National Milk Producers Federation

Proposal Number 19

Update Federal Order Class I Differentials

REMINDER: Why Do We Have Class I Differentials In Federal Milk Marketing Orders, i.e., What Purpose Do They Serve?

Class I Differentials:

1. Compensate Dairy Farmers for the Additional Costs of Producing Grade A Milk vs. Grade B
2. Encourage Milk to be Delivered to Class I Plants, a principal objective of the AMAA
3. Compensate Dairy Farmers for the Substantial Costs of Holding Reserves of Milk for the Class I Marketplace
4. Establish a Price Gradient to Encourage Milk to Flow From Reserve Supply Areas to Areas of Milk Need
5. Provide Financial Incentives to Pull Milk From Manufacturing Uses When Needed For Class I Use
6. Compensate Dairy Farmers for the Considerable Costs of Balancing the Large Variation in Daily, Weekly, Monthly, and Seasonal Class I Demand
7. Align the Class Prices With The Price-Demand Elasticities of the Dairy Products Between the Various Classes
8. Provide Sufficient Price Alignment Between the Classes to Minimize Class Price Inversions

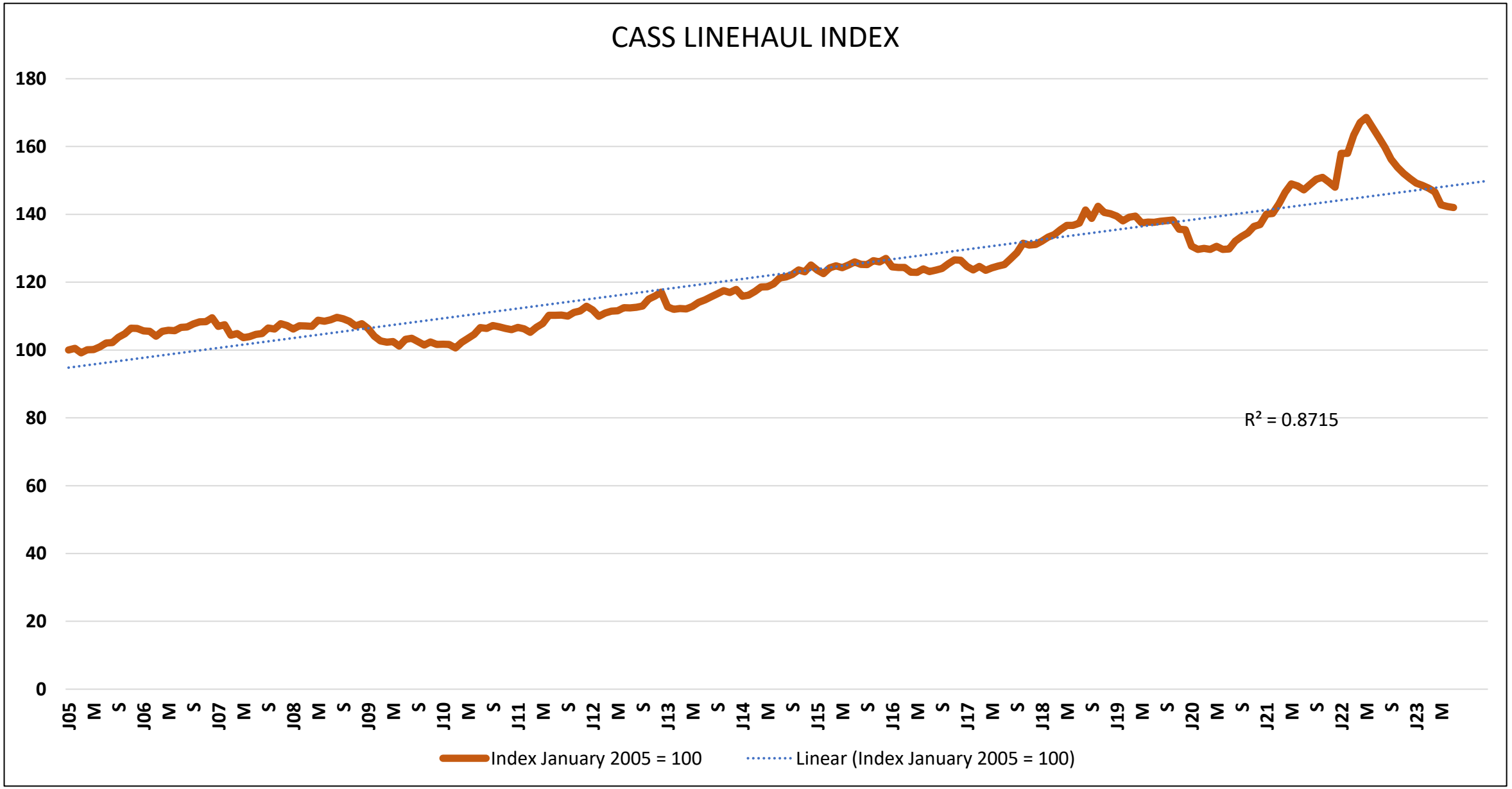
The need to Update Class I Differentials:

- Class I differentials in most of the contiguous forty-eight states have not been updated since F.O. Reform in 2000. (Differentials were modestly increased in the three 'southeastern' Orders in May 2008, and are unchanged since then.)

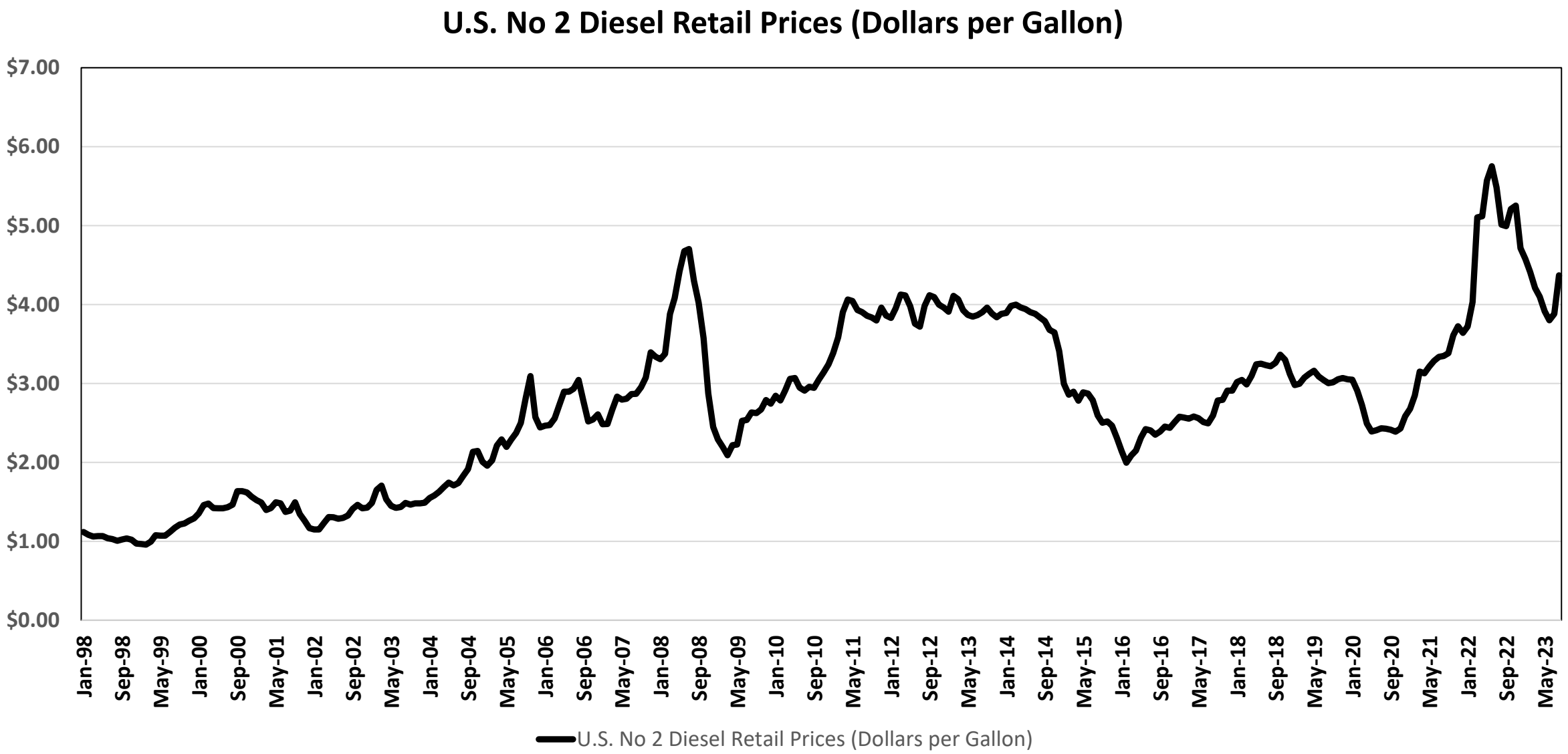
- Data used to set the 2000 Order Reform Differentials was from circa 1998
  - data on the cost of moving milk is now 25 years old!

- Milk hauling rates have increased two-and-a-half fold since 1998.
- Fuel Prices have increased three to four-fold since 1998.
- Hauling equipment costs, trucks and trailers, have at least doubled in 25 years

Increases in the costs of milk hauling have significantly reduced the effectiveness of Federal Order Class I Differentials and threaten the supply of milk to Class I, one of the major principles for Federal Orders



Source: Exhibit NMPF – 37



Source: Exhibit NMPF – 37

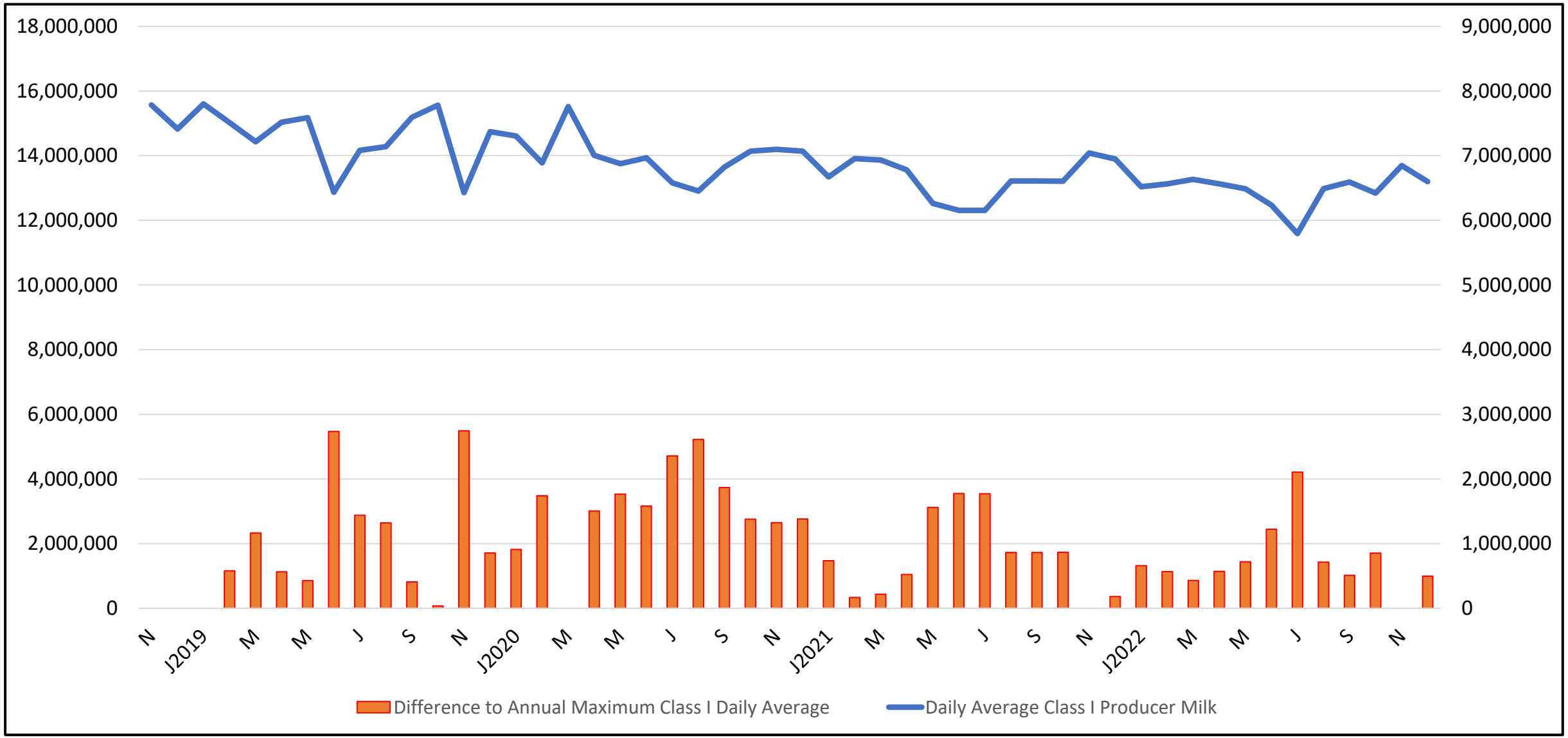
Balancing Milk Supplies to Class I Plants

The need to balance milk supplies to Class I processing plants is real, and balancing these supplies to Class I is not without cost – substantial costs.

Substantial Class I Seasonality Remains an Issue in Supplying Class I Markets, and Remains an Issue in Balancing Individual Class I Plants. Daily, Weekly, and Monthly Variations in Class I Demand Creates Additional Balancing Requirements.

Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

California Federal Order No. 51



Balancing Class I – The Need for Reserve Milk Supplies

The Daily and Seasonal Variation in Class I Demand Requires Regulatory Recognition of the Need for Reserve Milk Supplies.

The milk necessary to supply surges in Class I demand must come from somewhere. Regardless of the belief that milk appears at milk processing plants by magic, or magnetism, it must be pulled toward Class I plants by dollars.

Parking milk in manufacturing awaiting its call to supply Class I is costly. Reserve processing capacity must be maintained for the expected peak in reserve milk supplies (which usually accompanies when Class I plants' demand fades). Temporarily shuttering or cutting back throughput at manufacturing plants when Class I demand bounces back lowers earnings at the manufacturing plants.

Despite conjectural pronouncements to the contrary, very few, if any Class I milk plants have sufficient silo space to hold multiple days' milk. Grade A requirements won't allow long hold times anyway.

The Daily and Seasonal Variation in Class I Demand Requires Regulatory Recognition of the Need for Reserve Milk Supplies, continued.

Class I plants continue to be located near population centers, that's people population centers, not bovine population centers. Increases in hauling costs are making dairy farmers question the sustainability of supplying plants hundreds of miles from their farms for inferior returns after paying to get their milk hauled.

Daily surges in, and ebbs in, Class I demand are unpredictable and can occur at the last minute. Plants can cut orders for milk with trucks in route, and the trucks then turn around and head back to a manufacturing plant. Sometimes the plant, on the same day as they cut their orders, increases orders and the same trucks diverted toward the manufacturing plant is re-re-routed back to the Class I plant.

All this back-and-forth in Class I milk demand is not always under the control of the plants, it's a reaction to adds and cuts in packaged milk orders from retail customers.

The Daily and Seasonal Variation in Class I Demand Requires Regulatory Recognition of the Need for Reserve Milk Supplies, continued.

Federal Orders are tasked with a seemingly straightforward objective – insure a sufficient quantity of milk to supply Class I demand.

Orders fulfil their mission in a logical and rational way – to know (insure) there is enough milk supply, there must always be too much. Just like a road trip, the only way to know you'll have enough fuel to get to the destination is to put more gas in the tank or more charge in the battery than you think you will need.

In supplying Class I demand, the last 100 pounds of demand is just as important as the first 100. If the market is one truckload short, then there wasn't sufficient supply. This occurs with some regularity.

Balancing Class I – The Need to Incentivize Deliveries of Milk

The Daily and Seasonal Variation in Class I Demand Requires Regulatory Recognition of the Need for Incentivizing Class I Deliveries.

Whether the denizens of their ivory towers want to believe it or not, there are seasonal surges in Class I demand such that it is impossible to deliver to every plant's liking. Cooperative witnesses testifying on Proposal #19, will note that during every August and September milk is rationed. Not everyone gets all the milk they want when they want it. Ask a plant operator - a load delivered a day late is just as bad in their mind as having not received it all.

CLASS I DIFFERENTIALS RECOGNIZE THE MANY CHALLENGES OF SUPPLYING CLASS I BY INCENTIVIZING THE DELIVERY OF MILK TO CLASS I --- **WITH MONEY.** (e.g. 3M, 5M, & 7M theory!)

Dairy farmers are tired of hauling milk hundreds of miles for inferior returns because we are 'supposed to' prioritize selling milk for Class I. Absent sufficient financial incentives to continue to supply Class I – they are going to start saying no more, and soon. The recognition of these substantial balancing costs in the Class I price is an imperative, not an extravagance.

The Fallacy of Relying On Over Order Prices as Replacements for Adequate Federal Milk Order Class I Prices

A few Comments on Over Order Prices.

To those who champion over Order prices as a desirable and workable alternative to adequate basic levels of Federal Order Class I prices, I have one word in response – **BUNK**.

There are generally two camps of proponents of increasing over Order prices while simultaneously lowering Federal Order prices:

- Those that do not understand over Order prices, their functions, benefits and limitations, and
- Those that understand all too well the limitations of over Order prices.

Over Order prices serve an important function in the pricing of milk, but over Order prices are not a suitable replacement for Federal Orders and the milk pricing and orderliness provided in Federal Milk Orders.

WHY?

A few Comments on Over Order Prices, continued.

WHY NOT OVER ORDER PRICES AS A SUBSTITUTE FOR ADEQUATE FEDERAL ORDER PRICES?

1. Over Order prices are ephemeral. Here today, gone tomorrow.

   Over Order prices simply do not have the durability of Federally regulated prices. Over Order prices can be swept away with little or no notice, and once gone, are difficult to re-establish.

   The reasons over Order prices crumble can be unrelated to costs of milk supplies and the costs of delivering milk within a marketing area,and they can be destroyed from supply-demand imbalances in distant markets. **Over Order prices are highly susceptible to ripple effects of pricing.**

A few Comments on Over Order Prices, continued.

WHY NOT OVER ORDER PRICES AS A SUBSTITUTE FOR ADEQUATE FEDERAL ORDER PRICES?

2. Over Order prices are not easily moved – not easily moved **up** that is.

The contracts between the seller and the buyer of packaged fluid milk, as we have already heard, are generally set to a fixed differential relative to the announced Federal Order Class I Prices, and that differential is fixed over the life of the contract.

Processors of packaged fluid milk generally cannot pass on to their retail/wholesale customers changes in over Order prices mid-contract … and some processor of packaged fluid milk is always mid-contract.

A few Comments on Over Order Prices, continued.

WHY NOT OVER ORDER PRICES AS A SUBSTITUTE FOR ADEQUATE FEDERAL ORDER PRICES?

3. Over Order prices simply do not carry the confidence from processors that Federal Order prices do.

The buyers of bulk milk and their packaged fluid milk customers rely on the certainty of the pricing under Federal Orders. We often hear “if it’s on the Federal Order Price Announcement” the packaged fluid milk sales contracts recognize it.

Processors of packaged fluid milk and their packaged fluid milk customers do not always have the same level of faith that all market participants are being charged over Order prices similarly, unlike the absolute faith they have in Federal Order prices.

A few Comments on Over Order Prices, continued.

WHY NOT OVER ORDER PRICES AS A SUBSTITUTE FOR ADEQUATE FEDERAL ORDER PRICES?

4. Over Order prices tend to be flat over large expanses of geography.

The industry relies on the Class I price surface set under the Federal Orders as the basic spatial price relationship between Class I plants.

Over Order prices that try to tweak the Federal Order Class I price surface by having in themselves a graduated slope that purports to augment, or correct, the Federal Order Class I price surface, almost always fail. It's hard enough to convince buyers of milk that they are paying the same over Order price as their competitor plant, much less convince them that they should pay more in over Order prices than their competitors.

As distributing plants have increased throughput, and their Class I sales area footprint, and with the rise of the national and multi-regional retailers, this issue has taken on even more significance.

A few Comments on Over Order Prices, continued.

Now back to those two types of individuals who champion over Order prices as replacements for Federal Order prices:

- Those that do not understand over Order prices, their functions, benefits and limitations: We'll chalk this up to inexperience, or a naive belief that the invisible hand of economic law will prevail. THE REASON FEDERAL MILK ORDERS EXIST IS THAT WE HAVE SEEN OVER AND OVER THAT MILK MARKETS DON'T TRANSMIT MILK VALUES EQUITABLY WHEN PRICE REGULATION IS ABSENT.

- Those that understand the limitations of over Order prices. THESE PARTIES ARE COUNTING ON THE EVENTUAL FAILURE OF OVER ORDER PRICES, AND AS MORE PRICING EMPHASIS IS PUT ON UNREGULATED PRICES VS. REGULATED PRICES, THE MORE THESE PARTIES BENEFIT WHEN THE UNREGULATED PRICES CRUMBLE.

Class I Differentials – The Role in Minimizing the Occurrence of Class I Price Inversions

Class I Differentials Must be Established at Sufficient Levels to Eliminate the Vast Majority of Incidences of Class I Price Inversions

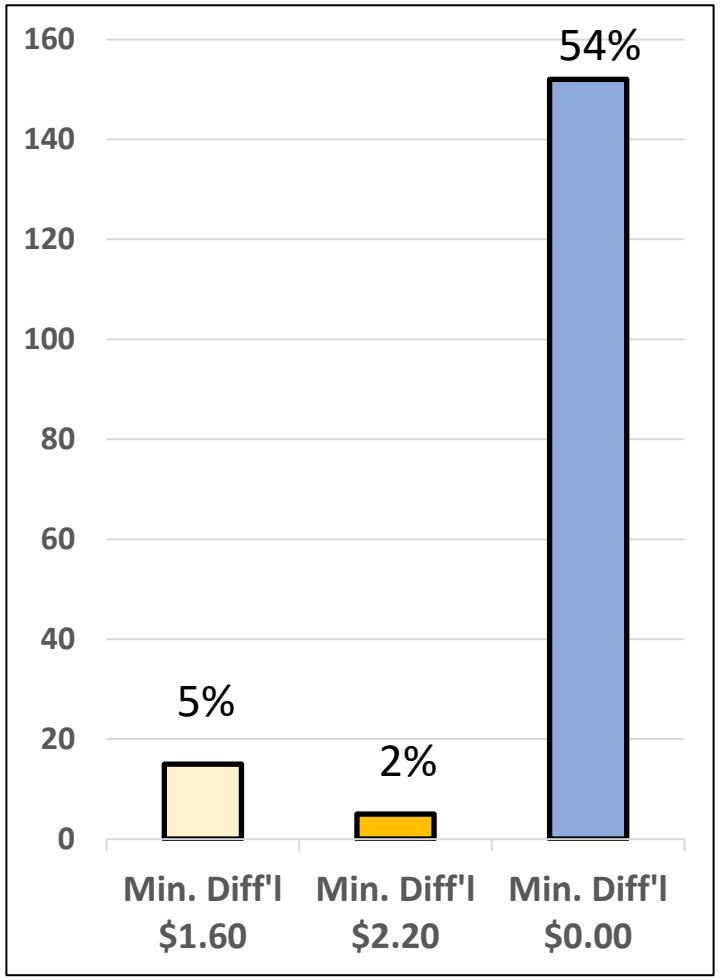
- Class I price inversions – when Class II, Class III, or Class IV prices exceed the Class I price, create the incentive to depool milk.

- Depooling of milk creates disorder in markets:
  - Unequal return to producers serving the same marketing areas
  - Nonuniform prices to handlers
  - Distrust in the marketing and pricing system
  - Class prices are out of line with their relative price-demand elasticities

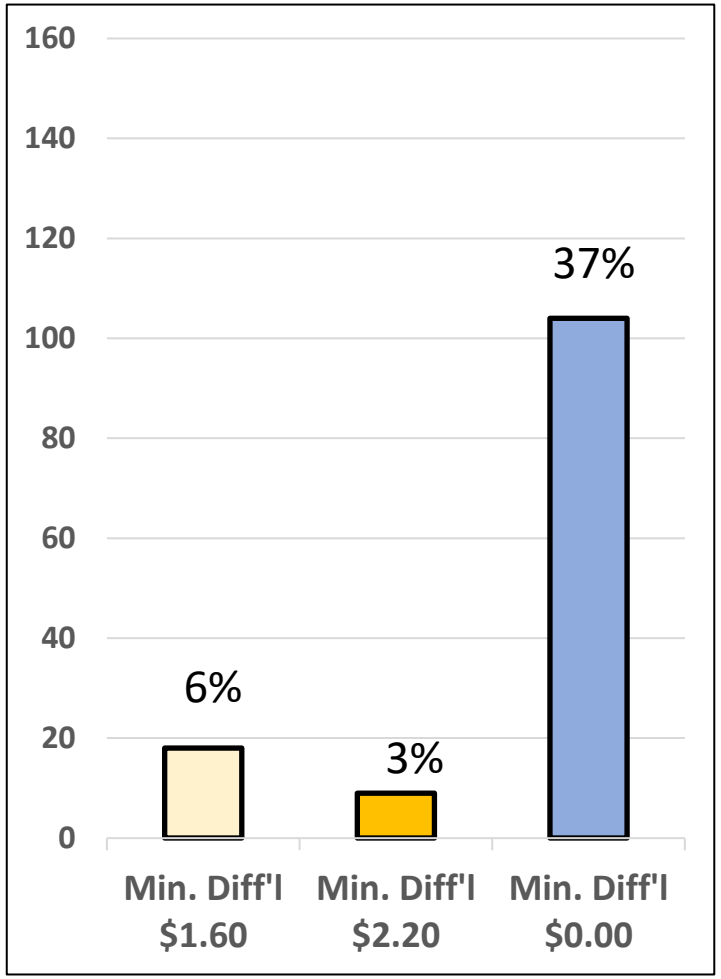
Incidence of Class I Price Inversions, January 2000 – June 2023

(282 months)

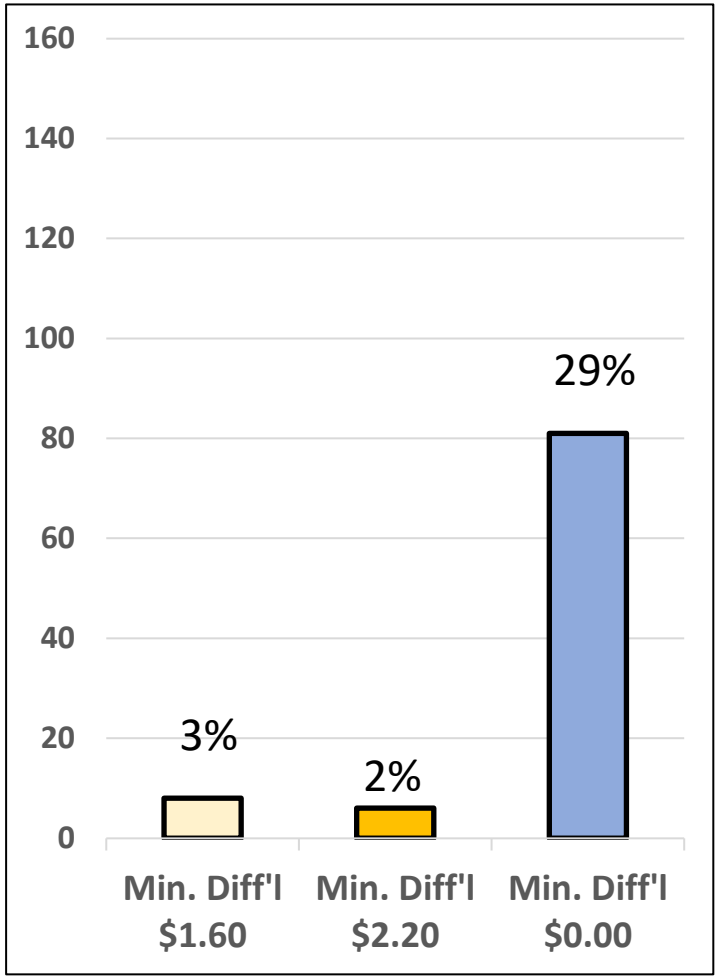
Class II to Class I Price Inversions
(Count of Months -
Jan. 2000-Jun. 2023)



Class III to Class I Price Inversions
(Count of Months -
Jan. 2000-Jun. 2023)

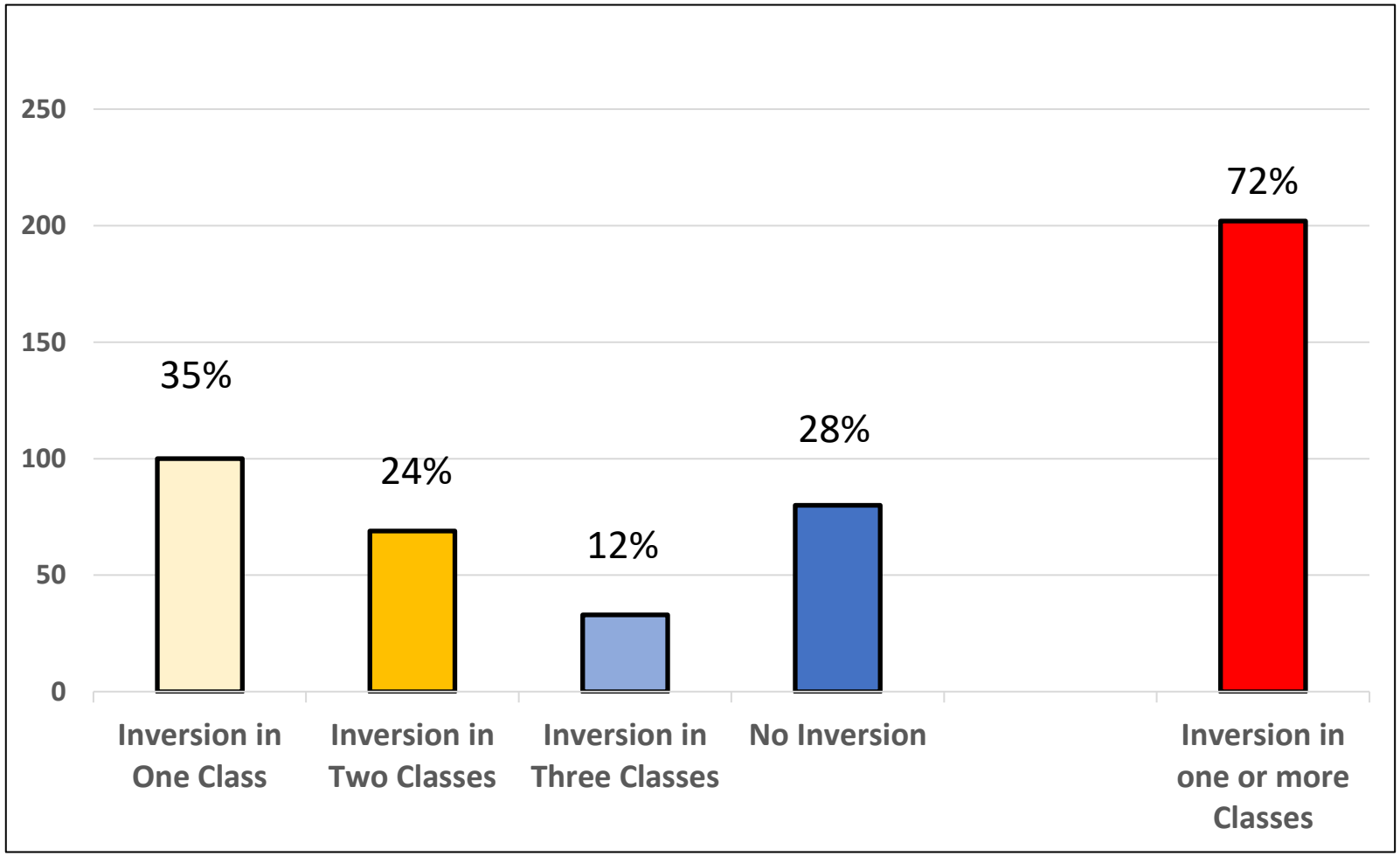


Class IV to Class I Price Inversions
(Count of Months -
Jan. 2000-Jun. 2023)



Source: Exhibit NMPF – 37A, & Monthly Federal Order Class Price Announcements

All Classes to Class I Price Inversions
Minimum Class I Differential = $0.00
(Count of Months – Jan. 2000 through Jun. 2023)



Source: Exhibit NMPF – 37A, & Monthly Federal Order Class Price Announcements

Proposal Number 19 Provides a Reasonable Increase In Class I Differentials

Simple Average Class I Mover, 2000-2022	$16.00	
Approx. Current National Average Class I Differential	$ 2.63	
National Average Class I Price	$18.63	
Differential as Percent of National Average Class I Price		**14.1%**

Simple Average Class I Mover, 2000-2022	$16.00	
Proposal #19 National Average Class I Differential	$ 4.10	
National Average Class I Price	$20.10	
Differential as Percent of National Average Class I Price		**20.4%**

National Average Class I Price (Current differentials)	$18.63	
National Average Class I Price (Proposed differentials)	$20.10	
Increase in National Average Class I Differential		+55.9%
Percent Change in National Average Class I Price		+ 7.9%

Source: Exhibit NMPF – 37E, Exh. USDA-46

The Proposal #19's increases in Class I Differentials are comparable with NMPF's proposal (#7) to increase Make Allowances, BUT… pales in comparison to other proponents' Proposals (#8 & #9) to increase Make Allowances.

Substantial additional time has elapsed since Differentials were updated nationally, vs. the last update of Make Allowances.

Proposal #19 Increase in Class I Differentials vs. Current Differentials*= +56%

Proposal #7 (NMPF) Increase in Make Allowances vs. Order Reform Make Allowances = +41% to 84%

Proposal #8 & #9 (IDFA & WCMA) Increase in Make Allowances vs. Order Reform Make Allowances = +66% to 144%

***'Southeastern' Order Class I Differentials Increased in May 2008:**

Order 5: ≈ +$0.44 per cwt, +16%; Order 6: ≈ +$1.49 per cwt, +37%; Order 7: ≈ +$0.36 per cwt, +12%

In May 2008, Orders 5, 6, 7 combined represented ≈ 25% of Federal Order Class I Producer milk, and would have represented an increase in the All-Order Class I differential value of ≈ +$0.09 per cwt.

Comparison of Make Allowance Proposals 7, 8, 9 to Original Federal Order Make Allowances - 2000

Make allowances per pound

	Butter	NFDM	Dry Whey	Cheese
NMPF Proposal 7	$0.2100	$0.2100	$0.2300	$0.2400
Final Rule, 2000	$0.1140	$0.1370	$0.1370	$0.1702
Proposed Change	$0.0960	$0.0730	$0.0930	$0.0698
Percent Change	84%	53%	68%	41%

	Butter	NFDM	Dry Whey	Cheese
WCMA & IDFA Proposals 8 & 9 (yr. 4)	$0.2785	$0.2716	$0.3172	$0.2840
Final Rule, 2000	$0.1140	$0.1370	$0.1370	$0.1702
Proposed Change	$0.1645	$0.1346	$0.1802	$0.1138
Percent Change	144%	98%	132%	67%

Delivery of Milk to Distant Class I Plants Can Result in Producer Returns at Less than the Manufacturing Class Prices

This is the most **insidious** form of a Negative Producer Price Differential

The Texas Case:

Distant Plant Delivery Return, S.U.P. Vs. Class III, F.O. 126

Source: Exhibit NMPF – 37D

JUNE 2023		Distant Shipment Loss
Miles Hereford to Amarillo	48	
Hauling cost	$ (0.41)	
Class III Price	$ 14.91	
Producer Net Class III Return at Amarillo	$ 14.50	
Miles Hereford to Dallas	407	
Hauling cost	$ (4.21)	
F.O. S.U.P. at Dallas	$ 17.25	
Producer Net S.U.P. Return at Dallas	$ 13.04	**$ (1.46)**
Miles Hereford to Houston	635	
Hauling cost	$ (6.57)	
F.O. S.U.P. at Houston	$ 17.85	
Producer Net S.U.P. Return at Houston	$ 11.28	**$ (3.22)**

Distant Plant Delivery Return, S.U.P. Vs. Class IV, F.O. 126

Source: Exhibit NMPF – 37D

JUNE 2023			Distant Shipment Loss
Miles Hereford to Amarillo	48		
Hauling cost		$ (0.41)	
Class IV Price		$ 18.26	
Producer Net Class III Return at Amarillo		$ 17.85	
Miles Hereford to Dallas	407		
Hauling cost		$ (4.21)	
F.O. S.U.P. at Dallas		$ 17.25	
Producer Net S.U.P. Return at Dallas		$ 13.04	**$ (4.81)**
Miles Hereford to Houston	635		
Hauling cost		$ (6.57)	
F.O. S.U.P. at Houston		$ 17.85	
Producer Net S.U.P. Return at Houston		$ 11.28	**$ (6.57)**

Distant Plant Delivery Return, S.U.P. Vs. Class III, F.O. 126

Source: Exhibit NMPF – 37D

JANUARY 2018 - JUNE 2023, AVERAGE PRICES			Distant Shipment Loss
Miles Hereford to Amarillo	48		
Hauling cost		$ (0.39)	
Class III Price		$ 17.73	
Producer Net Class III Return at Amarillo		$ 17.34	
Miles Hereford to Dallas	407		
Hauling cost		$ (3.32)	
F.O. S.U.P. at Dallas		$ 18.03	
Producer Net S.U.P. Return at Dallas		$ 14.71	**$ (2.63)**
Miles Hereford to Houston	635		
Hauling cost		$ (5.18)	
F.O. S.U.P. at Houston		$ 18.63	
Producer Net S.U.P. Return at Houston		$ 13.45	**$ (3.89)**

Distant Plant Delivery Return, S.U.P. Vs. Class III, F.O. 126

Source: Exhibit NMPF – 37D

JANUARY 2018 - JUNE 2023, AVERAGE PRICES			Distant Shipment Loss
Miles Hereford to Amarillo	48		
Hauling cost		$ (0.39)	
Class IV Price		$ 17.07	
Producer Net Class III Return at Amarillo		$ 16.68	
Miles Hereford to Dallas	407		
Hauling cost		$ (3.32)	
F.O. S.U.P. at Dallas		$ 18.03	
Producer Net S.U.P. Return at Dallas		$ 14.71	**$ (1.97)**
Miles Hereford to Houston	635		
Hauling cost		$ (5.18)	
F.O. S.U.P. at Houston		$ 18.63	
Producer Net S.U.P. Return at Houston		$ 13.45	**$ (3.23)**

The issue of the updating Federal Order Class I Differentials is economically no different than updating Federal Order Make Allowances.

The results of continued insufficient Class I differentials will have the same impact on dairy farmers' deliveries of milk to Class I plants as continued insufficient Make Allowances will have on hard product manufacturing plants.

- Make Allowances in Federal Milk Orders reflect the costs of product utility conversion.

- Class I differentials in Federal Milk Orders reflect the costs of time and place utility conversion.

  - <u>Updating Make Allowances and updating Class I Differentials are two sides of the same coin. Updating either one, but not both, will reek havoc on dairy markets and threaten the adequate supply of milk.</u>

The Class I Differential Development Process

National Project

The Class I Differential Development Process

Developing Class I Differentials are part art, part science.

Science: The USDSS model
Art: The NMPF Colored Pencil Crews

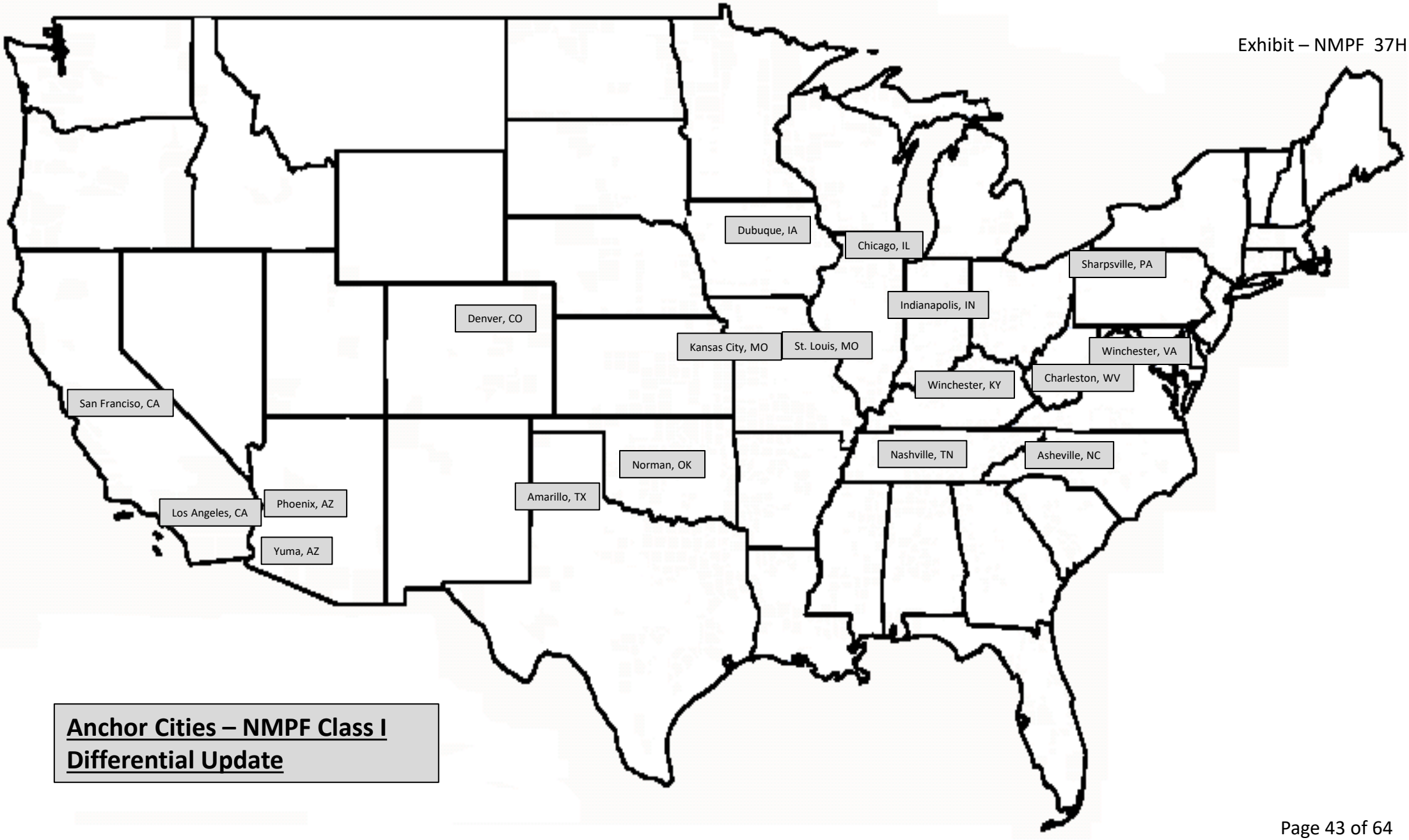
The Class I Differential Development Process

Four Regional Colored Pencil Crews:

Northeast / Mideast / Middle Atlantic (Orders 1 and 33)
Upper Midwest / Central (Orders 30 and 32)
Southeast / Southwest (Orders 5, 6, 7 and 126)
West (Orders 51, 124, and 131)

Each Regional CPC also had areas of unregulated territory to develop

‘Anchor’ Cities



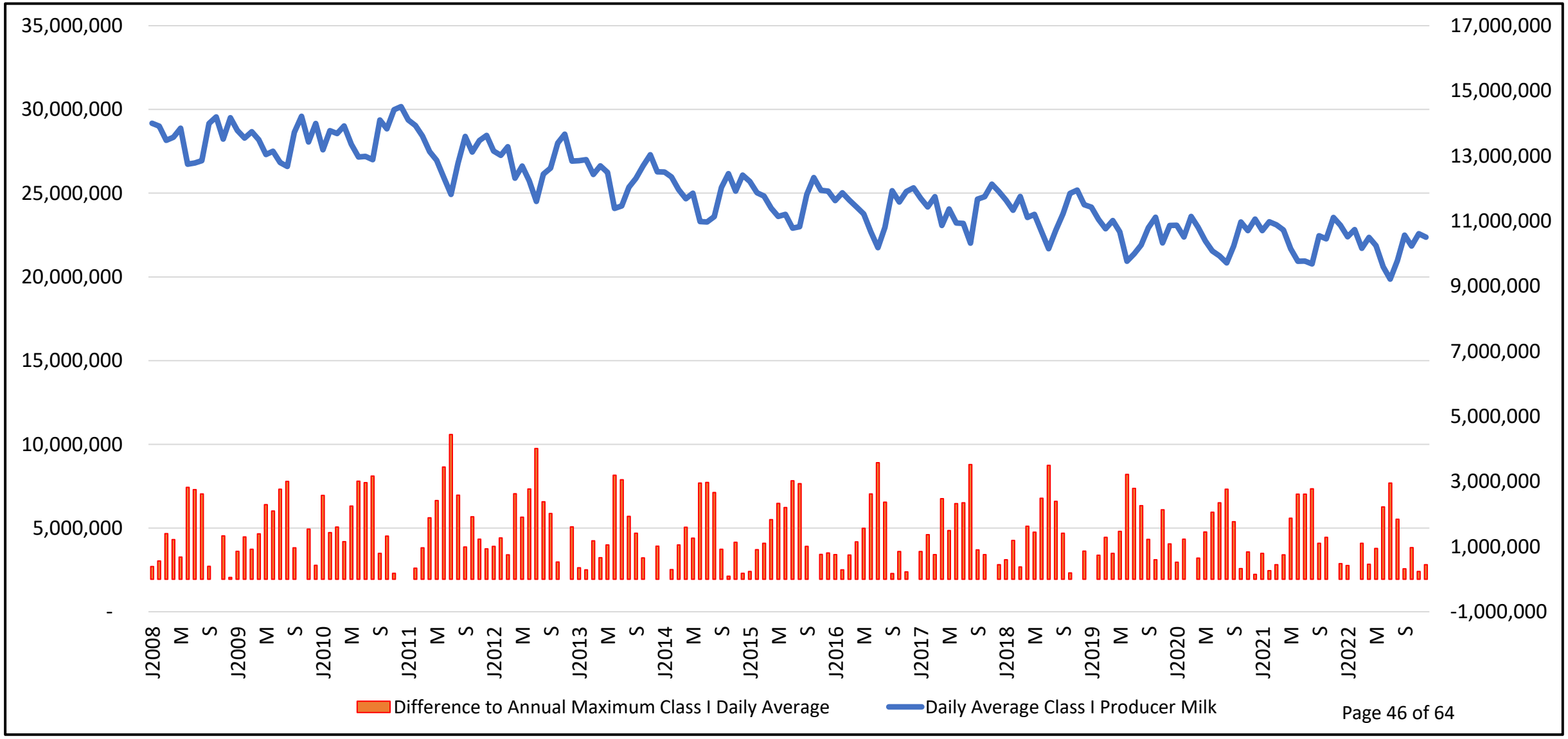
Anchor Cities – NMPF Class I Differential Update

Appendix 1

Federal Order Class I Producer Milk Variability - Daily Average Class I Milk By Federal Order, And Reserve Requirements to Serve Peak Class I Demand

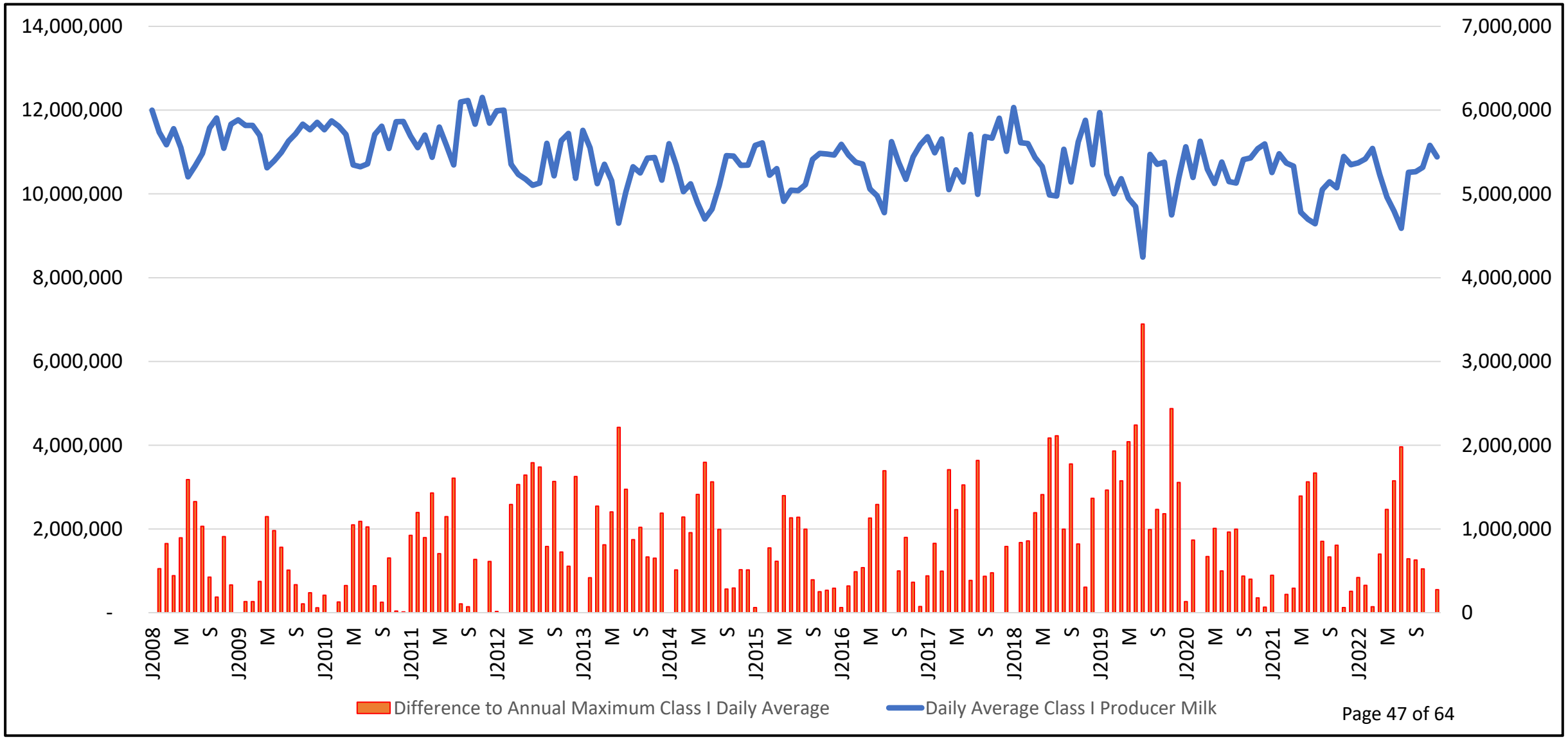
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Northeast Federal Order No. 1



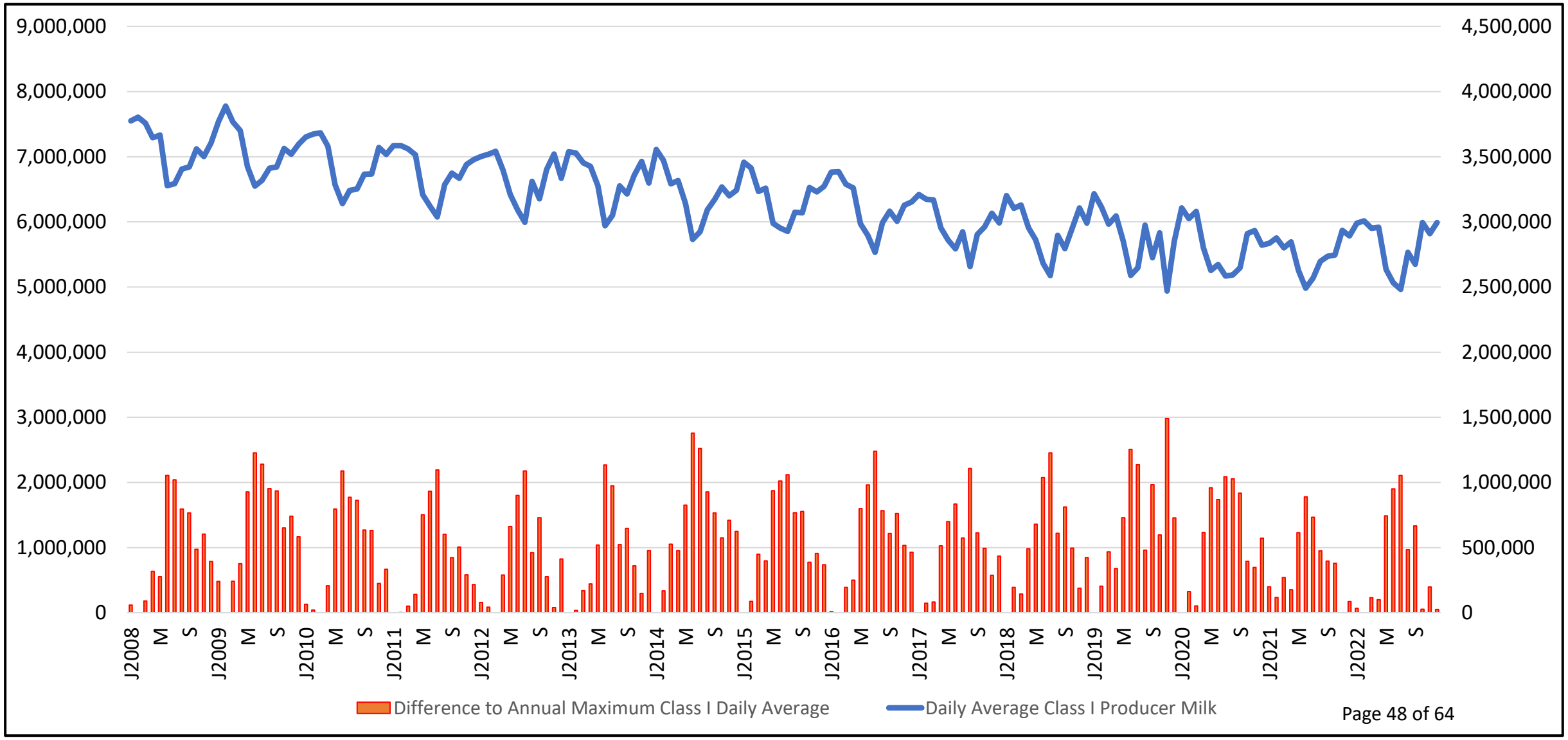
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Appalachian Federal Order No. 5



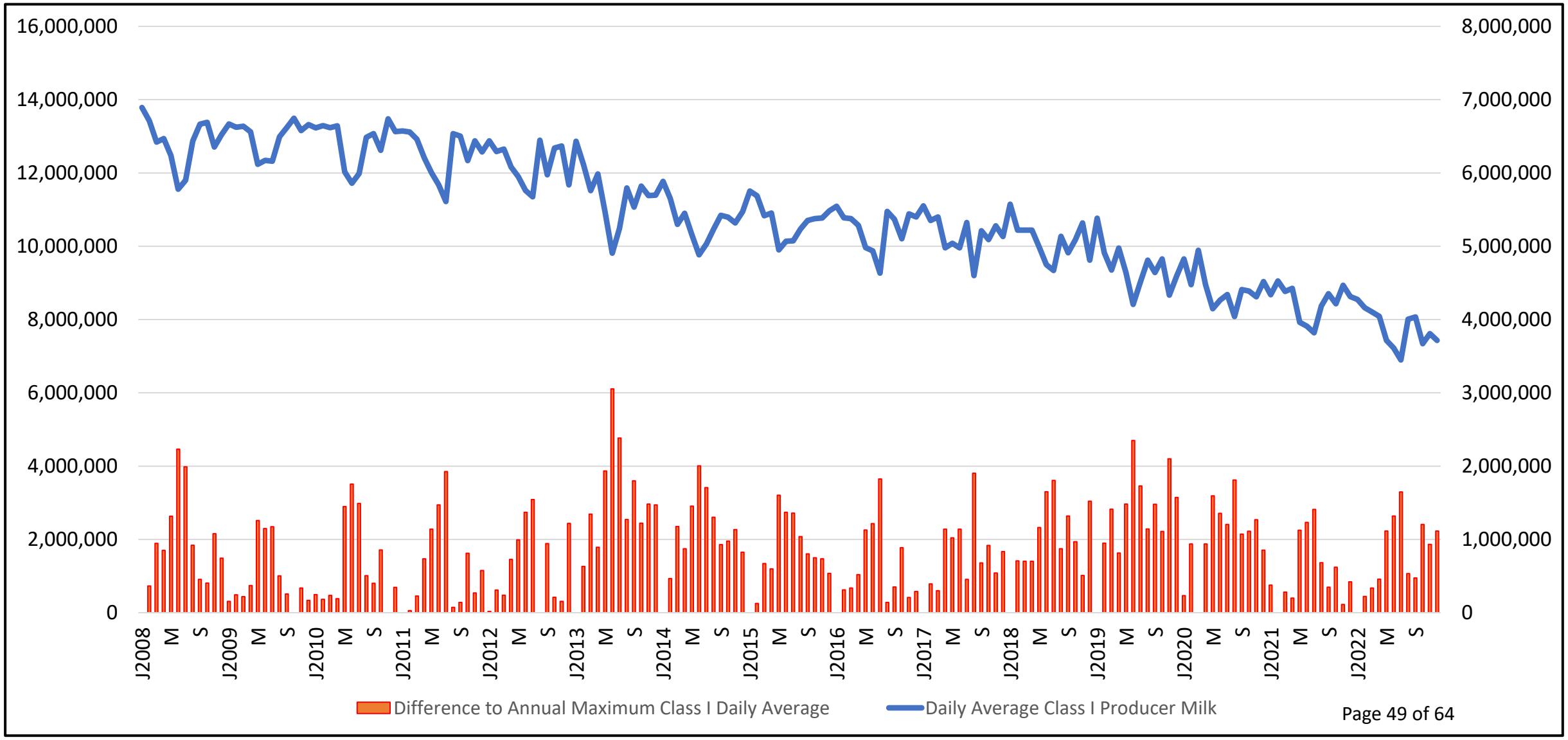
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Florida Federal Order No. 6



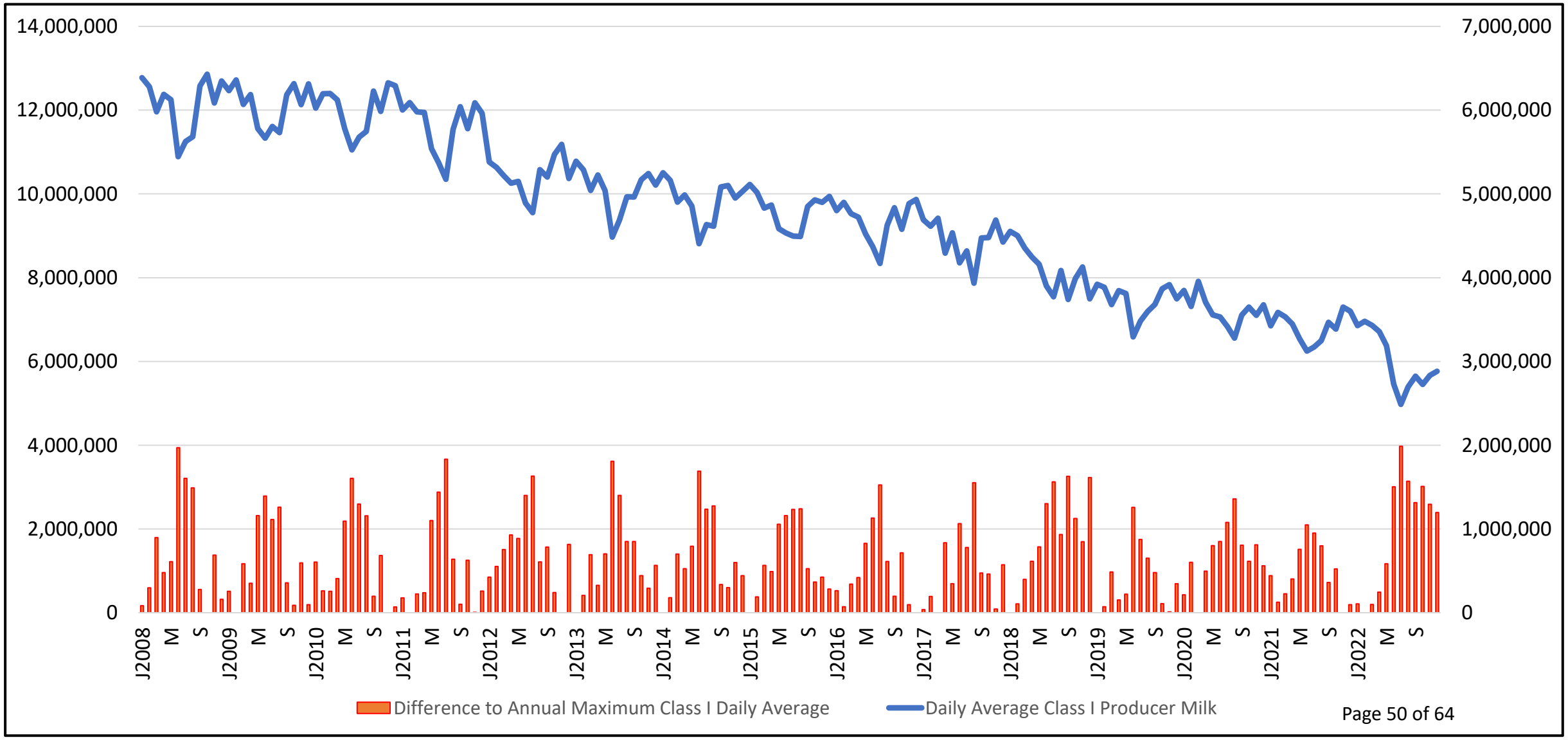
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Southeast Federal Order No. 7



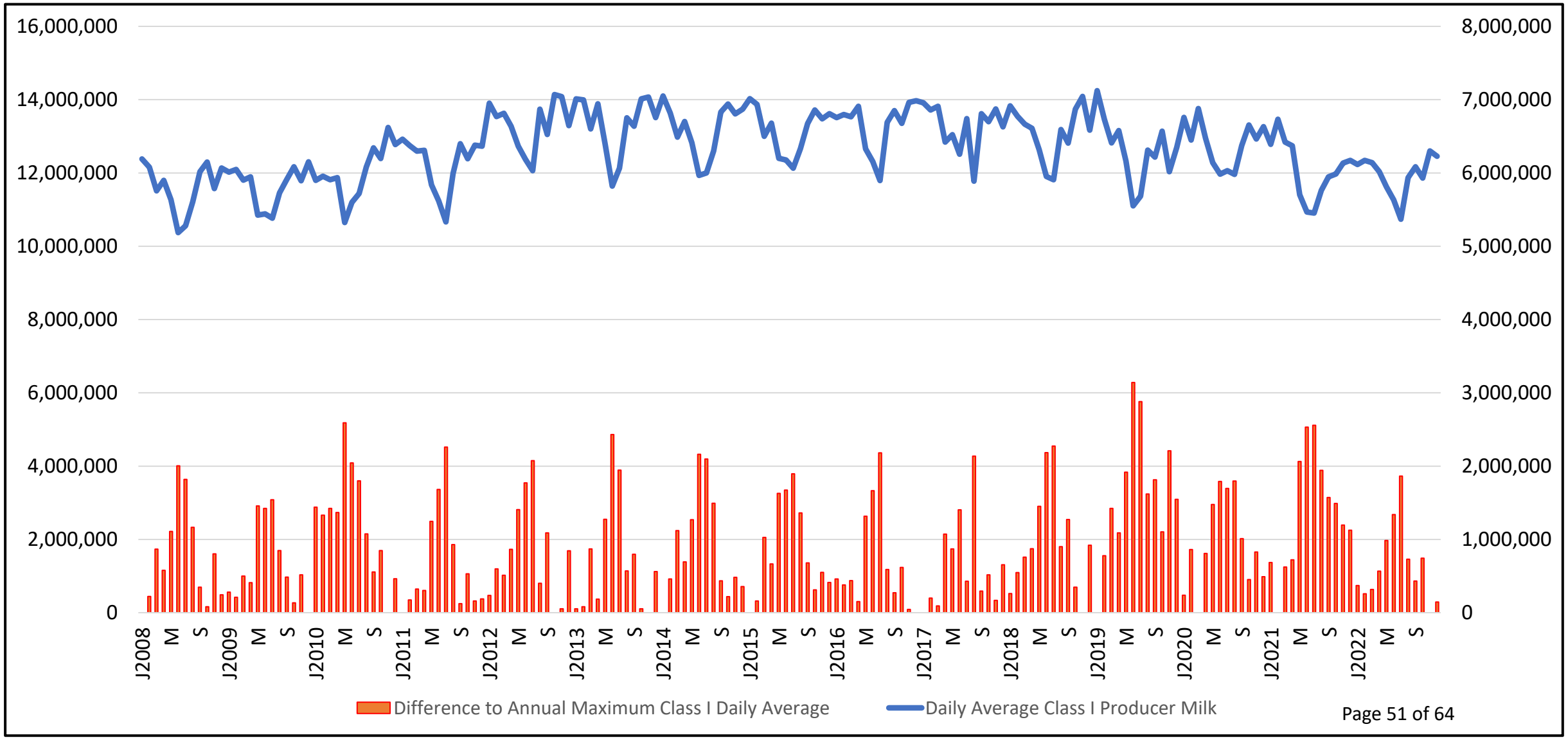
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Upper Midwest Federal Order No. 30



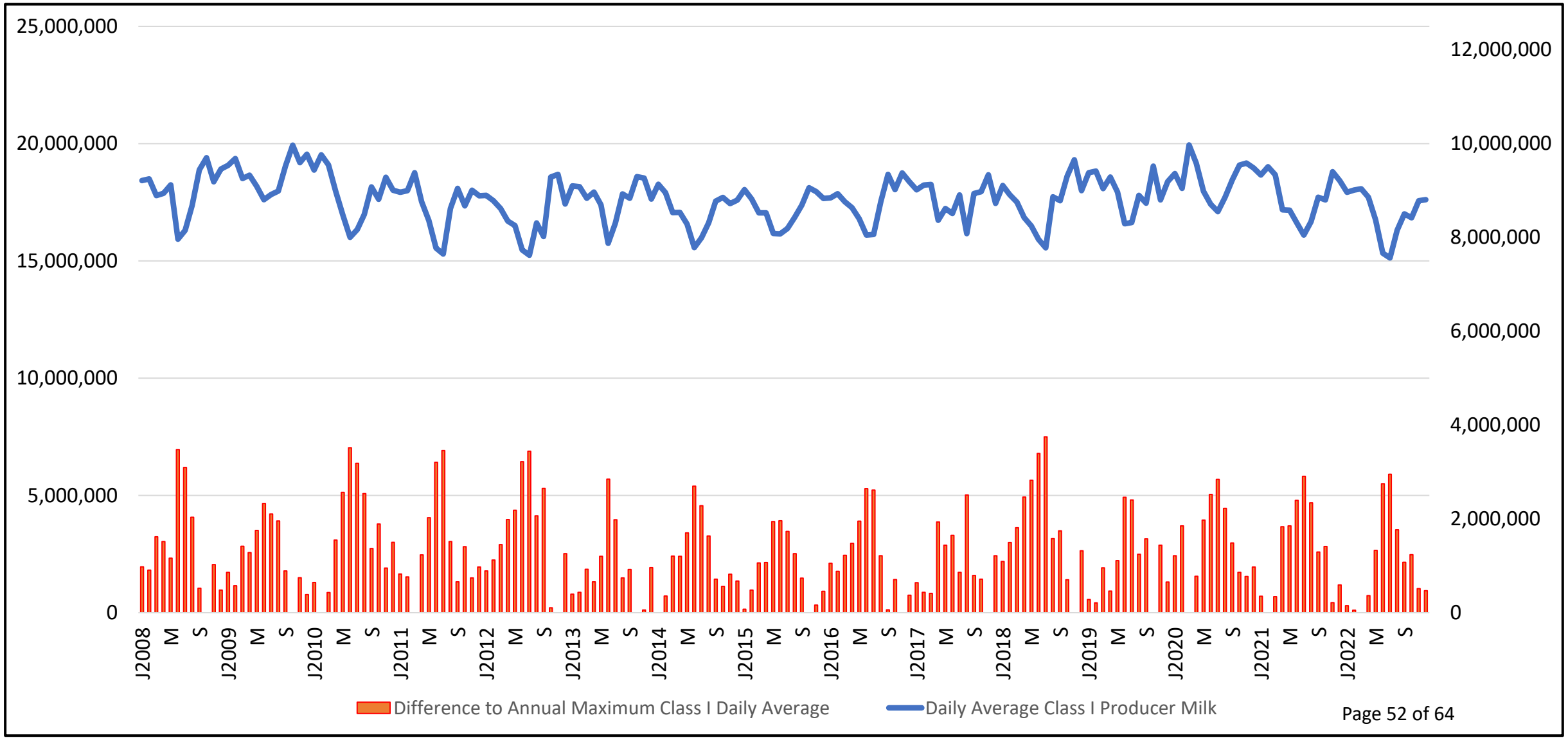
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Central Federal Order No. 32



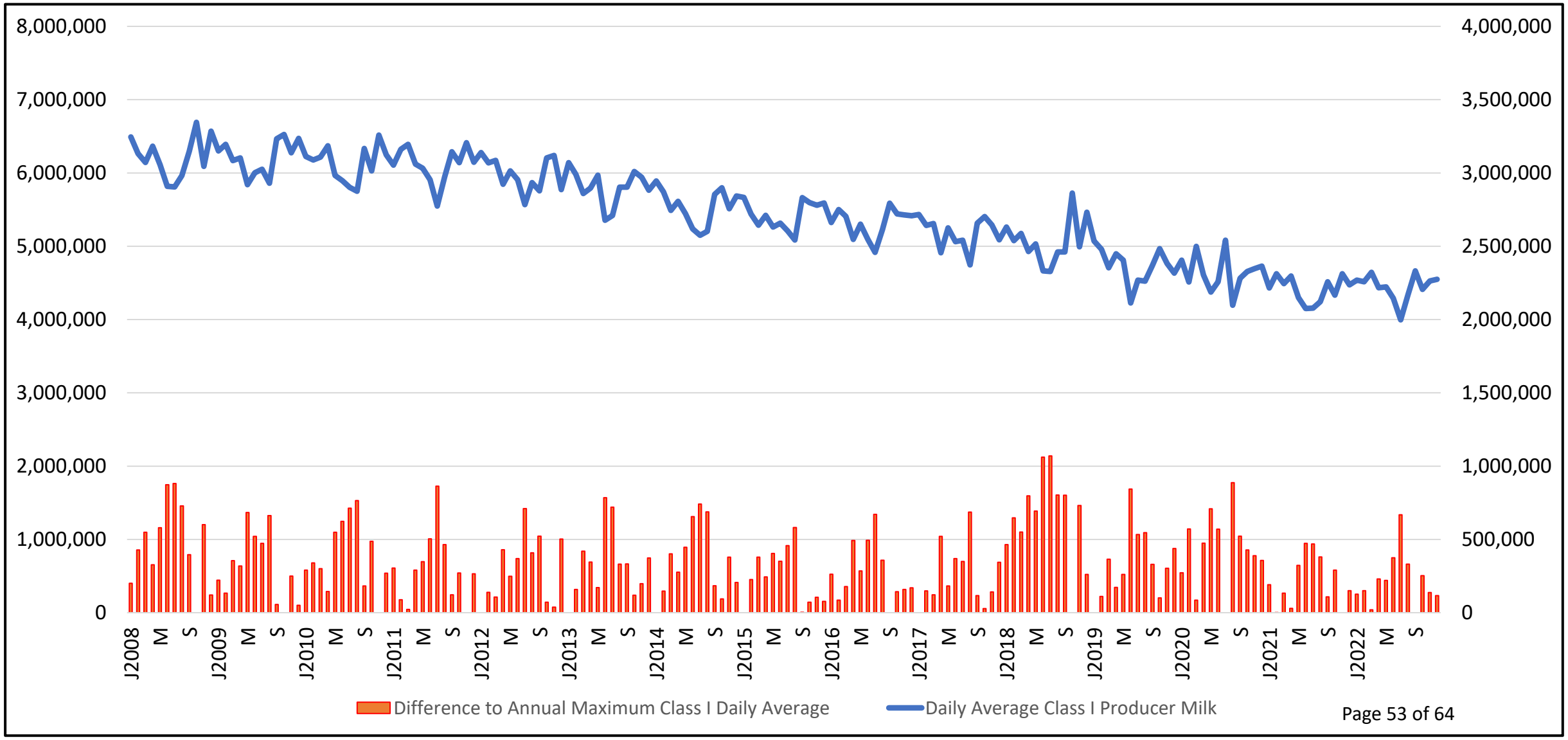
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Mideast Federal Order No. 33



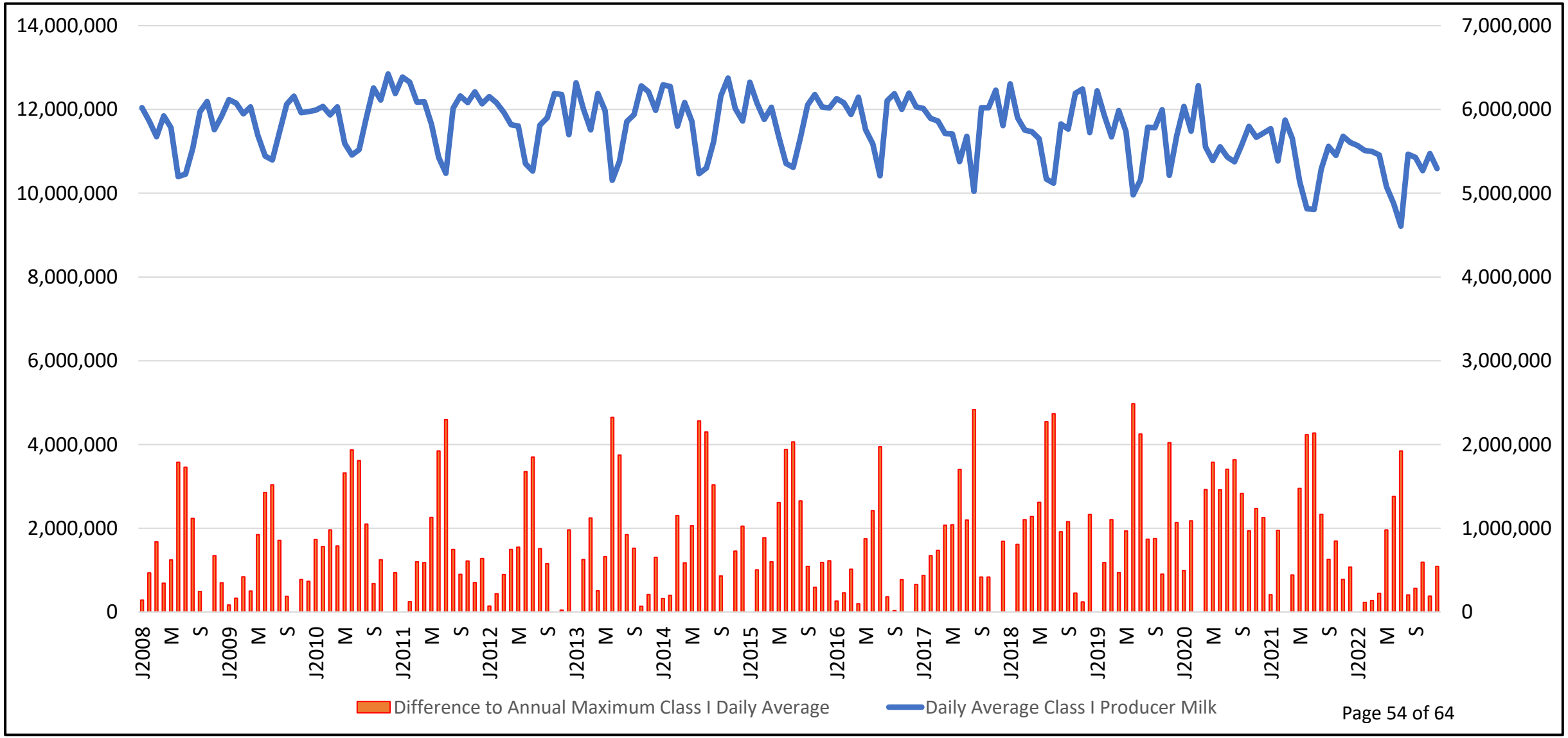
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Pacific Northwest Federal Order No. 124



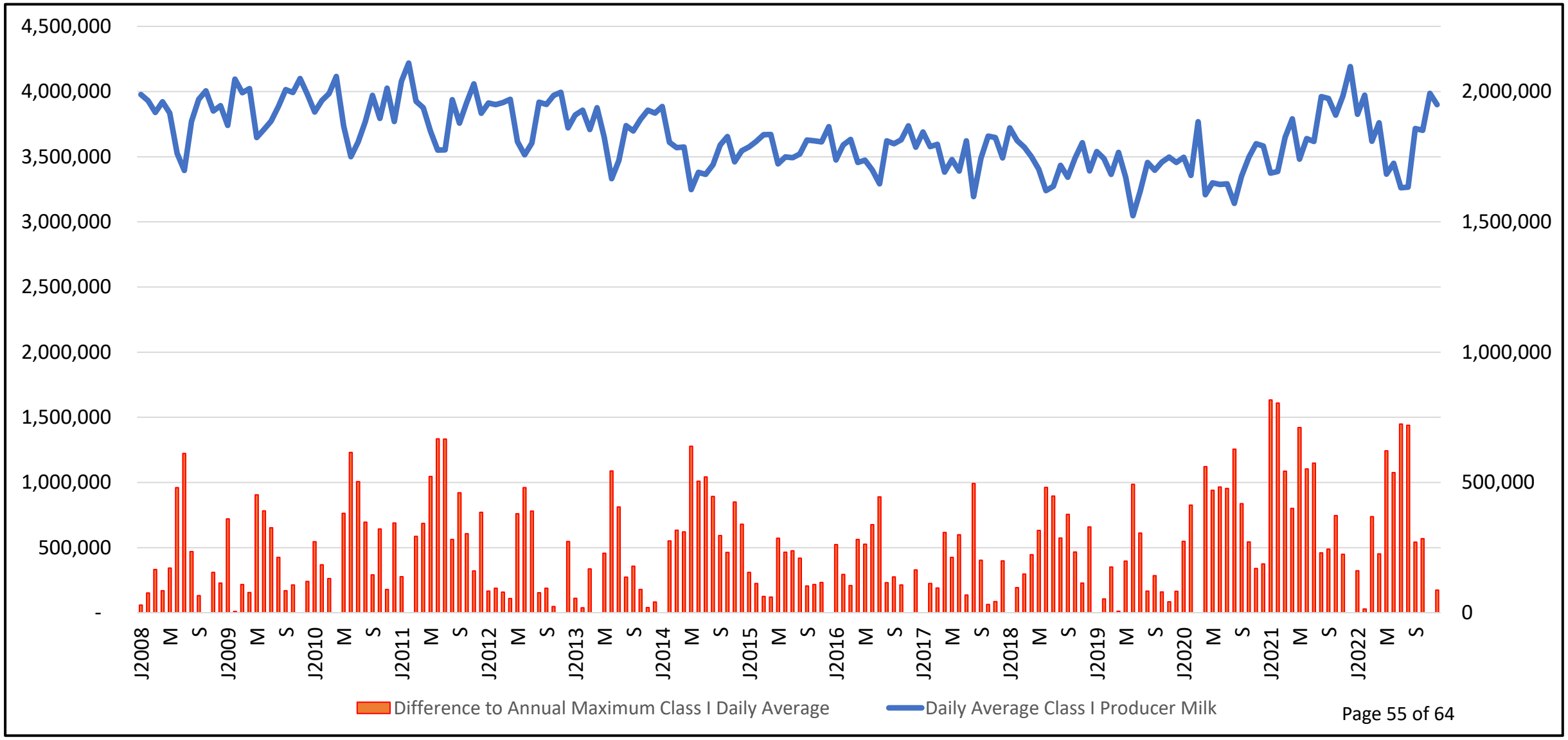
Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Southwest Federal Order No. 126



Daily Average Class I Producer Milk, and Difference Between Each Year's Maximum Class I

Arizona Federal Order No. 131



Appendix 2

The On-Farm Milk Production Cost Difference Between Grade A Milk and Grade B Milk Continues as an Important Element in Establishing Federal Order Class I Prices

Grade B Milk Remains a Factor is Establishing Federal Order Class I Differentials

There was 2.25 Billion Pounds of Grade B Milk Produced in the U.S. during 2022.

- This is more milk than is produced in each of the 32 smallest milk producing states. Grade B milk is a consequential part of the U.S. milk supply.

There is a significant milk production cost difference between Grade A milk and Grade B milk. Another NMPF witness will explain the that cost difference in substantial detail, but the cost difference greatly exceeds the theoretical $0.40 per hundredweight included as part of the base Class I differential, and in fact exceeds today's $1.60 base Class I differential.

Since Grade B farms still exist, there also exists ready buyers of Grade B milk, and if Grade A milk prices do not reflect the additional production costs for Grade A versus Grade B, producers may revert to Grade B. This would decrease the reserve milk supply necessary for Class I use.

Grade B Milk Remains a Factor is Establishing Federal Order Class I Differentials

- There are plants that today are buying the Grade B milk produced in the U.S., and these plants are selling the dairy products made from that Grade B Milk in commercial channels.
- Dairy farms are economic units and respond rationally to economic signals.
- If Federal Order producer prices cease recognizing the substantially greater farm production costs of maintaining a Grade A license versus the production cost of Grade B milk, then dairy farms will begin to abandon the Grade A marketplace.
- For any Grade A dairy farm that converts to Grade B, the milk from that farm instantly becomes unavailable for the Class I marketplace, and instantly reduces the supply of milk available for Class I.
- Milk processing plants will respond similarly to farms and will forego maintaining the Grade A certification on their plants.

Appendix 3

Class I Plants Demand Milk of Higher Quality Than Required for Dairy Farm Grade A Certification

Class I Plants Demand Milk of Higher Quality Than is Required for Grade A Status by the Pasteurized Milk Ordinance

*There effectively is a **Grade A-plus** requirement for dairy farmers to deliver milk to Class I plants.*

Class I Processing Plants, Survey of Milk Quality Requirements, Ranges of Specifications

		Milk Plant Requirements, each less than:				PMO
Standard Plate Count	/ ml	5,000	20,000	50,000	100,000	
Direct Microscopic Count	/ ml	100,000				100,000
Preliminary Incubation Count	/ ml	20,000	30,000	50,000		
Coliform	/ ml	50	200			
Laboratory Pasturized Count	/ ml	50	200			
Acidity		0.15	0.16	0.17		
Somatic Cell Count	/ ml	180,000	250,000	350,000	400,000	750,000
Temperature	degrees F	36	39	40		45

Source: Exhibit NMPF – 37B

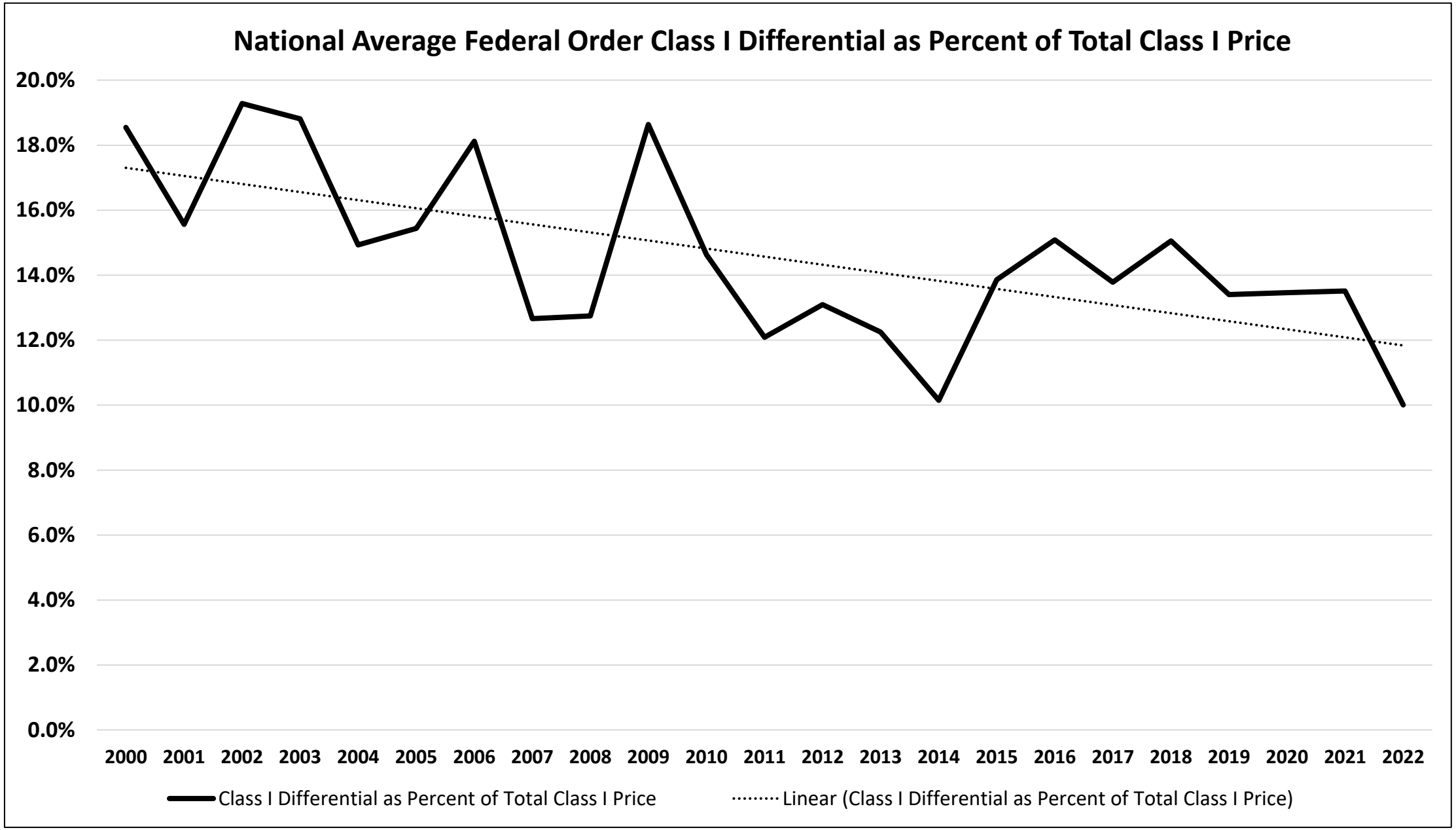
Appendix 4

Class I Differentials Are Fading in Relevance in Transmitting the Market Signals Needed to Incentivize Deliveries if Milk to Class I

Failure to Update the Class I Differentials has Diminished the Differentials' Influence on Class I Prices

This increases the frequency of Class Price Inversions, the incidence of Negative PPD's, and Depooling.

Result: Lessened or No Incentive to Supply Class I



Source: Exhibit NMPF – 37E, Annual Federal Order Data, and Exh. USDA-46