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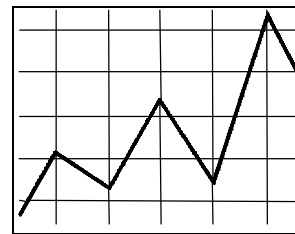
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MARKETING AND POLICY BRIEFING PAPER



Department of Agricultural and Applied Economics, College of Agricultural and Life Sciences, University of Wisconsin-Madison
Cooperative Extension, University of Wisconsin-Extension

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Summary of the USDA Proposed Rule for Federal Milk Marketing Order Reform

By Bob Cropp and Brian W. Gould¹

Introduction

The Federal Agriculture Improvement and Reform Act of 1996 mandates the US Secretary of Agriculture to reform the Federal Milk Marketing Orders (FMMO) on or before April 1, 1999. This reform effort must reduce the number of FMMO's from the existing 31 to not less than 10 and not more than 14. A FMMO must be reserved for California should dairy farmers in that State choose to petition the Secretary to have their marketings of milk regulated under the Federal Milk Marketing Order Program. In the process of order consolidation, the Secretary is authorized (but not mandated) to review other aspects of the order program, including: (i) the use of utilization rates and multiple basing points for the pricing of fluid milk and (ii) the use of uniform multiple component pricing when developing one or more basic formula prices for manufacturing milk.

On January 23, 1998, the Secretary put forth a proposed rule for federal order reform. There is a 60 day public comment period on the proposed rule. This paper summarizes the provisions of this proposed rule.

Consolidation of Orders Under Order Reform

The proposed reform rule consolidates the current 31 marketing order areas into 11 marketing areas. The proposal adds some previously unregulated areas (counties) within the FMMO system with the most significant additions being the unregulated New York and New England counties. Under this proposal no fluid (beverage) milk plants currently unregulated would now be regulated while some partially regulated plants would now be fully regulated. California is not part of these proposed 11 marketing areas because California dairy farmers have not petitioned to be included.

Figure 1 shows the existing 31 FMMO's. Figure 2 shows the proposed 11 consolidated marketing areas.

¹ The authors are Extension Dairy Marketing Specialists in the Department of Agricultural and Applied Economics, University of Wisconsin-Madison

The goal of the Upper Midwest Dairy Coalition was to have a larger Upper Midwest/Central U.S. consolidated marketing area (from Kansas City and St. Louis north into Minnesota and Wisconsin). This larger area was thought to provide a more equitable sharing of Class I sales for Upper Midwest dairy farmers.

Seven criteria were used in the design of the modified FMMO's. These criteria included:

Overlapping of route disposition. The extent to which current routes of milk distributing plants - (distributors of packaged or dispenser milk) overlap was the most important criteria in FMMO consolidation. Overlapping routes should provide an indication of the degree to which these distributors are competing for the same customers and, as such, should be subject to similar pricing provisions.

Overlapping of areas of milk supply. The location of a plant's milk supply indicates the competitive nature of the cost of the milk supply. The extent to which milk plants compete with each other for the same milk supply area (procurement area) is therefore, important. Common supply areas should be subject to similar pricing provisions. The pooling of milk produced within the same procurement area under the same order allows for uniform pricing of producer milk.

Natural boundaries. Natural boundaries such as mountains and deserts often inhibit the movement of milk between areas. Large unregulated areas also are considered a type of natural barrier.

Existence of cooperative organizations. Dairy cooperatives are often organized around a common marketing area. The number and size of cooperatives within close proximity was used as a consideration.

Number of handlers within a market. A sufficient number of handlers (regulated milk plants) must exist in a marketing area so that the publishing of marketing statistics do not disclose proprietary information.

Features or regulatory provisions common to existing orders. The existence of similar pricing provisions such as multiple component pricing may ease the consolidation of marketing areas.

Similar utilization patterns of farm milk. Producer blend prices (base pay price) are determined by the utilization of milk for the different classes of milk in a given order and the associated minimum pay prices for each of these classes. The greater the proportion of milk utilized in class I (the higher priced beverage use class) the higher the producer blend price. Consolidating marketing areas having similar milk utilization lessens the impact of such consolidation on existing producer blend prices.

Classes of Milk Under Order Reform

Currently, there are four classes of milk defined under the FMMO system. Class I milk is milk used for fluid purposes. Class II milk is milk used for soft manufactured products such as ice cream, cottage cheese, ice cream mixes, and yogurt. Class III milk is milk used for hard cheese and butter. Class III-A milk is skim milk used to make nonfat dry milk. Under the reform proposal there would continue to be four classes of milk. Table 1 provides a general description of these proposed classes.

Table 1. Overview of Proposed Milk Classes

Milk Class	Description of Proposed Milk Classes
I	This milk class incorporates milk used for beverage purposes. Eggnog which previously was classified as a Class II product would now be classified as Class I.
II	Milk used for soft manufacturing products is classified as Class II under this proposal. Cream cheese which is currently classified as a Class III product would be classified as a Class II product.
III	Class III milk under the proposed reform would include milk that is used in the manufacture of hard cheese.
IV	Milk in this category is used in the manufacture of nonfat dry milk, whole milk powder and butter.

Replacement for the Basic Formula Price (BFP) as the Base Price and Mover of Class Prices Under Order Reform

There is general agreement that a replacement of the BFP is needed as the base price in federal order pricing. The BFP is now the base price for Class III milk and is used as the mover for both class II and class I milk. Class III-A uses a product price formula to establish its minimum price.

The current BFP now represents the competitive producer pay price by Minnesota and Wisconsin butter, milk powder and cheese plants for Grade B milk. The volume of Grade B milk has declined to low levels in both states. In 1996, 92% of Wisconsin milk is Grade A and 90 percent of Minnesota milk is Grade A. The Upper Midwest Dairy Coalition prefers a different competitive producer pay price that would include Grade A milk and an expanded area beyond Minnesota and Wisconsin. Other interested parties have proposed some type of product price formula, component pricing or cost of production formula be used as a replacement.

This proposed rule would replace the BFP with a multiple component pricing (MCP) system that would determine butterfat prices per pound for milk used in all four product classes from a butter price; protein and other solids per pound prices for milk used in Class III products from cheese and whey prices; and nonfat solids per pound prices for milk used in Class IV products from nonfat dry milk product prices. Prices for Class I and Class II would be determined on the basis of skim milk prices for Class III and Class IV, computed from the respective component prices.

For class III milk (hard cheese) component prices per pound would be established monthly for protein, butterfat, and other solids. Formulas that consider the yields and make allowances are used to derive these values. The Secretary proposes that NASS survey prices of manufactured dairy products (cheddar cheese, butter, nonfat dry milk and dry whey) be used in these formulas rather than CME cheese and butter prices. The NASS survey of butter, nonfat dry milk, and dry whey would need to be developed. NASS is currently surveying cheddar cheese prices which are used to adjust the monthly BFP price. The proposed formulas are:

$$\text{Butterfat Price/lb} \equiv (\text{NASS AA Butter Survey Price/lb} - 0.079 \text{ make allowance}) / .82$$

$$\text{Protein Price/lb} \equiv (\text{NASS 40\# Cheddar Cheese Survey Block Price} - 0.127 \text{ make allowance}) \times$$

$$1.32 + (((\text{NASS 40\# Cheddar Cheese Survey Block Price} - 0.127 \text{ make allowance}) \times 1.582) - \text{Butterfat Price}) \times 1.20$$

This protein price formula recognizes that the extra fat in milk along with the protein contributes to the cheese yield. This formula recognizes that the butterfat in cheese is normally worth more than the butterfat in butter.

$$\text{Other Solids Price/lb} \equiv (\text{NASS Dry Whey Survey Price} - 0.10 \text{ make allowance}) / 0.968$$

The proposed MCP rule represents a true MCP system. Under existing MCP systems the BFP is decomposed into a protein value, butterfat value and an other solids value. The protein price per pound is derived by as formula using 40# cheddar cheese, and the butterfat price per pounds is derived from the butter price. But the other solids value is derived from the residual value in a hundredweight of milk after subtracting the protein and butterfat values from the BFP at test. Under this proposal there no longer would be a survey of producer pay prices by manufacturing plants to arrive at a BFP. The component values would be derived from product prices. A per hundredweight milk value (BFP_{MCP}) would be calculated using the following:

$$\text{BFP}_{\text{MCP}} \equiv \text{Protein Price} \times 3.15 + \text{Butterfat Price} \times 3.5 + \text{Other Solids Price} \times 5.5$$

This component based value can be compared to the existing BFP. USDA's analysis for a period of September 1991 through May 1997 showed that the multiple component based value averaged \$0.26 per hundredweight higher than the existing BFP over this period.

The Class IV price would also be multiple component. The butterfat price for Class IV products would be the same as above for Class III and:

$$\text{Nonfat Solids Price/lb (Class IV)} \equiv ((\text{NASS Nonfat Dry Milk Survey Price} - 0.125 \text{ make allowance}) / 0.96 \text{ yield}).$$

Since these component prices are paid on a per pound basis, there is no need to adjust for regional differences in product yields nor differences in seasonal yields of products. Some have argued that because of regional differences in milk composition the yield of manufactured dairy products differ regionally and therefore the BFP should also vary by region to recognize these differences. Further, it has been argued that the seasonal change in milk composition also changes the yield of dairy products and any product pricing formula needs to recognize this given that under the proposed reform, milk plants will simply test and pay for the composition of milk that they procure, differences in milk composition is not a problem.

Of the proposed 11 consolidated orders only 7 currently have multiple component pricing. Therefore, it is proposed that producers in these 7 orders be paid on a multiple component basis for milk used in Class III and IV. Producers in the remaining 4 orders producers will be paid on a skim milk/butterfat per hundredweight basis as they are now. The hundredweight basis would be derived by summing the component prices per pound times the average component composition in a hundredweight of milk. The Upper Midwest order currently has multiple component price and therefore would continue to be paid on this basis.

Under the current system, Class II milk is priced using the BFP two months previous plus a differential of \$0.30 per hundredweight. Under the proposed reform, Class II milk will be priced using the Class IV price plus a differential of \$0.70 per hundredweight. The \$0.70 is the estimated cost of drying condensed skim milk and re-wetting the solids for use in Class II products. Milk plants using milk for Class II products were complaining that lower price nonfat dry milk, a Class III-A product, was being used to make Class II

products rather than condensed skim milk, a class II use.

Currently, Class I milk (beverage milk) is now priced using the BFP two months previous plus a differential. Some have *charged* that there should be some decoupling of Class I milk prices from the BFP given that the BFP is driven by cheese prices. It has been argued that since the consumption of beverage milk does not respond significantly to changes in prices (very inelastic demand) it makes no sense that class I prices change to the extent that the BFP changes because of changing cheese prices. Others argue that grade A milk can be used for class I use or for manufacturing dairy products. Therefore, the price for Class I milk must be tied directly to manufacturing milk prices, the BFP. The Upper Midwest Coalition proposed that Class I prices be tied directly to manufacturing milk prices. If not, all the burden of changes in milk supply and demand falls on the manufacturing sector and makes the Class I sector immune to market forces.

Under the proposed reform, Class I prices are linked to manufacturing milk prices, but this linkage is smoothed out. The Secretary proposes a *six month declining average* of the *higher* of the Class III or Class IV per hundredweight skim milk price for the second proceeding month. The butterfat price per pound for the Class I milk is proposed to be the *six month declining average* butterfat price used in Class III, IV and II for the second proceeding month plus the class I differential. For example, the skim milk price per hundredweight for March would be the six month declining moving average of the higher of the Class III or Class IV skim milk price for the period of January back to August. The declining moving average means that the January price would receive a weight of 6, the December price a weight of 5, and the November price a weight of 4, and etc. Hence, the more recent class III or class IV monthly values receive the greater weight. This six month declining average as a mover of class I does not separate Class I prices from manufacturing milk values, but would smooth out the monthly changes in Class I prices from what currently exists.

Under this Class I pricing proposal, handlers would have advanced pricing (two months) for both skim milk and butterfat proportion of Class I milk. Under current Class I pricing there is advanced pricing for Class I milk of 3.5 percent milk fat. When butter prices change significantly, the butterfat fat differential also changes which at times substantially changes the skim milk value of Class I milk. This makes it very difficult for Class I handlers to price their reduced fat beverage milk products. This proposed advanced pricing of both skim milk and butterfat eliminates this problem.

In summary, for those 7 orders that have multiple component pricing Class III and Class IV uses will be paid on a component price per pound, Class II and Class I will be paid a skim milk price per hundredweight and a butterfat price per pound. Producers will be paid a price per pound of protein, per pound of butterfat, per pound of other solids and the added value per hundredweight from Class II and Class I differentials. For those 4 orders without multiple component pricing milk will be priced and producers paid on a per hundredweight skim milk/butterfat basis as they are now where the hundredweight values will be derived from the same formulas used to calculate component values. Thus, Class I and Class II prices are paid on a skim milk/butterfat basis for orders with or without multiple component pricing. The skim milk value is on a per hundredweight basis, but the butterfat value will be a value per pound. No butterfat differentials will be used.

Quality Adjustment Under Order Reform

Of the 7 orders that are proposed to have multiple component pricing, five will also have an adjustment for milk quality. These five orders currently have quality adjustments. The quality adjustment would apply to class II, III and IV use milk, but not Class I. The base for adjustment is a somatic cell count (SCC) of 350 thousand. From this base, a producer having a lower SCC would subtract that lower SCC from 350 (and those with a higher SCC would subtract the 350). That difference would be used to pay the producer a

quality premium per hundredweight equaled to the product of .0005 times the monthly average NASS cheddar cheese price times (350 minus the producer's SCC) and for those with SCC greater than 350 would receive a deduction. Under this system, there is a quality premium for SCC's below 350,000 but no penalties for SCC's above the base.

Class I differentials Under Order Reform

The most controversial pricing provisions in federal milk marketing orders are the Class I differentials. Class I differentials were the subject of the 1990 national hearings and the Minnesota Lawsuit against the Secretary. The Upper Midwest Coalition has argued for the elimination of the Eau Claire single basing point and to flatten the Class I price surface to more appropriately recognize current regional fluid milk supply/demand conditions. Outside of the Upper Midwest there has been strong support for maintaining Class I differentials at current levels.

The Secretary has put forth two alternative proposals for Class I differentials: Option 1A (*Location-Specific Differentials*) and Option 1B (*Relative Value-Specific Differentials*). Option 1A is very much status quo. Option 1B incorporates more change and is much more market oriented. Under Option 1B Class I differentials are lower in most orders, implying lower pay prices. Under this option, it is anticipated that producer bargaining associations and dairy cooperatives will increase their efforts at negotiating over-order premiums. Under the proposal, the Secretary states a preference for Option 1B.

Option 1A includes location adjustments that geographically align minimum class prices by milk processors nationwide regardless of defined market area or order pooling provisions. There are nine differential zones from which location adjustments are made. Class I differentials range from \$1.60/cwt in the Upper Midwest, Southwest and West orders to a maximum of \$4.30/cwt in the Florida order. This compares to the existing range of \$1.20/cwt in the Upper Midwest order to the maximum \$4.18/cwt in the Florida order. Table 2 shows the change in differentials for selected cities. As can be seen very little change occurs in any city with the expectation that producer pay prices in any of the 11 orders will be minimally impacted. Option 1A is status quo and is strongly opposed by the Upper Midwest Coalition.

Option 1B establishes a system of relative value-specific Class I price differentials and adjustments that recognize several low pricing areas. These price differentials are based on an analysis using a milk supply and distribution model developed at Cornell University. This model utilizes geographic relationships as its foundation and maintains the current Class I differential at Minneapolis of \$1.20/cwt. A location adjustment price differential for every county in the regulated federal orders is established. This adjustment uses marginal milk values ("shadow prices") as one moves from county to county. The Class I differentials range from the low in Minneapolis of \$1.20/cwt to a high of \$3.81/cwt in the new Florida order. Table 2 also shows the changes in Class I differentials resulting from Option 1B. As can be readily seen, Class I differentials are flattened considerable from existing differentials. Other than Minneapolis, Minnesota and Chicago, the Class I differentials are reduced in each selected city. Because the differentials are flatter and are much more market oriented than existing differentials, the Upper Midwest Dairy Coalition favors Option 1B.

Table 2. Comparative Class I Differentials at Selected Cities Under Options 1A and 1B

City	Current Differential (\$/cwt).	Option 1A		Option 1B	
		Proposed Differential (\$/cwt)	Difference	Proposed Differential (\$/cwt)	Difference
New York City, NY	3.14	3.15	.01	2.07	-1.07
Charlotte, NC	3.08	3.10	.02	1.89	-1.19
Atlanta, GA	3.08	3.10	.02	2.46	-0.62
Tampa, FL	3.88	4.00	.12	3.81	-0.07
Cleveland, OH	2.00	2.00	.00	1.54	-0.46
Kansas City, MO	1.92	2.00	.08	1.45	-0.47
Minneapolis, MN	1.20	1.70	.50	1.20	0.00
Chicago, IL	1.40	1.80	.40	1.65	0.25
Dallas, TX	3.16	3.00	-.16	1.68	-1.48
Salt Lake City, UT	1.90	1.90	.00	1.08	-0.82
Phoenix, AZ	2.52	2.35	-.17	1.14	-1.38
Seattle, WA	1.90	1.90	.00	1.00	-0.90

Because Option 1B changes Class I differentials and associated producer pay prices rather significantly in some areas, the Secretary offers three alternatives to phasing in option 1B. The first option would phase in the new class I differentials over a 5-year period of 1999-2003 at a rate of 20 percent of the change the first year, 40 percent the second year, and etc. USDA estimates that over the 4-year period of 1999-2002, the proposed lower differentials would remove out of the federal order system \$388.6 million from what would have been paid to producers under existing class I differentials. The second option would attempt to restore this lost revenue, that is be revenue neutral, by initially increasing class I differentials over those in Table 2 by \$.55 in 1999, \$.35 in 2000, \$.20 in 2001, \$.10 in 2002, and \$.00 in 2003. The third option would initially increase class I differentials that would actually net \$489.8 million additional revenue paid to dairy farmers from what they would have received over the 4-year period under existing differentials. Dairy farmers could use this additional revenue to modernize their dairy operation, obtained training or education to seek a different occupation or some other use. Under this option the class I differentials would be increased over those in Table 2 by \$1.10 in 1999, \$.70 in 2000, \$.40 in 2001, \$.20 in 2002, and \$.00 in 2003.

A question arises regarding these transition payments. Since the transition payments are tied to Class I differentials rather than a payment directly to dairy farmers on a per hundredweight basis, the benefits will not be equal to dairy farmers, but rather will vary per hundredweight depending upon the Class I utilization of the marketing order their milk is pooled under. That is, markets with relatively high class I utilizations will receive a greater per hundredweight transition payment than those dairy farmers with milk pooled under a relatively low Class I utilization market order. Since Upper Midwest dairy farmers are pooled under relatively low Class I utilization markets, they would receive rather small per hundredweight payments.

Impact On Dairy Farmers' Pay Price Under Order Reform

Our independent analysis of the entire proposal--consolidation of orders, pooling provisions, BFP replacement, and Class I differentials has not been completed. It is a rather complicated proposal to analyze. Table 3 shows USDA's analysis of the entire package with Option 1A and option 1B. Only October 1996 is used for this analysis. As would be expected, the impact on dairy farmer pay prices is very minor under Option 1B. However, under Option 1B significant negative impacts occur for each of the 11 consolidated orders except the Upper Midwest order. These impacts do not consider the transition options for option 1B nor the possibility that farmer bargaining organizations and dairy cooperatives may be able to offset some of this negative impact through negotiated over order premiums.

Under either Option 1A or 1B, dairy farmers in the Upper Midwest do not receive much improvement in their pay prices. Federal order reform was never expected to substantially enhance Upper Midwest farmer pay prices. With appropriate Federal order reform, increases of \$.30 to \$.50 per hundredweight for Upper Midwest dairy farmer may be expected over existing Class I differentials after a 2 or 3 year adjustment period. Not increases of \$1.00 to \$2.00 or more that some dairy farmers would like to see.

Table 3. Estimated Impact on Dairy Farmer Pay Prices Under
Option 1A and 1B, October 1996

Proposed FMMO	Option 1A (\$/cwt)	Option 1B (\$/cwt)
Northeast	0.05	-0.48
Appalachian	0.30	-0.74
Southeast	0.00	-0.43
Florida	0.03	-0.15
Mideast	0.06	-0.31
Upper Midwest	0.07	0.25
Central	-0.01	-0.25
Southwest	-0.09	-0.88
Western	-0.07	-0.47
AZ-Las Vegas	-0.09	-0.63
Pacific NW	-0.01	-0.37

What happens next?

The Secretary asks for comments on the proposed rule for 60 days, the end of March.² The Secretary will take this comments into consideration in formulating the final recommended rule sometime in November 1998. Dairy farmers will vote in a referendum up or down this final recommendation. Dairy farmers will vote for the order their milk is associated with. Two-thirds of the dairy farmers for a given order must approve the proposed order. Bloc voting by dairy cooperatives will be used. So it would be possible for some orders to pass and some orders to not pass. If an order fails to get the necessary dairy farmer approval, no order would exist in that market area.

² A more complete review of the reform proposal can be found at the AMS web site:
<http://www.ams.usda.gov/dairy/reform/>

Figure 1: Current FMMO Marketing Areas

The map displays the United States divided into various marketing areas, each represented by a different color. The colors used are red, yellow, green, blue, brown, cyan, grey, and white. The distribution is as follows:

- Red:** Includes Washington, Oregon, Idaho, Utah, Arizona, Michigan, Indiana, Ohio, New York, and New Jersey.
- Yellow:** Includes Montana, Wyoming, Colorado, Kansas, Nebraska, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, and Florida.
- Green:** Includes Nevada, California, Arizona, New Mexico, Texas, and Florida.
- Blue:** Includes Arizona, New Mexico, Texas, Louisiana, Mississippi, Alabama, Georgia, and Florida.
- Brown:** Includes Texas, Louisiana, Mississippi, Alabama, Georgia, and Florida.
- Cyan:** Includes Montana, Wyoming, Colorado, Kansas, Nebraska, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, and Florida.
- Grey:** Includes Montana, Wyoming, Colorado, Kansas, Nebraska, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, and Florida.
- White:** Includes Montana, Wyoming, Colorado, Kansas, Nebraska, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, and Florida.

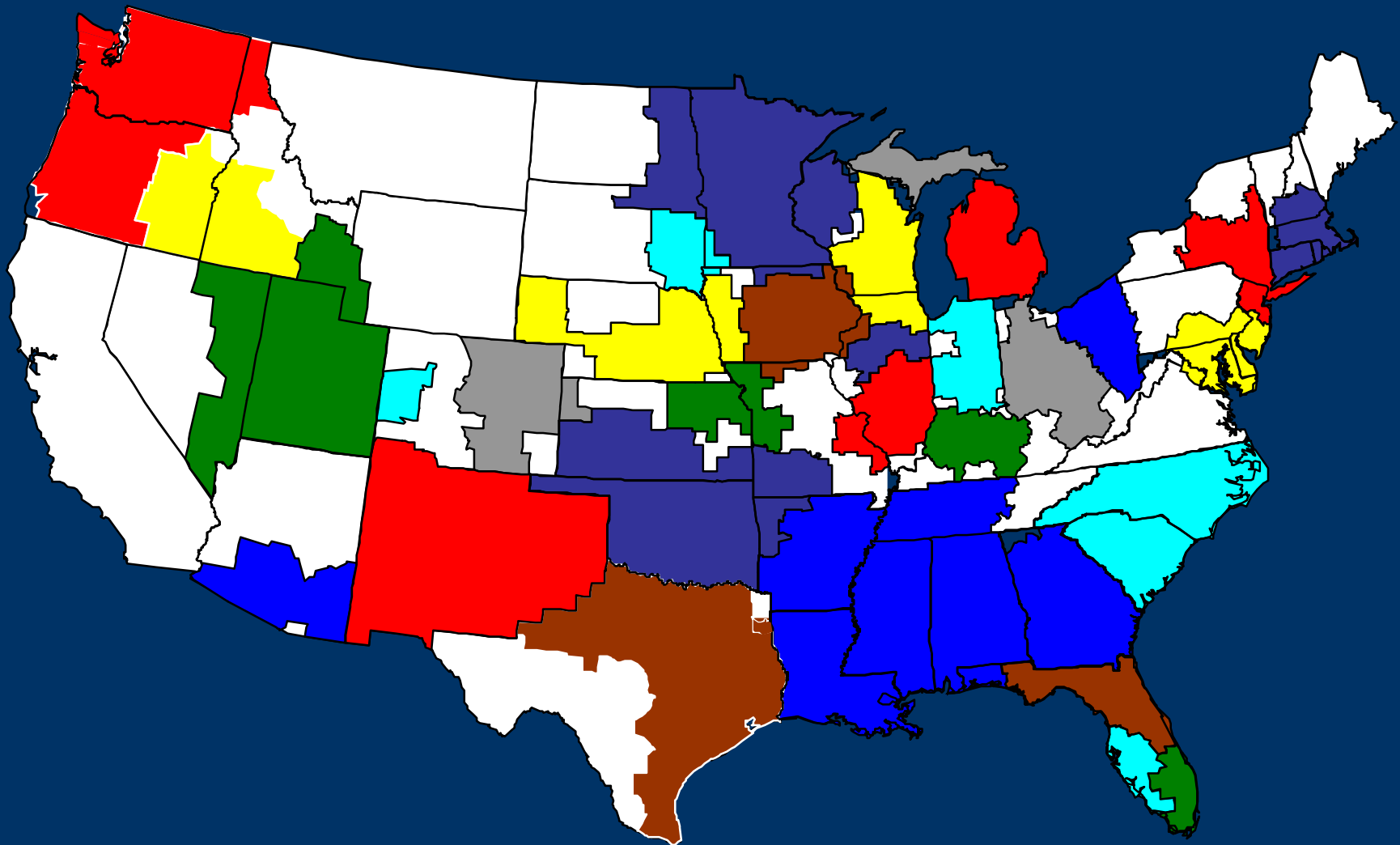


Figure 2: Proposed FMMO Marketing Areas

