

**Toward Reform of Fluid Milk Pricing in
Southern New England: Analysis of Proposed State Level Milk
Regulation Policies in Connecticut and Massachusetts**

by

Ronald W. Cotterill* and Adam N. Rabinowitz**

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***Professor, Agricultural and Resource Economics, Economics, and Director of the
Food Marketing Policy Center, University of Connecticut, Storrs, CT 06269-4021**

****Graduate Research Assistant, Food Marketing Policy Center, University of Connecticut,
Storrs, CT 06269-4021**

**Email: Ronald.Cotterill@uconn.edu
Website: <http://www.fmpc.uconn.edu>**

**Tel: (860) 486-2742
Fax: (860) 486-2461**

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Executive Summary

- This report analyzes a proposed fee that will be collected on fluid milk sold by retailers and the proposed subsidy program that will establish a green price for dairy farmers. It analyzes both the proposed Connecticut and the proposed Massachusetts legislation.
- The green price is to be set by the proposed Connecticut Milk Commission or the Massachusetts Commissioner of Agriculture at a level to sustain dairy farmers in the state. The green price reflects the added cost of production of milk and the added value that is not paid to farmers by the current milk channel. The added value includes the value of open space preservation, environmental stewardship, cultural diversity, tourism, and preservation of New England history.
- We also analyze the proposed retail threshold pricing bills in both states. The CT Milk Commission or Massachusetts Commissioner of Agriculture can, if it so decides after industry wide hearings, set this policy to limit the transmission of any fee to consumers. Following New York's use of a similar policy since 1991, this could limit retail margins and lower retail milk prices.
- In Appendices A (Connecticut) and B (Massachusetts) we suggest revised language to these bills to incorporate the analysis of this paper.
- The proposed Connecticut retail fee bill contains a fee rate schedule that is based on the Hartford, CT announced Class 1 price in the Northeast Federal Milk Market Order. The fee rate ranges from a penny per gallon when the Class 1 price is between \$18.02 and \$18.49 per hundredweight to 10 cents per gallon when the Class 1 price is below \$15.50 per hundredweight. The fee per hundredweight ranges from 0 to \$1.16.
- The proposed fee schedule is unattractive for two reasons. First, it produces an extremely saw toothed raw milk price series that injects unnecessary uncertainty into milk pricing. Second, it does not raise sufficient revenue to attain desired green price levels.
- We present an alternative method to set the fee rate that is based upon readily available data, most notably the announced Class 1 price, the recent fee rate, and the desired green price level. Statistical analysis of data from 2001 through 2006 gives us the parameters to set future fee rates. We have written the parameters for a \$17 green price in the Connecticut bill (Appendix A) and the Massachusetts bill (Appendix B).
- The Connecticut Milk Regulation Board decided to recommend a \$17 green price level, pending receipt of 2006 First Pioneer cost of production data for Connecticut.
- Massachusetts farmers have decided \$18 is the appropriate level, pending cost of production updates.
- This paper analyzes three different green price levels for Connecticut and Massachusetts farmers: \$18, \$17, \$16, and \$15.

- For each we compute the required fee rate schedule and graphically display it.
- The required fee rates per gallon or per hundredweight vary over time as the blend price (the farm price) of milk and the Class 1 price of milk vary. In low price periods one must collect a higher fee to maintain a given green price for farmers. However, in all cases the Class 1 price plus the collected fees, i.e. the effective price paid by retailers for raw milk, declines as the Class 1 price declines. The fee policy retains only part of the raw milk price drop for farmers.
- We simulate the effect of the proposed fee and green price program over the 2001-2006 period to see how it works. Past performance is no guarantee of future performance; however, this five year period has extremely low as well as very high raw milk prices. It has two price cycle bottoms and an intervening high period. Thus the estimated dollar revenues may be overstated because of this 2:1 emphasis on the low part of the price cycle. On the other hand, low prices tend to persist longer in this industry than high prices.
- Over the 2001-2005 period the Class 1 price was above \$18.50 per hundredweight in only seven months. For 47% of the months it was below \$15.50. Thus if past is prologue it appears that a fee will be levied 80-90% of the time. How often also depends on the height of the selected green price.
- Turning to the need for a green price, we have presented data on the blend price (raw milk pay price) to farmers at Hartford, CT. The blend price was above \$17 per hundredweight in only four of the 63 months. The blend price was below \$15, 61.9% of the time and below \$12, 9.5% of the time. Therefore, a \$17 green price is a very major improvement in farm level prices.
- At the other end of our alternatives, a \$15 green price would raise farm prices 61.9% of the time.
- The value of the milk marketed by Connecticut farmers in 2004, a relatively high priced year, was \$65.9 million dollars.
- During the 2002-2006 period, if the \$18 green price had been in effect, the state of Connecticut would have collected an average annual revenue of \$15.1 million for pay out to farmers. Due to the milk price cycle the amount collected ranges from \$9.4 million in 2005 to \$20 million in 2002.
- During the 2002-2006 period, if the \$17 green price had been in effect, the state of Connecticut would have collected an average annual revenue of \$11.5 million for pay out to farmers. Due to the milk price cycle the amount collected ranges from \$5.7 million in 2005 to \$16.7 million in 2002.

- During the 2002-2006 period, if the \$16 green price had been in effect, the state of Connecticut would have collected an average annual revenue of \$8 million for pay out to farmers. Due to the milk price cycle the amount collected ranges from \$2.3 million in 2005 to \$12.2 million in 2003.
- During the 2002-2006 period, if the \$15 green price had been in effect, the state of Connecticut would have collected an average annual revenue of \$5.1 million for pay out to farmers. Due to the milk price cycle the amount collected ranges from \$0.5 million in 2005 to \$8.6 million in 2004.
- Another way to analyze the program's impact is to identify the fee per gallon collected from the retailers. Table 7 does this for Connecticut, and Table C7 for Massachusetts. In Table 7 for the highest green price option, \$18, the annual fee per gallon is 38 cents in 2002, 37 cents in 2003, 19 cents in 2004, 18 cents in 2005, and 33 cents in 2006. These are much lower for the lower green price options (\$17, \$16, \$15).
- One can compare this fee per gallon to the retailers' excess windfall profits in each year. They are 95 cents per gallon in 2003, 98 cents in 2004, \$1.05 in 2005 and 98 cents in 2006. Therefore, the amount redistributed to farmers at the highest green price level (\$18) is a very small portion of retail excess windfall profits. At the lower \$17, \$16 and \$15 green price levels even less need be redistributed from retailers.
- A retail threshold price law, modeled after the New York price gouge law, can assure that the fee is not passed on to consumers.
- A threshold price law would also give the Connecticut Milk Commission and the Massachusetts Commissioner of Agriculture the ability to eliminate even more of the excess or windfall profits and lower retail milk prices to consumers, as has been done in New York.
- Flat milk pricing is a serious problem. Many but not all supermarkets charge the same price for whole, 2%, 1%, and skim milk. In a competitive market lower cost fluid milk, i.e. milk with less butterfat, would have lower prices. Flat milk pricing is a direct indicator that supermarkets have and use pricing power. Stop & Shop, for example, flat milk prices in 31 of its 34 stores. The three where it does not are the three stores that have a Wal-Mart nearby.
- A retail threshold price policy can be instituted by type of milk to eliminate flat milk pricing. Milk that has less butterfat would then be lower priced. Consumers would have an economic incentive to switch to the healthier products.
- For Connecticut we conclude that supermarket retail margins are so wide due to their pricing power that the proposed policies—the fee, the payment to farmers, and the retail threshold price policies—can support the farm price at \$17 or \$18 per hundredweight, with little or no impact on consumers, and only a marginal reduction in average retailers' margins. Alternatively, the proposed Connecticut Milk Commission could use the retail

threshold price policy to lower retail prices as well as support farmers while paring retailers' excessive windfall profits.

In Massachusetts one has the same opportunities.

- Farmers Cow brand milk is a niche marketing strategy launched in 2005 by six eastern Connecticut farmers. Farmers Cow milk is sold only as half gallons. At \$2.87 per half gallon, it was the highest priced half gallon milk that we surveyed. Hood, the next highest averaged \$2.61, and private label half gallons are available at \$2.28 per half gallon or less.
- The distinctive difference is that Farmers Cow is produced by these six farmers. Other brands of milk are also fresh milk, BST free, or produced in Connecticut.
- Even if it proves successful for its six owners, the Farmers Cow high priced niche strategy is not a viable option for the other 163 farmers in CT. CT milk production equals 85% of retail fluid sales. This much milk can not be sold in half gallons at \$2.87 each.

Toward Reform of Fluid Milk Pricing in Southern New England: Analysis of Proposed State Level Milk Regulation Policies in Connecticut and Massachusetts

I. Introduction

The dairy farmer and milk channel pricing situation in southern New England has generated considerable interest in possible state regulatory action to improve the performance of the region's dairy industry. In December 2006 the Connecticut Milk Regulation Board considered two alternative milk pricing policies.

First, was a proposed Connecticut Milk Marketing Board approach as was analyzed in a paper by Cotterill and Rabinowitz, "Toward Reform of Fluid Milk Pricing in southern New England: Milk Market Channel Policies for Connecticut and Other States," dated October 30, 2006.¹ This state program would levy a fee from retail milk buyers.² The fee, in turn, would be paid back to all farmers that supplied milk. Many of those farmers are located in other states, especially Vermont and New York.

A second policy modeled after the Maine program was ultimately preferred by the Connecticut Milk Regulation Board. In this policy, the state also levies a milk fee from retailers but not non retailer buyers of milk such as institutions and restaurants. A revised bill that levies and pays this fee into the state's general fund is attached in Appendix A.³ A separate revised

¹ A copy of that paper is available at our website www.fmpc.uconn.edu. Click on Milk Pricing.

² Milk sold to schools, institutions, restaurants and other business or government buyers for on premises consumption does not pay a fee.

³ We have revised the December version approved by the Connecticut Milk Regulation Board. Our revision is based on research reported in this paper. Go to our website www.fmpc.uconn.edu. Click on Milk Pricing 2006-2007, and one can obtain a copy of the December 2006 bills as presented to the Milk Regulation Board. These copies do not

bill, also provided in Appendix A, establishes a Connecticut Milk Commission that will request, on an annual basis from the state legislature, an appropriation that will be paid to Connecticut farmers to sustain the dairy farming industry. The proposed Milk Commission will, after hearings and fact findings, determine a green price. The green price is the price that will sustain the Connecticut dairy farming industry at its current level of activity. It is called the green price because it recognizes and incorporates the added value that dairy farmers create for the state through open space preservation, environmental stewardship, cultural diversity, tourism, and preservation of New England history.

In December the Connecticut Milk Regulation Board discussed different green price levels in the \$15 to \$18 range and chose to recommend to the Milk Commission a \$17 green price, pending access to the First Pioneer Farm Credit records on farm cost of production for 2006. The Connecticut Milk Commission would also be authorized, after hearings and fact findings, to institute a retail threshold pricing rule similar to the price gouging law that is currently operative in New York. Thus the program from the Connecticut Milk Regulation Board is a combination of the Maine and the New York state level milk pricing policies.

Dairy farmers and others in the state of Massachusetts are advancing a similar set of bills. Our modified version of these bills are provided in Appendix B.⁴ One bill collects a fee on milk sold in the Commonwealth and the second would empower their Commissioner of Agriculture to pay out funds to Massachusetts dairy farmers to sustain a particular green price. As in Connecticut, the Massachusetts Commissioner would be required each year to go to the legislature for an appropriation to operate this green price for Massachusetts dairy farmers. The green price level in the Massachusetts bill is \$18 per hundredweight. In this paper, however, we

contain revisions made during that meeting, including the addition of a threshold pricing provision to the Milk Commission bill.

⁴ Again, the original versions are available at <http://www.fmpc.uconn.edu/research/milk/>.

analyze \$15, \$16, \$17, and \$18 green price policies. The Massachusetts legislature initiative also includes a retail threshold price bill, which is in Appendix B. For comparison purposes the current Maine program has a graduated green price payment schedule. The current green prices are \$18.68/cwt for the first 2.1 million pounds (approximately 100 cows), \$16.23 for the next 2.8 million pounds (another 133 cows) and \$15.43 for milk production on the farm above 4.9 million pounds. The average Connecticut farm has 120 cows. Moreover, farm input prices are if anything higher in southern New England than Maine.

In the text of this paper we will focus on the fee, green price level and retail threshold policies assuming that the fee is collected only from retail establishments and not institutions, restaurants or other on-site consumption outlets.⁵ These policy mechanisms are essentially identical in the Massachusetts bill so we discuss only the Connecticut case. We have provided a complete set of tables and figures for the Massachusetts bills in Appendix C. There are notable differences in the Massachusetts policy impacts due to the different market channel structure in Massachusetts. Since Massachusetts produces a smaller portion of the milk consumed in the state, a smaller fee than in Connecticut provides a given green price to farmers.

II. Analysis of the Proposed Connecticut Fee Bill and the Proposed Connecticut Milk Commission Payout Strategies

Table 1 reproduces the fee schedule from the early December bill that was presented to the Connecticut Milk Regulation Board. The fee on fluid milk sold at retail in the state of Connecticut will be zero if the Class 1 price at Hartford is above \$18.50 per hundredweight.

⁵ In an earlier version of this paper we did analyze the impact of collecting a fee on all milk. Results are available upon request.

When the Class 1 price at Hartford drops to between \$18.00 and \$18.49 the fee will be a penny per gallon. The fee per gallon rises until one has a Class 1 price below \$15.50 when the fee is 10 cents. The last column in Table 1 gives the fee per hundredweight of milk. It ranges from zero to \$1.16 per hundredweight when the Class 1 price is below \$15.50.

Figure 1 gives a graphical illustration of how the proposed fee schedule would influence the raw milk price per hundredweight. The straight line in Figure 1 is the Class 1 fluid milk price in Hartford, Connecticut. The upper line gives the raw fluid milk price under the proposed fee policy. Note that raw milk prices under the policy produces a very jagged price line. This is because the changes in Table 1 are discrete jumps at particular milk prices. We think that this fee schedule is unattractive because it produces very uneven raw milk prices as the underlying Class 1 fluctuates. For example, when raw milk prices are roughly \$17.00 a hundredweight one notices a very large shift in the raw milk price per hundredweight under the fee policy. If the Class 1 price increases just a little bit over \$17.00 per hundredweight the affected raw milk price drops 35 cents per hundredweight at the higher price. In this paper we will propose an alternative fee schedule that smoothes out the jagged nature of the fee schedule depicted in Figure 1.

In Figure 2 we have the same two price lines; however, here we have plotted the actual monthly Class 1 prices for Hartford, Connecticut between October 2001 and January 2007. Note that for most of the months during this period the fee policy would have been operative. There are only seven months that were above \$18.50, three of which were above \$20.00 and are not displayed on this figure. Figure 3 gives more insight into the distribution of the Class 1 prices during the 2001 to 2007 period. Effectively, 47% of those monthly prices were below \$15.50 a

hundredweight. Another 42% of the prices were in the range between \$15.51 and \$18.50. Therefore, 89% of reported Class 1 prices were in the range where a milk fee would be levied.

Figure 4 adds to the chart the realized Hartford blend price for October 2001 to December 2006.⁶ It effectively is the pay price that farmers have received for 3.5% butterfat milk over this period.⁷ Figure 5 gives a frequency distribution of the Hartford blend price during this period. Note that there were only four months when the pay price was above the \$17.00 green price level that the Connecticut Milk Regulation Board decided in December was a plausible policy goal pending updated cost of production data for 2006 from First Pioneer Farm Credit. The pay price was below \$15 for 61.9% of these months and below \$12 for 9.5% of the time.

A fundamental question at this point is whether the fee schedule in the fee bill is sufficient to generate revenues to be paid out to farmers to elevate the blend price to \$17.00 a hundredweight? The answer is that the proposed fee rate is not sufficient. We will see this in a subsequent chart; however, before moving to that chart let's devise a fee rate schedule that smoothes the jagged fee rate in the proposed bill and also is sufficient to generate the \$17.00 green price level the Milk Regulation Board would like to consider.

We employ a linear regression model to estimate the required fee rate necessary to achieve the \$17.00 green price level for each month. This approach can be used to achieve other green price levels; and, below we examine \$18.00, \$16.00 and \$15.00. The advantage of this regression model is that it provides a very precise decision rule for the Connecticut Milk Commission or the Massachusetts Commissioner of Agriculture when setting the fee schedule.

⁶ At the time of this writing the January 2007 blend price was not available. The blend prices for May, June, and July 2004 are not shown on Figure 4 because the Class 1 price during this period is above \$20/cwt and thus falls outside the scale of this figure. The blend prices for these months were \$19.74, \$19.60, and \$17.54, respectively.

⁷ Particular farmers may receive quality premiums and they may have deductions for services or cooperative programs. There is no way to adjust for these.

Table 2b reports our regression model results.⁸ The dependant variable that we wish to explain is the current month's fee rate that is necessary to support a \$17.00 per hundredweight pay price to farmers. Since we are looking back in time and know the blend price we can compute the needed fee. The Commission, however, will not know the blend price at the time that it will announce the fee. The fee must be announced in advance of the month to which it applies. Therefore, one needs to have a model that will predict this needed fee based upon readily available values of other variables.

Our model predicts the current month fee rate based upon the value of the announced Hartford Class 1 price. The fee per hundredweight is the fee rate times the base price. The Hartford Class 1 price is announced two weeks prior to the beginning of the month so it is available for decision making. We also specify the Hartford Class 1 price squared and the last month's fee rate (the lagged fee rate) in the forecasting model. The regression results in Table 2b indicate that these three variables explain 92.7% of the variation in the needed fee rate. Thus the model will be reasonably accurate in forecasting future needed fee rates. The 7.3% of unexplained variation in the fee rate will be both plus and minus around our forecast fee rate over time. This means that from time to time the fee collection procedure will generate slightly more or slightly less than what would be needed to achieve the \$17.00 target rate. We will, in fact, illustrate this in Tables 3, 4, 5 and 6 below.

Figure 6 illustrates the required fee rate to return to farmers at least \$17.00 a hundredweight at all times. It also illustrates a higher fee rate that returns at least \$18 per hundredweight, a somewhat lower fee rate that returns at least \$16 per hundredweight to farmers, and an even lower rate that returns at least \$15 per hundredweight. As one can see, the fee rate

⁸ Table 2a gives the model that would generate an \$18 support level, Table 2c gives the model that would generate a \$16 support level and Table 2d gives the model to generate a \$15 support level.

needed for a \$17 green price policy deviates from the announced Class 1 price starting at slightly more than \$20 per hundredweight, and the fee per hundredweight increases as the Hartford Class 1 price drops. Note, however, that even with the fee the effective raw milk price paid by retailers is less when the Class 1 price drops. Basically, the fee program captures part of the drop in prices for farmers rather than allowing the entire drop in prices to be passed forward to others in the channel. Figure 7 gives the same fee schedules on a per gallon basis so one can see how much the fee would be per gallon when the Class 1 price is at certain levels. For example, if the Class 1 announced price is \$1.63 per gallon, the \$17 green price per gallon is only a few pennies per gallon. However, if the Class 1 price drops all the way down to \$1.10 per gallon then the \$17 green price per gallon is approximately 40 cents per gallon. Note, however, that during that low price era raw milk prices would still be as much as 15 cents a gallon below what they were in the era when the Class 1 price was \$1.63 a gallon.

Figure 8 gives the performance of the discrete fee schedule in the December 2006 version of the bill and the regression based fees for an \$18 green price. Figure 9 gives the same information for the \$17 green price. In Figure 9 the bottom line gives the Hartford blend price by month between October of 2001 and December of 2006. The triangle line, which is the intermediate line, is in fact the blend price that farmers would receive under the proposed bill fee schedule if all fees were paid out to farmers. In nearly all months the impact of that program on farmers is not sufficient to guarantee \$17.00 a hundredweight. The top line, which has squares, is the blend price plus the regression base fee if it is paid out each month to farmers. Note that the actual price that farmers receive in many months is below \$17.00 a hundredweight, and in other months it is above \$17.00 a hundredweight.

Figures 10 and 11 give the same information for a \$16 and \$15 green price. Again, the December bill fee schedule is insufficient to sustain a farm price at or above these green price levels.

Table 3 gives the annual revenue from the regression based fee policy and the payments to farmers given that the green price is \$18.00 per hundredweight in all months. Table 4 provides the same information for a \$17.00 per hundredweight green price. Table 5 and 6 are for \$16.00 and \$15.00 green prices. In these tables we have assumed a constant production by Connecticut farmers (384 million pounds) and a constant consumption of milk by Connecticut consumers (449.3 million pounds sold at retail) over the five years 2002 to 2006. Thus the variation in the revenues collected and the payments to farmers come only from changes in raw milk prices. In 2002 when prices were relatively low, the total revenue collected under a \$17.00 green price program would have been \$16 million dollars. Payments out were larger, roughly \$17 million dollars with a one million dollar gap. In 2003 payments drop a bit; however, milk prices were still quite low to farmers. Fee collections are \$15.8 million and payments out are \$15.8 million with a very small deficit, \$8,200. In 2004 the raw milk market improved. Fee collections dropped dramatically to \$6.7 million because of the improvement in raw milk prices; and payments to farmers drop even more to \$4.3 million dollars, so there is a surplus of 2.4 million dollars. In 2005 we have another \$5.7 million in revenue collected and \$5.6 million is paid out with a slight surplus of \$117,000. Finally, in 2006 when the raw milk price cycle has gone south again the collection is \$13 million; and the payment out is roughly \$13.7 million, and there is a deficit of \$640,000.

Returning to Table 3, the average annual revenue under an \$18 green price is \$3.6 million more than the \$17 green price. An average of \$15.1 million of revenue is collected over the five

year period, while payouts to farmers average \$15 million, \$3.7 million more than under the \$17 program. Tables 5 and 6 provide similar revenue and payment data for a program that supports prices of \$16 and \$15 per hundredweight to farmers. Note that a \$16 green price reduces average annual revenues collected over the five year simulation period to \$8 million which is \$3.5 million less than the average annual revenue from the \$17/cwt program. Payouts to farmers average \$7.8 million, down \$3.5 million. A \$15 green price further reduces the average annual revenues collected to \$5.1 million and payments to farmers average \$4.9 million.

For comparison, in Tables 3-6, we have added the farm value of milk sold by Connecticut farmers. We have also computed the value of payments as a percent of the market value. In low market price years the green price payment is a larger percent of market value. In higher price years it is lower.

One might wonder how the fee rates compare to retailer's margins. Would the fee so impair margins that consumer prices would need to increase to keep the milk aisle in a supermarket profitable? Table 7 answers this question. The first four columns are the fee per gallon that would have been collected under the \$18, \$17, \$16, and \$15 green price options. The next column gives the retail prices. Then one has the supermarket retail margin for each year. Supermarket margins range from \$1.447 to \$1.607 per gallon. Research by others in the Northeast estimated that a competitive margin in 2003 was 50 cents per gallon (Criner 2003). Here we adjust that margin up over time at a 6% rate to cover cost increases. Thus in 2006, competitive margins – margins that cover all costs including a competitive return on capital – are around 60 cents per gallon. The last column is the excess or super competitive margin on milk. Note that it is several magnitudes larger than the fees collected. Therefore, one can conclude that this program can redistribute a small portion of retail margins that these powerful large chains

enjoy to farmers with no impact on consumers. If a retail threshold price policy is in place. Moreover the redistribution from retailers is efficiency enhancing because it reduces excess, super competitive profits.

III. Retail Threshold Price Clause to Protect Consumers and Eliminate Flat Milk

Pricing

Although the fee is small relative to retail margins, retailers may still be tempted to pass the fee on to consumers. Evidence in Table 7 and in our companion paper on market channel milk pricing in southern New England (Cotterill et al. 2007) indicates that retailers have wide margins that are well in excess of the amount needed to cover their in-store costs. Therefore, from the standpoint of economic efficiency and from a public interest perspective (equity in the marketing channel) the Connecticut Milk Commission or the Massachusetts Commissioner of Agriculture might very well want to implement a retail threshold price policy such as the one that currently operates in the state of New York. (State of New York policy is explained in Huff, 2003).

Briefly, the state of New York sets a threshold price each month which is 200% of the announced Class 1 price for 3.5% butterfat milk plus any cooperative premiums that processors must pay.⁹ This threshold price is announced in advance of each month, and retailers are allowed to price above it. However, if they do so, the state may request that they provide a cost justification for such higher prices. If the retailer is in a particular high cost area and can justify such high prices, then they are not in violation of the law. Otherwise, they are in violation of the law and face fines unless they reduce the price to below the threshold price level.

⁹ See Appendix D for an example from Huff (2003).

Research at the Food Marketing Policy Center documents that the New York threshold price law clearly has an impact on retail prices. This impact, however, vanishes during the high part of the raw milk price cycle. Figure 12 illustrates the impact of the New York retail threshold price law on New York prices relative to southern New England. Retail prices represented by a diamond are for 3.25% whole milk in southern New England. Each threshold price is identified by an “X” in Figure 11, and squares identify the actual prices for a 3.25% whole milk in downstate New York. The line along the bottom with triangles is the announced Class 1 3.5% butterfat whole milk price at Boston across the period.

Over the past five years, the Food Marketing Policy Center has collected retail prices in southern New England and New York seven times. For example, in November of 2002 one can see in Figure 12 that the threshold price in downstate New York was \$2.57 a gallon, and the actual average retail price was below that at \$2.43 a gallon. By comparison, in southern New England prices were 59 cents a gallon higher at \$3.02 a gallon for whole milk.

If one moves over in Figure 12 to July of 2003 one also has a similar result. Threshold price is \$2.44, the lowest observed threshold in Figure 12. New York prices are below it at \$2.31, and southern New England prices at \$2.97 are 66 cents a gallon higher. At the next price check point in Figure 12 the raw milk prices move up and the threshold price moves all the way to \$3.25 a gallon. The actual downstate New York price moves up to \$2.87 which compares to southern New England prices at \$3.17. The gap now is only 30 cents a gallon.

The next price check was in May of 2004 when raw milk prices were very high, in fact, the highest in this four year period. The threshold price sky rockets to \$4.18 a gallon. One can see that in this environment the threshold price law has very little impact on New York milk

prices which move up to \$3.62 a gallon, only 14 cents a gallon below southern New England prices.

After mid 2004, the next two price checks indicate that, again, the threshold price level dropped and the actual New York price level of course also drops. This widens the gap between southern New England and New York.

The last price check in November of 2006 clearly demonstrates the impact of the New York law. The announced retail threshold price at \$2.94 a gallon constrains the New York prices to be \$2.89 a gallon whereas in southern New England whole milk prices averaged \$3.51 a gallon—over 60 cents a gallon higher than in New York.

The evidence in Figure 12 demonstrates conclusively that the New York Law does have an influence on retail prices; however, that influence exists only when raw milk prices are moderate or low.

Figure 12 and our accompanying report on retail milk prices (Cotterill et al. 2007), clearly documents that retail margins in southern New England are excessively high at this time, and have been so throughout the past five years. This suggests that legislation that establishes a fee as high as 38 cents per gallon (see Table 3) need not be passed on to consumers in southern New England. A retail threshold price policy can be instituted in a fashion that guarantees that such fees would come from the excessive margins that retailers have enjoyed.

Given the degree of market failure in the retail fluid milk channel, a fee that appropriates part of the excessive margins for state use is entirely appropriate. Consider it an excess or windfall profits tax. Also, one could pare the excessive margin back towards a more competitive level by returning part of the margin to consumers in the form of lower retail prices. Again, we would note that this redistribution of excessive retail margins will enhance economic efficiency

and from a public interest perspective enhance the fairness of pricing in the fluid milk marketing channel.

The proposed legislation in Connecticut or Massachusetts will not explicitly redistribute retail margins. The legislation only gives the authority to the Connecticut Milk Commission and the Massachusetts Commissioner of Agriculture to institute such policies. In both states such policies would only be instituted after a hearing process wherein various stakeholders in the fluid milk marketing channel would have the opportunity to present evidence as to the appropriateness of instituting not only the retail threshold price policy, but also the collection of a particular level of fees, and the determination of a particular green price level for dairy farmers. The payout of funds would require a legislative appropriation from the general fund each year.

With regards to the implementation of a retail threshold price, one might very well start with the 200% threshold price rule that the state of New York has used for the past 16 years. There is, however, one additional modification that we would recommend. The New York State threshold price is based upon the price of 3.5% whole milk. We would not base any percent threshold price markup rule on 3.5% whole milk, rather we would base it on the raw milk product value for the four types of milk that processors buy i.e., 3.25% whole milk, 2%, 1%, and skim milk.

We recommend this because of the flat milk pricing problem that we have documented in southern New England. Table 8a indicates the extent of flat milk pricing in southern New England in November of 2006. Table 8b does the same for November of 2004. In 2006, for example, we checked prices in 34 Stop & Shop stores. In 31 of those 34 stores private label milk had the same price for all four types of milk. In other words, there was flat milk pricing in 31 of these stores. The three stores where private label milk prices were lower for milk with less

butterfat were in Norwich, Waterford, and Willimantic, Connecticut. Why there? Fact is Stop & Shop competes against Wal-Mart in those cities, and Wal-Mart does not practice flat milk pricing.

Flat milk pricing at Stop & Shop is worse for branded milk. For Garelick milk, flat milk pricing existed in all 33 Stop & Shop stores that we price checked. Similarly, flat milk pricing also existed in the 34 Stop & Shops that we price checked for Hood milk. Therefore, the competitive impact of Wal-Mart occurs only on private label milk.

This is clear evidence that the Stop & Shop chain has market power when setting retail milk prices. The competitive forces in markets where Wal-Mart is not present are extremely weak, even non-existent. Evidence for Stop & Shop in November of 2004 in Table 8b is effectively the same. There are relatively few stores where variable pricing across the types of milk exist.

One has similar results for Shaw's, Star Market, and Big Y both in November of 2006 and November of 2004. Among the leading supermarket chains in the region only Wal-Mart Supercenters price milk according to fat content. This pervasive flat milk pricing in southern New England suggests that states need to institute the retail threshold price law based upon the value of the raw milk that goes into the bottle. For example, if skim milk is 50 cents a gallon cheaper than whole milk then we would apply the 200% markup rule to that lower value for skim milk. In this fashion, the retail threshold price law would ensure that milk prices, at least when raw milk prices were low, would reflect the value of the raw milk in the bottle. It also would encourage consumers to switch away from whole milk towards skim milk because it would be lower priced than whole milk. This clearly represents a health benefit, long term, for the states and their citizens.

IV. Some Suggested Changes to the Draft Connecticut and Massachusetts Laws

In Appendix A we have provided a revised version of the Connecticut law. Our revision in the fee bill consists of changing the tax schedule to be based upon our regression analysis. In the current revised form we have maintained the \$17.00 a hundredweight target that the Connecticut Milk Regulation Board voted to forward into the legislative process. If one wants, one could change that to any other desired green price, including the \$18.00, \$16.00 or \$15.00 level analyzed in this report. One could base the green price upon a careful inspection of farm cost of production based upon the 2006 First Pioneer data which will become available in February 2007. Alternatively, one could set a green price and adjust it up or down based upon changes in the volume of milk produced or the number of farmers in the state. A stated goal in the legislation could be to preserve existing production of farm numbers.

We have eliminated from the Connecticut Milk Commission bill a number of minimum pricing and other provisions since we see no use for those in this particular policy. Finally, we have added the retail threshold price clause language that would empower the Commission to institute such a policy if it deems it advisable. Similarly, in Appendix B, we have revised the draft Massachusetts legislation to reflect a regression based determination of the tax rate, and again we have set the green price at \$17.00 per hundredweight. However, the legislature or others, possibly including the Commissioner, could set that green price at any level as desired. This would mean, in fact, that the fee schedule based upon regression analysis would change. We also have revised the Massachusetts retail threshold price bill to give the ability to address flat milk pricing as well as to control retail margins if the Commissioner so desires.

V. Niche Marketing: Farmers Cow

Niche Marketing is not selling to the entire market. It is targeting sales to a relatively small segment. This occurs in markets where products can be differentiated. White, fresh fluid milk is a homogenous commodity sold by butterfat content; however, branded milk sold at retail commands premiums due to different packaging, health claims, advertising, and even the location of farms supplying milk. Farmers Cow distinct point of difference is that it is from six eastern Connecticut farmers. Table 9 gives, for Connecticut, the number of dairy farms, milk production, and cow numbers for each year since 1994. Farm numbers have dropped by 49%, cow numbers have dropped 39% and milk production has dropped by 28% since 1954. Today, 169 dairy farms in Connecticut produce 384 million pounds of milk. We estimate that this represents 85% of the fluid milk sold at retail (Cotterill and Rabinowitz, Tables 2, 3, October 30, 2006).

Six dairy farmers in eastern Connecticut have formed a limited liability corporation to market their milk under their own label: Farmers Cow. This milk is processed and distributed by the Guida Seibert Company. Farmers Cow marketing stresses that the brand is owned and managed by local Connecticut farmers. If consumers want local, fresh milk and if they want to help these six Connecticut farmers they can do so by buying Farmers Cow.

Farmers Cow started selling milk in October 2005. We have checked their milk prices across the state twice, once in November 2005 and again in November 2006. Here we report prices only for November 2006; however, the results were very similar in November 2005.

Farmers Cow milk is sold only in half gallon paper cartons. It is flat priced; a package of skim milk costs the same as 1%, 2%, and whole. Farmers Cow milk is not organic milk and is not labeled “organic”. It is BST free (cows are not injected with growth hormones); however,

this is now the case for the leading white fluid milk brands sold in Connecticut—Hood and Garelick milk. Moreover, Garelick provides the same milk to its private label accounts: Stop & Shop, Shaw's, A&P/Waldbaums, Cumberland Farms, BJ's, and Wal-Mart, so nearly all milk sold in Connecticut is BST free. All of this white fluid milk also is fresh milk. Moreover, Guida and Big Y private label milk (packed by Guida for its Connecticut stores) is produced on Connecticut farms. Big Y has large very attractive overhead signs in the dairy aisle of its stores declaring its milk is from Connecticut. Therefore, the only clear point of difference for Farmers Cow milk is that the brand is owned and the milk comes from six of 169 Connecticut dairy farms.

Table 10 reports the prices for half gallons of whole milk in Connecticut supermarkets. Prices are ordered from the cheapest to the most expensive. A half gallon of private label whole milk at Wal-Mart is cheapest at \$1.57 per gallon. Big Y private label milk in Connecticut, bottled and delivered by Guida from Connecticut farms, costs only \$2.00. Guida brand milk, which comes from the same plant and Connecticut farms as Big Y private label, retails on average for only 17 cents per half gallon more, \$2.17. In contrast, Farmers Cow milk from the six Connecticut farms is the highest priced half gallon of fresh whole milk in the dairy cases that we surveyed. It retails in the state's supermarkets for, on average, \$2.87 per half gallon. Hood milk at \$2.61 is 26 cents a half gallon cheaper and is the second most expensive.

New England Family Farms is owned by Hood and is third most expensive at \$2.55. Hood purchased the Vermont Family Farms label with its very attractive rural artwork from St. Albans farmer cooperative who had tried unsuccessfully to market milk locally in Vermont. Hood renamed it New England Family Farms and now use it as a niche brand to capture sentiment for, yup, New England Family Farms. It often sits next to Farmers Cow milk.

Table 11 provides a more direct look at the choices consumers face when shopping at a particular supermarket chain. The first column gives the market share of supermarket sales that each chain captures in Connecticut. Stop & Shop, for example, is the dominant force capturing 45.44% of Connecticut citizens' food purchases. In Stop & Shop private label milk is the cheapest half gallon at \$2.28. Again, Farmers Cow is the most expensive at \$2.87 per half gallon. Farmers Cow, in fact, is the most expensive in every chain except Shop Rite where it was more expensive than private label and Garelick but not Hood.

Why is Farmers Cow so expensive? If it is because the six dairy farmers are receiving large premiums, premiums for raw milk above and beyond the brand premiums that long established brands such as Hood can command, then this is a successful marketing endeavor for these six farmers. We doubt that they are receiving brand premiums above those that Hood captures, and Hood's brand premiums, as documented in our companion report (Cotterill et al., 2007), are very low. There are other reasons for the high retail price on Farmers Cow. First is the added processing and distribution costs that come from processing a small volume niche product. Second is the documented high mark-ups that retailers put on such low turnover niche products. In our companion report (Cotterill et al., 2007) we document the huge retail margins, margins far in excess of in-store costs on Hood brand milk. A profit maximizing retailer will not place a lower mark-up on Farmers Cow.¹⁰

We conclude that buying Farmers Cow milk is a very inefficient way for consumers to support six Connecticut farmers. Most of the high price that they pay stays with the retailer and the processor to cover costs and profits. Consumers would be better off and the Cow farmers

¹⁰ Farmers Cow seeks to differentiate its brand from Hood which means if successful its brand level demand elasticity would be less elastic than Hood thereby commanding a premium to Hood. In this case the optimum retail markup on Farmers Cow is higher than the Hood mark up. Higher processing costs at the Cow also raise retail price.

would be better off if consumers bought private label milk and sent one third of the difference between the Farmers Cow and private label prices to the six farms. This strategy would also save on the extra resources expended to process, package, distribute and shelve this niche product. This is an explicit example of a more efficient and equitable (fair) fluid milk policy than Farmers Cow.

This mail-in strategy of course is not practical because it has very high transaction costs for consumers. The proposed market-wide fee, green price subsidy, and threshold price program is a different story. It enables consumers, as a group, to enact the same program not just for a Farmers Cow farmer but for all farmers in the state. It is triple efficient. The milk channel is more efficient in its use of resources and in its pricing, and consumers' transactions costs are minimized.

Even if Farmers Cow generates some incremental return to the six farmers, it is not a valid policy prescription for the remaining 163 Connecticut dairy farmers. Recall that Connecticut farm production equals 85% of retail fluid milk sales in the state. The state's farmers cannot sell all their milk as Farmers Cow milk at \$2.87 per half gallon. This niche marketing strategy simply cannot grow enough to make dairy farming, as it exists in the state today, sustainable.

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Table 1. Milk Fee Schedule in the December 2006
Connecticut Draft Bill

Class 1 Price Level		Tax per Gallon	Tax per CWT
From	To		
\$18.50	above	\$0.00	\$0.000
\$18.00	\$18.49	\$0.01	\$0.116
\$17.50	\$17.99	\$0.02	\$0.233
\$17.00	\$17.49	\$0.04	\$0.465
\$16.50	\$16.99	\$0.07	\$0.814
\$16.00	\$16.49	\$0.08	\$0.930
\$15.50	\$15.99	\$0.09	\$1.047
below	\$15.50	\$0.10	\$1.163

Table 2a. A Regression Model to Forecast the Fee Needed to Attain \$18.00/cwt.: Connecticut, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Hartford Class 1 Price	-0.151368	-5.457 ***
Hartford Class 1 Price Squared	0.0033362	4.847 ***
Lag Fee Rate	0.2301385	2.118 **
Constant	1.720059	5.987 ***
R^2	0.9337	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table 2c. A Regression Model to Forecast the Fee Needed to Attain \$16.00/cwt.: Connecticut, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Hartford Class 1 Price	-0.134204	-4.574 ***
Hartford Class 1 Price Squared	0.0032152	4.346 ***
Lag Fee Rate	0.3566837	2.976 ***
Constant	1.382324	4.767 ***
R^2	0.923	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table 2b. A Regression Model to Forecast the Fee Needed to Attain \$17.00/cwt.: Connecticut, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Hartford Class 1 Price	-0.146642	-5.027 ***
Hartford Class 1 Price Squared	0.003384	4.662 ***
Lag Fee Rate	0.285878	2.421 **
Constant	1.582085	5.334 ***
R^2	0.9274	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table 2d. A Regression Model to Forecast the Fee Needed to Attain \$15.00/cwt.: Connecticut, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Hartford Class 1 Price	-0.113928	-4.499 ***
Hartford Class 1 Price Squared	0.002803	4.319 ***
Lag Fee Rate	0.387984	3.289 ***
Constant	1.135801	4.648 ***
R^2	0.9224	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table 3. Annual Revenue from Regression Based Fee and Payments to Farmers: \$18.00/cwt Green Price to Farmers: Connecticut, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit	Farm Milk Value (Mil. Dollars)	Support as a % of Farm Milk Value
2002	\$0.384	\$20,039,355	\$5.46	\$20,976,000	-\$936,645	\$59.004	35.55%
2003	\$0.372	\$19,440,922	\$5.11	\$19,628,800	-\$187,878	\$53.259	36.86%
2004	\$0.186	\$9,739,825	\$1.89	\$7,251,200	\$2,488,625	\$67.124	10.80%
2005	\$0.180	\$9,414,823	\$2.46	\$9,443,200	-\$28,377	\$59.867	15.77%
2006	\$0.326	\$17,032,928	\$4.57	\$17,561,600	-\$528,672	\$51.710	33.96%
Average Annual	\$0.290	\$15,133,571	\$3.90	\$14,972,160	\$161,411	\$58.193	26.59%

Notes: Figures are based on a constant annual production of 384 million pounds and a constant annual consumption of 599.1 million pounds, of which 75% (449.3 million pounds) are sold at retail. Farm Values are from Table 9.

Table 4. Annual Revenue from Regression Based Fee and Payments to Farmers: \$17.00/cwt Green Price to Farmers: Connecticut, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit	Farm Milk Value (Mil. Dollars)	Support as a % of Farm Milk Value
2002	\$0.308	\$16,072,616	\$4.46	\$17,136,000	-\$1,063,384	\$59.004	29.04%
2003	\$0.302	\$15,780,566	\$4.11	\$15,788,800	-\$8,234	\$53.259	29.65%
2004	\$0.129	\$6,720,457	\$1.12	\$4,281,600	\$2,438,857	\$67.124	6.38%
2005	\$0.109	\$5,720,218	\$1.46	\$5,603,200	\$117,018	\$59.867	9.36%
2006	\$0.250	\$13,081,323	\$3.57	\$13,721,600	-\$640,277	\$51.710	26.54%
Average Annual	\$0.220	\$11,475,036	\$2.94	\$11,306,240	\$168,796	\$58.193	20.19%

Notes: Figures are based on a constant annual production of 384 million pounds and a constant annual consumption of 599.1 million pounds, of which 75% (449.3 million pounds) are sold at retail. Farm Values are from Table 9.

Table 5. Annual Revenue from Regression Based Fee and Payments to Farmers: \$16.00/cwt Green Price to Farmers: Connecticut, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit	Farm Milk Value (Mil. Dollars)	Support as a % of Farm Milk Value
2002	\$0.232	\$12,103,716	\$3.46	\$13,296,000	-\$1,192,284	\$59.004	22.53%
2003	\$0.233	\$12,194,589	\$3.11	\$11,948,800	\$245,789	\$53.259	22.44%
2004	\$0.076	\$3,965,017	\$0.48	\$1,859,200	\$2,105,817	\$67.124	2.77%
2005	\$0.045	\$2,330,146	\$0.48	\$1,830,400	\$499,746	\$59.867	3.06%
2006	\$0.176	\$9,214,528	\$2.57	\$9,881,600	-\$667,072	\$51.710	19.11%
Average Annual	\$0.152	\$7,961,599	\$2.02	\$7,763,200	\$198,399	\$58.193	13.98%

Notes: Figures are based on a constant annual production of 384 million pounds and a constant annual consumption of 599.1 million pounds, of which 75% (449.3 million pounds) are sold at retail. Farm Values are from Table 9.

Table 6. Annual Revenue from Regression Based Fee and Payments to Farmers: \$15.00/cwt Green Price to Farmers: Connecticut, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit	Farm Milk Value (Mil. Dollars)	Support as a % of Farm Milk Value
2002	\$0.161	\$8,427,345	\$2.46	\$9,456,000	-\$1,028,655	\$59.004	16.03%
2003	\$0.166	\$8,650,585	\$2.12	\$8,144,000	\$506,585	\$53.259	15.29%
2004	\$0.040	\$2,094,076	\$0.22	\$854,400	\$1,239,676	\$67.124	1.27%
2005	\$0.010	\$522,577	\$0.02	\$86,400	\$436,177	\$59.867	0.14%
2006	\$0.113	\$5,925,547	\$1.57	\$6,041,600	-\$116,053	\$51.710	11.68%
Average Annual	\$0.098	\$5,124,026	\$1.28	\$4,916,480	\$207,546	\$58.193	8.88%

Notes: Figures are based on a constant annual production of 384 million pounds and a constant annual consumption of 599.1 million pounds, of which 75% (449.3 million pounds) are sold at retail. Farm Values are from Table 9.

Table 7. Comparing the Fees per Gallon to Retail Margins and Excess Margins: Connecticut, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon based on				Retail Price ¹	Retail Margin ¹	Competitive Margin ²	Excess Margin
	\$18 target	\$17 target	\$16 target	\$15 target				
2002	\$0.384	\$0.308	\$0.232	\$0.161	-	-	-	-
2003	\$0.372	\$0.302	\$0.233	\$0.166	\$3.08	\$1.447	\$0.500	\$0.947
2004	\$0.186	\$0.129	\$0.076	\$0.040	\$3.79	\$1.510	\$0.530	\$0.980
2005	\$0.180	\$0.109	\$0.045	\$0.010	\$3.54	\$1.607	\$0.562	\$1.045
2006	\$0.326	\$0.250	\$0.176	\$0.113	\$3.58	\$1.580	\$0.596	\$0.984

1. Retail Price and Margins are based on All Milk in Southern New England Supermarkets from FMPC milk price surveys in June 2003, May 2004, July 2005, and November 2006.

2. Competitive Margins are adjusted 6% per year from 2003 estimate.

Table 8a. Flat Milk Pricing in Southern New England: November 2006

Chain	Stores Checked in Southern New England	Brand	Stores with Flat Pricing	Stores with Variable Pricing	Locations with Variable Pricing	
Stop & Shop	34	Private Label	31	3	Norwich, Waterford, and Willimantic, CT	
	33	Garelick	33	0		
	34	Hood	34	0		
Shaw's/Star Market	19	Private Label	19	0		
	19	Garelick	19	0		
	19	Hood	19*	0		
Big Y	12	Private Label	10	2	Norwich and Waterford, CT	
	8	Guida	8	0		
	4	Garelick	3	1		Ware, MA
	12	Hood	11	1		Ware, MA
Wal-Mart Supercenter	5	Private Label	0	5	Raynham and Ware, MA and Lisbon, North Windham, and Wallingford, CT	
	5	Garelick	0	5		
	4	Hood	0	4		

*Shaw's/Star Market in New Bedford, MA had Hood 2% milk priced 4 cents cheaper than Whole, 1%, and Skim.

Table 8b. Flat Milk Pricing in Southern New England: November 2004

Chain	Stores Checked in Southern New England	Brand	Stores with Flat Pricing	Stores with Variable Pricing	Locations with Variable Pricing	
Stop & Shop	32	Private Label	30	2	Norwich and Waterford, CT	
	32	Garelick	31	1		Norwich, CT
	32	Hood	30	2		Norwich and Waterford, CT
Shaw's/Star Market	18	Private Label	18	0		
	18	Garelick	18	0		
	17	Hood	17	0		
Big Y	12	Private Label	11	1	Ware, MA	
	12	Guida	11	1		
	12	Hood	11	1		
Wal-Mart Supercenter	2	Private Label	0	2	Ware, MA and Lisbon, CT	
	2	Garelick	0	2		
	2	Hood	0	2		

Table 9. Loss of Connecticut Dairy Farms, Milk Production, and Cows since 1994

Year	No. of Farms	Milk Production (Mil. Lbs)	Value (Mil. Dollars)	No. of Milking Cows (Thousands)
1994	334	530	\$75.416	33
1995	302	526	\$73.041	32
1996	289	499	\$80.830	30
1997	270	509	\$77.194	30
1998	250	529	\$87.285	30
1999	252	520	\$84.240	29
2000	240	480	\$67.680	27
2001	223	456	\$73.416	25
2002	212	447	\$59.004	24
2003	191	410	\$53.259	22
2004	180	390	\$67.124	20
2005	179	385	\$59.867	20
2006	169	384	\$51.710	20

Source: CT. Dept. of Agriculture and USDA National Agricultural Statistics Service

Table 10: Average Price of Half-Gallon Whole Milk in Connecticut Supermarket Chains, by Brand: November 2006

Brand	No. of Stores Price Checked	Average Price in November 2006
Private Label (Wal-Mart)	3	\$1.57
Private Label (Price Chopper)	3	\$1.96
Private Label (Big Y)	8	\$2.00
Private Label (A&P)	2	\$2.09
Guida	13	\$2.17
Private Label (Shaws)	6	\$2.19
Private Label (Shop Rite)	6	\$2.26
Private Label (Stop & Shop)	16	\$2.28
Garelick	31	\$2.45
New England Family Farms	10	\$2.55
Hood	40	\$2.61
Farmer's Cow	33	\$2.87

Table 11: Average Price of Half-Gallon Whole Milk in Connecticut Supermarket Chains, by Brand and Chain:
November 2006

Store Name	2005 Connecticut Market Share ¹	No. of Stores Price Checked	Private Label	Guida	Garellick	New England Family Farms	Hood	Farmer's Cow
Stop & Shop	45.44	16	\$2.28	\$2.19	\$2.64	\$2.77	\$2.80	\$2.87
Big Y	9.51	8	\$2.00	\$2.13	-	-	\$2.34	\$2.99
Shaw's/Star Market	7.71	6	\$2.19	\$2.29	\$2.41	\$2.41	\$2.55	\$2.89
Price Chopper	3.05	3	\$1.96	\$2.09	\$2.39	-	\$2.34	\$2.89
A & P/Waldbaums	3.03	3	\$2.09	-	\$2.19	-	\$2.74	-
Wal-Mart Supercenter	2.82	3	\$1.57	-	\$1.82	-	\$1.98	-
Shop Rite	0.91	6	\$2.26	-	\$2.29	-	\$3.04	\$2.56

¹ Supermarket All Food Market Shares from The Griffin Report: of Food Marketing; June 2006 Vol. 40 No. 6

Figure 1. The Milk Fee Schedule in the December 2006 Connecticut Draft Bill

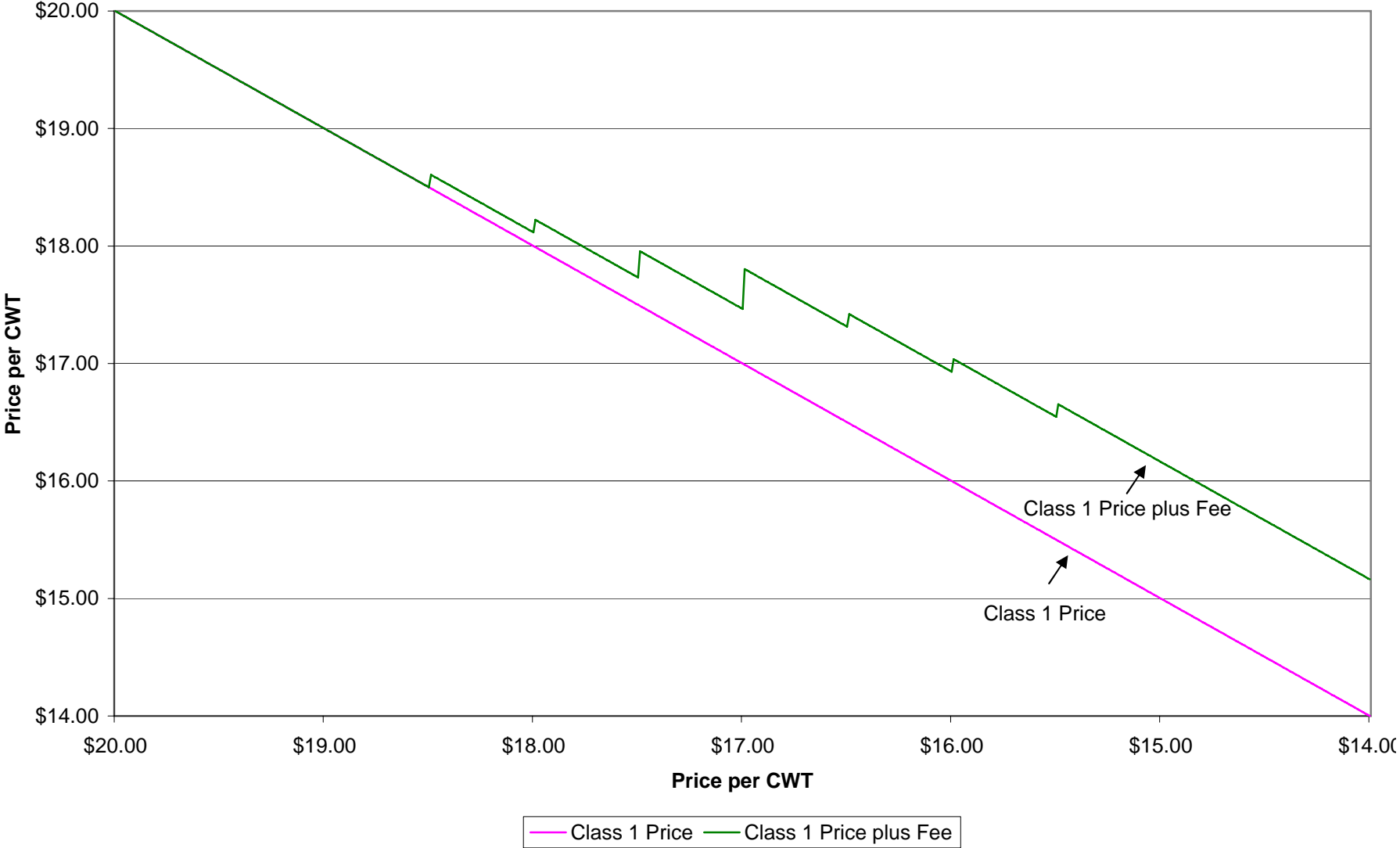
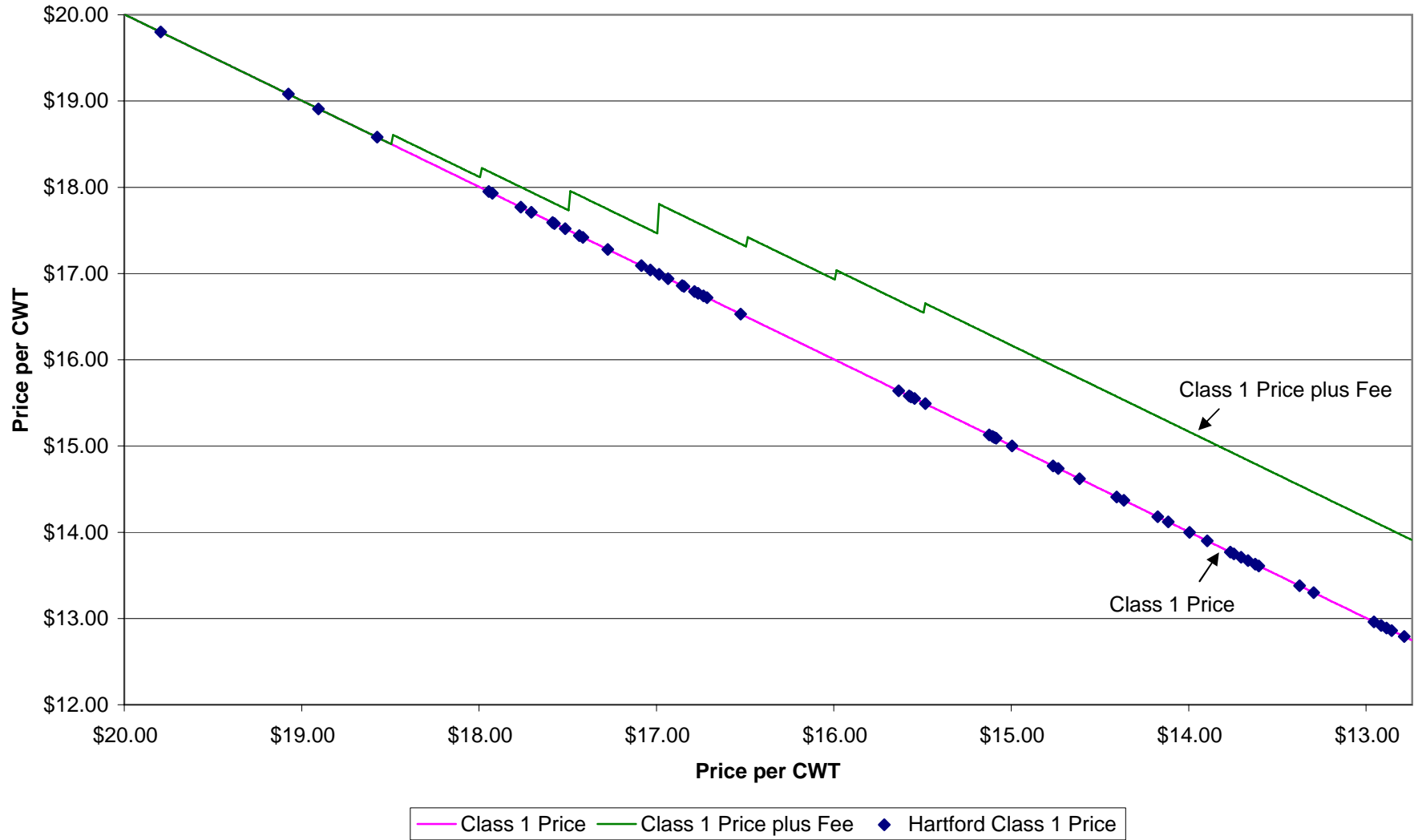


Figure 2. The December 2006 Proposed Milk Fee Schedule and the Monthly Hartford Class 1 Price: October 2001 - January 2007



**Figure 3. Frequency Distribution of Hartford Class 1 Fluid Milk Prices:
October 2001 - January 2007**

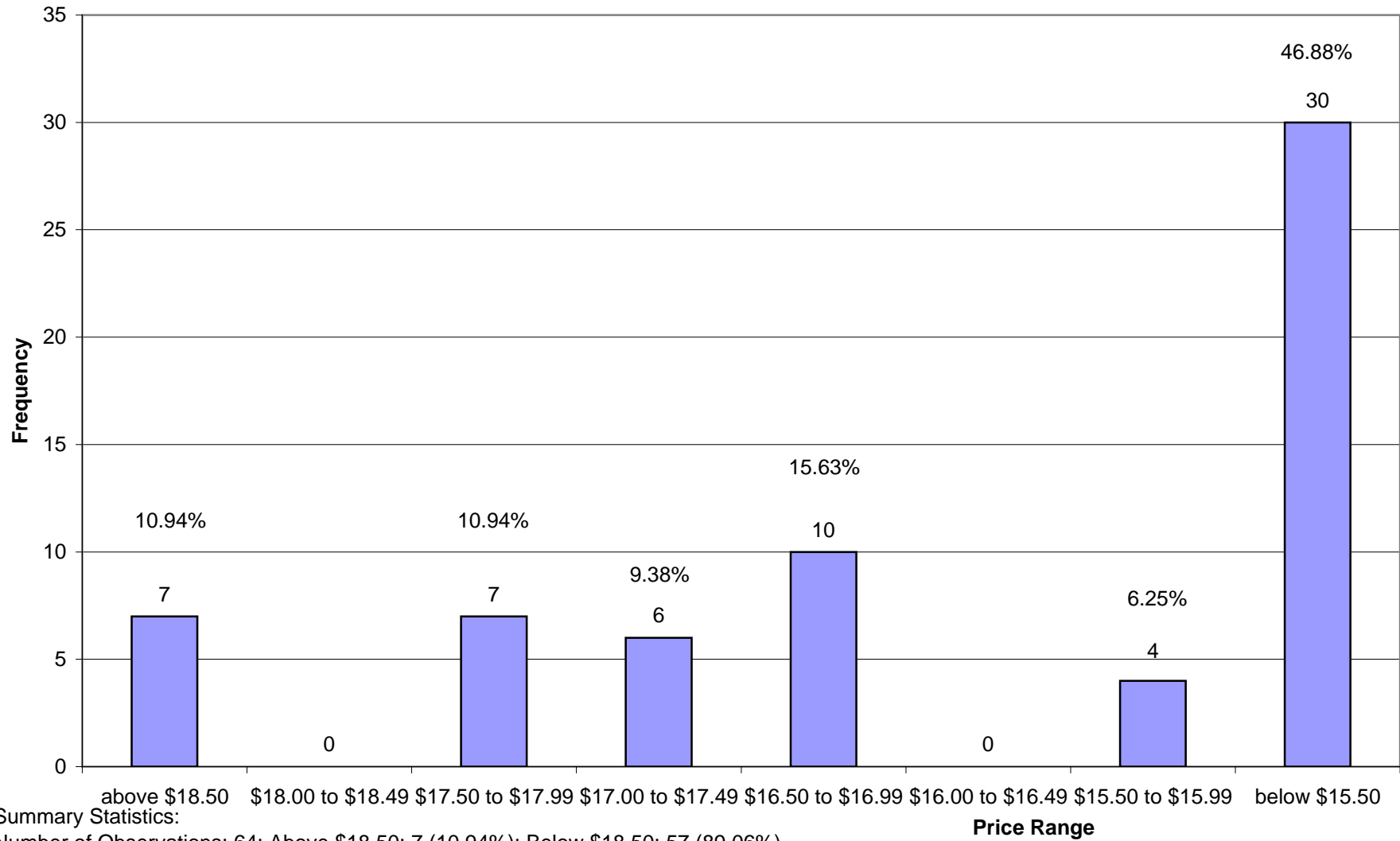
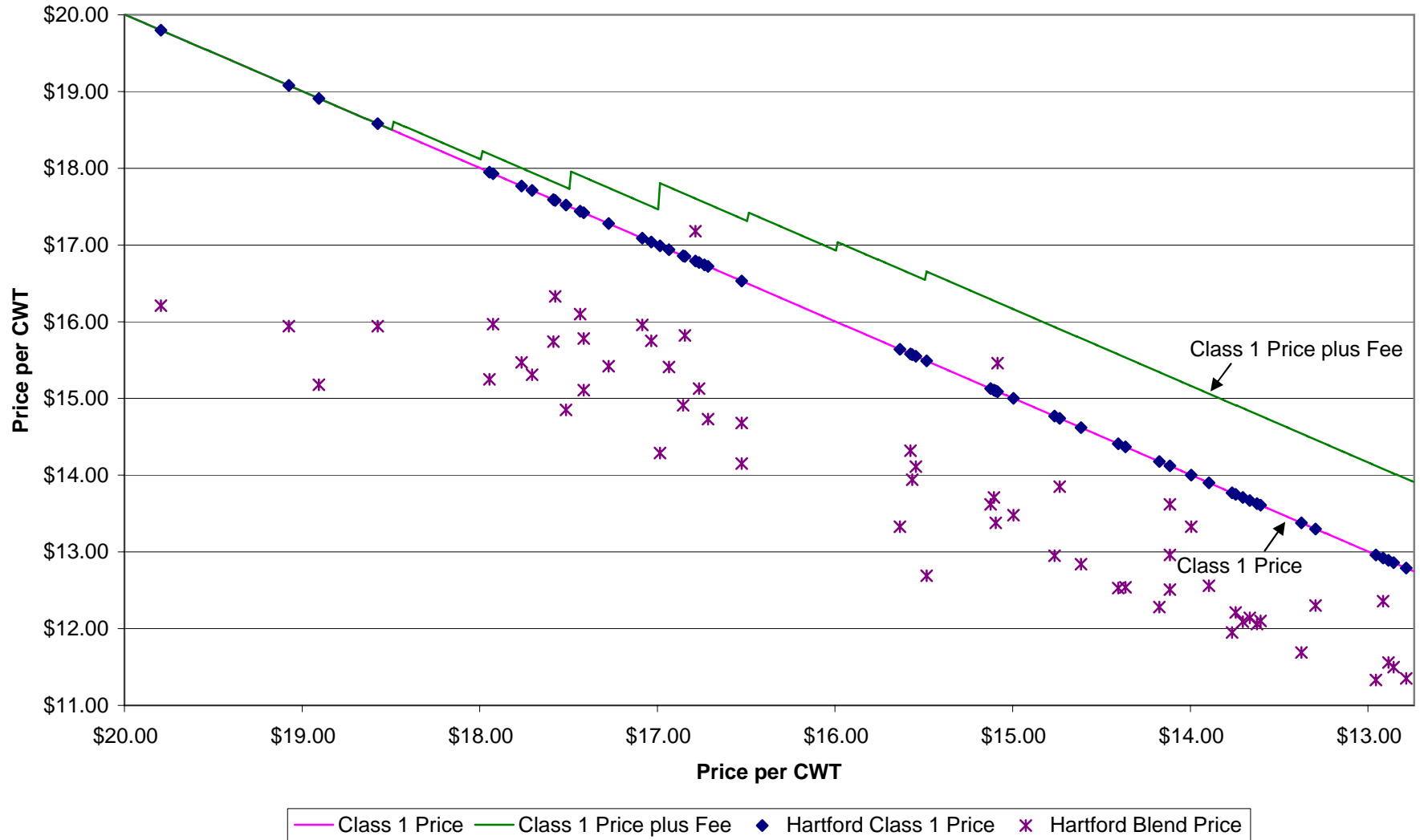


Figure 4. Proposed December 2006 Discrete CT Milk Fee, Hartford Class 1 Price, and Hartford Blend Price: October 2001 - December 2006



**Figure 5. Frequency Distribution of Hartford CT Blend Price (Price Paid Farmers):
October 2001 - December 2006**

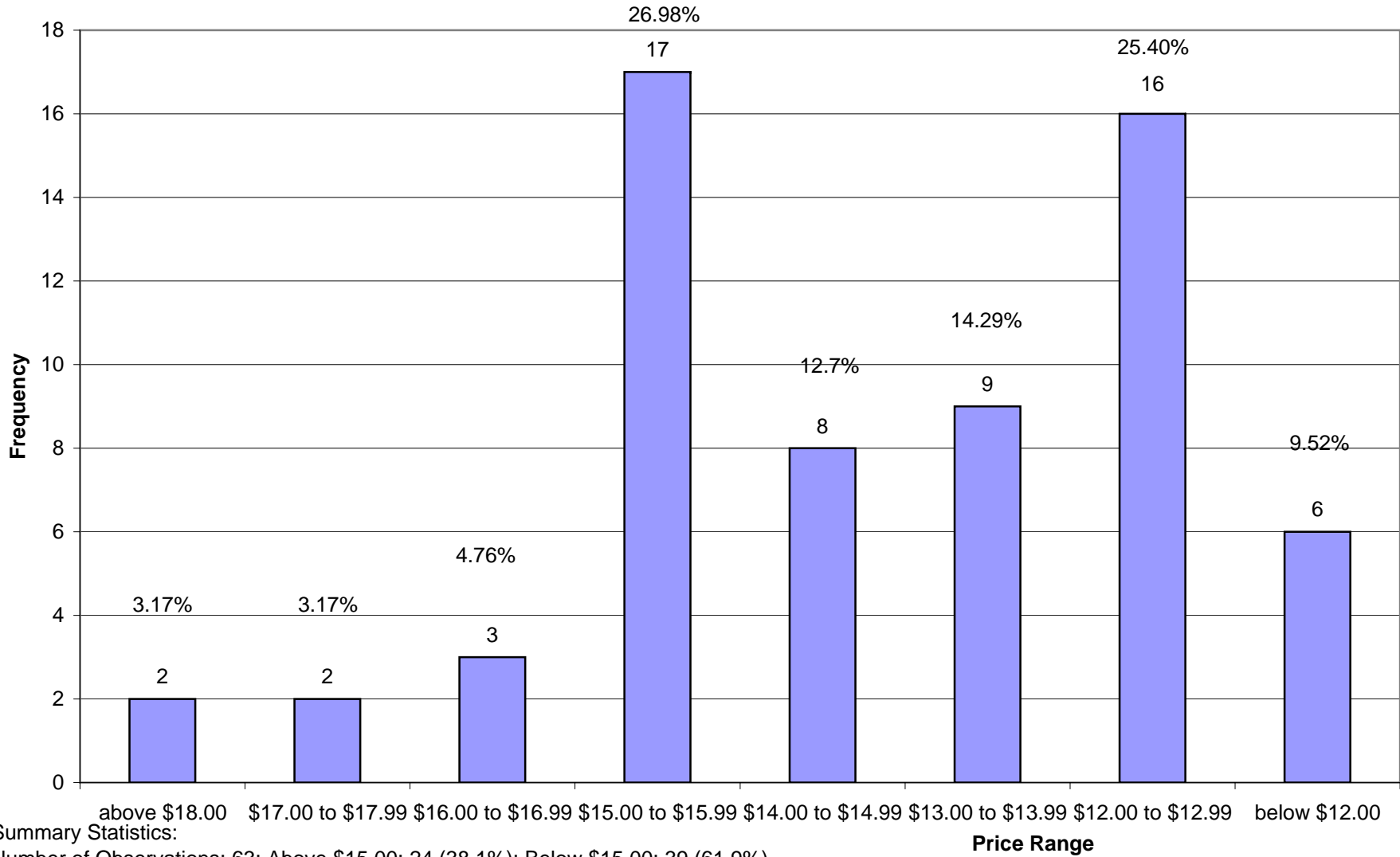
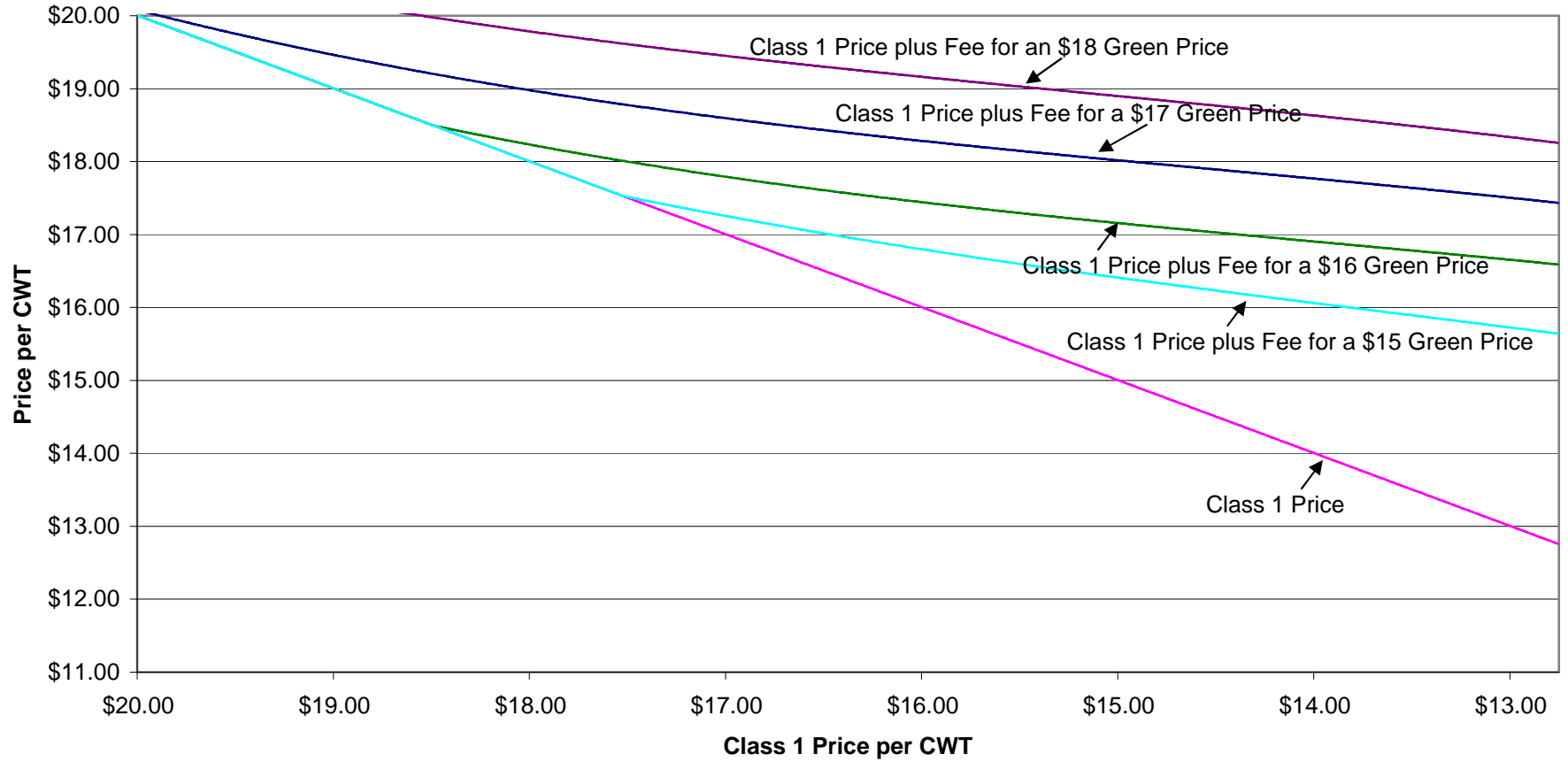
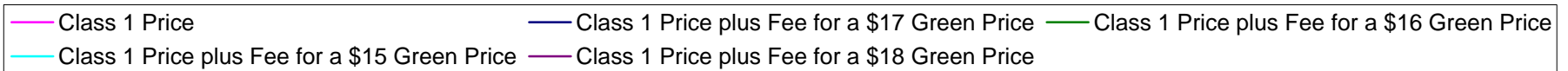
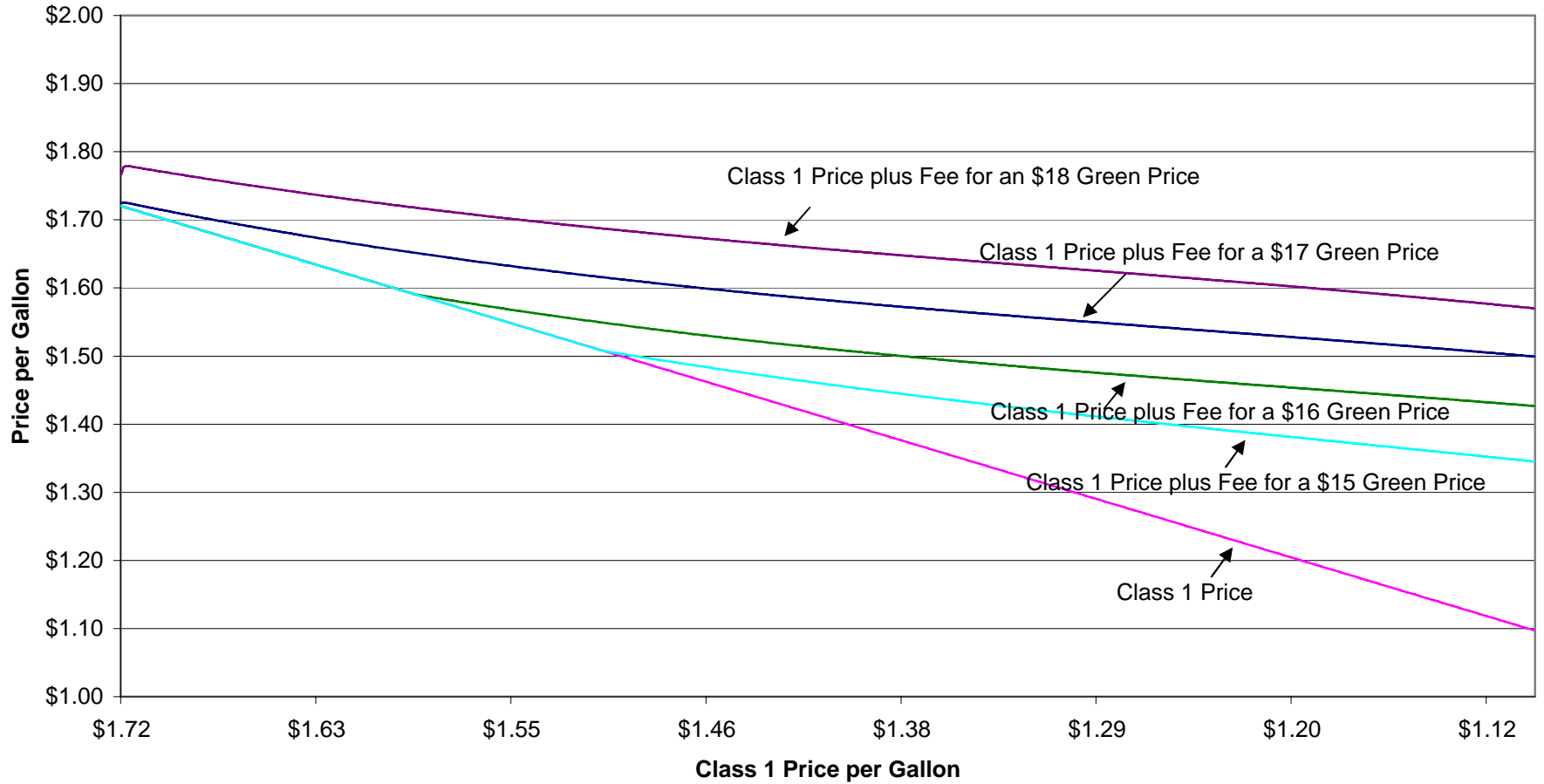


Figure 6. Dollars per CWT Based Milk Fee Schedule Necessary to Elevate the Blend Price to \$15.00/cwt., \$16.00/cwt., \$17.00/cwt. or \$18.00/cwt. in Connecticut, Fee Levied Only on Retail Fluid Milk

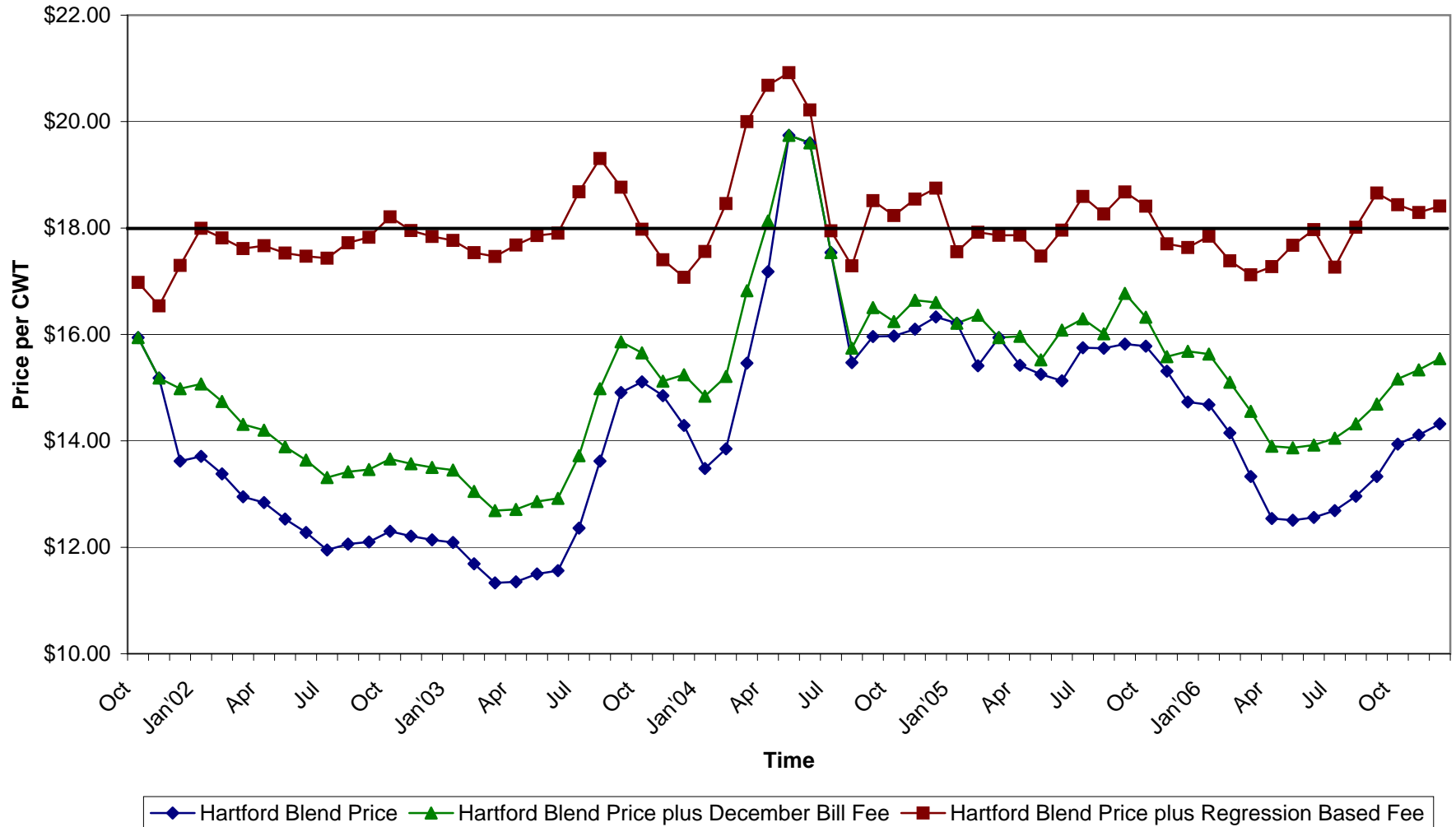


Class 1 Price	Class 1 Price plus Fee for a \$17 Green Price
Class 1 Price plus Fee for a \$16 Green Price	Class 1 Price plus Fee for a \$15 Green Price
Class 1 Price plus Fee for an \$18 Green Price	

Figure 7. Dollars per Gallon Milk Fee Schedule Necessary to Elevate the Blend Price to \$15.00/cwt., \$16.00/cwt., \$17.00/cwt., or \$18.00/cwt. in Connecticut, Fee Levied Only on Retail Fluid Milk



**Figure 8. The Impact on Farmers with the CT Discrete Milk Fee and the Regression Based Milk Fee with an \$18 Green Price Goal on Prices Received by CT Farmers:
Fee Levied Only on Retail Milk Sales**



**Figure 9. The Impact on Farmers with the CT Discrete Milk Fee and the Regression Based Milk Fee with a \$17 Green Price Goal on Prices Received by CT Farmers:
Fee Levied Only on Retail Milk Sales**

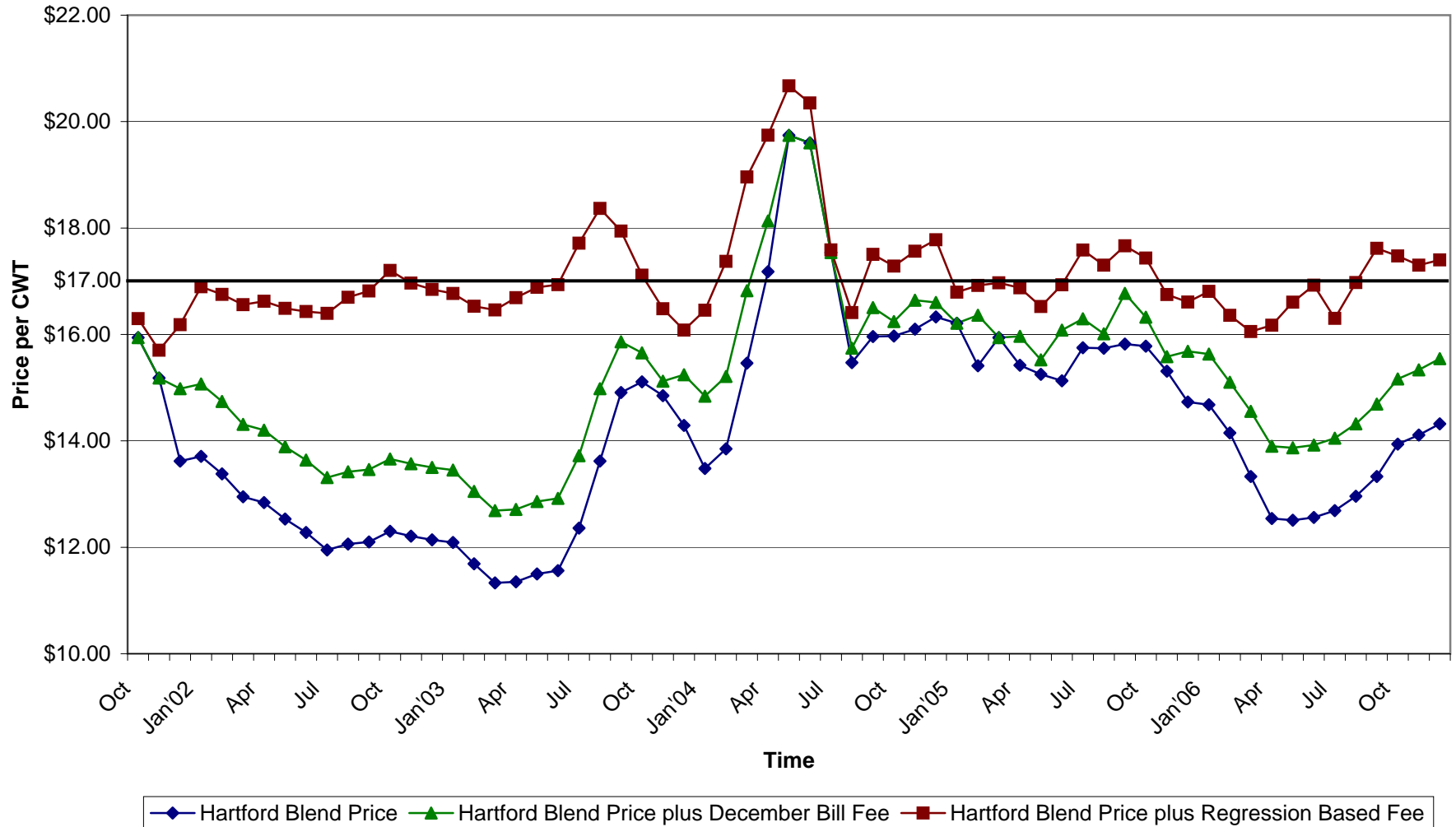


Figure 10. The Impact on Farmers with the CT Discrete Milk Fee and the Regression Based Milk Fee with a \$16 Green Price Goal on Prices Received by CT Farmers: Fee Levied Only on Retail Milk Sales

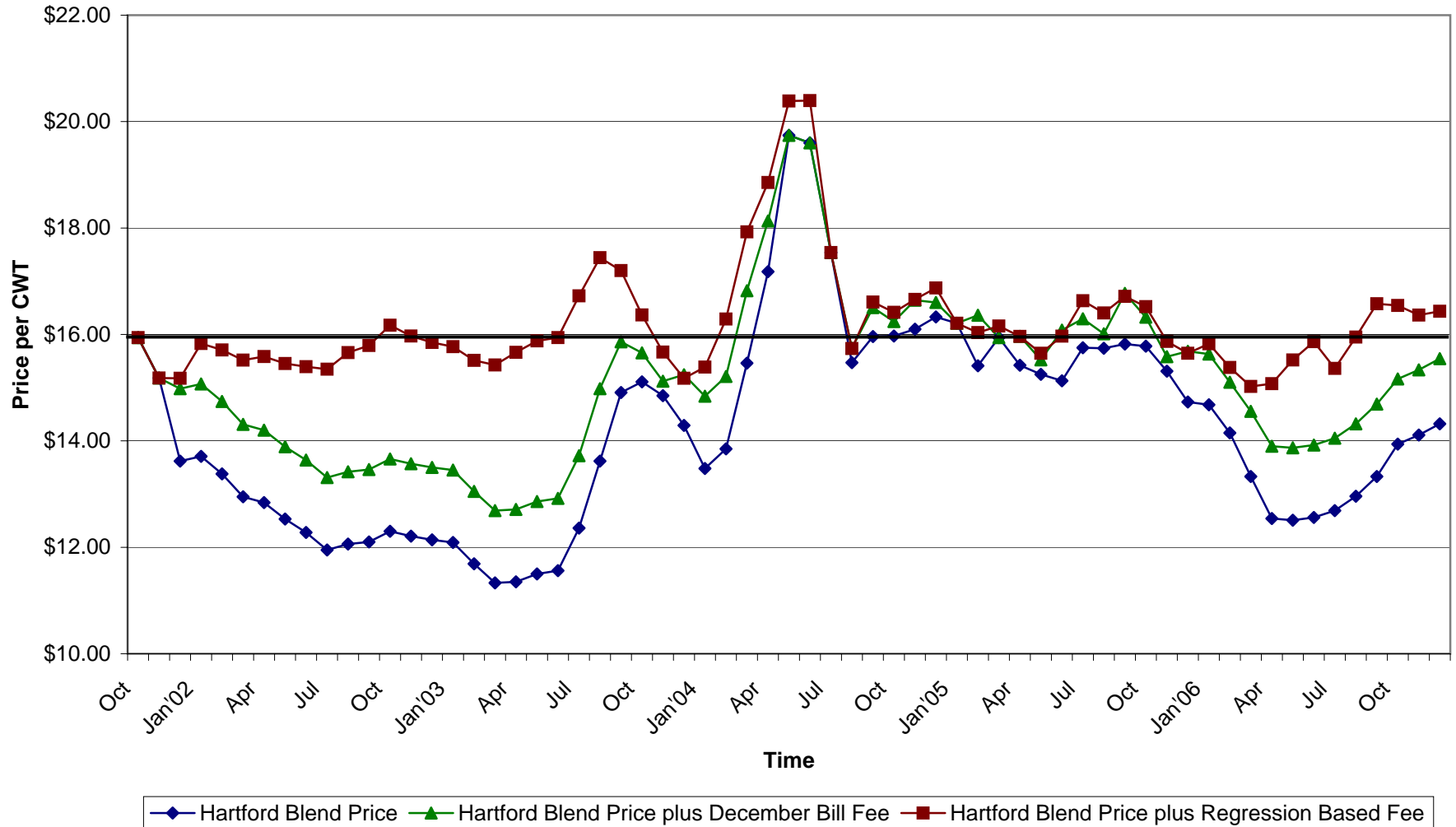


Figure 11. The Impact on Farmers with the CT Discrete Milk Fee and the Regression Based Milk Fee with a \$15 Green Price Goal on Prices Received by CT Farmers: Fee Levied Only on Retail Milk Sales

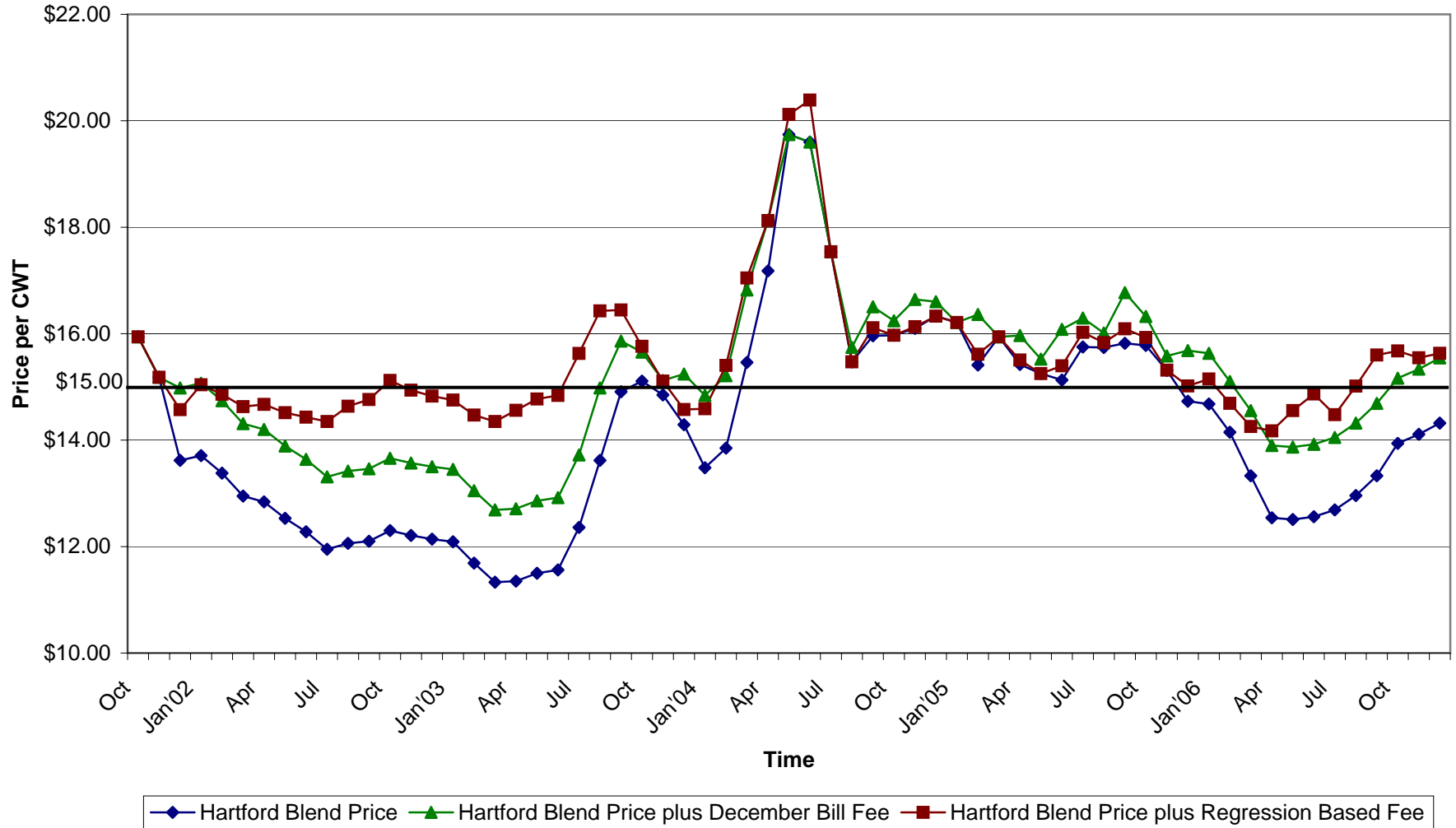
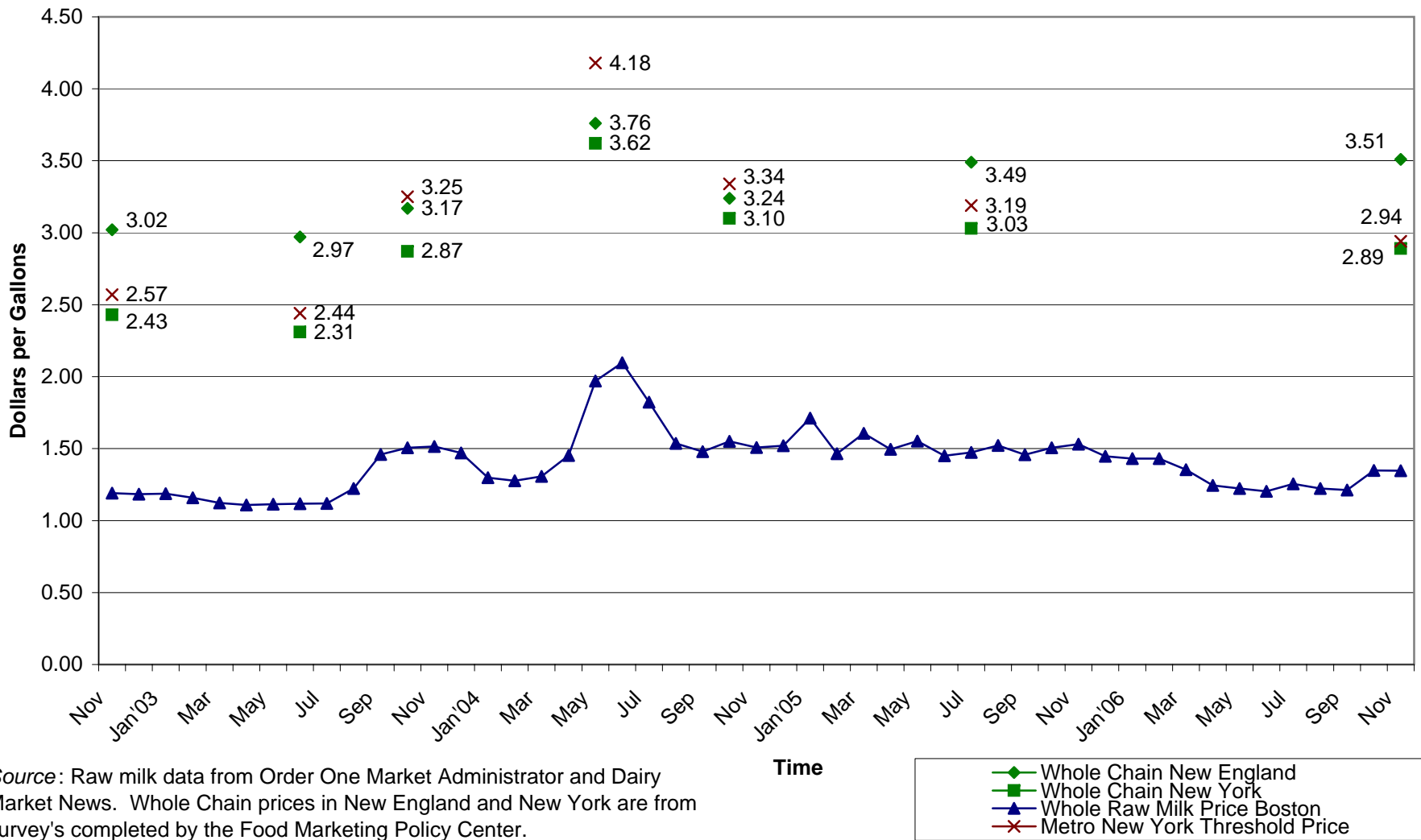


Figure 12. Weighted Average Chain Store 3.25% Whole Milk Prices in New York and New England and Respective 3.5% Whole Raw Milk Prices



Source: Raw milk data from Order One Market Administrator and Dairy Market News. Whole Chain prices in New England and New York are from survey's completed by the Food Marketing Policy Center.

Appendix A

The revised version of the Connecticut fee and Connecticut Milk Commission bills

I. Revised Draft Bill to Establish a Connecticut Milk Tax

II. Revised Draft Bill to Establish a Connecticut Milk Commission

Appendix A1

An Act Establishing A Connecticut Milk Tax (FMPC, UConn Revised Version January 25, 2007)

Section 1 (NEW)

Definitions

- (1) "Basic price" means the Federal Milk Market Order 1 class I price of milk at Hartford, Connecticut
- (2) "Tax period" means the period beginning on the Sunday closest to the first day of the month and continuing through the Saturday prior to the Sunday closest to the first day of the subsequent month.
- (3) "Handler," with respect to a particular container of packaged milk, means the wholesale handler or, if none, the producer-handler, or the retail handler.
- (4) "Milk" means the lacteal secretion of a healthily bovine animal and includes but is not limited to whole milk, skim milk, partially skimmed milk, flavored milk and buttermilk.
- (5) "Packaged milk" means milk that has been processed and placed in containers for ultimate sale to consumers.
- (6) "Person" means an individual, partnership, firm, corporation, association or other unit and this state and all political subdivisions or agencies of this state.
- (7) "Producer-handler" means a person who produces milk and packages that milk or part of that milk for retail sale or for sale to another handler in packaged form.
- (8) "Retail handler" means a person who handles packaged milk and offers packaged milk for sale to the final consumer within this state.
- (9) "Wholesale handler" means a person who handles packaged milk in this state, including producer handlers with respect to wholesale sales, and offers packaged milk for sale to retail handlers or other handlers.

Section 2 (NEW)

Milk tax, collection of tax.

(a) Upon notification by the Connecticut Milk Commission the department of revenue services shall levy and impose a milk tax at the rate established in subsection (b) of this section on packaged milk sold by retail handlers in this state. The tax shall be paid to the department of revenue services by the wholesale handler and charged by the wholesale handlers to retail handler customers; provided that for sales of packaged milk not made through a wholesale handler, or for which a wholesale handler cannot be identified, the tax shall be paid by the retail handler. The tax shall be computed on a gallon-equivalent basis. Milk packaged for sale in containers of less than one quart or 20 or

more quarts in volume, or packaged milk that is sold to an institution that is owned and operated by any town or municipality of this state, the state of Connecticut or the Federal Government shall be exempt from the milk handler tax.

(b) The tax levied under this section shall be established for each tax period on the basis of the basic price of milk in effect on the first day of the month accordance with the following:

(1) Tax (\$/cwt) = basic price (1.5821 - .14664 - basic price + .00338 basic price² + .28588 last month tax rate)

$$\text{Where last month tax rate} = \frac{\text{last month tax}}{\text{last month basic price.}}$$

A table of the tax amounts at different base prices is attached.

(2) Upon notification by the Connecticut Milk Commission the tax formula in Section 2.a.1 may be altered.

(c) Handlers shall pay the tax for each tax period on all milk subject to the tax.

(d) In calculating the amount of packaged milk handled for sale in this state during each tax period, the handler shall deduct from that amount any packaged milk returned to the handler during that tax period.

(e) The tax imposed and collected under this section shall be in addition to any taxes or license imposed or collected under any other law of this state.

(f) Every handler subject to the tax imposed under subsection (a) of this section shall register with the department of revenue services within 5 business days of becoming subject to the tax on forms provided by the department of revenue services. The list of registered handlers must be available to the public. By the 25th day of each calendar month, every handler subject to the tax imposed under subsection (a) of this section shall report to the department of revenue services the quantity of packaged milk handled in this state for sale in this state during the preceding tax period, the quantity of packaged milk handled that was subject to the milk handling tax and any other information the department of revenue services determines necessary or useful in the administration of this chapter and enforcement of the milk handling tax. The Department of Revenue Services and the Connecticut Milk Commission may share information.

(g) Handlers shall pay to the Department of Revenue Services the tax due for the preceding tax period not later than the 25th day of each calendar month and submit the information required by the department of revenue services on the forms provided.

(h) The Department of Revenue Services shall immediately pay all funds received from the milk handling tax to the Treasurer of state to be deposited in the General Fund.

Appendix A2

An Act Concerning the Establishment of a Connecticut Milk Commission (FMPC, UConn Revised Version, Jan. 25, 2007)

Section 1 (NEW)

Definitions as used in this act.

- (1) "Books and records" means any book, ledger, record, account, memoranda or other data pertaining to the purchase and distribution of milk.
- (2) "Commission" means the Connecticut Milk Commission.
- (3) "Consumer" means any person other than a milk dealer who purchases milk for fluid consumption.
- (4) "Dealer" means any person who purchases or receives milk for sale as the consignee or agent of a producer, or handles for sale, shipment, storage or processing within this state and shall include a producer-dealer and a sub-dealer, but shall not include a store other than an integrated operation.
- (5) "Department" means the department of agriculture.
- (6) "Integrated operation" means a person who is a dealer and who also sells at retail the milk which he handles for sale, shipment, storage or processing within this state.
- (7) "Market" means any city, town or parts thereof of this state.
- (8) "Milk" means the lacteal secretion of a healthily bovine animal and includes but is not limited to whole milk, skim milk, partially skimmed milk, flavored milk and buttermilk.
- (9) "Fluid milk" shall mean milk, skim milk or lowfat milk in consumer sized packages sold or offered for sale for off premise consumption.
- (10) "Person" means any individual, partnership, firm, corporation, association or other unit created to conduct business in this state, except state and municipal owned and operated institutions.
- (11) "Producer" means any person who produces milk and sells such milk only to dealers.
- (12) "Producer-dealer" means a dealer who processes and sells milk of their own production.
- (13) "Retail sale" means a doorstep delivery and over-the-counter sales by stores.
- (14) "Store" means a grocery store, dairy product store, canteen, milk vending machine operator, milk dispensing operator or any similar commercial establishment or outlet or any other sale where milk is sold to consumers for consumption off the premises where sold.

(15) "Sub-dealer" means any person who does not process milk and who purchases milk from a dealer and sells such milk in the same containers in which he purchased it, but shall not include a store.

(16) "Wholesale sale" means sale to any other person not included in retail sales.

(17) "Retail store" means a grocery store, dairy product store or any similar commercial establishment where milk is sold to consumers for consumption off the premises.

(18) "Annual production" means the total quantity of milk produced in a 12-month period beginning June 1st and ending May 31st of the next calendar year. Total quantity is expressed in hundredweight.

(19) "Base price" means Federal Milk Market Order 1 statistical uniform price for Hartford, CT.

(20) "Support price" means the price that the Connecticut Milk Commission determines is the minimum price per hundredweight for 3.5% butterfat milk at Hartford that is needed to sustain the Connecticut dairy farming industry with its attendant benefits to the Connecticut residents.

Section 2 (NEW)

Connecticut Milk Commission, organization.

(a) Members. The Connecticut Milk Commission, shall consist of the following 5 members:

(1) The Commissioner or the Commissioner's designated agent, ex officio; and

(2) Four members, who must be residents of this state, appointed by the Governor, subject to review by the executive and legislative nominations committee of the legislature and subject to confirmation by the legislature.

(b) The following qualifications shall apply to each Commission member appointed under subsection (a)(2) of this section, and to Commission employees:

(1) A member of the Commission shall not, at the time of appointment or while serving as a member of the Commission, have a business or professional relationship or connection with or a financial interest in any producer, dealer, store or other person whose activities are subject to the jurisdiction of the Commission;

(2) An employee of the Commission shall not have a business or professional relationship or connection with or a financial interest in any producer, dealer, store or other person whose activities are subject to the jurisdiction of the Commission; and

(3) A member or employee of the Commission shall not render, or be a member of a firm that renders, any professional or other service for or against a producer, dealer, store or other person whose activities are subject to the jurisdiction of the Commission.

(c) Members of the Commission appointed under subsection (a)(2) of this section, shall serve for a term of 4 years or until their successors are duly appointed and qualified, except that the initial terms of these members are for one, two, three and four years so that the terms of the members of the Commission are staggered. A vacancy in the membership of the Commission shall be filled by appointment by the Governor.

(d) The members of the Commission shall elect a chair. The Commission shall employ an executive director, a secretary and such clerks, assistants and other employees as the Commission determines necessary to assist in its duties. Such employees shall be considered designated agents of the Commission and may argue cases and bring actions before the Commission, recommend action to be taken by the Commission, present evidence and provide the Commission with expert opinions and information. To the extent possible, the Commission shall make use of professional, expert or other resources available within the various departments of state government, including, but not limited to, the department of agriculture, the Office of Attorney General and the University of Connecticut. Such departments shall, as resources allow, provide necessary and appropriate services at the request of the Commission or the executive director. To the extent these services are not available or otherwise adequate, the Commission may use appropriated funds to employ appropriate experts, professionals or others to assist it in carrying out its duties.

(e) The Commission may use appropriated funds to establish a suitable office and all necessary equipment and supplies. Each of the members of the Commission appointed under the subsection (a)(2) of this section shall receive one hundred dollars for each day the member attends a meeting of the Commission. The total payments to each member shall not exceed eight hundred dollars each year.

Section 3 (NEW)

Commission powers, general.

(a) In administering this act the Commission may:

(1) subpoena and examine under oath persons whose activities are subject to the jurisdiction of the Commission, including producers, dealers and stores and their officers, agents and representatives; and

(2) subpoena and examine the business records, books and accounts of persons whose activities are subject to the jurisdiction of the Commission, including producers, dealers and stores and their officers, agents and representatives.

(b) Any member of the Commission and any agent designated by the Commission may sign subpoenas and administer oaths to witnesses.

(c) The Commission shall ensure that milk dealers and milk distributors give 30 days' notice before terminating delivery to any customer in their delivery area or in the delivery area of a milk dealer or milk distributor they have purchased. The 30-day notice does not apply to cancellation of milk delivery resulting from a failure to pay bills.

(d) The Commission shall not have any powers or duties regarding milk quality or sanitary regulation of any business.

Section 4 (NEW)

Commission meetings.

(a) The Commission shall:

- (1) Meet at least annually during the month of October;
- (2) keep a record of all its proceedings;
- (3) within thirty days of receiving a petition asking the Commission to consider implementing an emergency milk pricing policy the chair call a special meeting. The petition shall represent Connecticut milk producers and be signed by at least thirty percent of the licensed milk producers; and
- (4) At least once every three years the Commission shall conduct or obtain an independent study of the economics and practices of the milk industry in order to assist the Commission in establishing target prices and in advising the Department of Revenue Services on tax policy. The studies shall include the compilation of cost data for farms at three different levels of production.

(b) The Commission chair may call special meetings of the Commission whenever the chair determines a special meeting is necessary or a special meeting has been requested in writing by two or more members of the Commission.

(c) The Commissioner or Commissioners designated agent shall have no vote except to break a tie.

Section 5 (NEW)

Dairy stabilization

(a) Determination of support prices. The Commission shall use the most recent studies conducted in accordance with section 4 of this act to estimate the support price. Until the Commission has met and established the support price the following shall be in effect: \$17 per hundredweight for 3.5% butterfat milk at Hartford, CT. The market price that shall be compared to this support price is the announced base price at Hartford.

(b) For each month that the base price is below the support price, the Commission shall, contingent on available appropriated funds, distribute to each milk producer in this state an amount of money equal to the previous month's production in hundredweight multiplied by the difference between the applicable support price and the base price in the previous month.

(c) The Commission shall request an annual appropriation for its operation and expenses including payments to farmers.

Section 6 (NEW)

Retail Threshold Price Policy

At any time when the retail price of fluid milk sold by butterfat content exceeds two hundred percent of the price for class 1 fluid milk with the same butterfat content, it shall be the responsibility of the Commission in consultation with state and local agencies as the commission deems appropriate, to examine the price of fluid milk at retail to determine if the prices of fluid milk sold or offered for sale in the state or in any area thereof appear to the Commission unconscionably excessive. Upon a determination by the Commission that the price of fluid milk being sold or offered for sale appears unconscionably excessive in a particular area of the state, the Commissioner shall, by written notice, provide any person found to be selling or offering for sale fluid milk at such price, an opportunity to discontinue such price levels or to demonstrate that it is not unconscionably excessive. Any person, so notified, who does not submit a written reply within three business days of the receipt of such notice, and who does not within such time satisfy the Commission that the price level which resulted in the issuance of the notice is justifiable or has been terminated shall be identified in the Commission's determination as a person apparently in violation of subdivision (a) of this section. Following such notice to and opportunity for such person to respond, the Commission shall forward its determination, in writing, together with all supporting evidence, to the attorney general who shall enforce subsection 6a.

a. No person shall sell or offer for sale fluid milk for an amount which represents an unconscionably excessive price.

b. Whether a price is unconscionably excessive is a question of law for the court. Evidence that:

- (1) the price charged at retail for fluid milk represents a gross disparity between the raw milk price paid to producers plus a reasonable handler's processing and distribution charge and the price at retail; or
- (2) in addition to paragraph (a) of this subdivision, the increased price charged by the person was not attributable to additional charges imposed by its suppliers, or other charges beyond the control of the person, including the cost of labor, shall constitute prima facie proof of a violation of this section in any proceeding commenced by the attorney general.
- (3) where a determination and all supporting evidence have been forwarded from the Commission, the attorney general may apply in the name of the people of the state of Connecticut to the court . In any such proceeding, the court shall determine the total excessive charge for fluid milk sold. In such proceeding, the court shall assess a civil penalty in the sum of the total excessive charge for fluid milk sold plus an amount not to exceed:
 - a) one thousand dollars, where the aggregate amount of fluid milk sold is one thousand gallons or less per week; or
 - b) five thousand dollars, where the aggregate amount of fluid milk sold exceeds one thousand gallons per week; and
 - c) in addition to paragraphs 1) and 2) of this subdivision where appropriate, order restitution to aggrieved consumers.

(c) The Commission shall promulgate all rules and regulations to effectuate the purposes of this section.

(d) The Commission may adjust the 200% markup rate in section 6a if it deems a different rate is in the public interest.

Section 7 (NEW)

Reporting, records.

Every producer, producer cooperative, milk handler, milk dealer and store shall keep and render to the Commission, at such times and in such manner and form as may be prescribed by the rules of the Commission, accounts of all business transacted that is related to the production, purchasing, processing, sale or distribution of milk. Such accounts must reasonably reflect, in such detail as the Commission considers appropriate, income, expense, assets, liabilities and such other accounting entries as the Commission considers necessary, to assist the Commission in making its determinations.

Section 8 (NEW)

Interstate conferences and agreements.

The Commission shall have power to enter into agreements with legally constituted milk Commissions or similar authorities of other states or of the United States of America to effect a uniformity in regulating and insuring an adequate supply of pure and wholesome milk to the inhabitants of this State, to provide consistency and coordination in control of milk produced in this State and handled in interstate and intrastate commerce.

Section 9 (NEW)

Administrative enforcement

When the Commission, after such investigation as it considers appropriate, believes that a violation of this act, or of any regulation, order or decision of the Commission has occurred, the Commission may by majority vote, order any person to cease that violation. When issuing any order, the Commission shall notify any person who would be aggrieved by the order of their right to a hearing. If a person is aggrieved by an order of the Commission, the aggrieved party may request a hearing, such hearing shall be held within thirty days of the date of the hearing request. After such hearing the Commission shall publish its findings and issue a final order within thirty days. Any person aggrieved by a final order issued pursuant to this section may obtain judicial review of the order in the Superior Court for Judicial District of Hartford in Hartford. In responding to such a petition, the Commission may seek enforcement of its order, including civil penalties for any violation found, and the court, if it upholds the order, may order its enforcement, including civil penalties.

Section 10 (NEW)

Sales of milk by cooperatives.

No provision of this act shall prevent a producer co-operative association or producer co-operative corporation authorized to transact business in this state, which sells the milk of or for its members

or of persons who are now or hereafter under contracts with such producer co-operative association or producer co-operative corporation, from blending the proceeds of all its or their net sales either within or without this state, and so paying its members.

Section 11 (NEW)

The Commission shall file a report no later than the first day of the legislative session of each year with the joint standing committee on the Environment which shall include the following:

- (1) The short and long term problems associated with maintaining a viable dairy industry in this state;
- (2) The milk price outlook and the likelihood the milk price received by dairy farmers will exceed the target price and the amount of any shortfall;
- (3) Opportunities to expand the dairy industry, including attracting both new dairy producers and new processors to this state;
- (4) The contribution of dairy farms to the maintenance of prime agricultural land and the quality of life in this state; and
- (5) Other factors that impact the dairy industry in this state.

Regulations.

The Commission shall adopt regulations to carry out the provisions of this act and regulations that establish procedures to enable the Commission and agents authorized by the Commission to inspect the records, books and accounts of milk dealers, milk distributors, milk producers and stores selling milk in a location acceptable to the Commission.

Section 12 (NEW)

Section 22-203cc is repealed and the following substituted.

State delegation to compact Commission. Membership.

Upon the establishment of the Northeast Interstate Dairy Compact Commission as provided for in section 22-203aa, the Governor shall appoint two of the state's delegation to said Commission from among the members of the [Milk Regulation Board established under section 22-131] Connecticut Milk Commission[.], [The]the Governor [delegation shall include]shall also appoint one member to the Commission who represents the interests [of milk consumers, one member who is a processor of milk and two members who are]dairy farmers. [In addition to the members of the delegation from the Milk Regulation Board, the Governor shall appoint one retailer of milk to the delegation.]

Section 22-231 is repealed and the following substituted.

Grounds for refusal, suspension or revocation of license.

The Commissioner of Agriculture may refuse to grant or renew a license, or may suspend, revoke or refuse to transfer a license already granted, after the Commissioner has determined that the applicant or dealer: (1) Has failed to comply, or has been a responsible member or officer of a partnership or corporation which failed to comply, with any provision of this part or any order, ruling, regulation or direction issued hereunder; (2) has insufficient financial responsibility, personnel or equipment to properly to conduct the milk business; (3) is a person, partnership, corporation or other business entity, in which any individual holding a material position, interest or power of control has previously been responsible in whole or in part for any act on account of which a license was or may be denied, suspended or revoked under the provisions of this part; (4) has failed to file a bond required by the Commissioner under the provisions of this part; (5) if located out of the state, has failed to obtain a satisfactory milk sanitation compliance rating from a certified state milk sanitation rating officer or is not in compliance with all laws and regulations of the state pertaining to health and sanitation in the production, processing, handling or sale of milk; (6) has rejected, without reasonable cause, any milk purchased from a producer, or has refused to accept, without either reasonable cause or reasonable advance notice, milk delivered by or on behalf of a producer in ordinary continuance of a previous course of dealing, except when the contract has been lawfully terminated; provided, in the absence of an express or implied fixing of a period in the contract, "reasonable advance notice" shall be construed to mean not less than one week nor more than two weeks; (7) has continued in a course of dealing of such nature as to show an intent to deceive, defraud or impose upon producers or consumers; (8) has violated any stipulation or written agreement entered into with the Commissioner in the course of any proceeding under this part; (9) has made a false material statement in his application; [or] (10) has failed to provide information required under this chapter[.]; or has failed to comply with the provisions of this act or any order, rule, or regulation of the Connecticut Milk Commission.

Appendix B

**The revised version of the Massachusetts bills to levy a fee
and in a separate endeavor pay out a green price to dairy farmers.**

I. Revised Petition for Relief from MA Department of Agricultural Resources

II. Revised Draft Bill to Establish a Retail Milk Dealer Fee

III. Revised Draft Bill to Establish the Open Space Preservation Fund

IV. Revised Draft Bill to Establish a Maximum Retail Milk Price

Appendix B1

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF AGRICULTURAL RESOURCES

In re:

**Massachusetts Dairy Farmers,

Petitioners.**

**PETITION FOR RELIEF
PURSUANT TO G.L. c. 94A, § 12**

Petitioners, certain Massachusetts Dairy Farmers, respectfully allege:

INTRODUCTION

1. An economic emergency exists in the Massachusetts dairy production sector. Low prices and skyrocketing input costs threaten the supply of fresh, pure milk in the Commonwealth, because many of our 189 licensed dairy farms may leave the business in 2007 and 2008. Massachusetts dairy farmers are receiving a lesser portion of the retail milk dollar than at any time in history. Petitioners are not making a living wage, indeed they are paid zero dollars for their labor, and lose \$35 per one hundred gallons of milk at recent price levels.
2. The dairy farmers signing this petition ask the Department of Agricultural Resources to declare an economic emergency and take effective remedial action as allowed by G.L. c. 94A, §12.

PARTIES

3. Petitioners are individuals and business entities that produce milk in Massachusetts. They feed and care for dairy cattle for this purpose. More than twenty five percent (25%) of Massachusetts licensed dairy farmers have signed this petition.
4. Respondent, Commissioner of the Massachusetts Department of Agricultural Resources (MDAR), presides over the oldest state agriculture department in America. MDAR's reason for existence is to support, promote and enhance the long-term viability of Massachusetts agriculture so the industry may become as economically and environmentally sound as possible.

FACTS

5. Massachusetts dairy farmers work every day. They do not get weekends off. The biological mechanism that produces milk in bovine females does not halt on weekends. Dairy cows must be milked two or three times each day.
6. The vast majority of our Commonwealth's dairy farms are owned and operated by families who are not achieving a living wage. Publicly traded corporations, with duties owed to distant shareholders, tend not to engage in dairy farming. Massachusetts dairy farmers are accountable to themselves, their families, and their community.
7. The supply of milk is very inelastic. Farmers cannot store milk and negotiate for a good price. They must take the price the market offers that day. Farmers are price takers, with almost no negotiating strength. Milk does not store well. It is generally not canned and placed on an un-refrigerated shelf like commercial soups. Milk cannot be transported from, for example, California, without great cost. Most milk produced by Massachusetts dairy cows is therefore delivered to in-state processors. A substantial portion of milk consumed by families in Boston, Worcester, Pittsfield and the remainder of our Commonwealth comes from Massachusetts farmers.
8. The demand for milk is very inelastic. Milk is a food staple. "Demand inelasticity" means many consumers will buy the milk no matter how much the price rises. The average American drinks 23 gallons of milk per year.¹ Milk may be the most healthful drink for children and adults. It is the most natural and basic of beverages, and supportive of healthy growth and health maintenance.
9. Dairy producers in the New England and New York region do not produce enough fresh milk and milk products to meet demand in these states. Transportation of fresh milk from other major dairy producing regions is expensive and quality may suffer with distance.
10. The economic benefit provided by Massachusetts dairy farmers is substantial, though the dairy economy does not receive the media attention of, for example, the high tech industry. Each cow produces approximately 2,200 gallons of milk per year. The average Massachusetts dairy farm produces enough milk for 5,000 consumers. The cumulative value of all the milk produced by all the cows on all the Commonwealth's farms every year is tens of millions of dollars. This money is spent in Massachusetts towns and cities.
11. Dairy production is a linchpin in a very broad and deep economic chain. Dairy producer gross revenue multiplies and reverberates several times through the economy. Many Massachusetts businesses are impacted by dairy revenue, including animal feed dealers, lumber and building materials, equipment dealers, energy suppliers, veterinarians, transportation companies, and banks.

¹ The average American also consumes 30 pounds of cheese, and 23 pounds of ice cream each year. USDA, Economic Research Service.

12. Dairy processing companies, and their employees, in Massachusetts depend upon our farmers' existence. Examples include: Friendly's, Columbo, Good Humor, Hood, Garelick, West Lynn, Breyers, Agri-Mark/Cabot, Our Family Farms of Western Massachusetts, High Lawn Farm, Snows, Bliss Brothers, Flayvors of Cook Farm, Cooper Hill Dairy, Granville Scoop, Whittier Farms, Shaw Farm, and many others. These companies process Massachusetts fresh fluid milk, ice cream, standard cheeses, artisan cheeses, yogurt, powdered milk, condensed milk and butter.
13. Environmental stewardship is a major concern of the Commonwealth. Petitioners provide this public good to our citizens. Massachusetts farmers, including but not limited to dairy producers, control more land than the Commonwealth's Department of Conservation and Recreation. Farmers maintain soil fertility, water purity, and pasture viability year after year to produce crops and graze cattle. Petitioners do not grow four lane highways, concrete parking lots, high-rise apartment buildings, or shopping centers.
14. Open space preservation is another important state public interest. Massachusetts dairy farmers could choose to sell their land for a substantial profit for development, but they do not unless they are economically forced out of business. Their land is also used and enjoyed by sportsmen, recreationalists, naturalists, and tourists. The value of land for dairy farming is far less than its value as a retail or residential development. An open and attractive rural landscape is maintained, benefiting neighboring families, the Commonwealth's citizens, and out-of-state travelers.
15. The landscape of New England is world-recognized and renowned. Dairy farmers provide working landscapes across the region. The cultural identity provided by dairy production is over 300 years old. This combination of working landscapes and culture are a major interest of the Commonwealth and drive tourism.
16. Massachusetts dairy farmers are good and solid business people. They are innovative, and adapt to a changing economic environment. The dairy industry is an important economic engine for the Commonwealth. Massachusetts dairy farmers are as efficient as any producers in the United States given the available resources. But the low prices and skyrocketing costs are causing an economic emergency.

STATUTORY ALLEGATIONS

17. Low milk prices received by dairy farmers threaten the continued viability of Petitioners' dairy businesses. The risk of a crash in local milk supply availability is great, not merely incremental. These low prices have been below the cost of production for more than one year. New or renewed bank loans to finance the next production year are becoming very hard to obtain. Loans previously disbursed may not be paid back. Vendor invoices have not been paid for increasing lengths of time. The threat of bankruptcy grows strong, and the attraction of selling land to local developers increases.
18. Retail milk prices have risen during the past several years above the rate of general inflation, and despite lower prices for milk at the farm gate. But Massachusetts dairy producers have

seen their share of the retail milk dollar shrink to record lows. As the retail milk price increases, consumer access to milk at a reasonable price is reduced.

19. The relevant market, for purposes of these proceedings, is the Commonwealth of Massachusetts. Some milk is imported from other states, and some milk is delivered to other states. But the majority of milk produced here is consumed here.
20. The price to producers established by the market, or under federal law and regulations, cannot be maintained without intervention by the Commissioner without dire consequences.
21. A regular, continuous and adequate supply of fresh, pure milk sufficient to meet the requirements of the Commonwealth is in jeopardy without Commissioner action.
22. The public health is threatened by these dire economic circumstances. The economic failure of Massachusetts farmers will lessen the supply of fresh, pure milk within a reasonable transportation distance, increase prices due to stable or increasing consumer demand, and restrict the ability of low income consumers to purchase milk for themselves and their children. The public health is also threatened in terms of the environment and open space.
23. Protection of the environment, open space and working landscapes by dairy farmers, and preservation of the rural and agrarian character of the Commonwealth, are important local interests that cannot be effectively advanced without providing a reasonable return on the labor, management and capital to dairy producers. There is no other reasonable option to protect these local interests over the long term.
24. Any order issued by the Commissioner to address these problems will not burden out-of-state economic interests or alter the market share among producers or states. Massachusetts producers do not compete with producers in other states because they are merely price takers, delivering their product into a regulatorily controlled pricing market. Out-of-state producers neither benefit by Massachusetts dairy producers exiting the business, nor are they harmed by Massachusetts dairy farmers staying in business.
25. Any order issued by the Commissioner will not prohibit interstate competition on price or non-price factors. Market diversity will be fostered. No legitimate competitive advantage held by any firm or entity will be affected by Commissioner action.

REQUEST FOR RELIEF

26. Petitioners therefore respectfully request the following relief from the Commissioner pursuant to G.L. c. 94A, § 12:
- a. A public hearing be convened to receive facts and make conclusions;
 - b. A declarations of the existence of an emergency in the Massachusetts dairy sector;
 - c. A determination of minimum prices for dairy producers at a level sufficient to remedy the harm and compensate for the public benefits provided by producers;
 - d. A system of payments be established to compensate producers for environmental stewardship and open space preservation;
 - e. Any other relief authorized and appropriate.

Dated this ___ day of January, 2007.

Counsel for Petitioners

Michael C. Stumo
Stumo Law Office
615 Boardman Street
Sheffield, MA 01257
Tel: 413.854.2580
Fax: 413.854.2579
mstumo@adelphia.net

Appendix B2

An Act Establishing Retail Milk Dealer Fees

[NOTE: The FMPC has revised the fee schedule in this bill.]

[Not yet in bill form]

[New Section within Chapter 94A]

(1) Fee: Upon notification by the Commissioner [of the Department of Natural Resources], the Department of Revenue shall levy and impose a retail milk dealer fee at the rate established in subsection 3 on the handling of milk sold at retail to final consumers for consumption off the handler's premises in the Commonwealth. The fee shall be paid by the retail milk dealer making such sale to the final consumer. Milk packaged for sale in containers of less than one quart or 20 or more quarts in volume, or packaged milk that is sold to an institution that is owned and operated by any town or municipality, the Commonwealth, or the Federal government shall be exempt from the retail milk dealer fee.

(2) Open Space Preservation Fund: The Department of Revenue shall deposit fees collected pursuant to this section into the Open Space Preservation Fund maintained by the Commissioner.

(3) Rate of Fee: The rate of the fee levied under this section shall be established for each fee period on the basis of the average net raw milk price established by the Bureau in accordance with the following:

- a. If the average net raw milk price is \$18.50 per hundredweight and above, the retail milk dealer fee is 0¢ per retail gallon;
- b. If the average net raw milk price is \$18.00 to \$18.49 per hundredweight, the retail milk dealer fee is 1¢ per retail gallon;
- c. If the average net raw milk price is \$17.50 to \$17.99 per hundredweight, the retail milk dealer fee is 2¢ per retail gallon;
- d. If the average net raw milk price is \$17.00 to \$17.49 per hundredweight, the retail milk dealer fee is 4¢ per retail gallon;
- e. If the average net raw milk price is \$16.50 to \$16.99 per hundredweight, the retail milk dealer fee is 8¢ per retail gallon;
- f. If the average net raw milk price is \$16.00 to \$16.49 per hundredweight, the retail milk dealer fee is 10¢ per retail gallon;
- g. If the average net raw milk price is below \$16.00, the retail milk dealer fee is 12¢ per retail gallon;

For any container other than a gallon, the fee is computed on a gallon-equivalent basis. The commissioner may change or alter the fee rates set forth above after a hearing conducted pursuant to section 16 of this Chapter.

(4) Fee payment schedule: Retail milk dealers shall pay the fee on a calendar month basis within 30 days after the end of the each calendar month. Retail milk dealers shall maintain records of all transactions subject to this section for a period of three years. The Department of Revenue shall implement procedures and regulations as necessary to carry out the purposes of this Act.

(5) Licensing: Notwithstanding any other provision of this Chapter, including section 4(b) of this Chapter, every retail milk dealer shall register as a milk dealer within 30 days of becoming subject to the retail milk dealer fee.

(6) Prohibited activities: Any retail dealer which passes the cost of the retail milk dealer fee on to consumers in the form of higher milk prices will be subject to license revocation or refusal of license renewal pursuant to section 6 of this Chapter.

(7) Severability: If any section, part, clause or phrase in this Act, is for any reason held to be invalid or unconstitutional, sections parts, clauses and phrases in said act not held to be invalid or unconstitutional shall not be affected and shall remain in full force and effect.

Appendix B3

An Act Establishing the Open Space Preservation Fund.

[Not yet in bill form]

[New Section within Chapter 61A]

1. There is hereby established and placed within the Massachusetts Department of Agricultural Resources, referred to in this section as the department, the Open Space Preservation Fund, referred to in this section as the fund, into which shall be credited retail milk dealer fees established under Chapter 94A.

2. The department shall hold the fund in an account segregated from other department funds and accounts and shall utilize, invest or reinvest the proceeds of the fund and income derived therefrom for the following general purposes:

- a. To compensate existing dairy farmers for providing the public benefit of preserving open space from development pressure;
- b. To compensate existing dairy farmers for providing the public benefit of providing working landscapes in the Commonwealth;
- c. To compensate existing dairy farmers for providing the public benefit of fostering agro-tourism in the Commonwealth;
- d. To compensate existing dairy farmers for providing the public benefit of preserving agrarian traditions and rural culture in the Commonwealth;
- e. To purchase with funds not immediately required for use pursuant to clauses (1) through (4), such securities as may be lawful investments for fiduciaries in the commonwealth.

3. The department shall make continuing grants to all dairy producers licensed as of April, 2007 in the commonwealth on a monthly basis. The grants shall be an amount equal to the difference between the average net raw milk price per hundredweight received by producers and \$18.00 per hundredweight multiplied by the average monthly production volume of each such dairy producer for the three years preceding April, 2007. The department may not impose further conditions upon receipt of said grants. [NOTE: FMPC analyzed \$16 and \$17 per hundredweight support prices in this paper.]

4. Beginning dairy farmers starting new dairy production facilities after April 2007 may apply for eligibility to receive grants from the fund in the same manner as existing licensed dairy producers. The department may approve such applications, after providing the opportunity for a hearing, after determining whether approval will further the purposes of this Act. The department may condition or limit approval or amount of any such grants based upon the size, ownership, management, or character of the new dairy production facility utilizing criteria determined relevant and appropriate by the department.

5. Severability: If any section, part, clause or phrase in this Act, is for any reason held to be invalid or unconstitutional, sections parts, clauses and phrases in said act not held to be invalid or unconstitutional shall not be affected and shall remain in full force and effect.

Appendix B4

An Act Establishing Retail Threshold Prices (Please see Section 6 of the Connecticut Milk Commission bill in Appendix A for more appropriate language.)

[Not yet in bill form]

1. Definitions. For the purposes of this section, the following terms shall have the following meanings:

(a) "Person" shall mean the owner or owners, including any individual, partnership, association, firm, or corporation, of an establishment engaged in the retail sale of milk;

(b) "Commissioner" shall mean the commissioner of the department of agriculture and resources;

(c) "Fluid milk" shall mean milk, skim milk or lowfat milk in consumer sized packages sold or offered for sale for off premise consumption;

(d) "Average net raw milk price" shall mean the average net price paid to producers of milk in the state, including premiums and discounts; and

(e) "Maximum retail milk price" shall mean a price for milk charged to consumers which exceeds two hundred percent of the average net raw milk price or another maximum price established by the commissioner;

(f) "Retail milk dealer" shall mean any milk dealer selling milk directly to ultimate consumers.

2. Prohibitions: No person shall sell or offer for sale fluid milk for an amount which exceeds the maximum retail milk price.

3. Price information:

(a) The commissioner shall maintain and publish information regarding

- (i) the average net raw milk price; and
- (ii) the maximum retail milk price.

(b) When calculating these prices, the commissioner shall consider prices established under federal law and regulations; premiums and discounts; quality and grade of milk; input costs; specialty milk products; and any other factor deemed relevant by the commissioner. The commissioner shall propound regulations necessary to carry out this duty.

(c) The commissioner may, after making an examination and investigation and after hearing held after due notice, change or alter the maximum retail milk price established by this chapter or by the commissioner. Prices may vary in different localities or markets according to the varying conditions and times. The commissioner may classify such milk by such forms, classes, grades or uses as the commissioner may deem advisable.

4. It shall be the responsibility of the commissioner to examine whether the price of fluid milk sold by any person exceeds the maximum retail milk price. Upon a determination by the commissioner that the price of fluid milk being sold or offered for sale exceeds the maximum retail milk price, the commissioner shall, by written notice, provide any person found to be selling or offering for sale fluid milk at such price, an opportunity to discontinue such price levels or to demonstrate that it is not violating this section. Any person, so notified, who does not submit a written reply within three business days of the receipt of such notice, and who does not within such time satisfy the commissioner that the price level which resulted in the issuance of the notice is justifiable or has been terminated shall be identified in the commissioner's determination as a person apparently in violation of subdivision three of this section. Following such notice to and opportunity for such person to respond, the commissioner shall issue an order to such person to cease and desist the violation and take such affirmative action as in his judgment will effect the purposes of this chapter.

5. Civil Penalties: Persons refusing to comply with any order under this section shall be fined:

(a) one thousand dollars per violation, where the aggregate amount of fluid milk sold is one thousand gallons or less per week; or

(b) five thousand dollars per violation, where the aggregate amount of fluid milk sold exceeds one thousand gallons per week; and

(c) in addition to paragraphs (a) and (b) of this subdivision where appropriate, order restitution to aggrieved consumers.

6. Hearings: Any person aggrieved by any order issued by the commissioner may request a hearing pursuant to procedures established by the commissioner. Any person aggrieved by the final decision of the commissioner after a hearing may seek relief in district court.

7. The commissioner shall promulgate all rules and regulations to effectuate the purposes of this section.

Appendix C

**Analysis of the Massachusetts December 2006 proposed legislation to collect fees
and in a separate endeavor pay out a green price to dairy farmers.**

Introduction to Appendix C: Analysis of the Proposed Massachusetts Retail Milk Fee and Payments to Farmers

Generally, the discussion in the text about the proposed Connecticut program carries over to Massachusetts because the programs are nearly identical. The structure of the Massachusetts dairy industry, however, is slightly different.

Given 21 gallons per capita consumption we estimate that citizens of Massachusetts drink 1,139.6 million pounds of fluid milk annually, of which 854.7 million pounds are sold at retail. Massachusetts farmers produce approximately 290 million pounds of milk. Therefore, for every penny collected as a fee on milk consumed the state would have a neutral budget impact if it pays farmers 2.95 cents ($854.7/290$). This multiplier is over two times the Connecticut multiplier ($449.3/384$) = 1.17. Thus for a retail fee of 10 cents per gallon a neutral budget impact requires payout of 29.5 cents per gallon (\$3.43/cwt) in Massachusetts. This is more than twice as high as the neutral budget payout of 11.7 cents per gallon (\$1.36/cwt) in Connecticut. Alternatively, Massachusetts can support farmers at a given price level with about one half the fee per gallon that Connecticut can.

Table C1. Milk Fee Schedule in the December 2006
Massachusetts Draft Bill

Class 1 Price Level		Tax per Gallon	Tax per CWT
From	To		
\$18.50	above	\$0.00	\$0.00
\$18.00	\$18.49	\$0.01	\$0.12
\$17.50	\$17.99	\$0.02	\$0.23
\$17.00	\$17.49	\$0.04	\$0.47
\$16.50	\$16.99	\$0.08	\$0.93
\$16.00	\$16.49	\$0.10	\$1.16
below	\$16.00	\$0.12	\$1.40

Table C2a. A Regression Model to Forecast the Fee Needed to Attain \$18.00/cwt.: Massachusetts, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Boston Class 1 Price	-0.059636	-5.399 ***
Boston Class 1 Price Squared	0.0013139	4.817 ***
Lag Fee Rate	0.2353502	2.144 **
Constant	0.6775552	5.904 ***
R^2	0.9207	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table C2c. A Regression Model to Forecast the Fee Needed to Attain \$16.00/cwt.: Massachusetts, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Boston Class 1 Price	-0.052353	-4.513 ***
Boston Class 1 Price Squared	0.0012524	4.296 ***
Lag Fee Rate	0.3640123	3.026 ***
Constant	0.5397227	4.696 ***
R^2	0.9263	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table C2b. A Regression Model to Forecast the Fee Needed to Attain \$17.00/cwt.: Massachusetts, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Boston Class 1 Price	-0.057512	-4.975 ***
Boston Class 1 Price Squared	0.001326	4.628 ***
Lag Fee Rate	0.293428	2.478 **
Constant	0.620599	5.266 ***
R^2	0.9274	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table C2d. A Regression Model to Forecast the Fee Needed to Attain \$15.00/cwt.: Massachusetts, Fee on Fluid Milk Sold at Retail

Explanatory Variables	Coefficient	t-ratio
Boston Class 1 Price	-0.042987	-4.384 ***
Boston Class 1 Price Squared	0.001055	4.210 ***
Lag Fee Rate	0.403311	3.421 ***
Constant	0.429701	4.527 ***
R^2	0.9207	

Significance Levels: ** 5%, *** 1%

Dependent Variable: Fee Rate

Table C3. Annual Revenue from Regression Based Fee and Payments to Farmers: \$18.00/cwt Green Price to Farmers: Massachusetts, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit
2002	\$0.149	\$14,835,487	\$5.46	\$15,841,250	-\$1,005,763
2003	\$0.145	\$14,406,428	\$5.11	\$14,823,833	-\$417,406
2004	\$0.072	\$7,118,397	\$1.89	\$5,476,167	\$1,642,230
2005	\$0.069	\$6,829,431	\$2.46	\$7,131,583	-\$302,153
2006	\$0.126	\$12,563,889	\$4.57	\$13,262,667	-\$698,778
Average Annual	\$0.112	\$11,150,726	\$3.90	\$11,307,100	-\$156,374

Notes: Figures are based on a constant annual production of 290 million pounds and a constant annual consumption of 1139.6 million pounds, of which 75% (854.7 million pounds) are sold at retail.

Table C4. Annual Revenue from Regression Based Fee and Payments to Farmers: \$17.00/cwt Green Price to Farmers: Massachusetts, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit
2002	\$0.119	\$11,837,129	\$4.46	\$12,941,250	-\$1,104,121
2003	\$0.117	\$11,649,368	\$4.11	\$11,923,833	-\$274,466
2004	\$0.049	\$4,857,544	\$1.12	\$3,233,500	\$1,624,044
2005	\$0.041	\$4,057,429	\$1.46	\$4,231,583	-\$174,154
2006	\$0.096	\$9,584,224	\$3.57	\$10,362,667	-\$778,442
Average Annual	\$0.084	\$8,397,139	\$2.94	\$8,538,567	-\$141,428

Notes: Figures are based on a constant annual production of 290 million pounds and a constant annual consumption of 1139.6 million pounds, of which 75% (854.7 million pounds) are sold at retail.

Table C5. Annual Revenue from Regression Based Fee and Payments to Farmers: \$16.00/cwt Green Price to Farmers: Massachusetts, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit
2002	\$0.089	\$8,845,129	\$3.36	\$9,751,250	-\$906,121
2003	\$0.090	\$8,944,664	\$3.01	\$8,733,833	\$210,830
2004	\$0.028	\$2,815,247	\$0.45	\$1,290,500	\$1,524,747
2005	\$0.016	\$1,562,332	\$0.39	\$1,126,167	\$436,165
2006	\$0.067	\$6,679,999	\$2.47	\$7,172,667	-\$492,668
Average Annual	\$0.058	\$5,769,474	\$1.94	\$5,614,883	\$154,591

Notes: Figures are based on a constant annual production of 290 million pounds and a constant annual consumption of 1139.6 million pounds, of which 75% (854.7 million pounds) are sold at retail.

Table C6. Annual Revenue from Regression Based Fee and Payments to Farmers: \$15.00/cwt Green Price to Farmers: Massachusetts, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon	Total Annual Revenue	Average Monthly Payments per CWT	Total Annual Payments	Surplus/Deficit
2002	\$0.061	\$6,078,360	\$2.46	\$7,141,250	-\$1,062,890
2003	\$0.063	\$6,297,942	\$2.12	\$6,150,417	\$147,525
2004	\$0.015	\$1,499,493	\$0.22	\$645,250	\$854,243
2005	\$0.003	\$330,219	\$0.02	\$65,250	\$264,969
2006	\$0.043	\$4,248,173	\$1.57	\$4,562,667	-\$314,493
Average Annual	\$0.037	\$3,690,837	\$1.28	\$3,712,967	-\$22,129

Notes: Figures are based on a constant annual production of 290 million pounds and a constant annual consumption of 1139.6 million pounds, of which 75% (854.7 million pounds) are sold at retail.

Table C7. Comparing the Fees per Gallon to Retail Margins and Excess Margins: Massachusetts, Fee Collected on Milk Sold at Retail

Year	Average Monthly Revenue per Gallon based on				Retail Price ¹	Retail Margin ¹	Competitive Margin ²	Excess Margin
	\$18 target	\$17 target	\$16 target	\$15 target				
2002	\$0.149	\$0.119	\$0.089	\$0.061	-	-	-	-
2003	\$0.145	\$0.117	\$0.090	\$0.063	\$3.08	\$1.447	\$0.500	\$0.947
2004	\$0.072	\$0.049	\$0.028	\$0.015	\$3.79	\$1.510	\$0.530	\$0.980
2005	\$0.069	\$0.041	\$0.016	\$0.003	\$3.54	\$1.607	\$0.562	\$1.045
2006	\$0.126	\$0.096	\$0.067	\$0.043	\$3.58	\$1.580	\$0.596	\$0.984

1. Retail Price and Margins are based on All Milk in Southern New England Supermarkets from FMPC milk price surveys in June 2003, May 2004, July 2005, and November 2006.

2. Competitive Margins are adjusted 6% per year from 2003 estimate.

Figure C1. The Milk Fee Schedule in the December 2006 Massachusetts Draft Bill

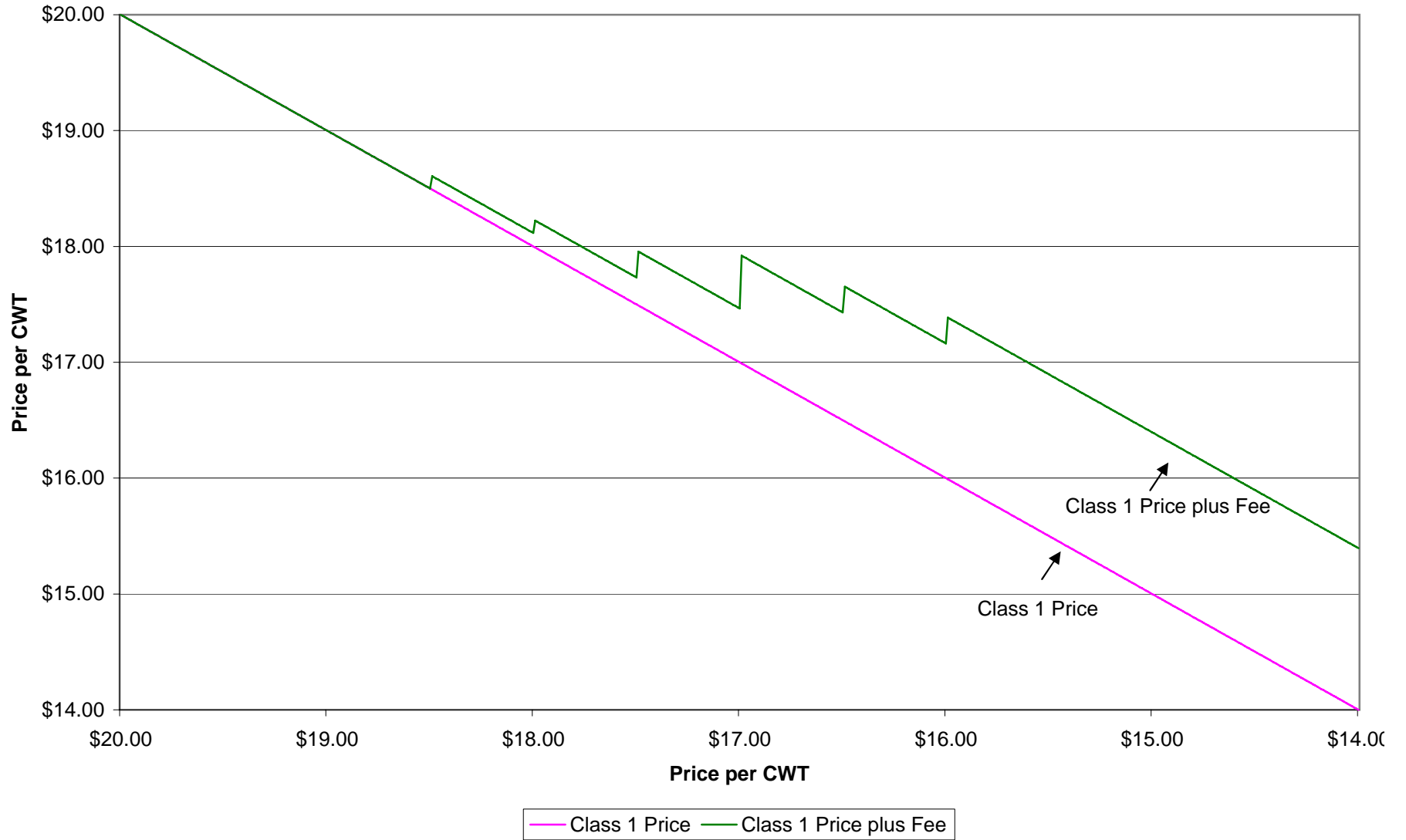
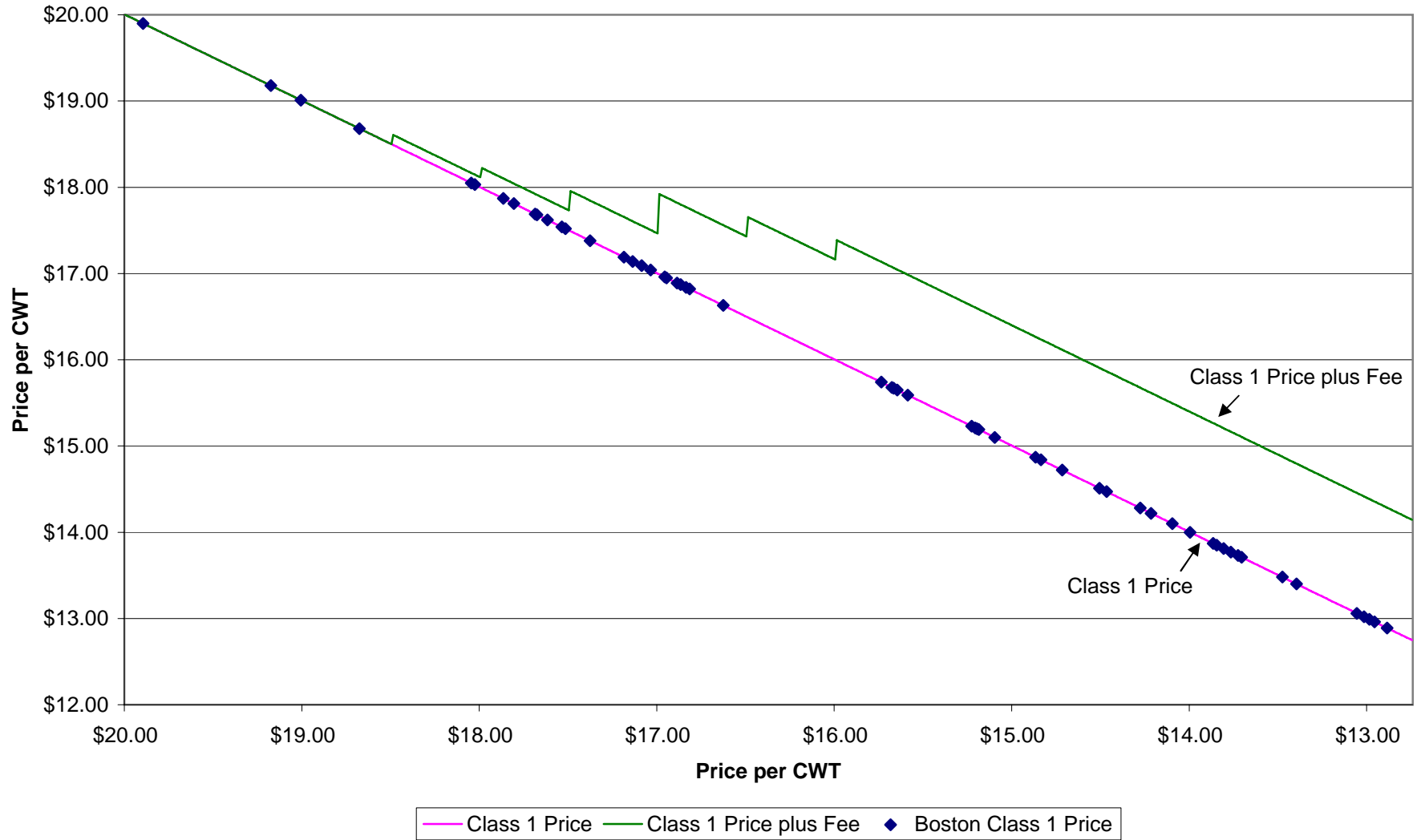


Figure C2. The December 2006 Proposed Milk Fee Schedule and the Monthly Boston Class 1 Price: October 2001 - January 2007



**Figure C3. Frequency Distribution of Boston Class 1 Fluid Milk Prices:
October 2001 - January 2007**

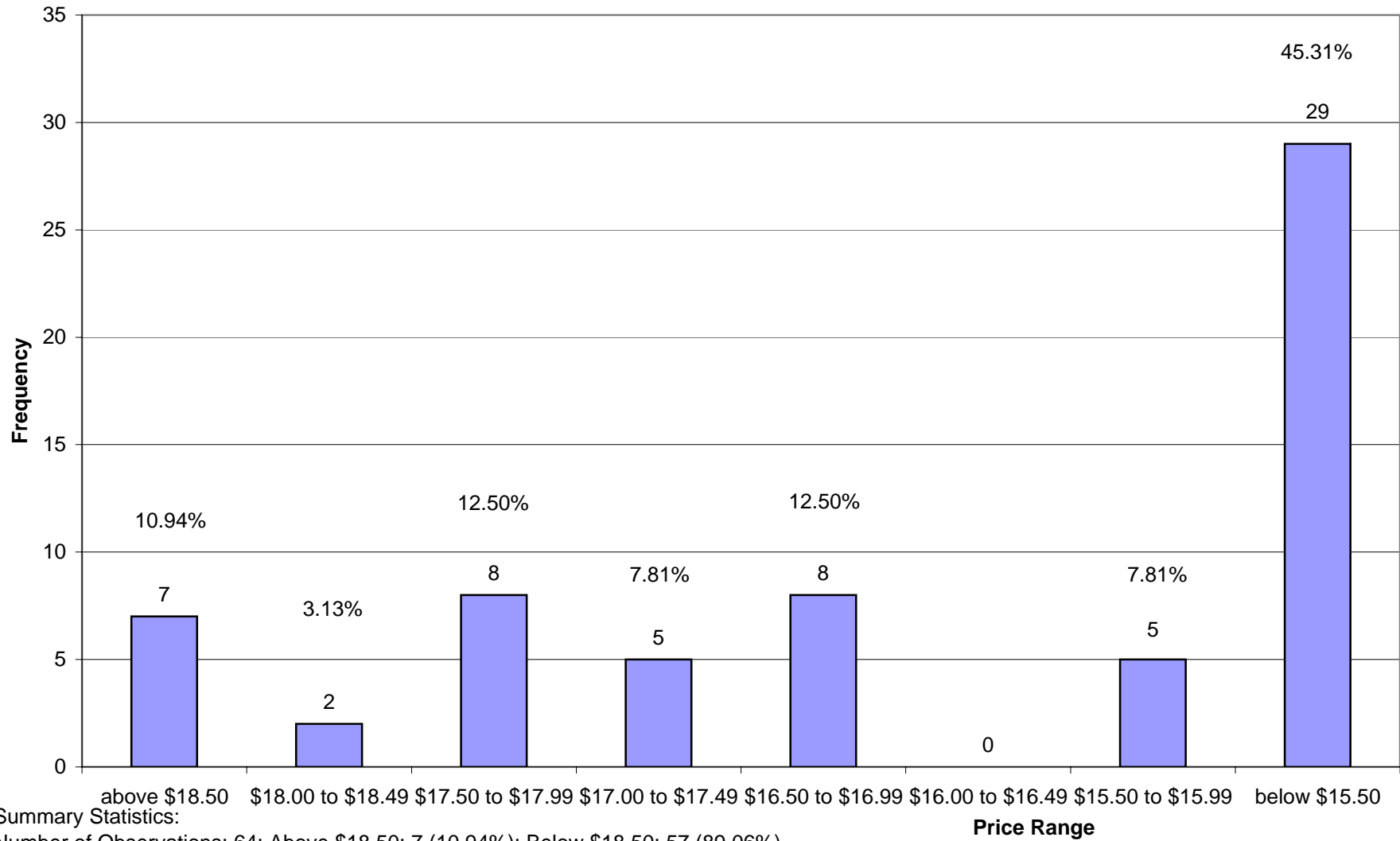
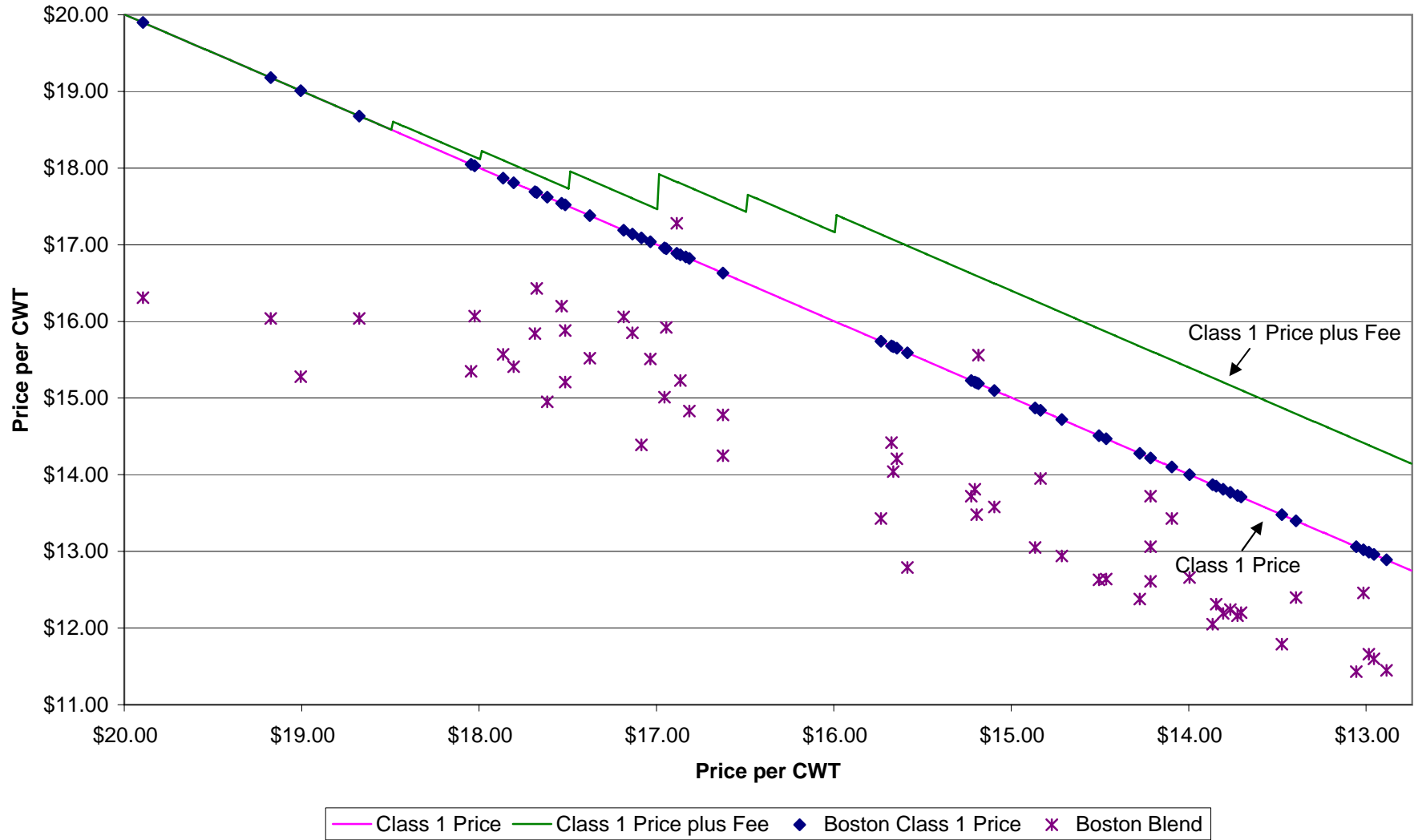


Figure C4. Proposed December 2006 Discrete MA Milk Fee, Boston Class 1 Price, and Boston Blend Price: October 2001 - December 2006



**Figure C5. Frequency Distribution of Boston MA Blend Price (Price Paid Farmers):
October 2001 - December 2006**

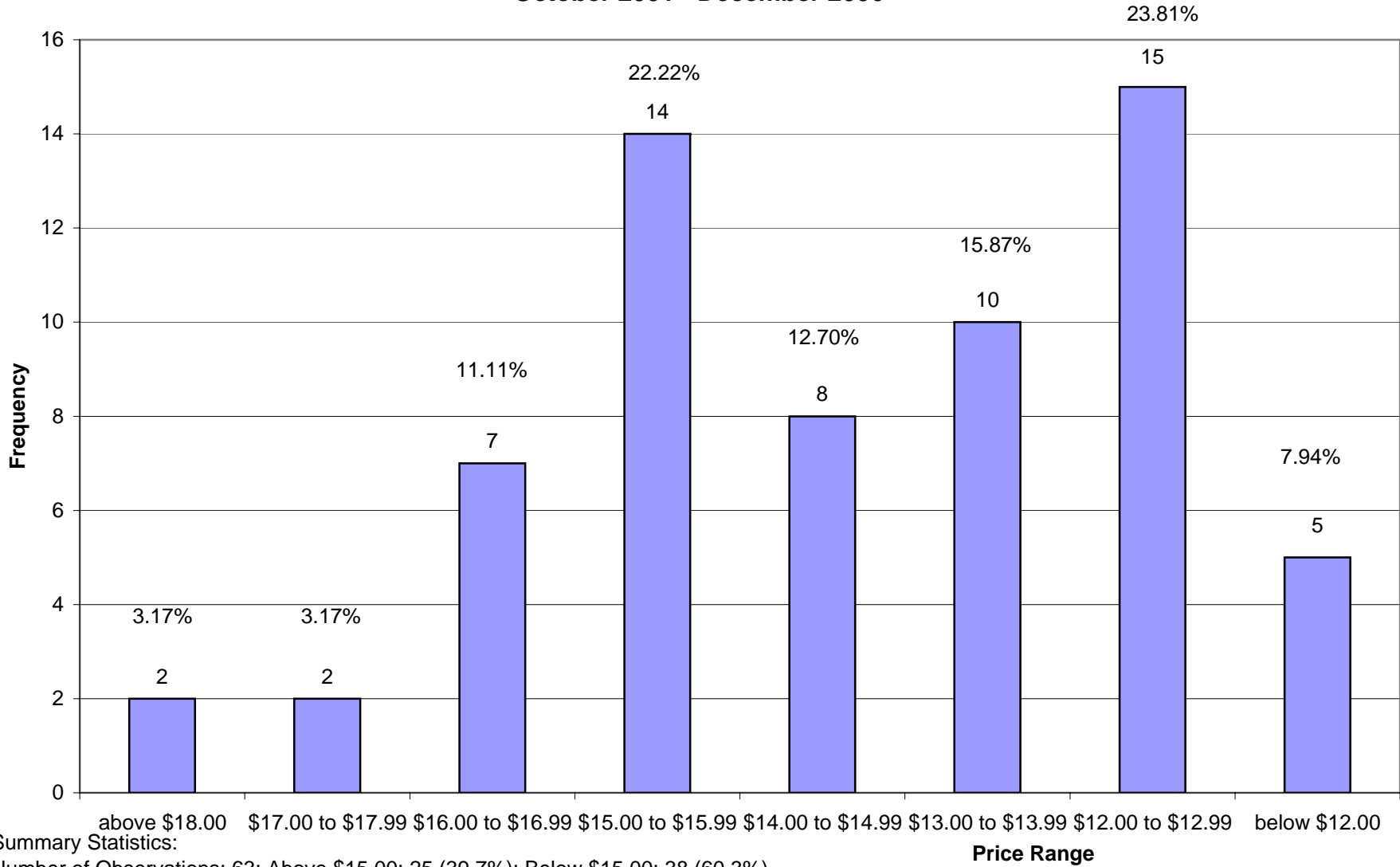


Figure C6. Dollars per CWT Based Milk Fee Schedule Necessary to Elevate the Blend Price to \$15.00/cwt., \$16.00/cwt., \$17.00/cwt. or \$18.00/cwt. in Massachusetts, Fee Levied Only on Retail Fluid Milk

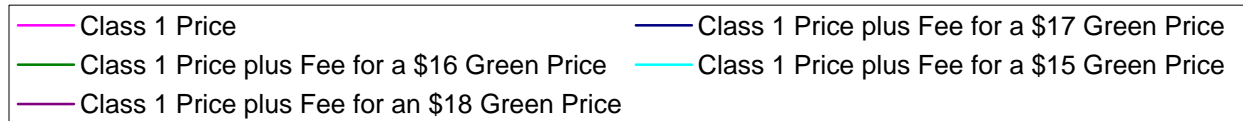
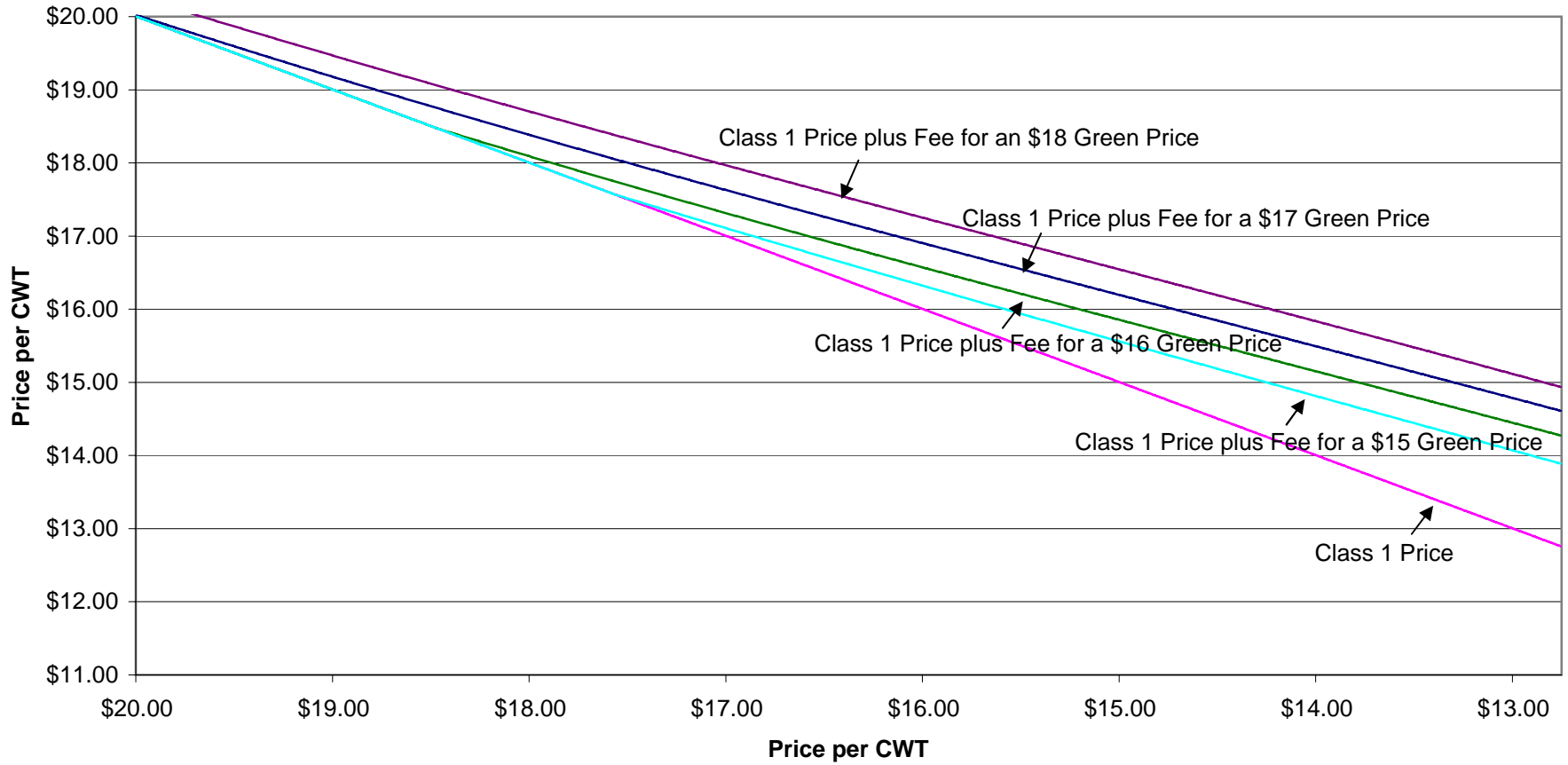


Figure C7. Dollars per Gallon Milk Fee Schedule Necessary to Elevate the Blend Price to \$15.00/cwt., \$16.00/cwt., \$17.00/cwt., or \$18.00/cwt. in Massachusetts, Fee Levied Only on Retail Fluid Milk

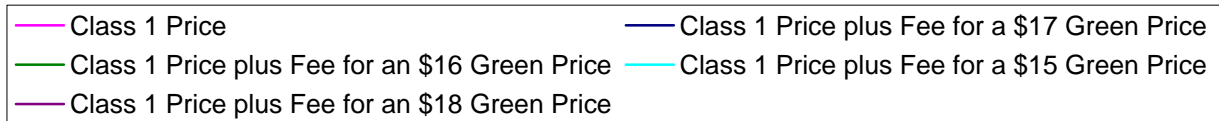
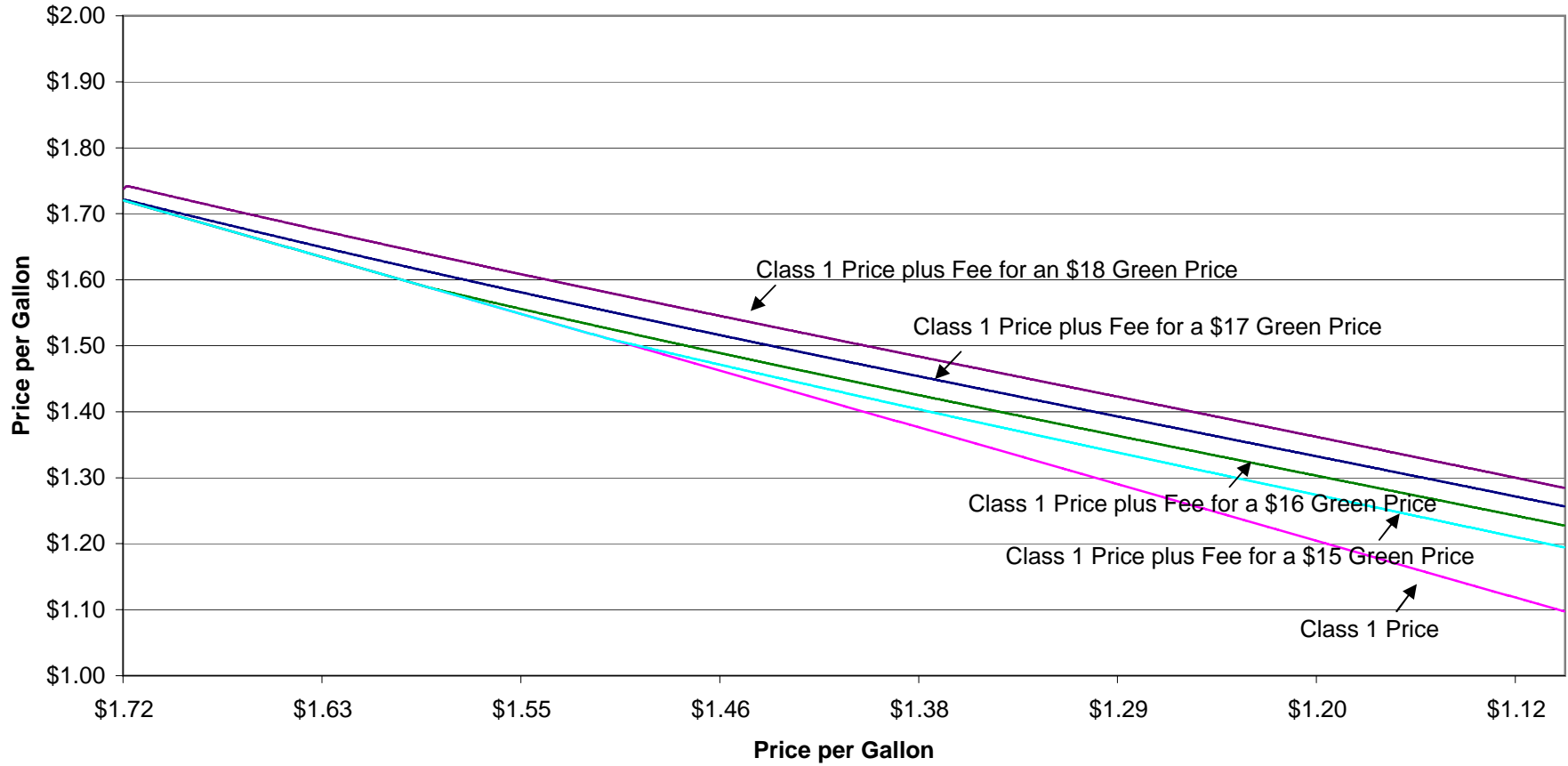


Figure C8. The Impact on Farmers with the MA Discrete Milk Fee and the Regression Based Milk Fee with a \$18 Green Price Goal on Prices Received by MA Farmers: Fee Levied Only on Retail Milk Sales

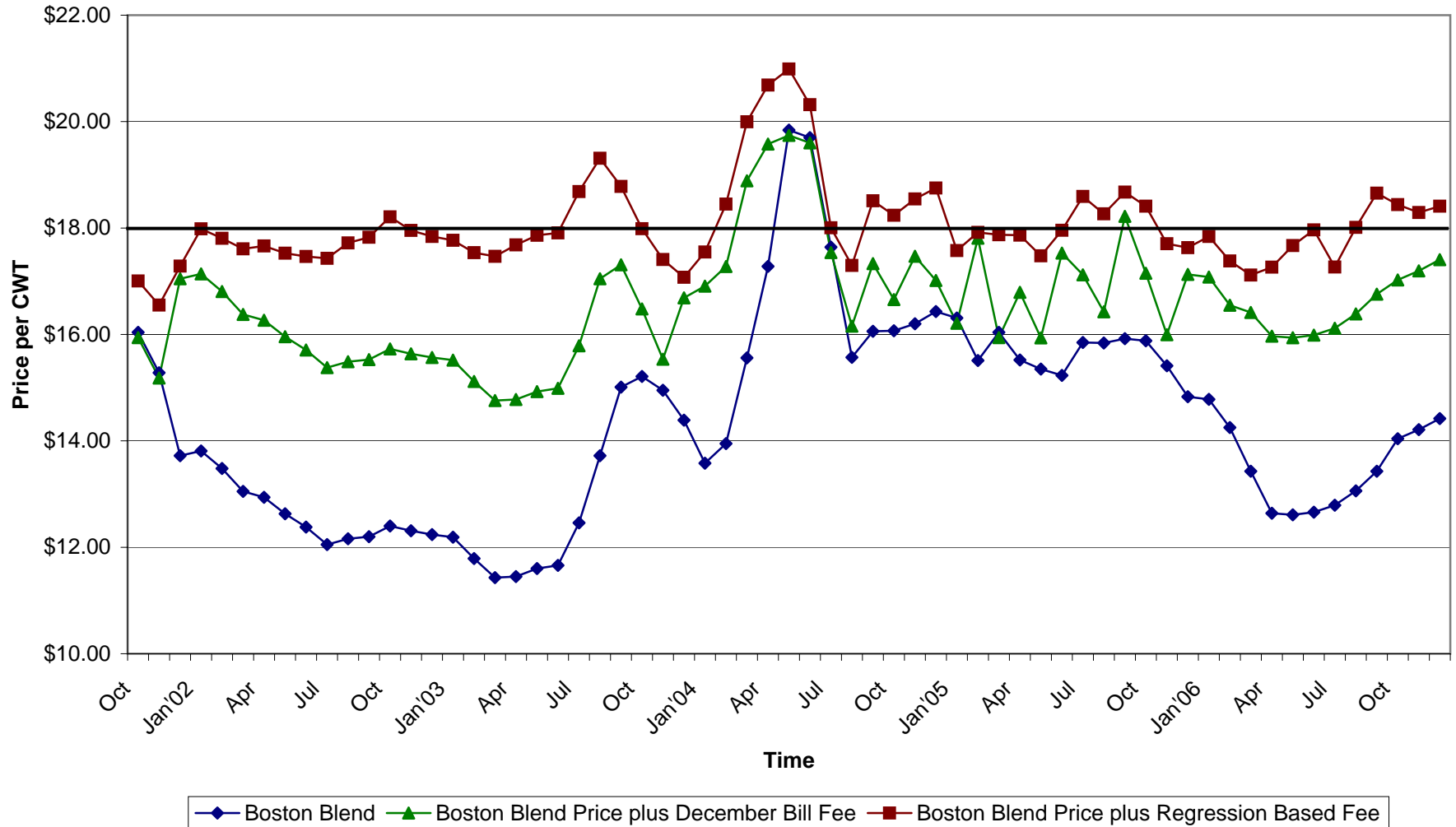


Figure C9. The Impact on Farmers with the MA Discrete Milk Fee and the Regression Based Milk Fee with a \$17 Green Price Goal on Prices Received by MA Farmers: Fee Levied Only on Retail Milk Sales

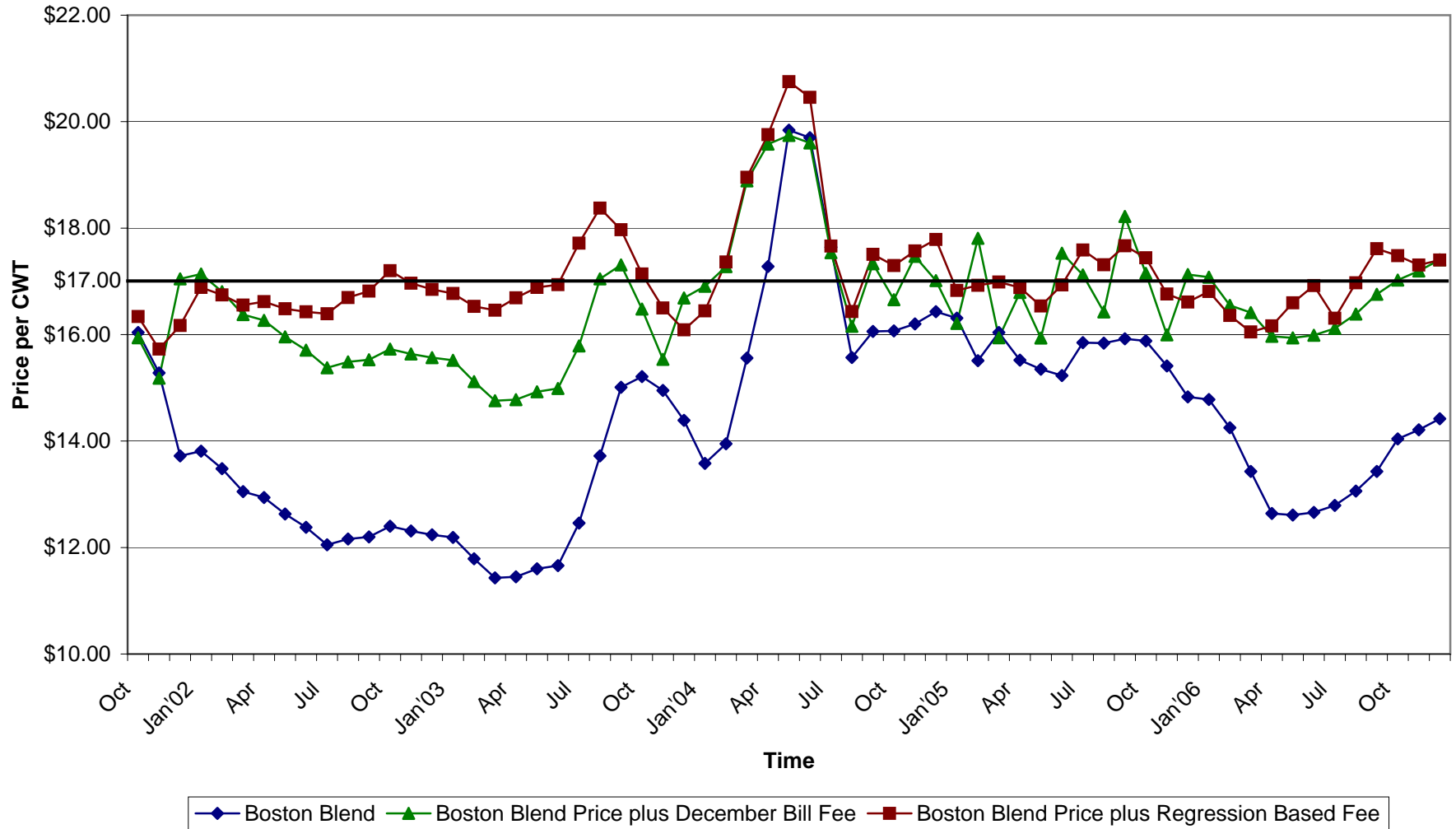


Figure C10. The Impact on Farmers with the MA Discrete Milk Fee and the Regression Based Milk Fee with a \$16 Green Price Goal on Prices Received by MA Farmers: Fee Levied Only on Retail Milk Sales

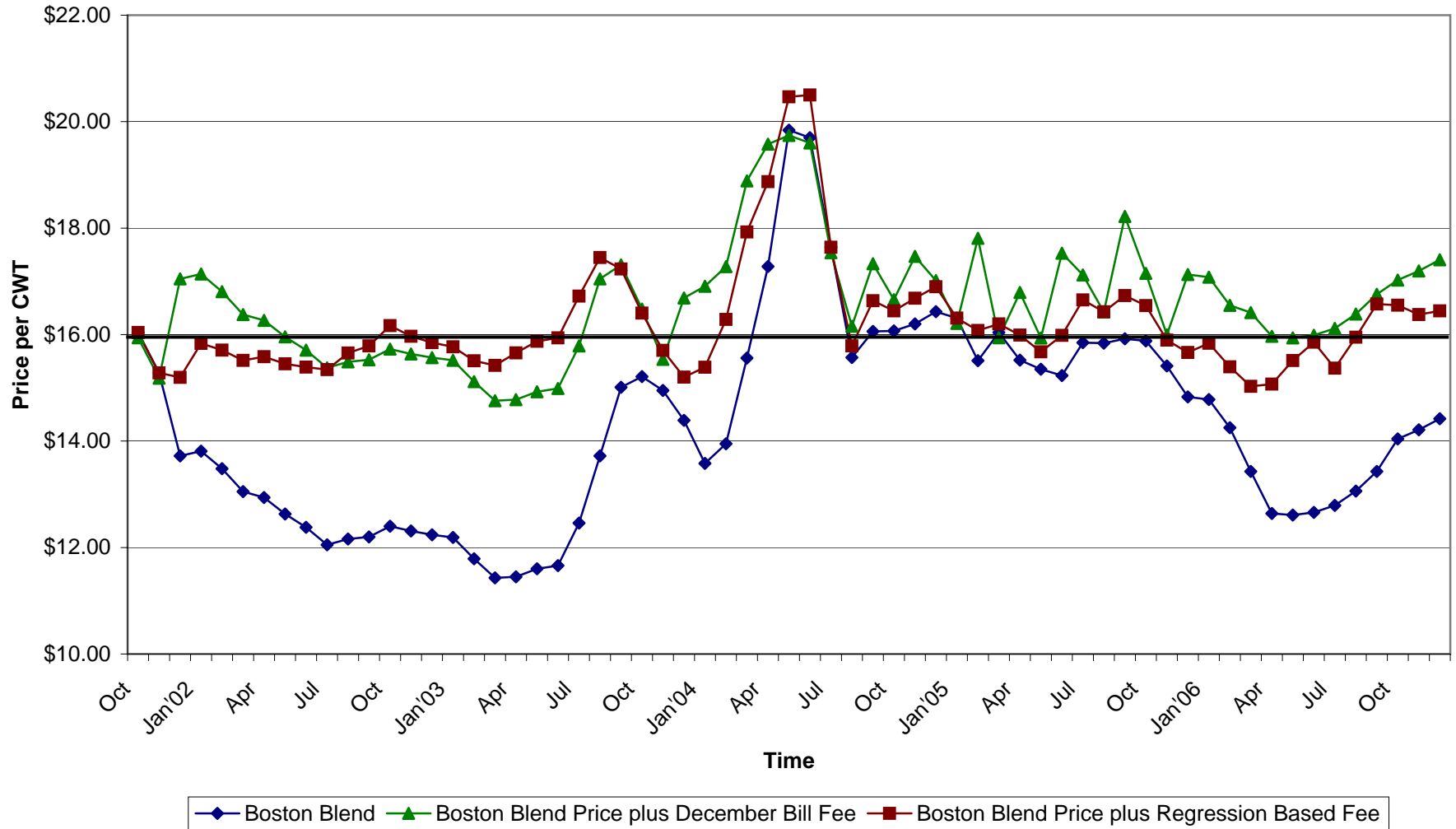
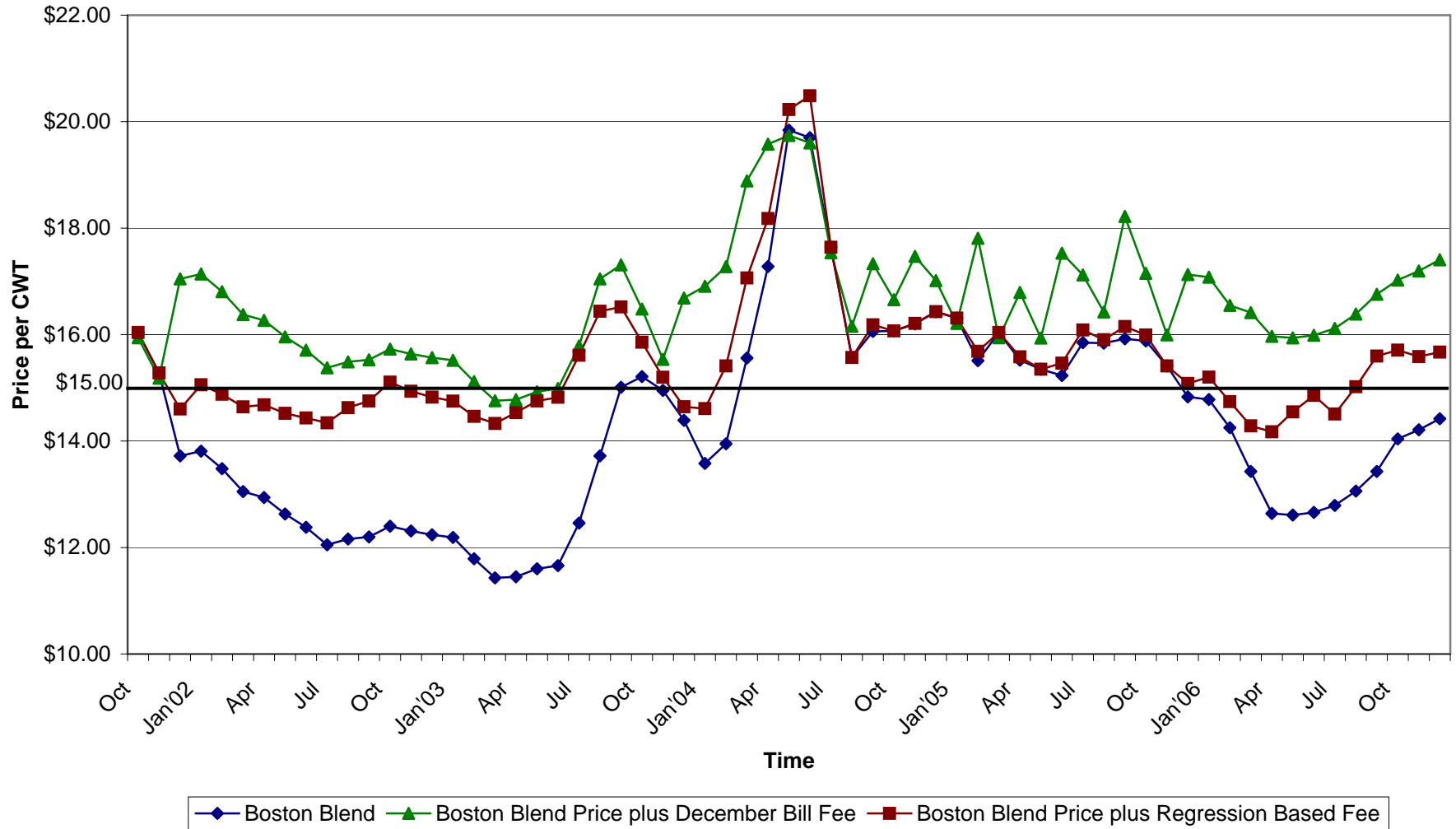


Figure C11. The Impact on Farmers with the MA Discrete Milk Fee and the Regression Based Milk Fee with a \$15 Green Price Goal on Prices Received by MA Farmers: Fee Levied Only on Retail Milk Sales



Appendix D

Example of New York State Threshold Milk Price Law

How we administer the law

- Calculate 200%, known as Threshold Price, for gallons, h-gal, qts. Do for two broad regions of the state: Upstate and Metro NYC. Based on milk at 3.5% butterfat.

Date: 7/18/03

THRESHOLD PRICE CALCULATION

(1) Threshold price: AUG 2003

	Cwt.	Cwt.	Gal	Hgal
	Metro	Upstate		
Base price: at NYC and Syracuse				
Class 1 at 3.5% bf	14.12	13.47		
Est. premium	1.50	0.90		
Total base	15.62	14.37		
Preliminary Threshold				
Metro	31.24		2.69	1.34
Upstate		28.74	2.47	1.24
Adjustment to align hgal & qt to gal *				0.05
Threshold				
Metro			2.69	1.39
Upstate			2.47	1.29
Change			0.21	0.10
			0.20	0.10