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# Federal Milk Marketing Orders and Producer Pricing

09/12/22

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# Outline

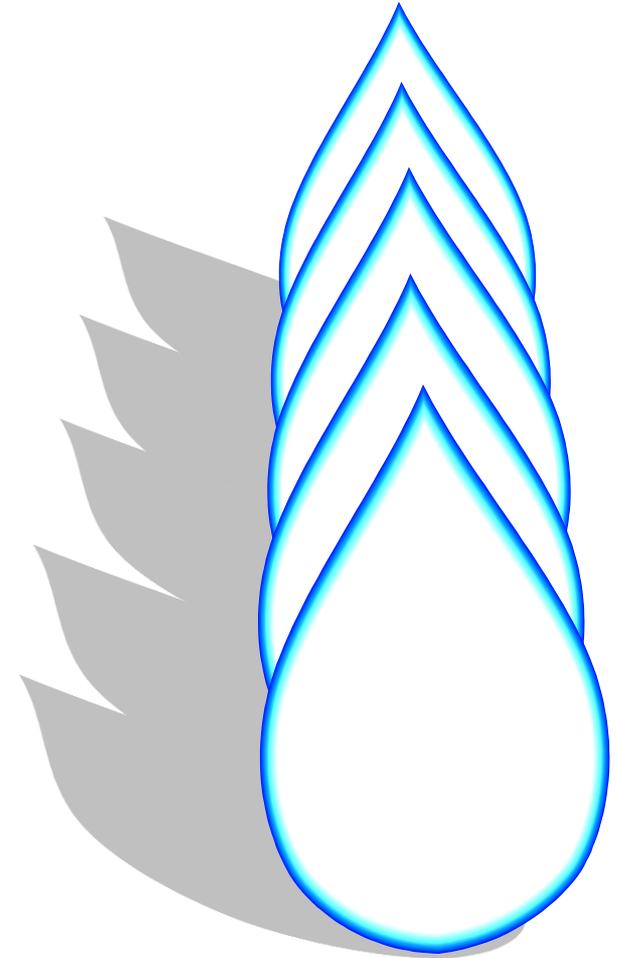
- FMMO Overview
  - History
  - Classified pricing
  - Revenue pooling
- Northeast Order
  - Geography
  - Statistics and trends
- Mailbox price, over-order pricing and state policies

# Challenging aspects of Milk Production and Marketing

- Daily harvest: need to price a flow rather than a given lot
- Highly perishable: no on-farm storage
- Bulkiness: mostly water so expensive to transport
- Production variation: daily and seasonally
- Asset fixity: production facilities and other dairy specific investments have little value outside of dairy farming

# Components Of Milk

<b>Water</b>	<b>87.75%</b>
<b>Protein</b>	<b>3.30%</b>
<b>Lactose</b>	<b>4.70%</b>
<b>Minerals Etc.</b>	<b>0.60%</b>
<b>Butterfat</b>	<b><u>3.65%</u></b>
	<b>100.00%</b>



# Cooperative Efforts

During the 1800s the supply chain began to develop with new implications for how milk was priced

- Shipments of fluid milk to cities in early 1800s
- First manufacturing plants (started with cheese) in 1850s
- Processors had a competitive advantage due to their
  - ✓ relative size (one buyer - many sellers)
  - ✓ access to information
  - ✓ and characteristics of farm milk that limit competition
- Throughout the 1800s dairy farmers organized marketing cooperatives in hopes of offsetting processor market power. This came to a head in the late 1800s and early 1900s.

Source: A. Novakovic

# Prior to Marketing Orders

- Classified pricing developed in Boston market in 1886 by cooperatives
  - Pooling coop revenues soon followed
- Seasonal mismatches between supply and demand
- Public policy concerns included 1. sanitary conditions, 2. adequate supply and 3. farm income support

# Why Federal (or State) Orders?

- Classified Pricing and Pooling did not achieve goals with only voluntary, private action.
- The Great Depression damaged cooperatives
- Cooperatives persuaded the President and Congress to enact their decades old plan, culminating in the Agricultural Marketing Agreement Act of 1937
- Farmers only get an Order if they ask for one (and USDA agrees) but if a majority of farmers approve, processors will be regulated.
- It took 30 years before half the milk supply was priced under an FO

Source: A. Novakovic

# Federal Milk Marketing Orders

## Methods:

regulate and supervise the terms of trade between farmers and processors, i.e., set minimum farm level prices and trading rules that determine who qualifies for what price, so as to create market (price) incentives that result in desired market behavior or performance

Law: Agricultural Adjustment Act of 1933, Agricultural Adjustment Act of 1935, Agricultural Marketing Agreement Act of 1937, various modifications introduced by subsequent “farm bills”

Current Status: operating daily but growing feeling across the industry that changes are needed in operating procedures and regulatory objectives, ranging from tweaks to wholesale change to elimination.

Source: A. Novakovic

# What are Federal Milk Marketing Orders?

- Regulations adopted at the consent of milk producers that establish pricing terms for milk and assure an adequate supply of fluid milk at reasonable prices for consumers
- Offset the market power of processors buying a perishable product from many milk producers -- using classified pricing and revenue pooling

# Federal Milk Marketing Orders

- Market areas defined by fluid beverage milk distribution.
- Minimum milk prices are classified by use with Class I (fluid) milk usually being the highest priced use.
- Revenues from the various uses are shared by the producers supplying milk for the market by “pooling” and payment of a weighted average “blend” price.

# Federal Milk Marketing Orders

Objective is to create market conditions that will ensure:

1. orderly marketing activity; markets that function smoothly, predictably, and at a reasonable cost
2. price stability (or is it reduce uncertainty?)
3. adequate, and wholesome supplies of fluid milk
4. equitable returns to farmers

# Initial Milk Marketing Orders

## First Marketing Orders in 1936 - St. Louis

1. St Louis, Kansas City, Topeka, Dubuque, DC, Fall River MA
2. Boston, LaPorte IN in 1937
3. NYC, Cincinnati, Fort Wayne, Toledo in 1938
4. Chicago, Lowell-Lawrence MA, Omaha, New Orleans in 1939

## By 1940 there were 20 Federal Marketing Orders

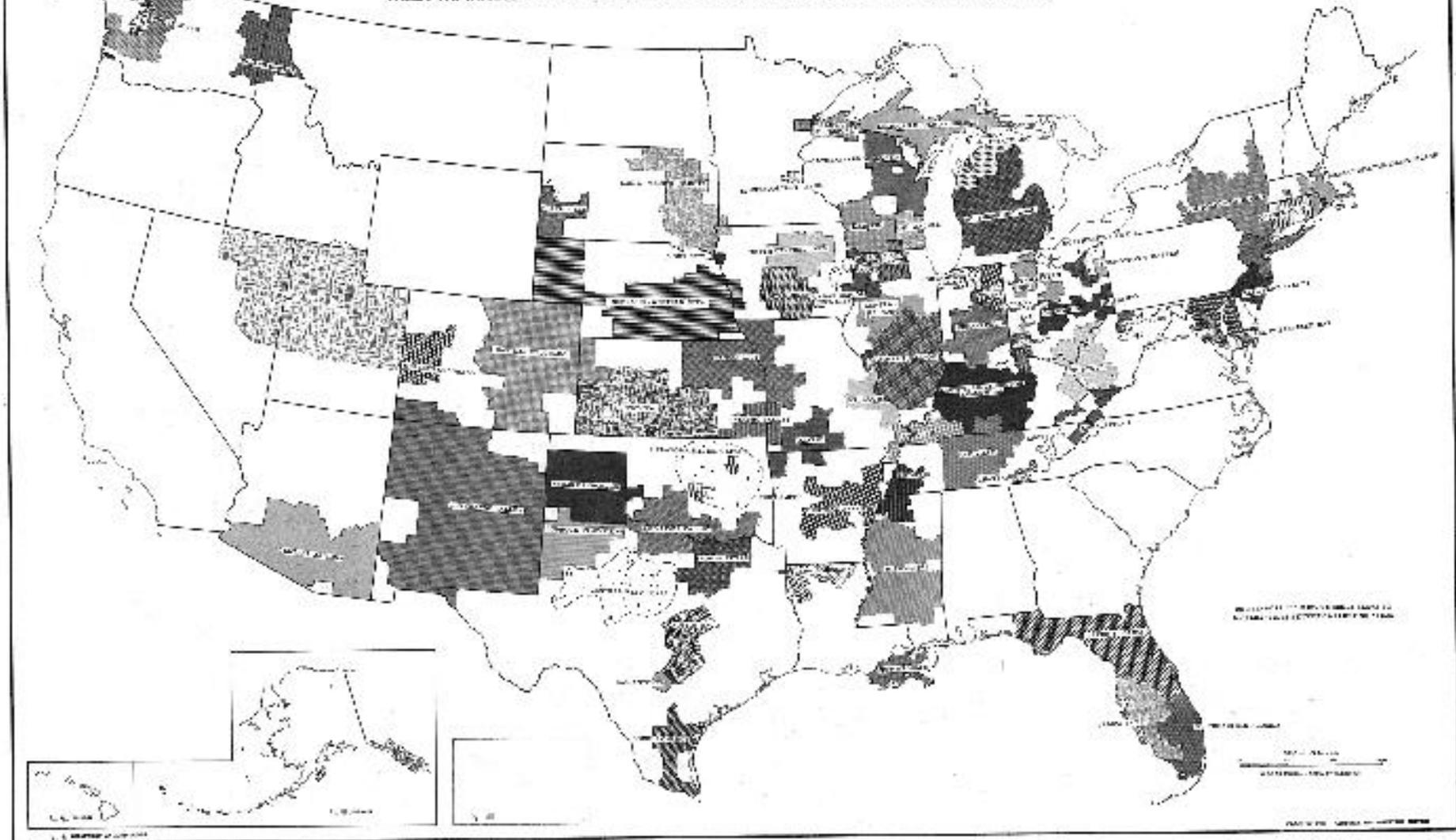
- Primarily Northeast and North Central US

## States get in the act too

- ✓ Wisconsin started in 1932 but ended in 1940
- ✓ NY started in 1933 and still has part of the state in effect
- ✓ Some 29 states get involved in dairy price regulation of some type

Source: A. Novakovic

MILK MARKETING AREAS UNDER FEDERAL ORDERS AS OF JANUARY 1, 1967





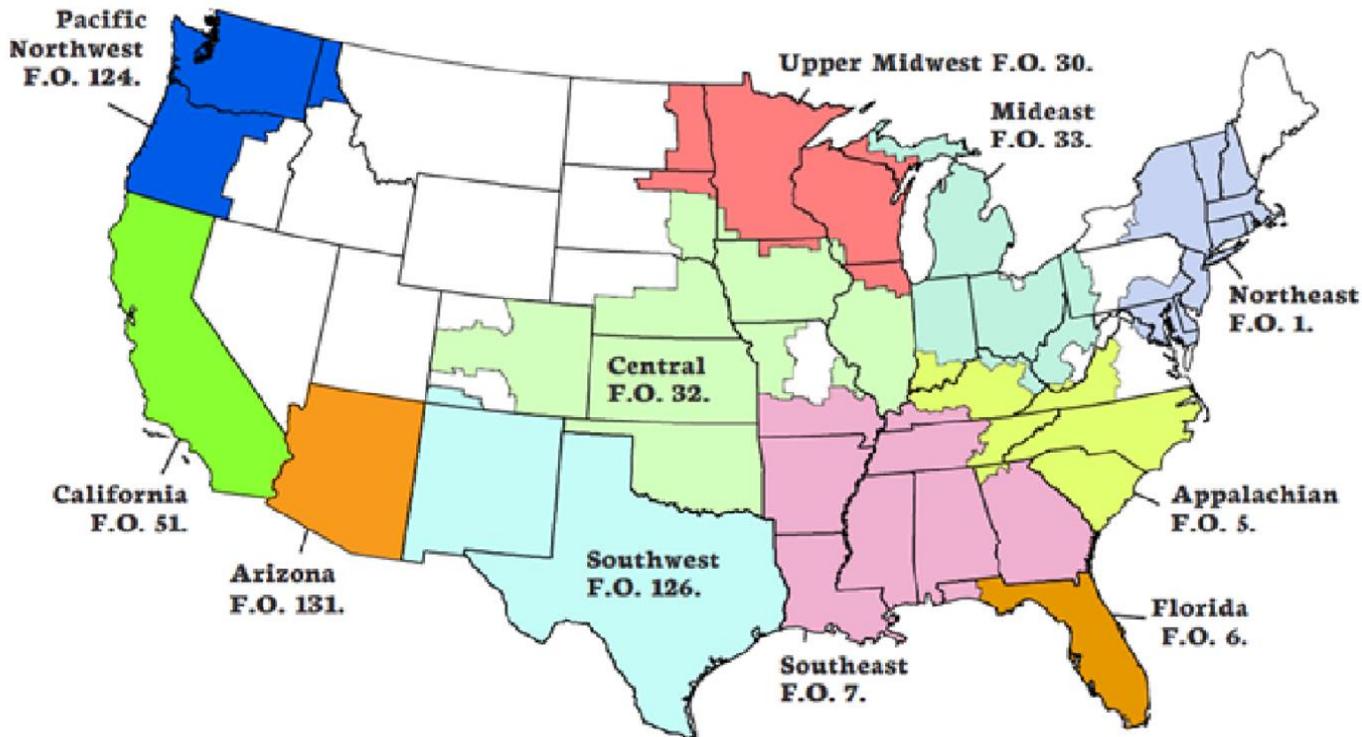


# Regionalization Necessitated Coordination and Harmonization of Federal Order Pricing Rules

- The number of FO marketing areas peaked at 83 in 1962
- The 1960s was also a period of regionalization of milk marketing cooperatives, when smaller cooperatives merged to form large, regional organizations, including Associated Milk Producers, Inc. (AMPI), Mid-America Dairymen (Mid-Am), and Dairymen, Inc., (DI),
  - This trend continued into the 1970s, e.g., Milk Marketing, Inc. (MMI)
  - Both through mergers into new organizations and expansions (Land O'Lakes, absorbs, Lake-to-Lake, Atlantic Dairy Coop, and Dairyman's Cooperative Creamery Assn
- In the early 1960s, the basic price driver in all Federal Orders was converted from multiple, market specific systems to one reference price – the Minnesota-Wisconsin Grade B Price Series (M-W price)
- We began to think of Federal Orders more as a coordinated system and less as a federation of similar but independent marketing islands
- Dairy Farmers of America (DFA), built around the nucleus of Mid-Am, becomes the first truly national cooperative in 1998
- The 1990s saw a reconceptualization of Federal Orders as a national system

Source: A. Novakovic

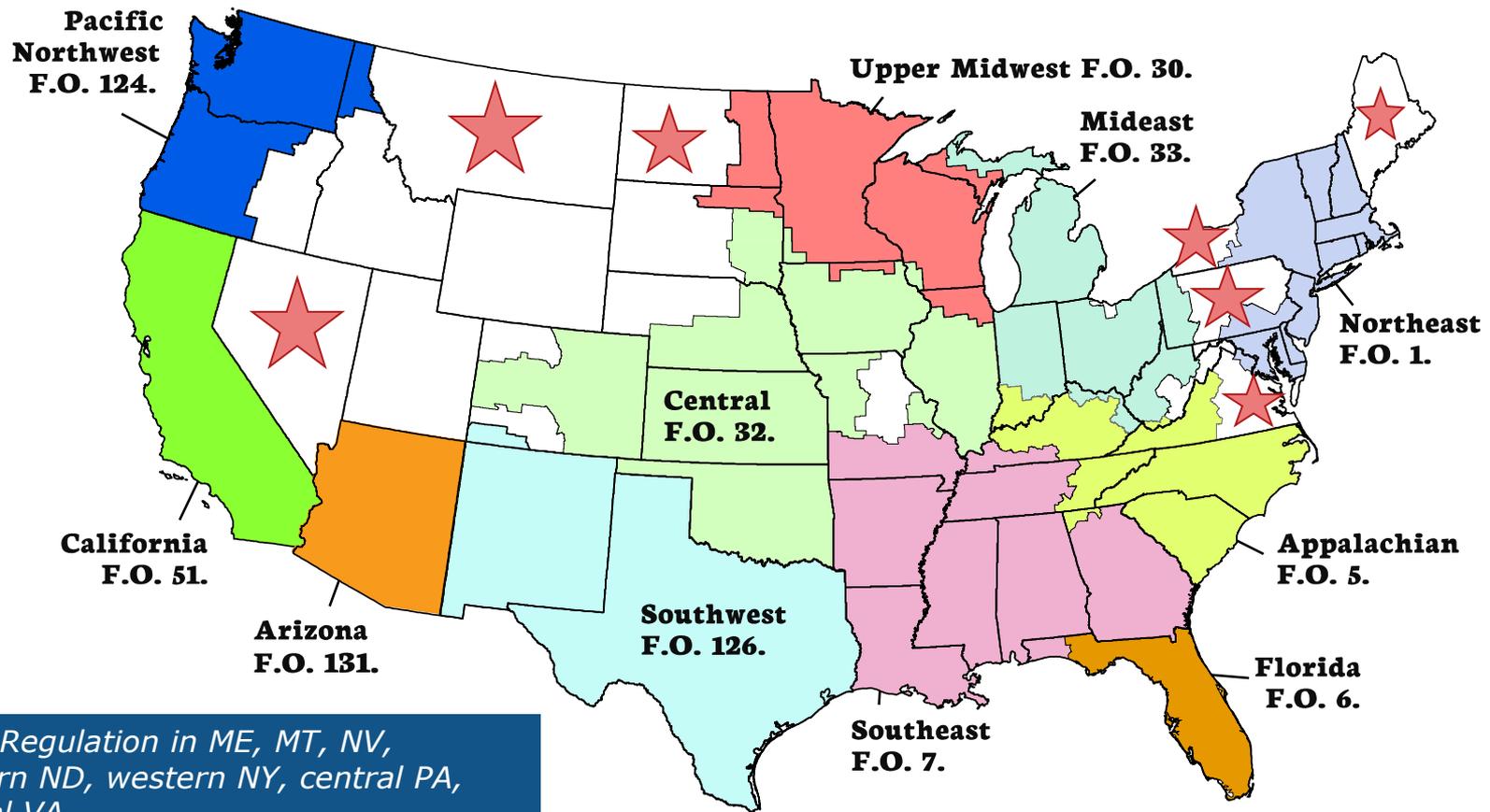
# FMMO Map



- 7 MCP Orders: NE, ME, UM, Central, SW, PNW and CA
- 4 Skim-fat Orders: FL, App, SE and AZ

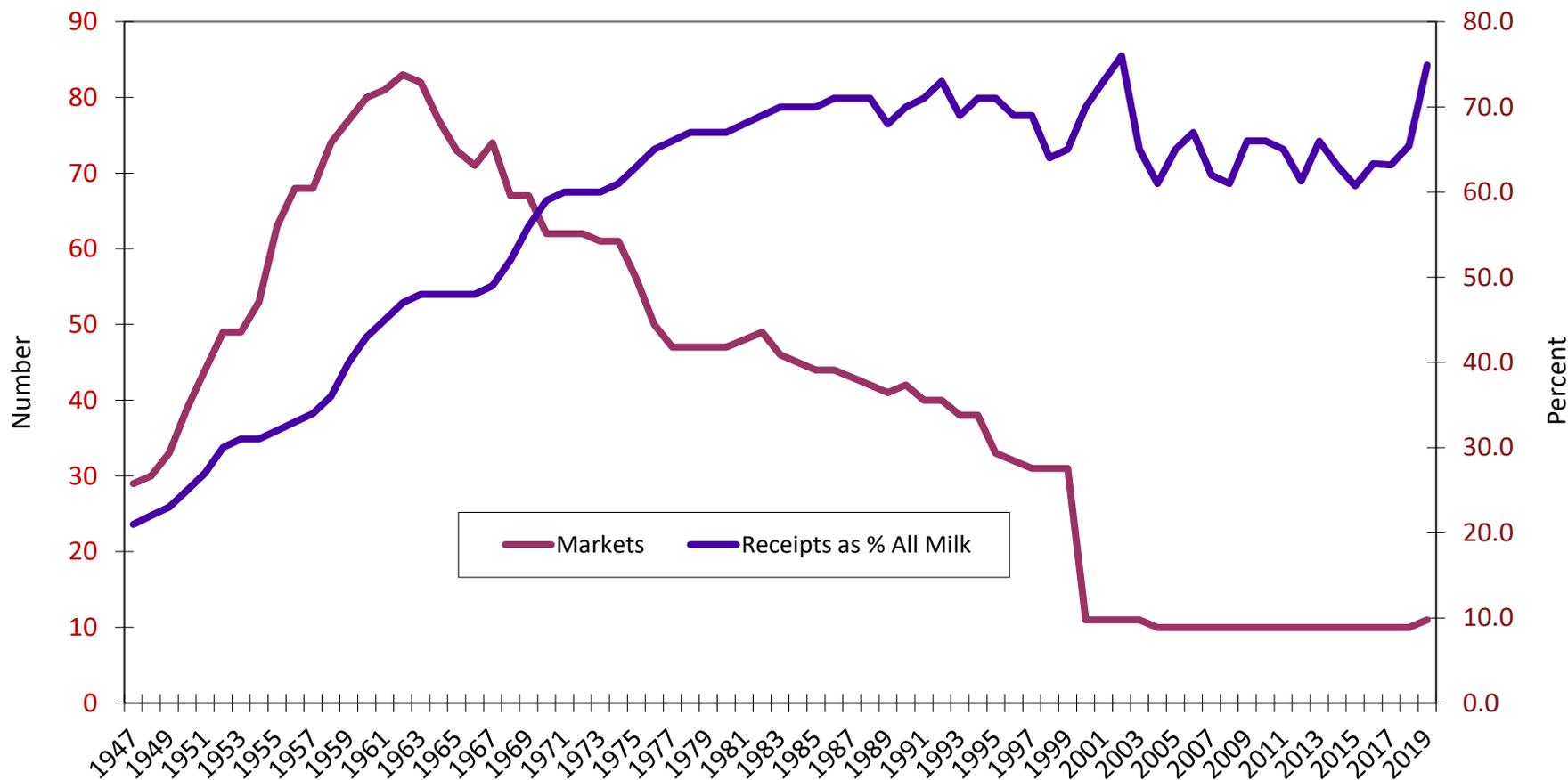
# Marketing Order Areas Define Class I Product Sales Areas that are subject to regulation

## 11 Federal Milk Marketing Order Areas



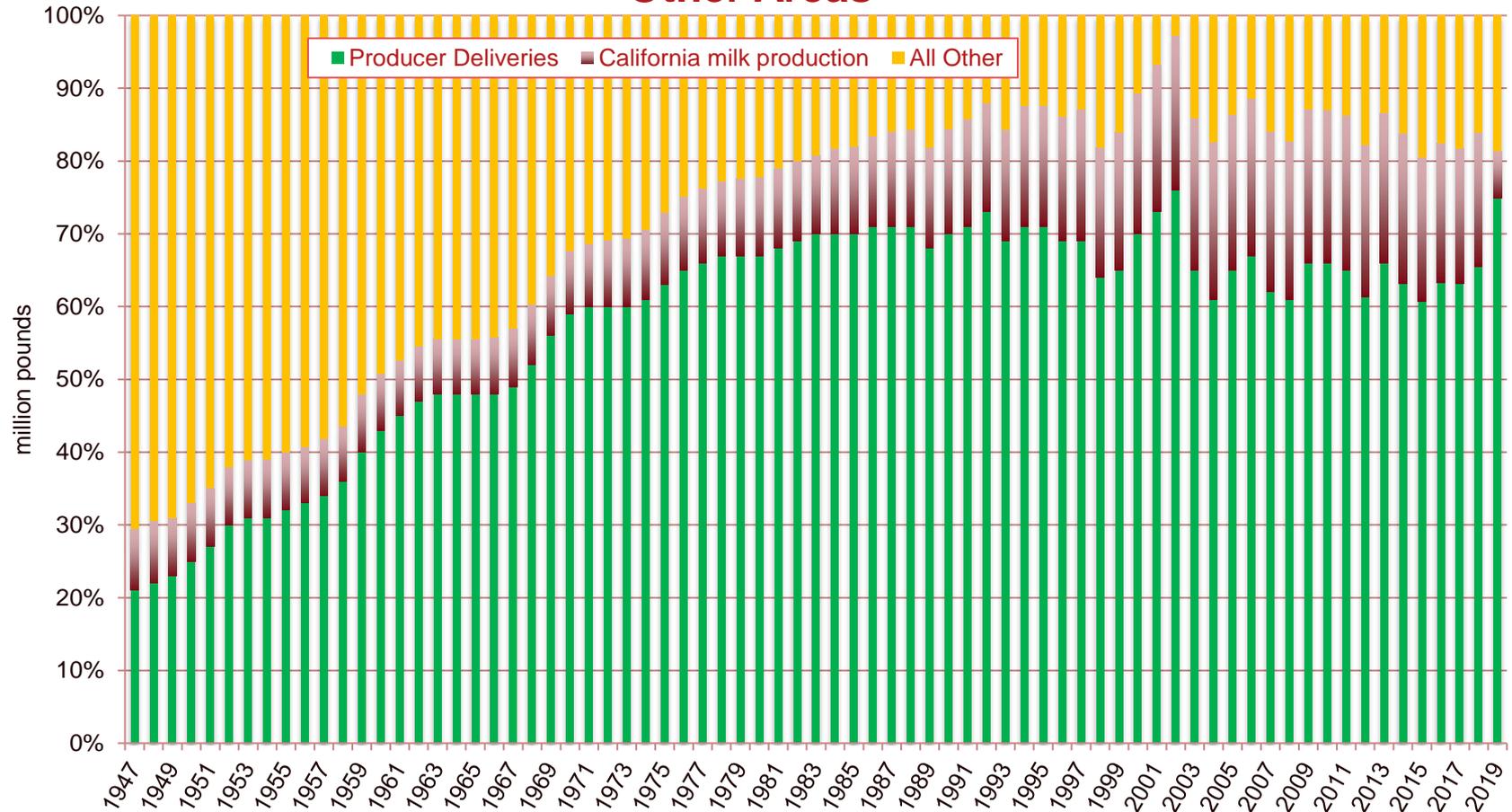
# Marketing Orders have declined in number, but grown in volume and share of US total milk marketed

Number of Marketing Orders vs Producer Receipts as % of All US Milk, 1947-2018, 2019 estimated



The addition of California to the FO system brings federally priced milk from less than 2/3 of U.S. Milk Marketings to more than 75% (with no depooling)

## US Milk Production in Federal Orders, California, and All Other Areas



# Methods to determine farm milk price

- Observe a market (old M-W price)
- Cost of production/economic engineering
- Product pricing

# Basic Functions of Marketing Orders

1. Classification according to use  
Enhancement
2. Pricing according to class
3. Pooling according to qualification and utilizations  
Equity
4. Auditing  
Efficiency
5. Coordination across markets

Source: A. Novakovic

# What Is Classification?

- Classification assigns milk to a category based on how it is used, i.e, the product into which it is made.
  1. Beverage products are always Class I, or the highest use class
  2. Manufactured products, from skim milk powder to ice cream, have been categorized in as few as one manufacturing class to as many as 8.
- Classified Pricing assigns a different price for milk in each utilization class
  1. Class I is usually the highest price (what customer will bear)
  2. Other classes are lower (what producer can tolerate)
  3. Have to clear the market (no one to pick up a surplus!)

# Who is Regulated Under a Federal Order?

Class I processors must be regulated under the marketing corresponding to the area in which they make most of their packaged milk sales

- Know that competitors must also pay at least the minimum price
- “Performance” for manufacturing plants helps to assure a milk supply
- Advanced pricing guarantees they know the price of milk before they buy it
- Not true for manufactured milk prices

Manufacturers may be regulated

- If they “qualify” — demonstrate service to Class I
- Why would they choose to be?
  - Pool of dollars—not milk
  - Receive equalization payment
- What is the cost?
  - Paperwork/auditing
  - Performance

Source: A. Novakovic

# Key Characteristics of Class Prices

1. Minimums: set the bottom, market sets the top
2. Component based (multiple component pricing): tailored to usage of milk
3. Values derived from wholesale product prices (product formula pricing)
4. Discrimination: some prices charged at a premium, some designed to clear the market
5. Timing: some prices announced in advance, some not
6. Location: some prices adjusted for location, some not

# Federal Milk Order Price Information

- ✓ Milk prices are per 100 pounds or cwt., rounded to the nearest cent.
- ✓ Component prices are per pound, rounded to nearest one-hundredth cent.
- ✓ Cheese (block and barrel), dry whey, butter, and nonfat dry milk prices are weighted averages of weekly AMS survey prices.
- ✓ Class I and II are priced “in advance”, i.e., they are announced before they go into effect.
- ✓ Class III and IV are announced after the fact - lagged prices that are applied retroactively

# Product Classification

## Class I

- Bottled Milk
- Cultured Buttermilk
- Eggnog



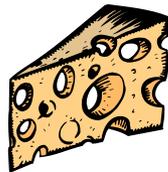
## Class II

- Ice Cream
- Hermetically-Sealed Containers
- Pkg. Cream



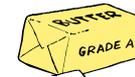
## Class III

- Cheese
- Cream Cheese



## Class IV

- Butter
- NFDM



# Class Definitions – Producer Milk Used to Produce a Certain Product

- **Class I:** concentrated fluid milk, fluid milk products, cultured or flavored milk drinks, and eggnog sold in the marketing area.
- **Class II:** fluid cream (and packaged ending inventory), cottage cheese, frozen desserts, yogurt, sour and aerated cream, custards, puddings, pancake mixes, infant and dietary formulas, candy, soup, bakery products, bulk fluid milk and cream products disposed of to a commercial food processing establishment, and bulk concentrated fluid milk used in a Class II product.
- **Class III:** cheese (other than cottage), plastic cream, anhydrous milkfat, butteroil, shrinkage, and bulk concentrated fluid milk used in a Class III product.
- **Class IV:** butter, any milk product in dried form, evaporated or sweetened condensed milk sold in consumer containers, and bulk concentrated fluid milk used in a Class IV product.
- **Lowest Use Class:** Milk used for animal feed, dumped or other extraordinary loss is assigned to the lowest priced class for the applicable month (typically III or IV). This is not a separate class, *per se*, as it is priced as either III or IV, but it is a rule for handling milk received by a plant, subject to pooling, that is, for whatever reason, not used to make a conventional dairy product.

# Pricing Plans in Current FMMOs

- Milkfat Adjusted Pricing Only
  - Florida
  - Southeast
  - Appalachian
  - Arizona-Las Vegas

*(Typical of small state orders that exist primarily because Class I use is high)*
- Multiple Component Pricing Only (mixed mfg classes)
  - Northeast *(Western NY state order)*
  - Pacific Northwest
  - California
- Multiple Component Pricing with Quality Adjustment (heavily Class III or no good previous coop plan)
  - Mideast
  - Upper Midwest
  - Central
  - Southwest
  - *Western (terminated 2004)*

Source: A. Novakovic

# Class Pricing Procedure

- Step 1: USDA/AMS survey wholesale commodity prices weekly
  - Cheddar cheese (40 lb blocks and 500 lb barrels)
  - Butter
  - Nonfat dry milk
  - Dry whey
- Step 2: compute weighted average price weekly and monthly based on prices and sales volume

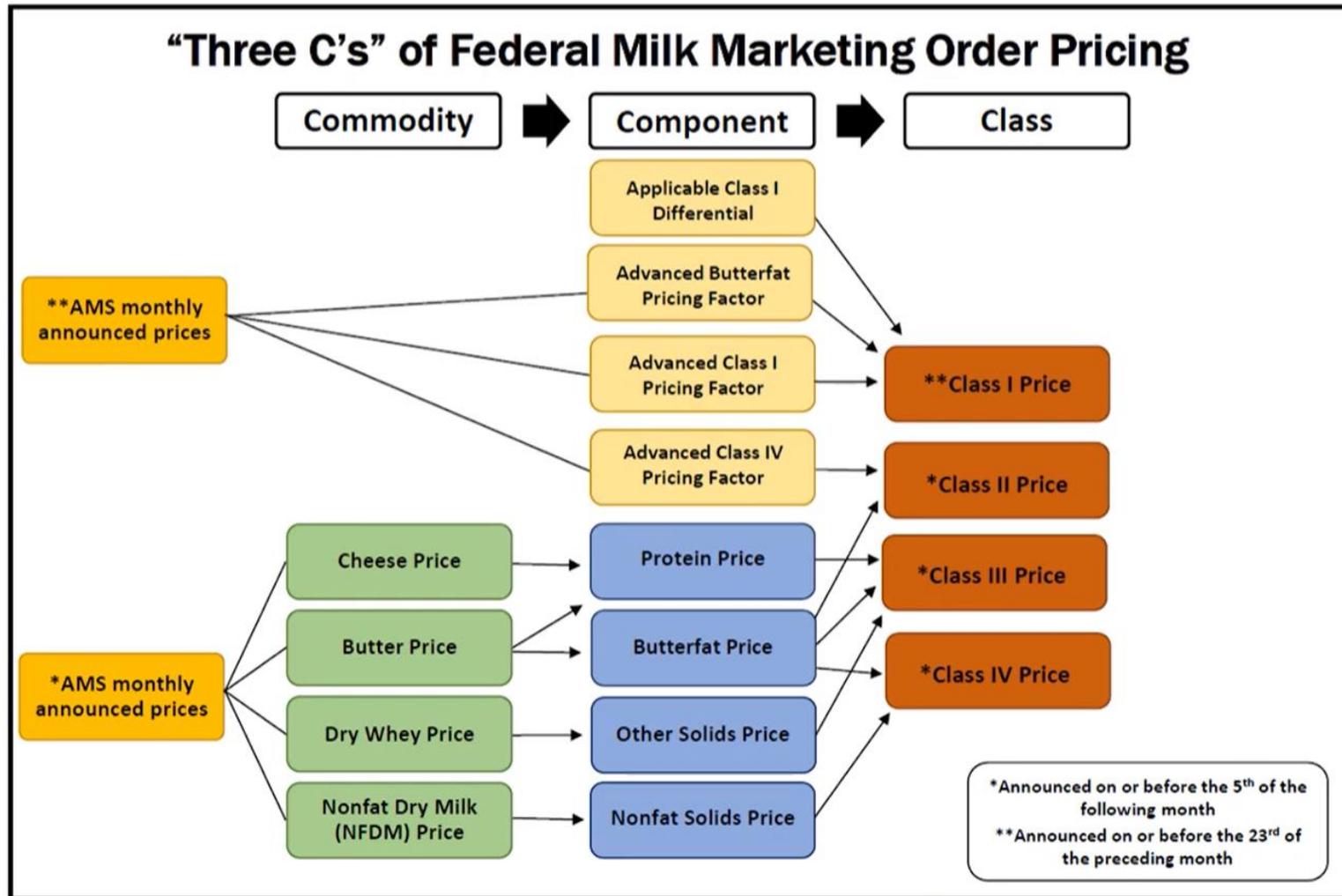
# Class Price Procedure (continued)

- Step 3: compute component prices using product price formulas

(commodity price – make allowance) x yield factor = component price

- Commodity price is from surveys (change monthly)
  - Make allowance is the cost to manufacture the product
  - Yield factor is pounds of component to make product
  - Make allowance and yield factors do not change
- Step 4: determine class prices using component values

- Class prices are found by plugging the component values into the Federal pricing formulas. Some of the formulas also use the advanced prices, like the Class I and Class II prices



\*updated June 2019 based on changes within the 2018 Farm Bill

# Class Price Announcements

- By the 23<sup>rd</sup> of preceding month:
  - Class I price
  - Class I skim price
  - Class I butterfat price
  - Class II skim price (nonfat solids price)
- Class I prices are adjusted based on the county the receiving plant is located in
- By the 5<sup>th</sup> of the following month:
  - Class II price
  - Class II butterfat price
  - Class III price
  - Class III skim price (protein and other solids prices)
  - Class III butterfat price
  - Class IV price (nonfat solids price)
  - Class IV skim price
  - Class IV butterfat price

# Class IV Prices in FMMOs

**Class IV Price =**

$$\text{(Class IV skim milk price} \times 0.965) + \text{(butterfat price} \times 3.5)$$

$$\text{Class IV Skim Milk Price} = \text{Nonfat solids price} \times 9$$

$$\text{Nonfat Solids Price} = \text{(Nonfat dry milk price} - \$0.1678) \times 0.99$$

$$\text{Butterfat Price} = \text{(Butter price} - \$0.1715) \times 1.211$$

The make allowance

n.b.: The same butterfat price is used in Class III

# Class III Prices in FMMOs

**Class III Price =**

$$\text{(Class III skim milk price x 0.965)} + \text{(butterfat price x 3.5)}$$

$$\text{Class III Skim Milk Price} = \text{(Protein price x 3.1)} + \text{(Other solids price x 5.9)}$$

$$\text{Protein Price} = [(\text{Cheese price} - \$0.2003) \times 1.383] + \{(\text{Cheese price} - \$0.2003) \times 1.572\} - (\text{Butterfat Price} \times 0.9) \times 1.17$$

$$\text{Other Solids Price} = (\text{Dry whey price} - \$0.1991) \times 1.03$$

$$\text{Butterfat Price} = (\text{Butter price} - \$0.1715) \times 1.211$$

n.b.: The value of protein is primarily derived from the price of cheese, but because cheese includes a significant fat component as well, the formula subtracts the value of the fat in cheese and assigns what remains as the value of protein

# Class II Prices in FMMOs

**Class II Price =**

$$\text{(Class II skim milk price} \times 0.965) + \\ \text{(Class II butterfat price} \times 3.5).$$

**Class II Skim Milk Price =**

$$\text{Advanced Class IV skim milk price} + \$0.70$$

**Class II Nonfat Solids Price =**

$$\text{Class II skim milk price divided by 9}$$

$$\text{Class II Butterfat Price} = \text{Class IV Butterfat Price} + \$0.007$$

*Note: Advanced pricing factors are computed using the same price formulas for corresponding variables in Class IV, except that product price averages are for first two weeks. This allows Class II prices to be announced two weeks earlier than Class IV or III prices.*

# Class I Prices in FMMOs

**Class I Price =**

**(Class I skim milk price x 0.965) + (Class I butterfat price x 3.5)**

**Class I Skim Milk Price =**

Average of advanced Class III or IV skim milk pricing factors + \$ 0.74+  
applicable Class I differential

**Class I Butterfat Price =**

Advanced milkfat pricing factor + (applicable Class I differential divided by 100)

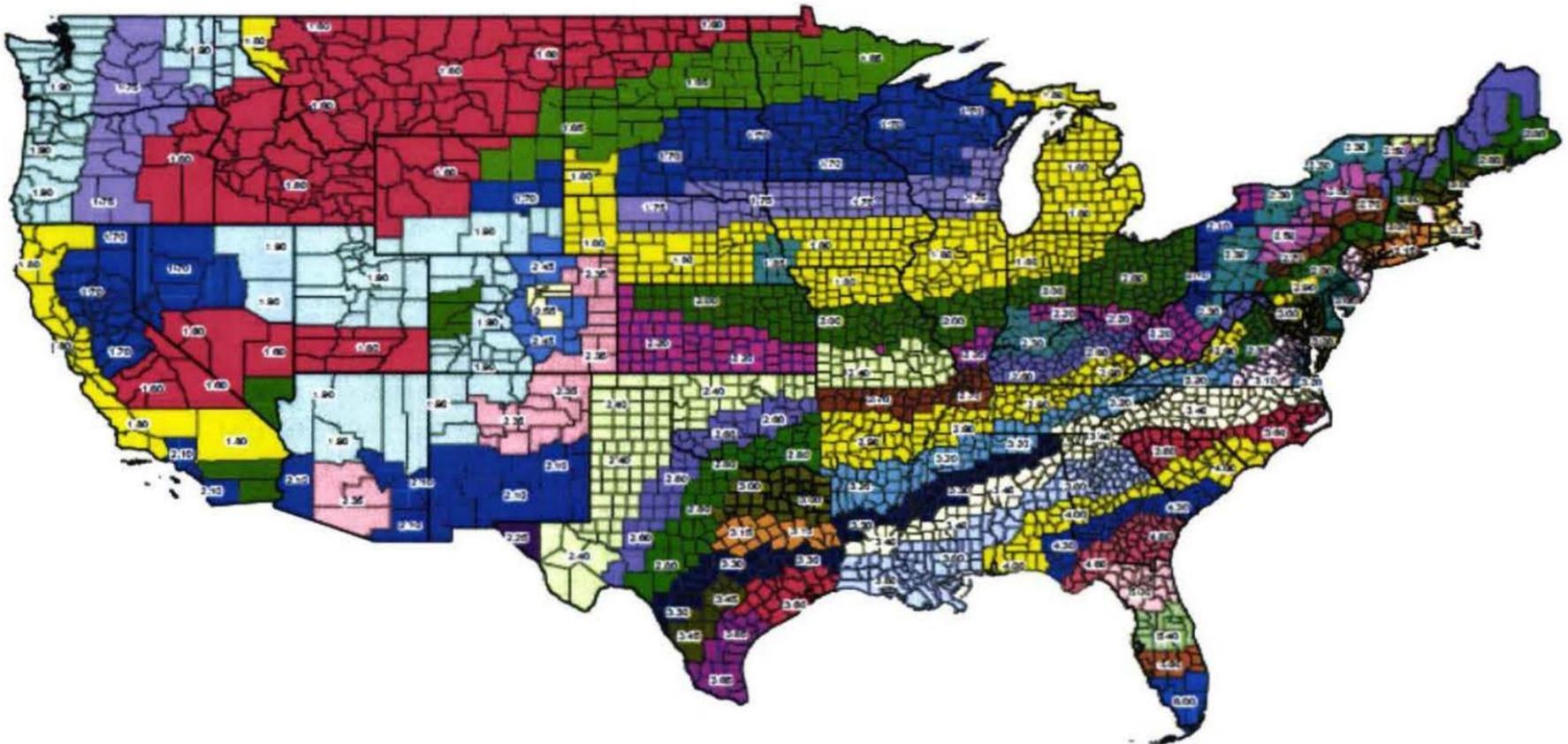
*Note: Advanced pricing factors are computed using the same price formulas for corresponding variables in Class III and IV, except that product price averages are for first two weeks. Note that Class I uses advance for the butterfat price but Class II does not.*

# Producer Prices in FMMOs

- Statistical Uniform Price (Blend) is Net Pool Value Divided by Producer Receipts
- Class I prices vary depending on location of the plant
  - Base Class I price announced + differential
- Classes II, III and IV are same nationally
- In Orders that require payment adjusted for milk quality:
  - Somatic Cell Adjustment Rate = Cheese price x 0.0005, rounded to fifth decimal place.
    - Rate is per 1,000 somatic cell count differences from 350,000 (plus and minus).

Class I Prices are adjusted by location.  
Prices are high where local milk is short relative to local demand

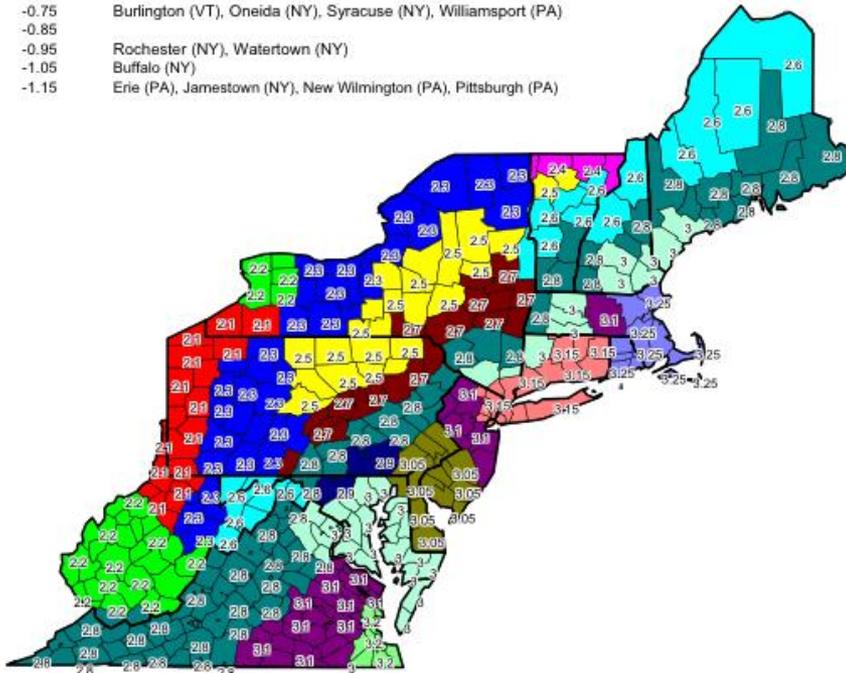
## Federal Milk Marketing Order Class I Price Structure



# Northeast location adjustments

Northeast States Class I Differentials, by County

Differential	Adjustment From Base	Selected Major Cities
3.25	0.00	Boston (MA), Providence (RI)
3.15	-0.10	Hartford (CT), New York (NY), Newark (NJ)
3.10	-0.15	Richmond (VA), Worcester (MA)
3.05	-0.20	Philadelphia (PA)
3.00	-0.25	Baltimore (MD), Concord (NH), Londonderry (NH), Portland (ME), Springfield (MA), Washington (DC)
2.90	-0.35	
2.80	-0.45	Allentown (PA), Bangor (ME), Charlottesville (VA)
2.70	-0.55	Albany (NY), Binghamton (NY), Scranton (PA)
2.60	-0.65	
2.50	-0.75	Burlington (VT), Oneida (NY), Syracuse (NY), Williamsport (PA)
2.40	-0.85	
2.30	-0.95	Rochester (NY), Watertown (NY)
2.20	-1.05	Buffalo (NY)
2.10	-1.15	Erie (PA), Jamestown (NY), New Wilmington (PA), Pittsburgh (PA)



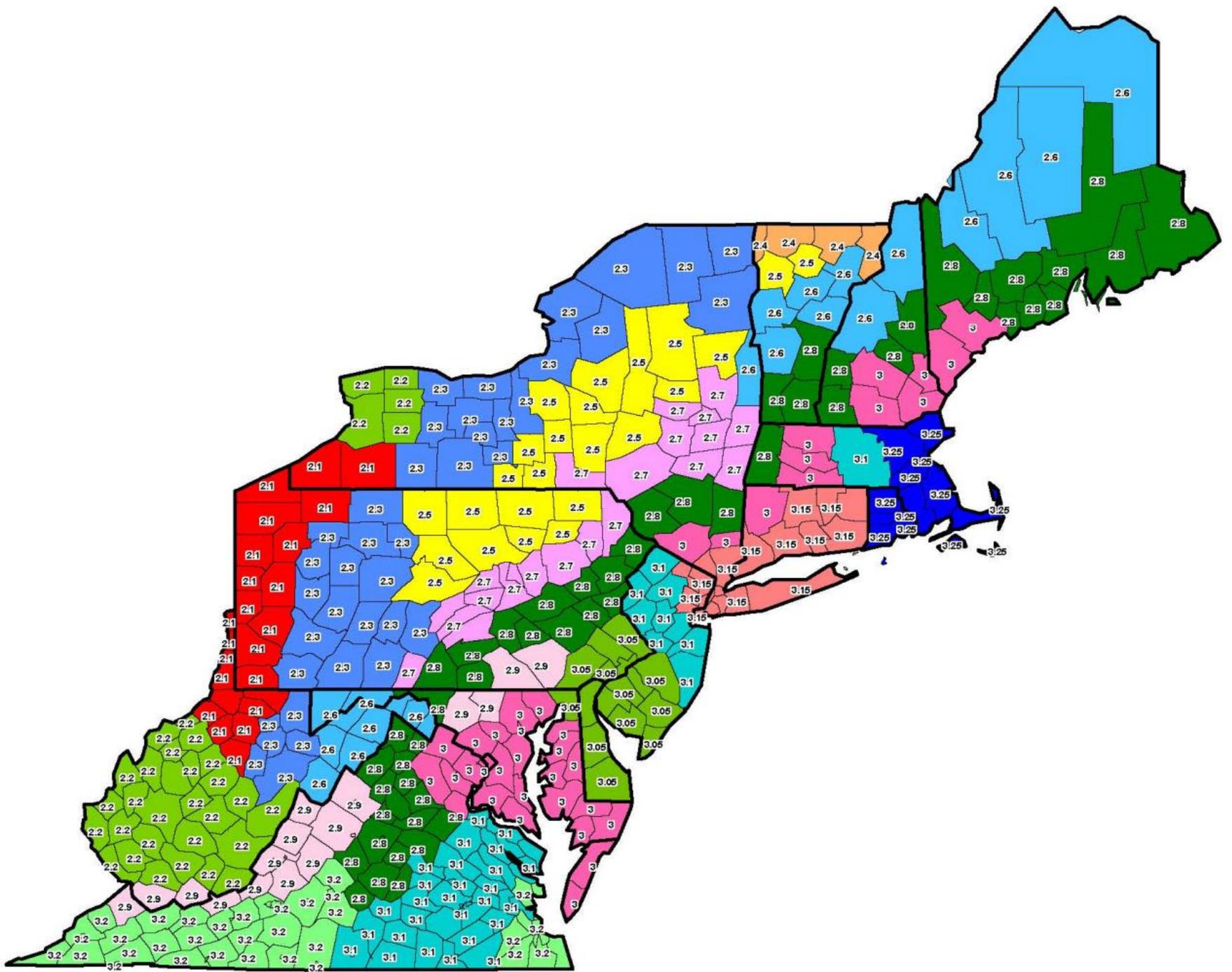
Class I differentials vary by the location of the receiving plant.

In general, they are highest by the major population center of a marketing area and decrease with distance from that center.

A lot of zones bridging rural VT, NY, PA to the huge coastal cities

## Northeast States Class I Differentials, by County

<u>Differential</u>	<u>Adjustment From Base</u>	<u>Selected Major Cities</u>
3.25	0.00	Boston (MA), Providence (RI)
3.15	-0.10	Hartford (CT), New York (NY), Newark (NJ)
3.10	-0.15	Richmond (VA), Worcester (MA)
3.05	-0.20	Philadelphia (PA)
3.00	-0.25	Baltimore (MD), Concord (NH), Londonderry (NH), Portland (ME), Springfield (MA), Washington (DC)
2.90	-0.35	
2.80	-0.45	Allentown (PA), Bangor (ME), Charlottesville (VA)
2.70	-0.55	Albany (NY), Binghamton (NY), Scranton (PA)
2.60	-0.65	
2.50	-0.75	Burlington (VT), Oneida (NY), Syracuse (NY), Williamsport (PA)
2.40	-0.85	
2.30	-0.95	Rochester (NY), Watertown (NY)
2.20	-1.05	Buffalo (NY)
2.10	-1.15	Erie (PA), Jamestown (NY), New Wilmington (PA), Pittsburgh (PA)



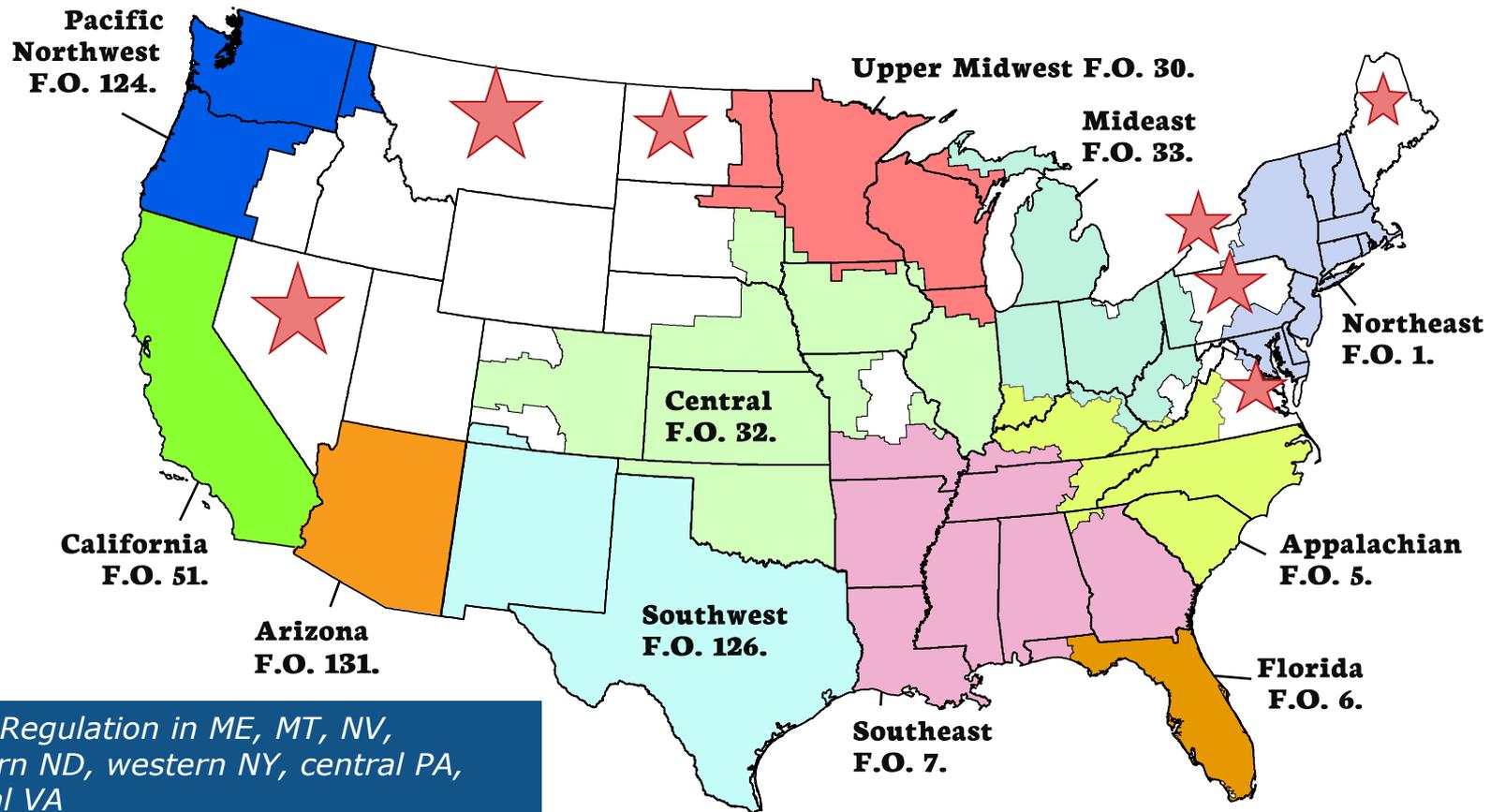
# Vermont Processing Plants 6/22

- Pool Handler Plants
  - Agrimark: 1) Cabot and 2) Middlebury
  - Butterworks, Westfield
  - Hood, Barre
  - Monument farms, Weybridge
  - St. Alban's Creamery
  - Strafford Organic Creamery



# Marketing Order Areas Define Class I Product Sales Areas that are subject to regulation

## 11 Federal Milk Marketing Order Areas



Pooling is simple a process for calculating the weighted average of all class prices, based on market-wide use of milk, with various, relatively minor adjustments

The price discrimination approach yields higher total producer returns by exploiting inelastic demands, but

- Markets still must clear, can't increase prices across the board without risking surplus
- Sellers gain revenue by lowering price in elastic market and increasing price in inelastic market
- In markets with different degrees of inelastic demand, what you gain in the most inelastic markets is partially offset by what you lose in the less inelastic markets

Source: A. Novakovic

# Compensation for Balancing

- All producers benefit when excess milk production is converted to storable products as that milk is not competing for fluid and other markets
- PPD from FMMO is minimum share of pool value for these activities
- Cooperatives also negotiate over-order premiums and sharing to compensate for balancing activities

# Key Characteristics of Pool (Farm) Prices

1. Minimums: set the bottom, market sets the top
2. Component based: always adjusted for fat content, may be adjusted for protein or, more broadly, “skim milk solids”
3. Values derived from weighted average of Class price and usage
4. Location: in some markets, prices are adjusted for location, some not
5. Processors must pay their suppliers at least the minimum price, but cooperatives are not required to pay their members at least the minimum price (although it makes little sense to persistently underpay)

Source: A. Novakovic

# Characteristics of Producer “Uniform” (Blend) Prices

1. Minimums that Handlers must pay to their supplier – an individual farmer or a cooperative. These set the bottom, market sets the top
2. Weighted average of Class prices, with some small adjustments
3. Component based – 3 or 2 component model, depending on the importance of protein to milk buyers
4. Timing: a partial advance payment is made early in the month, but final payment is not made until about half-way through the following month. It takes time to calculate.
5. Location: Prices are typically adjusted for location

Source: A. Novakovic

# Key Characteristics of Class (Plant) Prices

1. Minimums: sets the bottom, market sets the top
2. Component based: always adjusted for fat content, may be adjusted for protein or, more broadly, “skim milk solids”
3. Values are derived from wholesale product prices (product formula pricing)
4. Discrimination: some regulated prices include a “premium”, the rest are designed to clear the market
5. Timing: some prices announced in advance, some not. This creates, by definition, lags in lateral price coordination across markets in different channels for the same input – farm milk.
6. Location: some prices adjusted for location, some not

Source: A. Novakovic

# Utilization By FMMO, 2020

Order	% Class I	% Class II	% Class III	% Class IV
Northeast	30.6	23.9	25.9	19.6
Upper Midwest	13.0	9.0	68.8	9.2
Mideast	37.6	22.6	21.4	18.4
Central	35.2	12.5	23.6	28.8
Southwest	35.6	12.4	7.1	44.9
Pacific NW	22.1	6.5	29.9	41.5
California	22.3	6.5	2.9	68.3
Appalachia	73.9	13.3	2.9	9.1
Southeast	69.0	16.8	3.3	10.9
Florida	82.2	13.2	1.0	3.7
Arizona	27.7	8.9	18.6	44.8

# Depooling

- Class III processors get a pool draw as long as the pool value exceeds Class III price
- Class III processors can withdraw from pool rather than pay in to pool
  - Qualification rules – touching base and repooling might make depooling costly in some instances

# Market and Production Trends

- Declining Class I utilization
- Increasing component tests/levels
- Balancing issues in some regions

# Do FMMOs still make sense today?

- The rationale for Classified Pricing and Pooling is not as strong today as it once was
- The “money on the table” has shrunk: Class I differential and utilization
- The opportunity to exploit demand elasticity differences has probably shrunk
- Does competition in larger food categories mean the price of milk matters more to consumers
  - Is fluid milk now just another product in beverage category?
- National markets (price determination) call into question regional pooling

Source: A. Novakovic

# Northeast Marketing Area July 2022

## JULY 2022 POOL PRICE ANNOUNCEMENT

Producer Milk	Percent	Pounds	Minimum Class Price
Class I	26.9	615,863,018	\$29.12
Class II	24.3	556,310,773	26.66
Class III	30.1	687,108,621	22.52
Class IV	18.7	427,167,127	25.79
<b>Total Producer Milk</b>	<b>100.0</b>	<b>2,286,449,539</b>	

Computation of Uniform Price (per cwt @ Suffolk County, MA)		Component Prices	
<b>Producer Price Differential</b>	<b>\$3.84</b>	Butterfat Price	\$3.3600 /lb
<b>Class III Price</b> (@ 3.5% Butterfat)	<b><u>\$22.52</u></b>	Protein Price	2.9116 /lb
<b>Statistical Uniform Price</b> (@ 3.5% Butterfat)	<b>\$26.36</b>	Other Solids Price	0.3596 /lb
<b>Statistical Uniform Price</b> (@ Average Pool Component Tests)	<b>\$27.89</b>	Nonfat Solids Price	1.6160 /lb

Note: component averages 3.89% fat, 3.06% protein, 5.77% other solids

# Northeast Marketing Area July 2022

## Producer Price Differential and Statistical Uniform Price, by Location

Selected Locations	Differential *	Adjustment	Producer Price Differential	Statistical # Uniform Price
dollars per hundredweight				
Boston, MA	3.25	0.00	3.84	26.36
Newport News/Portsmouth, VA	3.20	(0.05)	3.79	26.31
New York, NY	3.15	(0.10)	3.74	26.26
Long Valley, NJ	3.10	(0.15)	3.69	26.21
Philadelphia, PA	3.05	(0.20)	3.64	26.16
Agawam, MA/Baltimore, MD	3.00	(0.25)	3.59	26.11
Frederick, MD/New Holland, PA	2.90	(0.35)	3.49	26.01
Mt. Holly Springs, PA	2.80	(0.45)	3.39	25.91
Albany/Binghamton, NY	2.70	(0.55)	3.29	25.81
Middlebury, VT	2.60	(0.65)	3.19	25.71
Syracuse, NY	2.50	(0.75)	3.09	25.61
St. Albans/Swanton, VT	2.40	(0.85)	2.99	25.51
Watertown/Rochester, NY	2.30	(0.95)	2.89	25.41
Buffalo, NY	2.20	(1.05)	2.79	25.31
Jamestown, NY	2.10	(1.15)	2.69	25.21

# Example Farm Milk Price

- Located in Addison County, Vermont
- Marketed 400,000 lbs (4000 cwt) of 4.0% butterfat and 3.05% protein milk in July 2022

Component	Price	Component lbs	Value
4.0% butterfat	Butterfat price \$3.36/lb	16,000 lbs	\$53,760
3.05% protein	Protein price \$2.91/lb	12,200 lbs	\$35,502
5.7% other solids	Other solids price \$0.36/lb	22,800 lbs	\$8,208
		Total component value	\$97,470 (\$24.36/cwt)
PPD	\$2.60/cwt	4000 cwt	\$10,400

Federal Order Milk Value =  $\$107,870 / 4000 \text{ cwt} = \$26.97/\text{cwt}$

# FMMO 1 Regulated Pricing (July, '22)

- USDA calculates; FMMO 1 MA announces classified prices, monthly
  - Booth Bros obligated for Class I Price for raw milk procured to make beverage milk  
\$29.12
  - Commonwealth must pay Class II Price for milk procured to make yogurt \$26.66
  - Lucille Farms must pay Class III Price for milk procured to make cheese \$22.52
  - Agrimark must pay Class IV Price for milk procured to make powder  
\$25.79
- Plants report class percentage utilization to MA, monthly
- MA makes calculation of statistical uniform price \$26.36
- MA administers uniform blend pricing –
  - Class I handlers make pool equalization payments to the MA
  - MA makes equalization payments to Class II – IV plants
- Coops and plants make payments to producers (twice monthly – estimate and reconcile) \$27.89
- MA audits payments of classified pricing by all handlers; producer payrolls of only proprietary handlers

# Farm Milk Price is Composed of:

## 1. Federal Milk Marketing Order prices

- Minimum prices
- Pooling/uniform price
- Even areas outside the Orders use those prices as reference

## 2. Cooperative, State and Regional Market Aspects

- Balancing
- Premiums
- State policies

## 3. Farm Specifics

- Components
- Quality
- Hauling

# Other Price Adjustments

- Order Class and Blend Prices are MINIMUMS
- If you can get someone to pay you more, that's great
  - Premiums
    - ✓ Competitive or market
    - ✓ Volume
    - ✓ Quality
    - ✓ Hauling subsidies
    - ✓ rbST free
    - ✓ Organic (flat rate, not a premium, per se)
  - Deducts
    - ✓ Promotion assessment
    - ✓ Hauling
    - ✓ Coop dues and similar charges (e.g., CWT)
    - ✓ Coop "reblends"

# Reported “Farm” Milk Prices

- Average price paid for all milk (the All Milk Price) – estimated by NASS from surveys of milk buyers. Designed to reflect the gross price they pay for all the milk they buy
- Statistical Uniform Price (the Uniform Price, the Blend Price) – determined by AMS and used to assure that milk suppliers receive at least this minimum price for milk from non-cooperative handlers.
- Mailbox price – calculated by AMS from actual payment data collected from regulated handlers and cooperatives.
  - For cooperative members and independent farmers, it may be higher than the minimum because of premiums
  - For cooperative members, it may be lower because of deductions or reblending
  - All farmers pay hauling costs and the National Dairy Promotion Order assessment

# Modifying FMMOs

## Administrative Hearings

- USDA must consider producers and consumers

## Referendum votes

- Vote is up or down on USDA proposal
- Bloc voting allowed by cooperatives

# Over-order Premiums

- Federal order minimum prices provide:
  - a base point for bargaining and reference
  - information for distributing revenues and checking behavior
- Over-order means exactly that—an amount above the Order minimum price

# State Policies

- Can complement (be built upon) or substitute for FMMOs
- For example, Western NY operates an order that essentially does the same as the Northeast FMMO but in counties not covered by the Federal Order

# Maine

- Maine milk commission has authority to set over-order premium and increases wholesale and retail milk prices
- Premiums are to be passed on to farms proportionate to the Class I utilization of Maine milk for that processor
- Studies to determine margins at producer, dealer and retailer on 3-year rotation
- Farm payments based on size tiers

# ME State Over-order Price

- Maine Milk Commission announces monthly over-order “Maine Milk Commission premium” **\$1.04**
- Maine milk plants report
  - Volume of Class I milk processed and sold in Maine beverage milk market
  - Total raw milk volume procured from Maine producers
- Maine plants make payment to Commission
  - Payment = Over-order price x (volume of Class I milk utilized for processing and sale of beverage milk in Maine market)
- Milk Commission calculates pool price to be paid to producers =  
(Volume of Class I milk processed and sold in Maine beverage milk market /  
Total raw milk procured from Maine producers (+/- 60%)) x over-order price **\$0.60**
- Milk Commission distributes funds to milk plants based on reported pool volume and pool price
- Milk plants make “Maine Milk Commission premium” payments to individual producers

# Maine Over Order Price

Class I Price	<b>Actual</b>	Jul-22	\$29.12	Per CWT	Protein Price Per Pound	May-22	\$3.8696
Milk Commission Premium		Jul-22	\$1.04	Per CWT	Butterfat Price Per Pound	May-22	\$3.1056
Producer Margin		Jul-22	\$1.58	Per CWT	Other Solids Per Pound	May-22	\$0.4857
Total Class I Producer Price		Jul-22	\$31.74	Per CWT	Nonfat Solids Per Pound	May-22	\$1.6253
Federal Promotion Fee		Jul-22	\$0.200	Per CWT			
Handling Fee		Jul-22	\$0.47	Per CWT			
Total Class I Dealer Cost		Jul-22	\$32.41	Per CWT			
<b>Basic Price of Milk</b>		Jul-22	\$29.12	Per CWT			
Class II Price & Margin		May-22	\$26.02	Per CWT			
Class III for		May-22	\$25.21	Per CWT			
Class IV for		May-22	\$24.99	Per CWT			
Producer Price Differential		May-22	\$1.37	Per CWT			
Statistical Uniform Blend		May-22	\$26.58	Per CWT			
Butterfat price per lb. Suffolk County, MA			June-22	\$3.1053			
Chicago AA Butter Price Announced			June 17, 2022	2.9400			

Maine

# Maine Dairy Stabilization Tiers

Tier	Annual Production	Target Price
1	< 16,790 cwt	\$21.00
2	16,791-49,079 cwt	\$20.36
3	49,080-76,803 cwt	\$18.01
4	> 76,803 cwt	\$17.83

All farms begin the year in Tier 1 and move up as production increases  
Payments are based on the difference between the target and blend price

# Pennsylvania

- PA Milk Marketing Board administers 2 laws:
  - Milk Marketing Law
  - Milk Producer's Security Act
- Goals:
  - Enhance dairy farmer revenue
  - Provide security for dairy farmers and milk dealers
  - Allow fluid milk dealers and retailers to recover average costs

# Pennsylvania

- Board establishes minimum producer, wholesale and retail milk prices
- Establishes an over-order premium on milk produced, processed and sold in PA
- Two public hearings annually to determine the over-order premium
- The over-order premium impacts 15-20% of the mil produced in PA

# Pennsylvania

- Wholesale and retail minimum prices set for 6 marketing areas
  - Retail price = class I farm price + processing cost + packaging cost + delivery cost + store handling and sales costs
- Processor and retailer cost determined annually so that class I prices drive within year changes

# Pennsylvania



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Tom Wolf - Governor Carol A. Hardbarger - Secretary	<b>Minimum Producer Price Data</b> <b>Official General Order A-903 Amended</b> <b>For Milk Purchased From Producers in July 2022</b>	Robert N. Barley - Chairman James A. Van Blarcom - Member Kristi Kassimer - Consumer Member
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AREA-ZONE	CLASS I DIFF.	CO-OP PROCUREMENT COST	OVER ORDER PREM <sup>1</sup> (A999 & A1012)	PURCHASED FROM CO-OPS			PURCHASED FROM INDEPENDENTS		
				BUTTERFAT VALUE (per lb.)	SKIM VALUE (per cwt.)	CLASS I PRICE	BUTTERFAT VALUE (per lb.)	SKIM VALUE (per cwt.)	CLASS I PRICE
1-0	\$3.05	\$0.2416	\$1.72	\$3.4044	\$19.65	\$30.88	\$3.4020	\$19.41	\$30.64
2-0	\$2.80	\$0.2416	\$1.72	\$3.4019	\$19.40	\$30.63	\$3.3995	\$19.16	\$30.39
3-0	\$2.80	\$0.2416	\$1.72	\$3.4019	\$19.40	\$30.63	\$3.3995	\$19.16	\$30.39
4-0	\$2.90	\$0.2416	\$1.72	\$3.4029	\$19.50	\$30.73	\$3.4005	\$19.26	\$30.49
5-0	\$2.30	\$0.2416	\$1.72	\$3.3969	\$18.90	\$30.13	\$3.3945	\$18.66	\$29.89
6-0	\$2.50	\$0.2416	\$1.72	\$3.3989	\$19.10	\$30.33	\$3.3965	\$18.86	\$30.09

1. Includes a Fuel Adjustment of \$0.72 per Hundredweight.

# California

- California was denied a Federal Order in 1935 so created a state Order in 1937
- Created without revenue pooling
- Largest milk producing state—currently about 18 percent of US milk production
  - 41.9 billion lbs milk, 2.4 billion lbs cheese, 672 million lbs butter

# California Milk Classes

Class 1: Milk used in fluid products.

Class 2: Milk used in heavy cream, cottage cheese, yogurt and sterilized products.

Class 3: Milk used in ice cream and other frozen products.

Class 4a: Milk used in butter and dry milk products, such as nonfat dry milk.

Class 4b: Milk used in cheese, other than cottage cheese.

Milk consists of three basic components: butterfat (fat), solids–not–fat (SNF) and fluid carrier. Prices are assigned to all three components in the determination of the Class 1 milk price. Only the fat and SNF components are used to set the Class 2, 3, 4a and 4b milk prices. Class 2 and 3 prices are adjusted bimonthly according to their pricing formulas, and Class 1, 4a and 4b prices are adjusted monthly according to their formulas.

# California Class Prices

- Component prices derived from commodity prices
  - CME butter
  - California NFD milk price
  - CME block cheddar price
  - Western dry whey price
- California surveyed plants to estimate make allowance

# California “Quota” Program

- To institute market-wide pooling in 1969, farms that sold to class 1 markets were given quota that entitled them to a higher milk price (\$1.70/cwt higher since 1994)
- Quota grew based on state class 1 sales
- Quota can be sold/traded
- Quota still exists under CA FMMO

# State Policy Implications

- Often rely on FMMO price and quantity information
  - FMMO reform might complicate
- Challenges include understanding farm, coop, and processor incentives and behavior