total F.O. Marketings	Mil. Lbs	117,792	121,315	123,053	123,619	125,387	122,233
F.O. Marketings Fat							
Class I Fat	Mil. Lbs	935	944	951	950	952	946
Class II Fat	Mil. Lbs	905	913	914	916	921	914
Class III Fat	Mil. Lbs	2,020	2,138	2,195	2,246	2,330	2,186
Class IV Fat	Mil. Lbs	463	457	456	424	399	440
Total F.O. Fat	Mil. Lbs	4,323	4,452	4,516	4,537	4,602	4,486
F.O. Marketings SNF							
Class I SNF	Mil. Lbs	4,129	4,168	4,199	4,195	4,204	4,179
Class II SNF	Mil. Lbs	961	972	973	976	982	973
Class III SNF	Mil. Lbs	4,524	4,839	4,993	5,100	5,272	4,946
Class IV SNF	Mil. Lbs	633	575	541	484	450	537
Total F.O. SNF	Mil. Lbs	10,248	10,554	10,706	10,755	10,909	10,634
F.O. Marketings Skim							
Class I Skim	Mil. Lbs	45,360	45,782	46,124	46,081	46,178	45,905
Class II Skim	Mil. Lbs	10,621	10,740	10,751	10,785	10,852	10,750
Class III Skim	Mil. Lbs	50,426	53,922	55,624	56,807	58,712	55,098
Class IV Skim	Mil. Lbs	7,062	6,419	6,038	5,409	5,044	5,994
Total F.O. Skim	Mil. Lbs	113,469	116,863	118,537	119,082	120,785	117,747
F.O. Fat Content by Class							
Class I	%	2.02%	2.02%	2.02%	2.02%	2.02%	2.02%
Class II	%	7.85%	7.84%	7.84%	7.83%	7.82%	7.84%
Class III	%	3.85%	3.81%	3.80%	3.80%	3.82%	3.82%
Class IV	%	6.15%	6.65%	7.02%	7.27%	7.33%	6.88%
Total	%	3.67%	3.67%	3.67%	3.67%	3.67%	3.67%
F.O. Fat Value							
Class I	Mil. \$	1,471	1,482	1,447	1,314	1,248	1,471
Class II	Mil. \$	1,405	1,415	1,372	1,250	1,189	1,405
Class III	Mil. \$	3,123	3,298	3,281	3,048	2,991	3,123
Class IV	Mil. \$	715	706	681	575	512	715
Total	Mil. \$	6,713	6,900	6,782	6,187	5,940	6,713
F.O. Skim Value							
Class I	Mil. \$	4,380	4,203	4,619	5,091	5,329	4,380
Class II	Mil. \$	814	772	863	977	1,036	814
Class III	Mil. \$	3,306	3,192	3,751	4,423	5,112	3,306
Class IV	Mil. \$	492	417	442	452	446	492
Total	Mil. \$	8,992	8,585	9,674	10,943	11,925	8,992

Table C-1C: Baseline: Selected Supply-Demand-Price Estimates from the Model Baseline Based On the USDA Baseline used for Recommended Decision Analysis, 2002-2006.

	I						
	Units	2002	2003	2004	2005	2006	5-year average
F.O. Component Prices							
Protein Price	\$/lb.	1.9383	1.7450	1.9952	2.3270	2.6103	2.1232
Other Solids Price	\$/lb.	0.0928	0.0866	0.0946	0.0970	0.1043	0.0951
Nonfat Solids Price	\$/lb.	0.7740	0.7212	0.8137	0.9287	0.9835	0.8442
F.O. Class Fat Prices							
Class I Price	\$/lb.	1.5726	1.5696	1.5215	1.3836	1.3108	1.4716
Class II Price	\$/lb.	1.5527	1.5497	1.5016	1.3637	1.2909	1.4517
Class III price	\$/lb.	1.5457	1.5427	1.4946	1.3567	1.2839	1.4447
Class IV price	\$/lb.	1.5457	1.5427	1.4946	1.3567	1.2839	1.4447
Fat Pool Price	\$/lb.	1.5530	1.5499	1.5017	1.3638	1.2908	1.4518
F.O. Class Skim Prices							
Class I Price	\$/cwt.	9.6560	9.1808	10.0136	11.0486	11.5411	10.2880
Class II Price	\$/cwt.	7.6660	7.1908	8.0236	9.0586	9.5511	8.2980
Class III price	\$/cwt.	6.5563	5.9205	6.7431	7.7859	8.7075	7.1427
Class IV price	\$/cwt.	6.9660	6.4908	7.3236	8.3586	8.8511	7.5980
Skim Pool Price	\$/cwt.	7.9248	7.3458	8.1614	9.1897	9.8726	8.4989
Over-order Premiums							
Class I Over-order	\$/cwt.	0.96	0.99	1.01	1.03	1.04	1.01
Class III Premium	\$/cwt.	0.54	1.04	0.83	0.73	0.72	0.77
F.O. Milk Prices at 3.5% Fat							
Minimum Class I Price	\$/cwt.	14.82	14.35	14.99	15.50	15.72	15.08
Minimum Class II Price	\$/cwt.	12.83	12.36	13.00	13.51	13.73	13.09
Minimum Class III price	\$/cwt.	11.74	11.11	11.74	12.26	12.90	11.95
Minimum Class IV price	\$/cwt.	12.13	11.66	12.30	12.81	13.03	12.39
Minimum Blend Price	\$/cwt.	13.08	12.51	13.13	13.64	14.05	13.28
Blend + Premiums Milk Price	\$/cwt.	13.38	13.05	13.58	14.05	14.45	13.70
F.O. Milk Prices at Test							
Minimum Class I Price	\$/cwt.	12.64	12.17	12.88	13.62	13.96	13.05
Minimum Class II Price	\$/cwt.	19.25	18.77	19.16	19.03	18.90	19.02
Minimum Class III price	\$/cwt.	12.26	11.58	12.16	12.65	13.28	12.38
Minimum Class IV price	\$/cwt.	16.04	16.32	17.30	17.61	17.61	16.98
Minimum Blend Price	\$/cwt.	13.33	12.76	13.37	13.86	14.25	13.52
Blend + Premiums Milk Price	\$/cwt.	13.63	13.30	13.82	14.27	14.65	13.93
Cash Receipts							
Federal Order 1/	Mil. Dol.	16,055	16,137	17,006	17,636	18,375	17,042

Table C-2A: Final Decision: Changes in Selected United States Supply-Demand-Price Estimates from the Model Baseline Based on the USDA Baseline used for Recommended Decision Analysis, 2002-2006.

		Ch	ange from	m Baselir	ne due to	Final Dec	ision	Baseline	
	Units	2002	2003	2004	2005	2006	5-year average	5-year average	Percentage change from baseline
U.S. Milk Production	Mil. Lbs	33	60	69	65	57	57	175,515	0.032%
U.S. Marketings									
Class I	Mil. Lbs	-11	3	6	6	-7	-1	57,153	-0.001%
Class II	Mil. Lbs	31	39	40	36	33	36	15,844	0.225%
Class III	Mil. Lbs	-11	-5	-4	1	9	-2	86,439	-0.002%
Class IV	Mil. Lbs	24	24	27	22	22	24	15,599	0.152%
Total U.S. Marketings	Mil. Lbs	33	60	69	65	57	57	174,505	0.033%
U.S. Marketings Fat									
Class I Fat	Mil. Lbs	0	0	0	0	0	0	1,156	-0.001%
Class II Fat	Mil. Lbs	2	3	3	3	2	3	1,351	0.192%
Class III Fat	Mil. Lbs	0	0	0	0	0	0	2,969	-0.003%
Class IV Fat	Mil. Lbs	0	0	0	0	0	0	947	-0.044%
Total U.S. Fat	Mil. Lbs	1	2	3	2	2	2	6,401	0.033%
U.S. Marketings SNF									
Class I SNF	Mil. Lbs	-1	0	1	1	-1	0	5,057	-0.001%
Class II SNF	Mil. Lbs	3	3	3	3	3	3	1,309	0.229%
Class III SNF	Mil. Lbs	-1	0	0	0	1	0	7,539	-0.002%
Class IV SNF	Mil. Lbs	2	2	2	2	2	2	1,323	0.165%
Total U.S. SNF	Mil. Lbs	3	5	6	6	5	5	15,204	0.033%
U.S. Marketings Skim									
Class I Skim	Mil. Lbs	-10	3	6	6	-7	-1	55,997	-0.001%
Class II Skim	Mil. Lbs	29	36	37	33	30	33	14,493	0.229%
Class III Skim	Mil. Lbs	-11	-5	-4	1	9	-2	83,471	-0.002%
Class IV Skim	Mil. Lbs	24	25	27	22	23	24	14,652	0.165%
Total U.S. Skim	Mil. Lbs	32	58	67	62	55	55	168,613	0.032%
Product Prices									
Cheese Price	\$/lb.	0.0013	0.0006	0.0004	0.0001	-0.0004	0.0004	1.3284	0.031%
Dry Whey Price	\$/lb.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2290	0.002%
Butter Price	\$/lb.	0.0093	0.0096	0.0073	0.0070	0.0080	0.0083	1.2987	0.636%
NDM Price	\$/lb.				-0.0033		-0.0032	0.9981	-0.324%
U.S. Milk Prices at Test									
U.S. All-milk price	\$/cwt.	0.07	0.05	0.05	0.03	0.03	0.05	13.68	0.333%
Cash Receipts									
United States	Mil. Dol.	117.9	99.2	92.3	64.1	60.3	86.8	23,884.3	0.363%
		1						]	1

Table C-2B: Final Decision: Changes in Federal Order Marketings and Class Revenues from the Model Baseline Based on the USDA Baseline used for Recommended Decision Analysis, 2002-2006.

		Cha	nge from	Baseline	due to F	inal Deci	sion	Baseline	
	Units	2002	2003	2004	2005	2006	5-year average	5-year average	Percentage change from baseline
F.O. Marketings Class I Class II Class III Class IV Total F.O. Marketings	Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs	-9 24 -9 18 23	2 29 -4 21 49	6 31 -4 25 58	5 27 0 23 55	-8 25 7 27 51	-1 27 -2 23 47	46,851 11,664 57,284 6,434 122,233	-0.002% 0.232% -0.003% 0.356% 0.039%
F.O. Marketings Fat Class I Fat Class II Fat Class III Fat Class IV Fat Total F.O. Fat	Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs	0 2 0 0	0 2 0 0 2	0 2 0 0 2	0 2 0 0 2	0 2 0 0 2	0 2 0 0 2	946 914 2,186 440 4,486	-0.002% 0.198% 0.009% -0.060% 0.039%
F.O. Marketings SNF Class I SNF Class II SNF Class III SNF Class IV SNF Total F.O. SNF	Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs	-1 2 -1 2 2	0 2 0 2 4	1 3 0 2 5	0 2 0 2 5	-1 2 1 2 4	0 2 0 2 4	4,179 973 4,946 537 10,634	-0.002% 0.236% -0.004% 0.390% 0.039%
F.O. Marketings Skim Class I Skim Class II Skim Class III Skim Class IV Skim Total F.O. Skim	Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs Mil. Lbs	-9 22 -9 19 23	2 27 -5 22 47	6 29 -4 25 56	5 25 0 23 53	-8 23 6 27 49	-1 25 -2 23 45	45,905 10,750 55,098 5,994 117,747	-0.002% 0.235% -0.004% 0.386% 0.039%
F.O. Fat Content by Class Class I Class II Class III Class IV Total	% % % %	0.00% 0.00% 0.00% -0.02% 0.00%	0.00% 0.00% 0.00% -0.03% 0.00%	0.00% 0.00% 0.00% -0.03% 0.00%	0.00% 0.00% 0.00% -0.03% 0.00%	0.00% 0.00% 0.00% -0.04% 0.00%	0.00% 0.00% 0.00% -0.03% 0.00%	2.02% 7.84% 3.82% 6.88% 3.67%	0.000% -0.034% 0.013% -0.426% 0.000%
F.O. Fat Value Class I Class II Class III Class IV Total	Mil. \$ Mil. \$ Mil. \$ Mil. \$ Mil. \$	-14.1 -10.9 -29.8 -7.5 -62.3	-13.4 -10.1 -30.4 -7.1 -61.0	-15.4 -11.9 -35.6 -7.8 -70.7	-13.6 -10.8 -32.1 -6.4 -62.9	-11.8 -9.1 -27.7 -5.0 -53.5	-13.7 -10.5 -31.1 -6.7 -62.1	1,470.6 1,404.8 3,123.0 715.0 6,713.4	-0.929% -0.751% -0.997% -0.944% -0.925%
F.O. Skim Value Class I Class II Class III Class IV Total	Mil. \$ Mil. \$ Mil. \$ Mil. \$ Mil. \$ Mil. \$	26.5 4.2 236.5 3.0 270.2	1.8 2.3 264.4 1.6 270.2	10.1 4.5 240.0 3.1 257.7	12.5 5.1 170.8 3.3 191.7	28.3 4.4 122.1 3.4 158.3	15.8 4.1 206.7 2.9 229.6	4,379.9 814.2 3,306.1 492.0 8,992.2	0.362% 0.507% 6.253% 0.590% 2.553%

Table C-2C: Final Decision: Changes in Federal Order Prices and Cash Receipts from the Model Baseline Based on the USDA Baseline used for Recommended Decision Analysis, 2002-2006.

		Cha	ange from	Baseline	due to F	inal Decis	ion	Baseline	
	Units	2002	2003	2004	2005	2006	5-year average	5-year average	Percentage change from baseline
F.O. Component Prices Protein Price Other Solids Price Nonfat Solids Price	\$/lb. \$/lb. \$/lb.	0.1952 -0.0229 0.0027	-0.0229	0.1830 -0.0229 0.0023	-0.0230	0.1106 -0.0230 0.0023	0.1663 -0.0229 0.0021	2.1232 0.0951 0.8442	7.831% -24.131% 0.249%
F.O. Class Fat Prices Class I Price Class II Price Class III price Class IV price Fat Pool Price	\$/lb. \$/lb. \$/lb. \$/lb. \$/lb.	-0.0147 -0.0147 -0.0147 -0.0147	-0.0143 -0.0143 -0.0143	-0.0163 -0.0163 -0.0163	-0.0145 -0.0145 -0.0145 -0.0145 -0.0145	-0.0122 -0.0122 -0.0122	-0.0144 -0.0144 -0.0144 -0.0144	1.4716 1.4517 1.4447 1.4447 1.4518	-0.979% -0.992% -0.997% -0.997% -0.992%
F.O. Class Skim Prices Class I Price Class II Price Class III price Class IV price Skim Pool Price	\$/cwt. \$/cwt. \$/cwt. \$/cwt. \$/cwt.	0.06 0.02 0.47 0.02 0.24	0.00 0.00 0.49 0.00 0.23	0.02 0.02 0.43 0.02 0.21	0.03 0.03 0.30 0.03 0.16	0.06 0.02 0.21 0.02 0.13	0.03 0.02 0.38 0.02 0.19	10.29 8.30 7.14 7.60 8.50	0.338% 0.228% 5.322% 0.249% 2.264%
Over-order Premiums Class I Over-order Class III Premiums	\$/cwt. \$/cwt.	-0.001 -0.21	0.000 -0.22	0.000 -0.19	0.000 -0.12	0.000	0.000 -0.17	1.01 0.77	-0.006% -21.477%
F.O. Milk Prices at 3.5% Fat Minimum Class I Price Minimum Class II Price Minimum Class III price Minimum Class IV price Minimum Blend Price Blend + Premiums Milk Price	\$/cwt. \$/cwt. \$/cwt. \$/cwt. \$/cwt.	0.01 -0.03 0.40 -0.03 0.18 0.08	-0.05 -0.05 0.42 -0.05 0.17 0.07	-0.04 -0.04 0.36 -0.04 0.15 0.06	-0.03 -0.03 0.24 -0.03 0.10 0.04	0.02 -0.02 0.16 -0.02 0.08 0.04	-0.02 -0.03 0.32 -0.03 0.14 0.06	15.08 13.09 11.95 12.39 13.28 13.70	-0.112% -0.246% 2.648% -0.260% 1.018% 0.425%
F.O. Milk Prices at Test Minimum Class I Price Minimum Class II Price Minimum Class III price Minimum Class IV price Minimum Blend Price Blend + Premiums Milk Price	\$/cwt. \$/cwt. \$/cwt. \$/cwt. \$/cwt.	0.03 -0.10 0.40 -0.10 0.17 0.08	-0.03 -0.11 0.42 -0.13 0.17 0.06	-0.01 -0.11 0.35 -0.14 0.15 0.06	0.00 -0.09 0.23 -0.12 0.10 0.04	0.04 -0.08 0.15 -0.12 0.08 0.04	0.00 -0.10 0.31 -0.12 0.13 0.06	13.05 19.02 12.38 16.98 13.52 13.93	0.038% -0.521% 2.513% -0.710% 0.980% 0.398%
Cash Receipts Federal Order 1/	Mil. Dol.	96.2	84.2	79.2	55.8	54.8	74.0	17,193.7	0.431%

<sup>1/</sup> Cash receipts include the income from additional milk pooled on the Federal Order system due to favorable price relationships.

Table C-3: Class Utilization by Federal Orders, 2000

	Class I	Class II	Class III	Class IV
Northeast	43.86%	17.40%	29.02%	9.72%
Appalachian	68.75%	14.07%	6.42%	10.77%
Florida	88.09%	6.75%	2.22%	2.93%
Southeast	65.01%	10.70%	16.32%	7.97%
Upper Midwest	17.47%	3.55%	78.14%	0.83%
Central	30.40%	7.43%	58.57%	3.59%
Mideast	47.36%	14.95%	31.40%	6.29%
Pacific Northwest	30.99%	6.87%	34.67%	27.47%
Southwest	45.57%	9.01%	38.29%	7.13%
Arizona-Las Vegas	31.30%	4.46%	36.10%	28.14%
Western	25.05%	9.01%	57.33%	8.62%
Total 2000	39.33%	10.22%	42.69%	7.75%

Table C-4: Adjusted 5-year Average Class Utilization by Federal Orders to reflect the 5-year Average Federal Order Class Utilization under the Baseline Model used for Recommended Decision Analysis

	Class I	Class II	Class III	Class IV
Northeast	42.75%	16.25%	34.85%	6.15%
Appalachian	67.01%	13.13%	7.71%	12.14%
Florida	85.87%	6.30%	2.67%	5.16%
Southeast	63.37%	9.99%	19.60%	7.04%
Upper Midwest	17.03%	3.32%	78.82%	0.83%
Central	29.63%	6.94%	61.43%	2.00%
Mideast	46.17%	13.96%	37.50%	2.37%
Pacific Northwest	30.21%	6.41%	41.65%	21.73%
Southwest	44.42%	8.41%	46.17%	1.00%
Arizona-Las Vegas	30.51%	4.16%	43.36%	21.97%
Western	24.42%	8.41%	63.17%	4.00%
Total	38.34%	9.55%	46.84%	5.28%

Table C-5: Changes in Minimum Blend Prices at Test due to the Final Decision from the Model Baseline used for Recommended Decision Analysis, by Federal Orders, 2002-2006 and 5-year average

		C	hange fron	n Baseline	due to F	inal Decision	on	Baseline	
	Units	2002	2003	2004	2005	2006	5-year average	5-year average	Percentage change from baseline
Northeast	\$/cwt	0.11	0.10	0.09	0.07	0.06	0.09	14.30	0.63%
Appalachian	\$/cwt	0.03	-0.01	-0.01	-0.01	0.02	0.00	14.52	0.01%
Florida	\$/cwt	0.03	-0.02	-0.01	-0.01	0.03	0.00	14.62	0.02%
Southeast	\$/cwt	0.07	0.04	0.04	0.03	0.05	0.05	13.99	0.34%
Upper Midwest	\$/cwt	0.31	0.32	0.27	0.18	0.12	0.24	12.67	1.91%
Central	\$/cwt	0.24	0.24	0.20	0.14	0.10	0.18	12.94	1.42%
Mideast	\$/cwt	0.13	0.12	0.11	0.07	0.06	0.10	13.46	0.73%
Pacific Northwest	\$/cwt	0.13	0.13	0.11	0.08	0.06	0.10	13.72	0.74%
Southwest	\$/cwt	0.18	0.17	0.15	0.10	0.08	0.14	13.32	1.03%
Arizona-Las Vegas	\$/cwt	0.13	0.14	0.12	0.09	0.07	0.11	13.67	0.80%
Western	\$/cwt	0.24	0.25	0.21	0.14	0.10	0.19	12.97	1.44%
Total	\$/cwt	0.17	0.17	0.22	0.10	0.08	0.13	13.52	0.98%

Table C-6: Changes in Blend Prices at Test Plus Premiums due to the Final Decision from the Model Baseline used for Recommended Decision Analysis, by Federal Orders, 2002-2006 and 5-year average

	Units	2002	2003	2004	2005	2006	5-year average
N lo who o o o h	C/2014	0.00	0.07	0.00	0.05	0.05	0.00
Northeast	\$/cwt	0.08	0.07	0.06	0.05	0.05	0.06
Appalachian	\$/cwt	0.00	-0.04	-0.04	-0.03	0.00	-0.02
Florida	\$/cwt	0.02	-0.03	-0.02	-0.01	0.02	-0.01
Southeast	\$/cwt	0.01	-0.03	-0.02	-0.01	0.01	-0.01
Upper Midwest	\$/cwt	0.12	0.12	0.10	0.07	0.05	0.09
Central	\$/cwt	0.13	0.12	0.11	0.07	0.06	0.10
Mideast	\$/cwt	0.10	0.09	0.08	0.05	0.05	0.07
Pacific Northwest	\$/cwt	0.00	-0.02	-0.02	-0.01	0.00	-0.01
Southwest	\$/cwt	0.02	-0.01	0.00	0.00	0.01	0.00
Arizona-Las Vegas	\$/cwt	0.05	0.03	0.03	0.02	0.02	0.03
Western	\$/cwt	0.04	0.02	0.02	0.01	0.01	0.02
Total	\$/cwt	0.08	0.06	0.06	0.04	0.04	0.06

Table C-7: Changes in Milk Production due to the Final Decision from the Model Baseline used for Recommended Decision Analysis, by regions, 2002-2006 and 5-year average

Trecommended Beeleich 7 and	lysis, by reg	gions, 2002-2006 and 5-year average								
		Cha	ange fron	n Baselin	e due to l	Final Dec	ision	Baseline		
Regions	Units	2002	2003	2004	2005	2006	5-year average	5-year average	Percentag e change from baseline	
Northeast	Mil. Lbs.	9	15	17	15	13	14	29,753	0.05%	
Appalachian	Mil. Lbs.	0	1	0	0	1	0	6,285	0.01%	
Southeast	Mil. Lbs.	0	1	0	0	0	0	4,510	0.00%	
Mideast	Mil. Lbs.	2	6	7	7	5	5	12,837	0.04%	
Southwest	Mil. Lbs.	1	3	3	3	3	2	13,090	0.02%	
Central	Mil. Lbs.	3	4	4	4	3	3	11,284	0.03%	
Upper Midwest	Mil. Lbs.	7	18	25	26	24	20	35,276	0.06%	
West	Mil. Lbs.	3	5	6	5	5	5	10,259	0.05%	
Pacific NW	Mil. Lbs.	0	1	0	0	0	0	8,263	0.00%	
Florida	Mil. Lbs.	0	0	0	0	0	0	2,535	0.00%	
Arizona	Mil. Lbs.	1	1	1	1	1	1	3,659	0.03%	
Other West	Mil. Lbs.	0	0	0	0	0	0	339	0.03%	
Total Federal Order plus 1/	Mil. Lbs.	27	55	65	62	56	53	138,186	0.04%	
California	Mil. Lbs.	6	6	5	3	1	4	37,329	0.01%	
Total Milk Production	Mil. Lbs.	33	60	69	65	57	57	175,515	0.03%	

<sup>1/</sup> Baseline 5-year average includes 95 million pounds of milk production in the states of Alaska and Hawaii.

Assume no change in production in those states due to Final decision.